

## MANDATORY DISCLOSURE

### 1. Name of the Institution

Aarupadai Veedu Institute of Technology

A Constituent College of Vinayaka Mission's Research Foundation (Deemed to be University)

#### Address:

Vinayaka Nagar,  
Rajiv Gandhi Salai (OMR),  
Paiyanoor- 603104  
Chengalpattu Dist,  
Tamil Nadu

E-mail: [principal@avit.ac.in](mailto:principal@avit.ac.in)

### 2. Name and address of the Trust/Society/Company and Trustees

#### Name of the Organization:

Vinayaka Missions Research Foundation

#### Address:

44A, Second Agraharam,  
Salem-636001.  
Tamil Nadu

#### Trustee Details:

| S. No. | Name                | Designation | Mobile No. |
|--------|---------------------|-------------|------------|
| 1      | Dr. A.S. Ganesan    | Chairman    | 9940565600 |
| 2      | Mrs. S. Annapoorani | Member      | 9940565600 |
| 3      | Dr. S. Sharavanan   | Member      | 9940565600 |
| 4      | Mrs. S. Sumathy     | Member      | 9940565600 |
| 5      | Mrs. S. Arunadevi   | Member      | 9940565600 |

### 3. Name and Address of the Vice-Chancellor/Principal/Director

#### Name of the Principal:

Dr. G.Selvakumar

#### Address:

Vinayaka Nagar,  
Rajiv Gandhi Salai (OMR),  
Paiyanoor- 603104  
Chengalpattu Dist,  
Tamil Nadu

E-mail: [principal@avit.ac.in](mailto:principal@avit.ac.in)

Mobile No.: 7550013555

### 4. Name of the Affiliating University

Not Applicable

## 5. Governance

### Board of Management

<https://vmrfdu.edu.in/Authorities.php>

| S.No | Name                                       | Designation, Department and Institution of the person  | Position in the Committee |
|------|--|--|---------------------------|
| 1    | Dr.P.K. Sudhir                             | Vice Chancellor, VMRF(DU), Salem   | Chairperson               |
| 2    | Dr.J.Sabarinathan                          | Pro Vice Chancellor, VMRF (DU), Salem  | Member                    |
| 3    | Mr.J.Suresh Samuel                         | VMRF(DU), Chennai office   | Member                    |
| 4    | Dr.E.Rathnasabapathi                       | Principal, VMHMC, Salem  | Member                    |
| 5    | Dr.DeeptiShastri                           | Deputy Dean, VMKVMC&H, Salem   | Member                    |
| 6    | Dr.K.Mujibur Rahman                        | Professor & Head, Department of Community Medicine, VMMC&H, Karaikal.                                    | Member                    |
| 7    | Dr.B. Jayaprakash                          | Associate Professor, Department of Ophthalmology, VMKVMC&H, Salem  | Member                    |
| 8    | Dr.T.V.Devarajan                           | Emeritus Professor of Medicine, AVMC, Puducherry. Senior Consultant Physician, Apollo Hospitals, Chennai | External Expert           |
| 9    | Padmasri Dr.Sirkali G.Sivachidambaram MD., | Dean(Former), Government Medical College, Visiting Professor, Faculty of fine Arts, Annamalai University | External Expert           |
| 10   | Dr.M.Vadivel Kumar                         | Chairman,(Former)Indian board of Orthodontics  | External Expert           |
| 11   | Yet to be nominated                        | --   | Member                    |
| 12   | Dr.A.Nagappan                              | Registrar, VMRF(DU), Salem   | Ex-officio Secretary      |

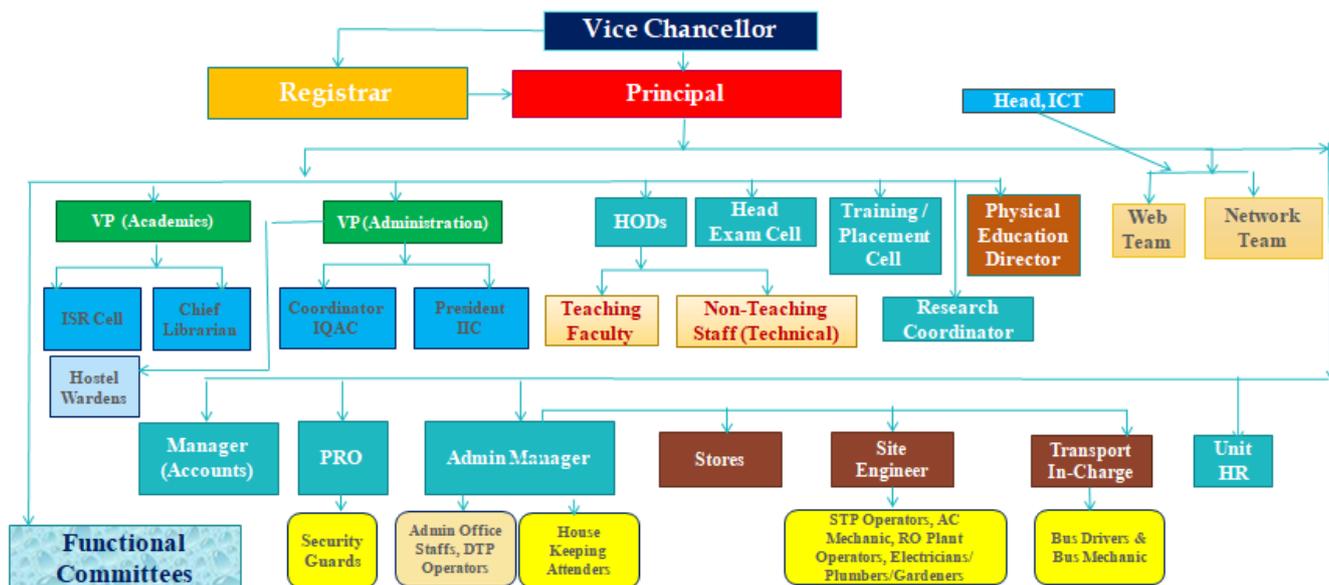
### Members of Academic Advisory Body

<https://vmrfdu.edu.in/Academic-council.php>

### Frequency of the Board Meeting and Academic Advisory Body

Twice in a year

## Organizational Chart



## Nature and Extent of involvement of Faculty and students in Academic affairs/improvements

### Faculty involvement in Academic affairs/improvements

| S.No. | Committee  |
|-------|--|
| 1     | Academic Council   |
| 2     | Board of Studies   |
| 3     | Academic Monitoring Committee                            |
| 4     | Collegiate Student Grievance Redressal Committee (CSGRC) |
| 5     | Internal Complaints Committee                            |
| 6     | Anti Ragging Committee & Squad                           |
| 7     | SC/ST Cell   |
| 8     | IQAC-Internal Quality Assurance Cell                     |
| 9     | Institution Innovation Council (IIC)                     |
| 10    | IPR CELL   |
| 11    | Entrepreneurship Development Cell (EDC)                  |
| 12    | Media Cell-AVIT Media Club                               |
| 13    | Institution Industry Cell                                |
| 14    | Students' Council  |
| 15    | Code of Conduct Committee                                |
| 16    | Grievance Redressal Committee for Faculty Members/Staffs |
| 17    | Institutional Research Committee                         |
| 18    | ISR Cell-Institutional Social Responsibility Cell        |

|    |  |
|----|--|
| 19 | E-Learning Development Cell                    |
| 20 | Campus Maintenance, Purchase & Scrap Committee |
| 21 | Gender Sensitization Cell                      |
| 22 | Women Empowerment Cell                         |
| 23 | Hostel Governance & Management Committee       |
| 24 | EVS Club                                       |
| 25 | Fine Arts Club                                 |
| 26 | AVIT Centre for Continuing Education           |
| 27 | AVIT Centre for Campus Life                    |
| 28 | Aadhavan Energy Club                           |

### **Student involvement in Academic affairs/improvements**

| <b>S.No.</b> | <b>Committee</b>   |
|--------------|--|
| 1            | Collegiate Student Grievance Redressal Committee (CSGRC) |
| 2            | Internal Complaints Committee                            |
| 3            | Anti Ragging Committee & Squad                           |
| 4            | SC/ST Cell   |
| 5            | IQAC-Internal Quality Assurance Cell                     |
| 6            | Institution Innovation Council (IIC)                     |
| 7            | IPR CELL   |
| 8            | Entrepreneurship Development Cell (EDC)                  |
| 9            | Media Cell-AVIT Media Club                               |
| 10           | Students' Council  |
| 11           | ISR Cell-Institutional Social Responsibility Cell        |
| 12           | Hostel Governance & Management Committee                 |
| 13           | EVS Club   |
| 14           | Fine Arts Club   |
| 15           | AVIT Centre for Campus Life                              |
| 16           | Aadhavan Energy Club                                     |

### **Mechanism/Norms and Procedure for democratic / good governance**

The University – institution has an e-governance system to manage its day-to-day operation. This system has modules related to Admission, Academics, Examination, Administration, Finance and Planning, and Monitoring. In addition to e-governance, the University uses LMS extensively. The institution has adequate numbers of computers and the institution initiates the process of updating, often with the support of the maintenance team. The institution also takes the support of an outside agency if required. Conducting periodic checking and updating will have minimum work disruption and reduced turnaround time in case of issues.

VMRF(DU) has constituted all statutory bodies Viz. Board of Management, Academic Council, Planning and Monitoring Board, Finance Committee and Board of Studies as per prescribed standards. Board of Management chaired by Vice Chancellor is the chief governing body, which has fair representation of

eminent external and learned internal members as per prescribed standards. Board of Management is committed to the vision and mission through transparent and participatory governance by embracing new technologies and adhering to standards of Quality. Approved Strategic Plan for development has been deployed and Board of Management monitors the progress of same periodically.

Statutory bodies of the University are well supported by various mandatory and non-mandatory committees and cells at the University and the Institutions level for effective implementation of resolutions passed by statutory bodies. These committees/Cells are constituted as per guidelines and have suitable representation with well defined responsibilities.

VMRF(DU) has well documented and transparent policies and procedures, which are approved by Board of Management, for various academic, administrative and research activities implementation. To supplement MoA and Rules VMRF(DU) has well defined and structured Service rules, code of conduct, Staff Welfare Policy, Staff Appraisal policy, Finance and audit Policy, Research related Policies like Research Promotion Support & Incentives policy, Innovation and Entrepreneurship Policy, IPR and Consultancy Policy, Research Code of Conduct and Ethics, Policy/ Guidelines On Standardization for author affiliation and Institution names in publications and Policy for Prevention of Plagiarism.

### **Student feedback on Institutional Governance/Faculty Performance**

<https://vmrfdu.edu.in/Feedbacks.php>

### **Anti Ragging Committee**

<https://www.avit.ac.in/media/antiragging.php>

### **Grievance Redressal mechanism for Faculty, staff and students**

#### **Online Grievance Redressal mechanism**

<https://vinayakamission.com/Student-Grievance.php>

<https://www.avit.ac.in/media/grievence.php>

### **Establishment of Grievance Redressal Committee in the Institution and Appointment of OMBUDSMAN by the University**

**Grievance Redressal Committee -** <https://www.avit.ac.in/media/grievence.php>

#### **OMBUDSMAN Details:**

| S. No. | Name                   | E-mail Id              | Mobile No. |
|--------|------------------------|------------------------|------------|
| 1      | Dr. R.S.D. Wahida Banu | drwahidabanu@gmail.com | 9443008886 |

### **Establishment of Internal Complaint Committee (ICC)**

[https://vmrfdu.edu.in/ICC.php?college\\_id=14](https://vmrfdu.edu.in/ICC.php?college_id=14)

<https://www.avit.ac.in/media/icc.php>

### **Establishment of Committee for SC/ST**

<https://www.avit.ac.in/media/scst.php>

## Internal Quality Assurance Cell

<https://www.avit.ac.in/iqac/Composition.php>

### 6. Programmes

Name of Programmes approved by AICTE

<https://avit.ac.in/programmes-offered/>

Name of Programmes Accredited by NBA

Nil

NAAC Accreditation Status – Accredited by NAAC – ‘A’ Grade

### Programme details with Approved Intake

Duration : UG (Fulltime)- 4 years; UG (Lateral entry)- 3 Years; PG(FullTime)-2 years

| PROGRAMME/COURSES   | Approved Intake |       |       |    |       |    |
|---|-----------------|-------|-------|----|-------|----|
|   | 23-24           | 22-23 | 21-22 |    | 20-21 |    |
| B.Tech. Biotechnology   | 30              | 30    | 30    |    | 30    |    |
| B.E. Civil Engineering  | 90              | 90    | 60    | 60 | 60    | 60 |
| B.E. Computer Science and Engineering   | 180             | 180   | 120   | 60 | 90    | 60 |
| B.E. Electronics & Communication Engineering  | 60              | 60    | 30    | 60 | 60    | 60 |
| B.E. Electrical and Electronics Engineering   | 90              | 90    | 60    | 60 | 60    | 60 |
| B.E. Mechanical Engineering   | 180             | 180   | 120   | 60 | 120   | 60 |
| B.E. Biomedical Engineering   | 60              | 60    | 60    |    | 60    |    |
| B.E. Mechatronics   | -               | -     | 30    |    | 30    |    |
| B.E. Computer Science and Engineering (Cyber Security)  | 90              | 60    | 60    |    | 30    |    |
| B.E. Artificial Intelligence and Data Science   | -               | -     | 60    |    | 60    |    |
| B.E. Pharmaceutical Engineering   | 30              | 30    | 30    |    | 60    |    |
| B.E. Computer Science & Engineering (Artificial Intelligence and Machine Learning)                          | 120             | 60    | -     |    | -     |    |
| B.E. Computer Science & Engineering (Internet of Things and Cyber Security including Blockchain Technology) | -               | 60    | -     |    | -     |    |
| B.E. Computer Science and Design  | 30              | 60    | -     |    | -     |    |
| M.Tech. Biotechnology   | 18              | 36    | 18    | 18 | 18    | 18 |
| M.E. Construction Engineering and Management  | 18              | 36    | 18    | 18 | 18    | 18 |
| M.E. Computer Science and Engineering   | 18              | 36    | 18    | 18 | 18    | 18 |
| M.E. Embedded Systems Technologies  | 18              | 36    | 18    | 18 | 18    | 18 |

|                                       |    |    |    |    |    |    |
|---------------------------------------|----|----|----|----|----|----|
| <b>M.E. Manufacturing Engineering</b> | 18 | 36 | 18 | 18 | 18 | 18 |
| <b>M.E. Power Systems Engineering</b> | 18 | 36 | 18 | 18 | 18 | 18 |
| <b>MBA</b>                            | 60 | 60 | 60 |    | 60 |    |

### Placement Details:

| Level of course | Name of the Course                           | Lowest Salary (In Lakhs) | Highest Salary (In Lakhs) | Average Salary (In Lakhs) |
|-----------------|--|--------------------------|---------------------------|---------------------------|
| Under Graduate  | B.Tech. Biotechnology                        | 2.05                     | 2.4                       | 2.225                     |
| Under Graduate  | B.E. Civil Engineering                       | 1.9                      | 2.5                       | 2.2                       |
| Under Graduate  | B.E. Computer Science and Engineering        | 1.2                      | 3                         | 2.1                       |
| Under Graduate  | B.E. Electronics & Communication Engineering | 1.2                      | 3.5                       | 2.35                      |
| Under Graduate  | B.E. Electrical and Electronics Engineering  | 1.9                      | 6                         | 3.95                      |
| Under Graduate  | B.E. Mechanical Engineering                  | 1.9                      | 6                         | 3.95                      |
| Under Graduate  | B.E. Biomedical Engineering                  | 2.05                     | 2.4                       | 2.25                      |
| Under Graduate  | B.E. Mechatronics                            | 2.05                     | 2.4                       | 2.25                      |
| Post Graduate   | MBA  | 2                        | 3                         | 2.3                       |
| Post Graduate   | M.Tech. Biotechnology                        | 2                        | 3                         | 2.3                       |
| Post Graduate   | M.E. Construction Engineering and Management | 2                        | 3                         | 2.3                       |
| Post Graduate   | M.E. Computer Science and Engineering        | 3.1                      | 4.1                       | 3.5                       |
| Post Graduate   | M.E. Embedded Systems Technologies           | 3                        | 3.5                       | 3.25                      |
| Post Graduate   | M.E. Manufacturing Engineering               | 3.0                      | 4.0                       | 3.5                       |
| Post Graduate   | M.E. Power Systems Engineering               | 3                        | 3.5                       | 3.25                      |

### Fee Structure:

<https://avit.ac.in/fee-structure/>

## 7. Faculty

Course/Branch wise list of Faculty Members – Permanent & Adjunct Faculty

| Name of the Faculty | Designation         | Department    | Highest Qualification |
|---------------------|---------------------|---------------|-----------------------|
| Dr.R.Devika         | Professor           | Biotechnology | PhD                   |
| Dr.B.Praba Sheela   | Professor           | Biotechnology | PhD                   |
| Dr.A.Nirmala        | Associate Professor | Biotechnology | PhD                   |
| Dr.K.Nakarajan      | Associate Professor | Biotechnology | PhD                   |
| Dr.A.Mohamed Adil   | Associate Professor | Biotechnology | PhD                   |
| Dr.M.Janani         | Associate Professor | Biotechnology | PhD                   |
| Ms.M.Subathra       | Asst Professor      | Biotechnology | M.Tech                |
| Dr.V.Bhuvaneshwari  | Asst Professor      | Biotechnology | PhD                   |
| Mrs.L.Nagalakshmi   | Asst Professor      | Biotechnology | M.Phil                |
| Ms.M.Kavitha        | Asst Professor      | Biotechnology | M.Tech                |

|                              |                     |                          |         |
|------------------------------|---------------------|--------------------------|---------|
| Ms.A.Sasikala                | Asst Professor      | Biotechnology            | M.Tech  |
| Ms.A K .Ramy                 | Asst Professor      | Biotechnology            | M.Tech  |
| Dr.S.Shanmuga Sundar         | Asst Professor      | Biotechnology            | PhD     |
| Ms.R.Preethi                 | Asst Professor      | Biotechnology            | M.Pharm |
| Ms.I.Sridevi                 | Asst Professor      | Biotechnology            | M.E.    |
| Dr.E.Rajasegaran             | Asst Professor      | Biotechnology            | PhD     |
| Ms.Swadhi<br>Balasubramanian | Asst Professor      | Biotechnology            | Pharm.D |
| Mr.R.Veerakumar              | Asst Professor      | Biotechnology            | M.Tech  |
| Ms.L.Catherine               | Asst Professor      | Biotechnology            | M.Tech  |
| Ms.D.Govarthanapriya         | Asst Professor      | Biotechnology            | M.Tech  |
| Prof.P S.Balaganapathy       | Associate Professor | Department Of Management | MBA     |
| Dr. V.Sheela Mary            | Professor           | Department Of Management | PhD     |
| Mrs.S.Subashini              | Associate Professor | Department Of Management | MBA     |
| Dr. Vanimurugesan            | Associate Professor | Department Of Management | PhD     |
| Mr.T.Thangaraja              | Asst Professor      | Department Of Management | MBA     |
| Mr.R.Prakash                 | Asst Professor      | Department Of Management | MBA     |
| Mr.B.Guruprasad              | Asst Professor      | Department Of Management | MBA     |
| Mr.J.Rajkumar                | Asst Professor      | Department Of Management | MBA     |
| Ms.A.Arunmathi               | Asst Professor      | Department Of Management | MBA     |
| Dr.Dollymisra                | Asst Professor      | Department Of Management | PhD     |
| Mr.Jayagopiprasanna          | Asst Professor      | Department Of Management | MBA     |
| Mr.V.Barathnivash            | Asst Professor      | Department Of Management | MBA     |
| Ms.M.Sandhiya                | Asst Professor      | Department Of Management | MBA     |
| Ms.K.Suriya                  | Asst Professor      | Department Of Management | MBA     |
| Ms.M.Rojalakshmi             | Asst Professor      | Department Of Management | MBA     |
| Dr.S P.Sangeetha             | Professor           | Civil Engineering        | PhD     |
| Dr.R.Divahar                 | Professor           | Civil Engineering        | PhD     |
| Dr.D S.Vijayan               | Professor           | Civil Engineering        | PhD     |
| Dr.P S.Aravind Raj           | Associate Professor | Civil Engineering        | PhD     |
| Dr.C.Vaidevi                 | Associate Professor | Civil Engineering        | PhD     |
| Mr.R.Johnson Daniel          | Asst Professor      | Civil Engineering        | M.E.    |
| Mrs.P.Subathra               | Asst Professor      | Civil Engineering        | M.E.    |
| Dr.Pa.Suriya                 | Asst Professor      | Civil Engineering        | PhD     |
| Ms.R.Abirami                 | Asst Professor      | Civil Engineering        | M.Tech  |
| Ms.C.Nivetha                 | Asst Professor      | Civil Engineering        | M.E.    |
| Mr.D.Parthiban               | Asst Professor      | Civil Engineering        | M.E.    |
| Mr.K.Naveen Kumar            | Asst Professor      | Civil Engineering        | M.E.    |
| Ms.S.Monisha                 | Asst Professor      | Civil Engineering        | M.E.    |
| Mr.R.Sanjaykumar             | Asst Professor      | Civil Engineering        | M.E.    |
| Mr.B.Saravanan               | Asst Professor      | Civil Engineering        | M.Tech  |
| Ms.N.Nageswari               | Asst Professor      | Civil Engineering        | M.E.    |
| Mr.K.Gopinath                | Asst Professor      | Civil Engineering        | M.E.    |
| Mr.S.Srinivasan              | Asst Professor      | Civil Engineering        | M.E.    |
| Mr.T.Ayyam Perumal           | Asst Professor      | Civil Engineering        | M.E.    |

|                           |                     |  |        |
|---------------------------|---------------------|--|--------|
| Ms.Jabeenaleem            | Asst Professor      | Civil Engineering                      | M.E.   |
| Dr.P.Gnanasekar           | Professor           | Computer Science And Engineering       | PhD    |
| Dr.R.Jai Chandran         | Professor           | Computer Science And Engineering       | PhD    |
| Dr.S.Rajaprakash          | Professor           | Computer Science And Engineering       | PhD    |
| Dr.Rupinderpal            | Professor           | Computer Science And Engineering       | PhD    |
| Mr.P.Karthikeyan          | Associate Professor | Computer Science And Engineering       | M.Tech |
| Dr.R.Senthilnathan        | Associate Professor | Computer Science And Engineering       | PhD    |
| Dr.R.Anand                | Associate Professor | Computer Science And Engineering       | PhD    |
| Dr.P.Thilagavathi         | Associate Professor | Computer Science And Engineering       | PhD    |
| Mr.P.Sudharsan            | Asst Professor      | Computer Science And Engineering       | MCA    |
| Mr.K.Karthik              | Asst Professor      | Computer Science And Engineering       | M.E.   |
| Ms.P N.Pushpa             | Asst Professor      | Computer Science And Engineering       | M.E.   |
| Mrs.S.Leelavathy          | Asst Professor      | Computer Science And Engineering       | M.E.   |
| Dr.R.Shobana              | Asst Professor      | Computer Science And Engineering       | PhD    |
| Dr.K.Santhashalini        | Asst Professor      | Computer Science And Engineering       | PhD    |
| Mr.T.Sudhan               | Asst Professor      | Computer Science And Engineering       | M.E.   |
| Ms.S.Suganya              | Asst Professor      | Computer Science And Engineering       | M.E.   |
| Ms.J.Priya Dharshini      | Asst Professor      | Computer Science And Engineering       | M.E.   |
| Ms.V.Malathi              | Asst Professor      | Computer Science And Engineering       | M.E.   |
| Ms.R.Saranya              | Asst Professor      | Computer Science And Engineering       | M.E.   |
| Mrs.P.Thara               | Asst Professor      | Computer Science And Engineering       | M.E.   |
| Ms.A.Parameshwari         | Asst Professor      | Computer Science And Engineering       | M.E.   |
| Ms.J.Mary Praveena        | Asst Professor      | Computer Science And Engineering       | M.E.   |
| Dr.Saliha Bathool         | Asst Professor      | Computer Science And Engineering       | PhD    |
| Ms.R.Ragitha              | Asst Professor      | Computer Science And Engineering       | M.E.   |
| Dr.G.Selvakumar           | Principal           | Electrical And Electronics Engineering | PhD    |
| Dr.L.Chitra               | Professor           | Electrical And Electronics Engineering | PhD    |
| Dr.K.Boopathy             | Professor           | Electrical And Electronics Engineering | PhD    |
| Mr.P.Rajasekaran          | Associate Professor | Electrical And Electronics Engineering | M.E.   |
| Mr.V.Ramesh               | Associate Professor | Electrical And Electronics Engineering | M.E.   |
| Dr.Devabalaji             | Associate Professor | Electrical And Electronics Engineering | PhD    |
| Mr.S.Prakash              | Asst Professor      | Electrical And Electronics Engineering | M.E.   |
| Mr.V.Rattan Kumar         | Asst Professor      | Electrical And Electronics Engineering | M.Tech |
| Mrs.P.Poornima            | Asst Professor      | Electrical And Electronics Engineering | M.E.   |
| Mrs.D.Janani Sri          | Asst Professor      | Electrical And Electronics Engineering | M.E.   |
| Ms.S.Jensie Anita         | Asst Professor      | Electrical And Electronics Engineering | M.E.   |
| Mrs.N.Kiruthika Indumathi | Asst Professor      | Electrical And Electronics Engineering | M.E.   |
| Mrs.T.Manjula             | Asst Professor      | Electrical And Electronics Engineering | M.Tech |
| Dr.K S .Kavitha Kumari    | Asst Professor      | Electrical And Electronics Engineering | PhD    |
| Mrs.J.Suganthi            | Asst Professor      | Electrical And Electronics Engineering | M.E.   |
| Mrs.G.Nithya              | Asst Professor      | Electrical And Electronics Engineering | M.E.   |
| Ms.T.Amudha               | Asst Professor      | Electrical And Electronics Engineering | M.E.   |
| Ms.Jyoti                  | Asst Professor      | Electrical And Electronics Engineering | M.Tech |
| Dr.L.Ramya                | Asst Professor      | Electrical And Electronics Engineering | PhD    |

|                           |                     |   |        |
|---------------------------|---------------------|---|--------|
| Ms.Geethipeethambaran     | Asst Professor      | Electrical And Electronics Engineering    | M.E.   |
| Ms.R.Vanitha              | Asst Professor      | Electrical And Electronics Engineering    | M.E.   |
| Dr.S A V Satya Murty      | Professor           | Electronics And Communication Engineering | PhD    |
| Dr.L K.Hema               | Professor           | Electronics And Communication Engineering | PhD    |
| Dr.G.Jijina               | Associate Professor | Electronics And Communication Engineering | PhD    |
| Mr.P.Rajkumar             | Associate Professor | Electronics And Communication Engineering | M.E.   |
| Dr.Prasath                | Associate Professor | Electronics And Communication Engineering | PhD    |
| Dr.R.Mohana Priya         | Associate Professor | Electronics And Communication Engineering | PhD    |
| Mr.R.Karthikeyan          | Asst Professor      | Electronics And Communication Engineering | M.E.   |
| Ms.K.Chitra               | Asst Professor      | Electronics And Communication Engineering | M.E.   |
| Mr.V.Prabhakaran          | Asst Professor      | Electronics And Communication Engineering | M.E.   |
| Ms.S.Mythrehi             | Asst Professor      | Electronics And Communication Engineering | M.Tech |
| Ms.R.Sandhiya             | Asst Professor      | Electronics And Communication Engineering | M.E.   |
| Mr.J.Vijay                | Asst Professor      | Electronics And Communication Engineering | M.Tech |
| Mr.Rajat Kumar Dwibedi    | Asst Professor      | Electronics And Communication Engineering | M.Tech |
| Ms.V.Vanitha              | Asst Professor      | Electronics And Communication Engineering | M.Tech |
| Mr.R.Veera Amudhan        | Asst Professor      | Electronics And Communication Engineering | M.E.   |
| Ms.Shagul Hammeth Nadhiya | Asst Professor      | Electronics And Communication Engineering | M.E.   |
| Mr.S.Regilan              | Asst Professor      | Electronics And Communication Engineering | M.E.   |
| Mr.S K.Sivasubramanian    | Asst Professor      | Electronics And Communication Engineering | M.E.   |
| Ms.A P.Amrutha            | Asst Professor      | Electronics And Communication Engineering | M.E.   |
| Dr.A.Keerthika            | Asst Professor      | Electronics And Communication Engineering | PhD    |
| Mr.V.Yuvaraj              | Asst Professor      | Electronics And Communication Engineering | M.Tech |
| Mr.Anjani Bysani          | Asst Professor      | Electronics And Communication Engineering | M.Tech |
| Dr.Jennifer G Joseph      | Professor           | Humanities And Science                    | PhD    |
| Dr.R N.Viswanath          | Professor           | Humanities And Science                    | PhD    |
| Dr.B.Dhanalakshmi         | Professor           | Humanities And Science                    | PhD    |
| Dr.M.Murugan              | Professor           | Humanities And Science                    | PhD    |
| Dr.L.Tamilselvi           | Professor           | Humanities And Science                    | PhD    |
| Dr.R.Nagalakshmi          | Professor           | Humanities And Science                    | PhD    |

|                       |                     |                        |        |
|-----------------------|---------------------|------------------------|--------|
| Dr.A K .Bhuvanewari   | Associate Professor | Humanities And Science | PhD    |
| Dr.S.Gayathri         | Associate Professor | Humanities And Science | PhD    |
| Dr.M.Thamizhsudar     | Associate Professor | Humanities And Science | PhD    |
| Dr.G.Suresh           | Associate Professor | Humanities And Science | PhD    |
| Dr.S K.Prem Kishor    | Associate Professor | Humanities And Science | PhD    |
| Mrs.S.Udhayaganga     | Associate Professor | Humanities And Science | M.Phil |
| Mr.D.Balaji           | Asst Professor      | Humanities And Science | M.Phil |
| Dr.Suganya Josephine  | Asst Professor      | Humanities And Science | PhD    |
| Mrs.T.Charumathy      | Asst Professor      | Humanities And Science | M.Phil |
| Mr.S.Kabilan          | Asst Professor      | Humanities And Science | M.Phil |
| Ms.K.Sharmila Jane    | Asst Professor      | Humanities And Science | M.Phil |
| Ms.R.Snehaa           | Asst Professor      | Humanities And Science | M.Phil |
| Ms.S.Akshaya          | Asst Professor      | Humanities And Science | M.Phil |
| Dr.L.Prabhu           | Professor           | Mechanical Engineering | PhD    |
| Dr.M.Prabhahar        | Professor           | Mechanical Engineering | PhD    |
| Dr.D.Bubesh Kumar     | Professor           | Mechanical Engineering | PhD    |
| Dr.S.Sangeetha        | Professor           | Mechanical Engineering | PhD    |
| Mr.N.Lakshminarayanan | Associate Professor | Mechanical Engineering | M.E.   |
| Mr.K.Surendra Babu    | Associate Professor | Mechanical Engineering | M.E.   |
| Mr.C.Thiagarajan      | Associate Professor | Mechanical Engineering | M.E.   |
| Mr.J.Senthil          | Associate Professor | Mechanical Engineering | M.E.   |
| Mr.S.Ashokkumar       | Associate Professor | Mechanical Engineering | M.E.   |
| Mr.A.Elanthiraiyan    | Associate Professor | Mechanical Engineering | M.E.   |
| Mr.R.Mahesh           | Asst Professor      | Mechanical Engineering | M.E.   |
| Dr.M.Saravana Kumar   | Asst Professor      | Mechanical Engineering | PhD    |
| Mr.B.Samuvel Michael  | Asst Professor      | Mechanical Engineering | M.Tech |
| Mr.G.Antony Casmir    | Asst Professor      | Mechanical Engineering | M.Tech |
| Mr.A.Senthil Kumar    | Asst Professor      | Mechanical Engineering | M.E.   |
| Mr.P.Kumaran          | Asst Professor      | Mechanical Engineering | M.E.   |
| Mr.K.Vijayakumar      | Asst Professor      | Mechanical Engineering | M.Tech |
| Dr.S.Prakash          | Asst Professor      | Mechanical Engineering | PhD    |
| Mr.S.Sathiya Raj      | Asst Professor      | Mechanical Engineering | M.Tech |
| Mr.S.Kalyana Kumar    | Asst Professor      | Mechanical Engineering | M.E.   |
| Mr.B.Selva Babu       | Asst Professor      | Mechanical Engineering | M.Tech |
| Mr.A.Imthiyas         | Asst Professor      | Mechanical Engineering | M.E.   |
| Mr.M.Saravanan        | Asst Professor      | Mechanical Engineering | M.E.   |
| Mr.V.Aravindan        | Asst Professor      | Mechanical Engineering | M.E.   |
| Mr.V.Srinivasan       | Asst Professor      | Mechanical Engineering | M.E.   |
| Mr.A.Manojkumar       | Asst Professor      | Mechanical Engineering | M.E.   |
| Mr.S.Karthick         | Asst Professor      | Mechanical Engineering | M.E.   |
| Mr.R.Raja Krishnan    | Asst Professor      | Mechanical Engineering | M.E.   |
| Mr.Kapilthapa         | Asst Professor      | Mechanical Engineering | M.E.   |
| Mr.M.Vinothkumar      | Asst Professor      | Mechanical Engineering | M.E.   |
| Mr.V.Praveenkumar     | Asst Professor      | Mechanical Engineering | M.E.   |
| Mr.J.Karthik          | Asst Professor      | Mechanical Engineering | M.E.   |

## Adjunct Faculty

| S.No. | Name of the Adjunct Faculty | Department |
|-------|-----------------------------|------------|
| 1     | Mr.Sadagopan A              | ECE        |
| 2     | Mr.Venkataraman K           | ECE/BME    |
| 3     | Mr.Rajendra Prasad M N      | BIOTECH    |
| 4     | Mrs.Mohanapriya M           | BIOTECH    |
| 5     | Dr.Shivashankar S           | EEE        |
| 6     | Mr.Ponraj K                 | MECH       |
| 7     | Mr.Dhanasekaran V           | MECH       |
| 8     | Dr.Srivatsa S K             | CSE        |
| 9     | Mr.Akashm P                 | EEE        |
| 10    | Mr.Praveen Kumar            | ECE/BME    |

## Professor of Practice

| S.No. | Name                            | Specialisation                                       |
|-------|---------------------------------|--|
| 1     | Mr.Madan Raj P                  | Mechanical Engineering                               |
| 2     | Mr.A.Syed Mohamed               | IT   |
| 3     | Dr.Anish K Ravi                 | Management   |
| 4     | Mr.A.Rajan Babu                 | Management   |
| 5     | Mr.Suresh Raman                 | HR & Management                                      |
| 6     | Mr.Sundar Varanasi              | IT   |
| 7     | Dr.Amaladosanbaskar             | Mechanical Engineering                               |
| 8     | Mr.Narasimhan Prakash           | Mechanical Engineering                               |
| 9     | Mr.Srinivasan R                 | Electrical Engineering                               |
| 10    | Mr.Vicky P Nagarajan            | Electrical Engineering                               |
| 11    | Mr.Selvanathan P                | Electrical Engineering                               |
| 12    | Mr.Ranganathan Rangaraj         | Electronics and communication Engg -VLSI             |
| 13    | Mr.Sankar Sundaram              | IT, AI&ML  |
| 14    | Mr.Muthuswamym R                | IT, Emerging Area solution provider and Entrepreneur |
| 15    | Mr.Thirumoorthy Balasubramanian | IT, Management and Entrepreneur                      |
| 16    | Mr.R. Venkataramana             | Mechanical Engineering, Management                   |
| 17    | Mrs.Panchi S                    | IT- Cyber Security                                   |
| 18    | Mr.Vel Pandian S                | IT   |
| 19    | Mr.Vijaykumar C S               | IT   |
| 20    | Mr.Amit Sharma                  | IT   |

**Permanent Faculty:** Student Ratio

1:8

## 8. Profile of Principal

**Name** : **Dr. G. SELVAKUMAR, B.E., M.E., Ph.D.**

**Father's Name** : Mr. N.GOPALASAMY, M.A., M.Sc., M.Ed., Retd.HM

**Mother's Name** : Mrs. G.KASTHURI, Retd.HM

**Date of Birth&Age** : 03-06-1970, 51 Years

**Sex** : Male

**Nationality** : Indian

**Contact Address** : Villa 82, S&P  
Signature Villas,  
Nedungundram,  
Vandalur Tk,  
Chennai - 600127.

**Mobile No.** 08754203355

**E-mail ID** :  
[gsk7070@gmail.com](mailto:gsk7070@gmail.com)

**Religion and Community** : Hindu, BC

**Educational Qualification** :



| Course   | Institution / University                           | Year of Passing | Percentage of Marks | Class                               |
|--|--|-----------------|---------------------|-------------------------------------|
| <b>B.E.(EEE)</b>                                 | Madurai Kamaraj University                         | April, 1991     | 75.25               | <b>First Class With Distinction</b> |
| <b>M.E. (POWER SYSTEMS)</b>                      | <b>R.E.C., Trichy.</b><br>Bharathidasan University | December, 1992  | 70.00               | <b>First</b>                        |
| <b>Ph.D. (Faculty of Electrical Engineering)</b> | <b>Anna University, Chennai</b>                    | May, 2008       | --                  | --                                  |

### Work Experience (Total experience = 28 years)

| S.No. | Organization | Designation | Period |    | Nature of Work |
|-------|--------------|-------------|--------|----|----------------|
|       |              |             | From   | To |                |

|     |  |   |            |            |   |
|-----|--|---|------------|------------|---|
| 1.  | Instrumentation Division, CRTL, <b>Central Power Research Institute</b> , P.B. No. 9401, Bangalore –560094   | M.E. Student  | 01.06.1992 | 31.12.1992 | For M.E. Project Work   |
| 2.  | Department of Electrical and Electronics Engg., <b>P.S.G. College of Technology</b> , Coimbatore – 641 004, T.N.   | Temporary Lecturer  | 23.06.1993 | 29.04.1994 | Handled Theory and Laboratory Classes and worked as Research Assistant Under Project IMPACT (A world bank project)                          |
|     |  |   | 01.06.1994 | 15.03.1995 |   |
| 3.  | Department of Electrical and Electronics Engg., <b>Institute of Road and Transport Technology (IRTT)</b> , Erode (QuasiGovernment Institution established by Transport Corporation of Tamilnadu) | Lecturer  | 16.03.1995 | 06.07.2006 | Handled Theory and Laboratory Classes for UG Engineering Students   |
| 4.  | <b>Department of Electrical Sciences, V.M.K.V. Engineering College, Salem – 636308. (Vinayaka Missions Research Foundation)</b>  | <b>HoD – EEE</b>  | 07.07.2006 | 31.05.2008 | Administering the Departments of EEE, EIE, ECE, BME and ETE as Dean. Also looking after all affairs pertaining to students                  |
|     |  | <b>Dean – Elect. Sciences &amp; Students Affairs</b>      | 01.06.2008 | 11.05.2010 |   |
| 5.  | <b>Annapoorana Engineering College, Salem – 636308.</b>  | <b>Principal</b>  | 12.05.2010 | 11.05.2013 | Administering the whole college and teaching EEE subjects   |
| 6.  | <b>Excel Engineering College, Komarapalayam.</b>   | <b>Vice Principal</b>                                     | 16.05.2013 | 31.05.2014 | Assisting the Principal in the administration and teaching subjects   |
| 7.  | <b>Muthayammal Engineering College, Rasipuram (Autonomous)</b>   | <b>Dean – Electrical Sciences</b>                         | 02.07.2014 | 31.03.2019 | Administering the Departments of EEE, ECE and EIE. Also Coordinator for NBA, NAAC, Autonomous and R & D activities of the institution.      |
| 8.  | <b>SRM Institute of Science and Technology – Ramapuram Campus</b>  | <b>Dean – Engineering &amp; Technology</b>                | 16.05.2019 | 19.01.2021 | Head of the Institution   |
| 9.  | <b>SRM Group of Institutions – Ramapuram Campus</b>  | <b>Dean – Innovation, Incubation and Entrepreneurship</b> | 20.01.2021 | 31.05.2021 | Promoting Student Innovations, establishing Business Incubators, Making the students as Entrepreneurs, Industry Connect, Awards and Ranking |
| 10. | <b>Aarupadai Veedu Institute of Technology, Paiyanoor. (Vinayaka Missions Research Foundation)</b>   | <b>Principal</b>  | 10.06.2021 | Till Date  | Administering the whole college   |

## Professional Society Membership:

- Fellow IE(I) (F – 1201125)
- Member of IEEE (90472348)
- Member of IEEE Signal Processing Society
- Member of IEEE Components, Packaging and Manufacturing Technology Society
- Member of IEEE Biometrics Council
- Member of IEEE Council on Electronic Design Automation
- Member of IEEE Nanotechnology Council
- Member of IEEE Sensors Council
- Member of IEEE Systems Council
- Member of IEEE Industrial Electronics Society
- Member of IEEE Robotics and Automation Society
- Life Member of ISTE (LM30460)
- Life Member of Advanced Computing and Communications Society (ACCS) (L310A1523471)
- Fellow of International Society for Research and Development (ISR D) (F3140900408)
- Senior Member of Institute of Research Engineers and Doctors (iRED) of UACEE (SNM1010001773)
- Life Member of Biomedical Engineering Society of India (BMESI)
- Member of International Association of Engineers (IAENG) (185502)
- Senior Member of International Association of Computer Science and Information Technology (IACSIT)
- Member of International Association of Information Technology Communication and Development (IAITCD)
- Member of International Association of Computer Science and Information Systems (IACSIS)
- Member of IACSIT Signal Processing Society (SPS)
- Member of IACSIT Bioinformatics and Biomedical Engineering Society (BBES)
- Member of IACSIT Software Engineering Society (SES)
- Member of International Association of Advances in Engineering and Technology (IAAET)

## AICTE - ISTE Sponsored Summer/Winter Schools Attended:

| S.No. | Title of the course                         | Organized by                          | Duration & Period   |
|-------|---|---------------------------------------|---|
| 1.    | Transmission and Distribution               | Muthayammal College of Engineering    | 1 week<br>04 <sup>th</sup> to 10 <sup>th</sup> December, 2018 |
| 2.    | Recent Trends in Biomedical Instrumentation | PSG College of Technology, Coimbatore | 2 weeks<br>9 <sup>th</sup> to 22 <sup>nd</sup> Nov, 2003      |

|    |  |   |  |
|----|--|---|--|
| 3. | Unified Approach for Industrial and Medical Instrumentation. | Kongu Institute of Technology, Perundurai                       | 2 weeks<br>9 <sup>th</sup> to 22 <sup>nd</sup> Nov, 2000       |
| 4. | Neural Networks applied to Pattern Recognition               | IRTT, Erode   | 2 weeks<br>29 <sup>th</sup> May to 11 <sup>th</sup> June, 2000 |
| 5. | Advanced Digital Signal Processing and its Applications      | NSS College of Engineering, Palakad                             | 2 weeks<br>8 <sup>th</sup> to 21 <sup>st</sup> May 2000        |
| 6. | Digital Protection of Power Systems                          | CIT, Coimbatore   | 2 weeks<br>15 <sup>th</sup> to 28 <sup>th</sup> Nov, 1999      |
| 7. | Induction Training Programme                                 | PSG College of Technology and Bharathiar University, Coimbatore | 3 weeks<br>6 <sup>th</sup> to 26 <sup>th</sup> Nov, 1995       |

### Faculty Development Programmes attended:

1. Faculty development programme on “**Power System Operation**” organized by IRTT, Erode and sponsored by Anna University, Chennai from 13<sup>th</sup> – 18<sup>th</sup> December, 2004.
2. Programme on “**Train the Trainers on Soft Skills**” organized by WIPRO, Chennai and sponsored by ELCOT and Anna University, Chennai on 06<sup>th</sup> and 07<sup>th</sup> March, 2008.
3. ICTACT Bridge 2012 – **A conference on Focus on Entrepreneurship and Incubation**, organized by ICT Academy of Tamil Nadu in association with NASSCO Mat Chennai on 22<sup>nd</sup> February 2012.
4. Workshop on “**Effective Utilization of NPTEL**” organized by NPTEL Team, IIT Madras at Chennai on 20<sup>th</sup> September 2013.
5. Participated in the “**National Higher Education Conclave**” organized by Confederation of Indian Industry at Coimbatore on 29<sup>th</sup> and 30<sup>th</sup> November, 2013.
6. Participated in the “**Indian Technology Congress 2014**” conducted on the theme “**Advanced Technology as Change Agent to make India as Economic Superpower**” organized by Institute of Engineers (India) at NIMHANS Convention Centre, Bangalore on 21<sup>st</sup> and 22<sup>nd</sup> August, 2014.
7. Participated in the “**MSME – Make in India Expo**” organized by MSME Development Institute, Chennai, Government of India, at Salem sponsored by Sona College of Technology, Salem on 06<sup>th</sup> and 07<sup>th</sup> November, 2015.
8. Participated in Student Entrepreneurship Promotion through Industry – Institute Connect organized by Salem Productivity Council on 18<sup>th</sup> December, 2018.

9. Attended the Online Training on “Lean Six Sigma – Yellow Belt” organized by MSME Technology Development Centre (PPDC), Ministry of Micro, Small and Medium Enterprises, GoI, Agra on 27th June, 2020 and 28th June,2020.
10. Participated in the Online International Webinar on “How to be a Successful Entrepreneur?” organized by MSys Technologies, USA on 10<sup>th</sup> July,2020.
11. Attended the Online Training on “Intellectual Property Rights (IPR)” organized by MSME Technology Development Centre (PPDC), Ministry of Micro, Small and Medium Enterprises, GoI, Agra on 21<sup>st</sup> July, 2020 and 22<sup>nd</sup> July,2020.

**Research Experience** : **21 years**

**Areas of Interest** : Bio Medical  
Instrumentation Bio  
Signal Processing  
Digital Signal  
Processing  
Power Electronics  
Power Systems  
Intelligent  
Techniques

**Research Area** : **Wavelet Transform Based Detection of ECG Abnormalities**

**Awards** :

1. Finalist in **The Best Techno Faculty Award 2014** awarded by ICTACT and powered by Syntel, recognizing the spirit of participation and the efforts made to empower the students.
2. Received “**Exceptional Academic Administrator & Researcher Award**” from Journal of Engineering Technological Research, Engineering Today in association with Society of Engineers and Technicians, Kuala Lumpur, Malaysia on 11<sup>th</sup> & 12<sup>th</sup> March 2017 at Kuala Lumpur, Malaysia

**Presentation in National / International Conferences:**

1. “An alternate approach in finding optimum load impedance for maximum power transfer using vector representation”, Proc. of the WSEAS International Conference on Instrumentation, Measurement, Control, Circuits and Systems (IMCCAS 2003), Malta, September 1-3, 2003. **(International)**
2. “Adjustable speed control of single phase induction motor using high performance digital signal processor”, National conference on Recent Trends

in Industrial Electronics, Drives and Control, Annamalai University. **(National)**

3. “An Efficient QRS Complex Detection Algorithm using Optimal Wavelet”, Proc. of the 6<sup>th</sup> WSEAS International Conference on Signal Processing, Computational Geometry and Artificial Vision, Elounda, Greece, August 21-23, 2006, pp. 50 – 55. **(International)**
4. “Wavelet Decomposition for Detection and Classification of Critical ECG Arrhythmias”, Proc. of the 8<sup>th</sup> WSEAS Int. Conf. on Mathematics and Computers in Biology and Chemistry, Vancouver, Canada, June 19-21, 2007, pp. 80-84. **(International)**
5. “A Review of Wavelets in ECG Feature Extraction”, Proc. of the International Symposium on Global Trends in Bio Medical Informatics Research, Education and Commercialization, Chennai, India, January 11 – 12, 2008. **(International)**
6. “Wavelet Based Detection of Ventricular Arrhythmias with Neural Network Classifier”, Proceedings of World Academy of Science, Engineering and Technology, Volume 60, December 2009, ISSN: 2070-3724, pp. 518 - 522. (This paper was presented in the International Conference on Computer, Electrical and Systems Science and Engineering (CESSE 2009), Bangkok, Thailand, December 25 – 27, 2009). **(International)**
7. “Detection of Ventricular Late Potentials Using Wavelet Transform and ANT Colony Optimization”, Proceedings of the International Conference on Modeling, Optimization and Computing (ICMOC 2010), Volume 1298, 28 – 30 October 2010, ISBN: 978-0-7354-0854-8, ISSN: 0094 -243X, pp. 331 – 337. (This is an American Institute of Physics Conference sponsored by National Institute of Technology, Durgapur, SERC, Department of Science and Technology, Govt. of India, Caledonian College of Engineering, Sultanate of Oman, BRNS, Department of Atomic Energy, Govt. of India and DRDO, Ministry of Defence, Govt. of India. **(Indexed by SCOPUS)**) **(International)**
8. “ECG Analysis using Nature Inspired Algorithm”, Proceedings of World Academy of Science, Engineering and Technology, pISSN: 2010-376X, Issue 60, December 2011, pp. 17-21. (This paper was presented in the 2011 International Conference on Bioinformatics, Computational Biology and Biomedical Engineering (ICBCBBE 2011), Bangkok, Thailand, December 25 – 26, 2011). **International Travel Grant was sanctioned by Department of Science and Technology (DST), Government of India. (International)**
9. “Implementation of Universal Active Power Filter for improving Power Quality using Fuzzy Controller”, Proceedings of the National Conference on

Recent Advancements & Challenges in Electrical Engineering and Applications organized by IRTT, Erode, 29<sup>th</sup> February & 01<sup>st</sup> March, 2012.

10. “AZVSBidirectionalDC-DCConverterPhaseShiftedSPWMControlforHybridElectric and Fuel Cell Automotive Application”, Proceedings of the 2012 IEEE International Conference on Advances in Engineering, Science and Management (ICAESM 2012) organized by EGS Pillay Engineering College, Nagapattinam, pISBN: 978-1-4673-0213- 5, 30 – 31 March 2012, pp. 700 – 703. **(This paper is published in IEEE Xplore) (Indexed by SCOPUS)**
11. “AnEfficientApproachforVoltageStabilityImprovementbasedonArtificialBeeColony Algorithm”, Proceedings of the 2014 International Conference on Recent Advances in Mechanical Engineering and Interdisciplinary Developments (ICRAMID – 2014), organized by Ponjesly College of Engineering, Nagercoil, Tamilnadu, ISBN: 978-93-80609-17-1, 07 & 08 March, 2014, pp. 1490 – 1495. **(This paper is published in IEEE Xplore)**
12. “Feature Extraction of Lung Nodules in Computer Aided Tomography”, Proceedings of National Conference on Pure and Applied Mathematics (NCPAM’14), ISSN: 978-93- 83459-46-9, organized by Mathematics Division, School of Applied Sciences (SAS), VIT University, Chennai, 25 – 26 April, 2014, pp. 163 – 168.
13. “Automation of Lung Nodule Segmentation using Artificial Neural Network in CT Lung Images”, Proceedings of International Conference on Computing, Engineering and Technologies (ICCET 2014), Mysore organized by The World Academy of Research in Science and Engineering (WARSE), 07 July 2014, pp. 16 – 19.
14. “Direct Torque and Flux Control of Induction Motor Using Intelligent Technique”, Proceedings of the National Conference on Recent Trends in Communication, Control & Computing Applications (RTC3A’15), organized by Department of ECE, CARE Group of Institutions, Tiruchirapalli, 09<sup>th</sup> March, 2015.
15. “Implementation of GSM based Automatic Change over System for Electric Generators”, Proceedings of the International Conference on Electrical Engineering Technology (ICEET) in Multicon’15 organized by Muthayammal Engineering College, Rasipuram, 29<sup>th</sup> & 30<sup>th</sup> April, 2015.
16. “Replacement of TTE with handheld device”, Proceedings of the International Conference on Advances in Communication Technology (ICTACT) in Multicon’15 organized by Muthayammal Engineering College, Rasipuram, 29<sup>th</sup> & 30<sup>th</sup> April, 2015.
17. “Digital Reservation Chart Display and GPS based Train Locator on trains”,

Proceedings of the International Conference on Advances in Communication Technology (ICACT) in Multicon'15 organized by Muthayammal Engineering College, Rasipuram, 29<sup>th</sup> & 30<sup>th</sup> April, 2015.

18. "GSM Based Cell Phone usage avoidance while driving with Accident Emergency Alert System", Proceedings of the International Conference on Advances in Communication Technology (ICACT) in Multicon'15 organized by Muthayammal Engineering College, Rasipuram, 29<sup>th</sup> & 30<sup>th</sup> April, 2015.
19. "GPS Tracking System based Traffic Light Controller to assist Ambulances for quick shifting of Patients", proceedings of 3<sup>rd</sup> International Conference on Engineering, Technology and Science (ICETS'16) organized by Muthayammal Engineering Institutions, Rasipuram, 18<sup>th</sup> & 19<sup>th</sup> March, 2016.
20. "Patient Monitoring System with emergency message transfer and GPS tracking system for quick shifting of patients", proceedings of the International Conference on Adaptive Technologies for Sustainable Growth (ICATS-2016) organized by Paavai Engineering College, Namakkal, 13<sup>th</sup> & 14<sup>th</sup> May, 2016.
21. "Smart Ambulance" proceedings of the National Conference on Recent Trends in Electronics and Communication Engineering (NCRTECE'17) organized by SMK Forma Institute of Technology, Chennai, 24<sup>th</sup> February, 2017.
22. "An Efficient Attendance Management System based on face using MATLAB and Raspberry Pi 3", proceedings of the International Conference on Intelligent Computing, Nano Science and Renewable Energy Sources (ICICNRES-18) organized by Selvam College of Technology, Namakkal, 08<sup>th</sup> & 09<sup>th</sup> March, 2018.
23. "Embedded Device to assist mobility of Visually Impaired", proceedings of the DST- SERB Sponsored International Conference on Innovations in Science, Engineering and Technology for Sustainable Development organized by Muthayammal Engineering College, Rasipuram, 30<sup>th</sup> & 31<sup>st</sup> March, 2018.
24. "Remote Monitoring System Design for Photovoltaic Panels", proceedings of the DST- SERB Sponsored International Conference on Innovations in Science, Engineering and Technology for Sustainable Development organized by Muthayammal Engineering College, Rasipuram, 30<sup>th</sup> & 31<sup>st</sup> March, 2018.
25. "Burglary Prevention systems in ATM Centres", proceedings of the International Conference on Information Sciences and Renewable Energy Sources (ICISRES-2k19) organized by Selvam College of Technology, Namakkal in association with Institution of Engineers (India), 07<sup>th</sup> & 08<sup>th</sup> March, 2019.

26. “AnIoTbasedSmartCarParkingSystem”,proceedingsoftheInternationalConfere  
nceon Information Sciences and Renewable Energy Sources (ICISRES-2k19)  
organized by Selvam College of Technology, Namakkal in association with  
Institution of Engineers (India), 07<sup>th</sup> & 08<sup>th</sup> March,2019.
27. “Prevention of Mobile Phone usage while Driving”, proceedings of the 7<sup>th</sup>  
National Conference on Networking and Communication Systems (NCS '19)  
organized by the Department of CSE and IT, Excel Engineering College,  
Komarapalayam in association with Indian Society for Technical Education,  
15<sup>th</sup> March,2019.

| National | Internation<br>al | Total |
|----------|-------------------|-------|
| 05       | 22                | 27    |

#### **International /National Journal Publications:**

1. K.Bhoopathy Bagan, K.Mozhiarasi, N.P.Subramaniam, M.Manikandan, G.Selvakumar, “An alternate approach in finding optimum load impedence for maximum power transfer using vector representation”, WSEAS Transactions on Circuits and Systems, Issue 2, Volume 2, April 2003, pp.332 –337.
2. G.Selvakumar, K.Boopathy Bagan, “An Efficient QRS Complex Detection Algorithm using Optimal Wavelet”, WSEAS Transactions on Signal Processing, Issue 8, Volume 2, August 2006, pp.1069 –1073.
3. Sankara Subramanian Arumugam, Gurusamy Gurusamy, Selvakumar Gopalasamy, “Wavelet Based Detection of Ventricular Arrhythmias with Neural Network Classifier”, International Journal of Biomedical Science and Engineering, Vol.2, No.6, October 2009, pp.439-444.
4. Sankara Subramanian Arumugam, Gurusamy Gurusamy, Selvakumar Gopalasamy, “ApplicationofWaveletsinECGFeatureExtraction–Areview”,InternationalJournalof Biomedical Engineering and Consumer Health Informatics, Volume 1, Number 2, July – December 2009, pp. 71-75.
5. Sankara Subramanian Arumugam, Gurusamy Gurusamy, SelvakumarGopalasamy,“Detection of Ventricular Late Potentials using Wavelet – Neural Approach”, European Journal of Scientific Research, ISSN: 1450-216X, Vol. 58, Issue 1, 2011, pp. 11 – 20. **(Indexed by SCOPUS) (H Index: 22)**
6. Sankara Subramanian Arumugam, Gurusamy Gurusamy, Selvakumar Gopalasamy, “A New Ventricular Late Potential Classification System using ANT Colony Optimization”, Journal of Computer Science, ISSN: 1549-3636, Vol. 8, Issue 2, 2012, pp. 259-264. **(Indexed by SCOPUS) (H Index:14)**
7. C.N.Ravi, G.Selvakumar, C.Christober Asir Rajan, “Hybrid Real Coded

- Genetic Algorithm – Differential Evolution for Optimal Power Flow”, International Journal of Engineering and Technology (IJET), ISSN: 0975-4024, Vol. 5, No. 4, Aug–Sep, 2013, pp. 3404-3412. **(Indexed by SCOPUS and listed in Annexure – II of Anna University, Chennai list of journals, S. No.: 8187) (H Index: 5)**
8. D. Godwin Immanuel, G. Selvakumar, C. Chritober Asir Rajan, “A Multi Objective Differential Approach for Optimal Reactive Power and Voltage Control”, Indian Streams Research Journal (ISRJ), ISSN: 2230-7850, Vol. 3, Issue 8, September 2013, pp. 01–08.
  9. D. Godwin Immanuel, G. Selvakumar, C. Chritober Asir Rajan, “A Hybrid Genetic Algorithm Based on Differential Evolution Approach for Optimal Reactive Power Control”, Indian Journal of Applied Research (IJAR), ISSN: 2249-555X, Vol. 3, Issue 10, October 2013.
  10. G. T. Sundar, G. Selvakumar, C. Chritober Asir Rajan, “Design and Simulation of Neuro-Fuzzy Controller for Power Factor Correction of Three Phase Diode Rectifier using Shunt Active Harmonic Filter”, International Journal of Scientific Research (IJSR), ISSN: 2277- 8179, Vol. 2, Issue 10, October 2013. **Impact Factor: 3.2416**
  11. D. Godwin Immanuel, G. Selvakumar, C. Chritober Asir Rajan, “Differential Evolution Algorithm Based Optimal Reactive Power Control for Voltage Stability Improvement”, Applied Mechanics and Materials (AMM), ISSN: 1660-9336, Vols. 448-453 (2014), pp. 2357-2362. **(Indexed by Elsevier and SCOPUS) (Listed in Annexure – II of Anna University, Chennai list of journals, S. No.: 1434) (H Index: 11)**
  12. K. Venkatesan, G. Selvakumar, C. Chritober Asir Rajan, “EP based PSO method for solving Multi Area Unit Commitment Problem with Import and Export Constraints”, Journal of Electrical Engineering and Technology (JEET), ISSN: 1975-0102, Vol. 9, No. 2, 2014, pp. 415 – 422. **(Indexed by SCOPUS and Thomas Reuters) (Listed in Annexure – I of Anna University, Chennai list of journals, S. No.: 4527) (H Index: 10)**
  13. D. Godwin Immanuel, G. Selvakumar, C. Chritober Asir Rajan, “A Hybrid Genetic Algorithm Based on Differential Evolution Approach for Voltage Stability Improvement”, International Journal of Computer Applications (IJCA), ISSN: 0975-8887, Vol. 86, No. 16, January 2014, pp. 29 – 32.
  14. D. Godwin Immanuel, G. Selvakumar, C. Chritober Asir Rajan, “A Multi Objective Hybrid Differential Evolution Algorithm assisted Genetic

- Algorithm Approach for Optimal Reactive Power and Voltage Control”, International Journal of Engineering and Technology (IJET), ISSN: 0975-4024, Vol. 6, No. 1, Feb – Mar, 2014, pp. 199 - 203. (Indexed by SCOPUS and listed in Annexure – II of Anna University, Chennai list of journals, S. No.: 8187) (H Index:5)
15. D.Godwin Immanuel, G.Selvakumar, C.Chritober Asir Rajan, “An Efficient Approach for Voltage Stability Improvement based on Artificial Bee Colony Algorithm”, Advanced Materials Research (AMR), ISSN: 1022-6680, Vols. 984-985 (2014), pp. 990 - 995. **(Indexed by Elsevier and SCOPUS) (Listed in Annexure – II of Anna University, Chennai list of journals, S. No.: 416) (H Index:16)**
16. S.Saravanan, G.Selvakumar, C.Amarnath, S.Manikandan, “Automation of Lung Nodule Segmentation using Artificial Neural Network in CT Lung Images”, International Journal of Science and Applied Information Technology (IJSAIT), ISSN: 2278–3083, Vol.3, No. 3, 2014, pp. 16 –19.
17. C.N.Ravi, G.Selvakumar, “Solving Combined Economic Emission Dispatch with Valve Point Loading Problem using Firefly Algorithm”, International Journal of Applied Engineering Research, Research India Publications (RIP), ISSN: 0973-4562, Vol. 10, No. 2, 2015), pp. 4111 – 4121. **(Indexed by SCOPUS) (Listed in Annexure – II of Anna University, Chennai list of journals, S. No.: 8565) (H Index:3)**
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| 06                           | 08                            | 18     | 32    |

| Google Scholar Indexed |           |           | Scopus Indexed        |           |           | Web of Science Indexed |           |           |
|------------------------|-----------|-----------|-----------------------|-----------|-----------|------------------------|-----------|-----------|
| No. of Papers Indexed  | Citations | H - Index | No. of Papers Indexed | Citations | H - Index | No. of Papers Indexed  | Citations | H - Index |
| 37                     | 122       | 06        | 12                    | 34        | 03        | 03                     | 06        | 02        |

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73. Fahad Parvez Mahdi, Pandian Vasant, M. Abdullah-Al-Wadud, Junzo Watada and Vish Kallimani, "Quantum-Behaved Bat Algorithm for Combined Economic Emission Dispatch Problem with Valve-Point Effect", AETA 2017 - Recent Advances in Electrical Engineering and Related Sciences: Theory and Application. AETA 2017. Lecture Notes in Electrical Engineering, Vol. 465. ISBN: 978-3-319-69813-7, November 11, 2017, Springer, Cham, pp. 923 –933.
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83. Pandey S.K., Janghel R.R., “ECG Arrhythmia Classification Using Artificial Neural Networks”, *Proceedings of 2nd International Conference on Communication, Computing and Networking. Lecture Notes in Networks and Systems*, Springer, Singapore, Vol. 46, September 08, 2018, pp. 645 –652.
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85. Uttam R, Supreeth Arabi, Aatman Mantri and Surabhi Rakhecha, “Evaluation of Performance of Cloud

Based Neural Network Models on Arrhythmia Classification”, Proceedings of the 2018 IEEE International Conference on Cloud Computing in Emerging Markets (CCEM), Bangalore, India, November 23 & 24, 2018, pp. 23 – 27. (Published in IEEEXplore)

86. Ashutosh Bhadoria and Vikram Kumar Kamboj, “Optimal generation scheduling and dispatch of thermal generating units considering impact of wind penetration using hGWO-RES algorithm”, Applied Intelligence - The International Journal of Research on Intelligent Systems for Real Life Complex Problems, ISSN: 0924 – 669X, Springer US, Vol. 48, No. 12, December 2018.
87. P.D.Sai Manoj, Axel Jantsch and Muhammad Shafique, “Computer-Aided Arrhythmia Diagnosis with Bio-signal Processing: A Survey of Trends and Techniques”, ACM Computing Surveys, Vol. 9, No. 4, March 2019, pp. 1 -35.
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89. D. Nardo, A. Scuto, G. Sorrentino, A. Raciti, S.A. Rizzo, “The key role of the SJ MOSFET with fast diode in high-end SMPS converters for telecom applications,” 2019 AEIT International Annual Conference, Firenze, September 18-20, 2019.

**PhD Supervisor/ DC Member / Examiner:**

1. Ph.D. Supervisor in Anna University, Chennai
2. Member of Board of Examiners to adjudicate the Ph.D. thesis for Osmania University, Hyderabad.
3. Ph.D. Supervisor in Sathyabama University, Chennai.
4. Ph.D. Supervisor in JNTU, Anantpur.
5. Doctoral Committee Member in Anna University of Technology, Coimbatore.
6. Doctoral Committee Member in SRM University, Chennai.

**Research Guidance:**

| Programme | Ongoing | Degree Awarded |
|-----------|---------|----------------|
| Ph.D.     | 2       | 08             |

**Research Projects:**

| S.No. | Major/Minor | Funding Agency | Sanctioned Amount | Ongoing/ Completed |
|-------|-------------|----------------|-------------------|--------------------|
|-------|-------------|----------------|-------------------|--------------------|

|    |  |                              |                                   |  |
|----|--|------------------------------|-----------------------------------|--|
| 1. | Travel Grant for attending International Conference in Bangkok, Thailand, on 25.12.2011 & 26.12.2011                 | DST, Govt. of India          | 24,300.00                         | Completed  |
| 2. | To setup Business Incubator at Muthayammal Engineering College   | MSME, Govt. of India         | 65,00,000.00 per year for 5 years | Got Approval for the establishment of Business Incubator |
| 3. | Robot To Rescue The Lives Trapped In The Bore Wells  | Texas Instruments            | 1,00,000.00                       | Completed  |
| 4. | Technology Business Incubator (TBI)  | DST – NIDHI, Govt. of India  | Expected Funding: Rs.28 Crores    | Applied  |
| 5. | To setup New Gen Innovation and Entrepreneurship Development Centre (NewGen IEDC) at Muthayammal Engineering College | DST - NSTEDB, Govt. of India | Expected Funding: Rs.2.6 Crores   | Applied  |
| 6. | Entrepreneurship Awareness Camps – 3 Nos.  | DST – NIMAT                  | Rs.60,000                         | Completed  |
| 7. | Women Entrepreneurship Development Program (WEDP) – 2 Nos.   | DST – NIMAT                  | Rs.2,00,000                       | Ongoing  |
| 8. | Technology Based Entrepreneurship Development Program (TEDP)   | DST – NIMAT                  | Rs.1,60,000                       | Ongoing  |

### University Assignments:

1. Member of Vigilance Squad for Anna University, Chennai UG/PG Practical Examinations.
2. Question paper setter for Anna University, GCT, Coimbatore, Pondicherry University, Madras University, Sastra University, Manonmaniam Sundaranar University, Priest University, Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya University, Kancheepuram, Bannari Amman Institute of Technology and Vinayaka Missions University.
3. Examiner for Anna university theory and laboratory examinations.
4. Examiner for Pondicherry University theory and laboratory examinations.

### International Conference Chair:

1. Program Committee Chair for 2016 8th International Conference on Mechanical and Electronics Engineering (ICMEE 2016), Nanjing, China, September 17 – 18, 2016.

2. Program Committee Chair for 2016 7th International Conference on Electronics and Information Engineering (ICEIE 2016), Nanjing, China, September 17 – 18,2016.
3. Member of Technical Program Committee for the 2016 International Conference on Materials Applications and Engineering (ICMAE 2016), Qingdao, China, June 25 – 26, 2016.
4. Member of International Scientific Committee for the 2016 International Conference on Informatics, Management Engineering and Industrial Application (IMEIA2016), Phuket, Thailand, April 24 – 25, 2016.
5. Member of Advisory Committee for the National Conference on Innovations in Computing and Communications (ICC'16), organized by the Departments of CSE and ECE, Sri Shanmuga College of Engineering and Technology, Sankari, Tamilnadu, April 02, 2016.
6. Member of International Scientific Committee for the 2016 International Conference on Power, Energy Engineering and Management (PEEM 2016), Bangkok, Thailand, January 24 – 25,2016.
7. Member of Technical Committee for the 2016 4<sup>th</sup> International Conference on Computer Science and Electronics Engineering (ICCSEE 2016), Qingdao, China, January 09 – 10, 2016.
8. Member of Technical Committee for the 2015 4th International Conference on Emerging Trends in Electrical and Computer Technology (ICETECT 2015), Qingdao, Shandong, China, December 26 – 27,2015.
9. Member of Technical Committee for the 2015 7th International Conference on Materials, Chemistry and Environmental Engineering (ICMCEE 2015), Qingdao, Shandong, China, December 26 – 27,2015.
10. Member of Technical Committee for the 2015 6<sup>th</sup> International Conference on Advances in Circuits, Electronics and Micro-Electronics (CENICS 2015), Xi'an, Shaanxi, China, December 12 – 13,2015.
11. Member of Technical Committee for the 2015 International Conference on Information Engineering and Innovation Project Management (IEIPM 2015), Xi'an, Shaanxi, China, December 12 – 13,2015.
12. Member of Technical Committee for the 2015 4th International Conference on Process Automation, Control and Computing (PACC 2015), Xi'an, Shaanxi, China, December 12 – 13,2015.
13. Member of Technical Committee for the 2015 3<sup>rd</sup> International Conference on Economics, Machinery, Materials and Information Technology Applications (ICMMITA 2015), Qingdao, Shandong, China, November 28 – 29,2015.
14. Member of Technical Program Committee for the 2015 2<sup>nd</sup> International Conference on Manufacturing Technology and Electronics (ICETEA 2015), Chongqing, China, November 28 – 29, 2015.
15. Member of Technical Program Committee for the 2015 International Conference on Economics, Management, Engineering and Education Technology (ICEMEET2015), Chongqing, China, November 28 – 29, 2015.

16. Member of Technical Program Committee for the 2015 5<sup>th</sup> International Conference on Electronics Technology and Computer Applications (ICETCA 2015), Chongqing, China, November 28 – 29, 2015.
17. Member of Program Committee for the 2015 6<sup>th</sup> International Conference on Information Technology and Advanced Materials Engineering (ICITAME 2015), Sanya, Hainan, China, November 14 – 15, 2015.
18. Member of Program Committee for the 2015 4<sup>th</sup> International Conference on Sustainable Construction Materials and Computer Engineering (SCMCE 2015), Sanya, Hainan, China, November 14 – 15, 2015.
19. Member of Program Committee for the 2015 International Conference on Microelectronics and Information Technology (ICMIT 2015), Sanya, Hainan, China, November 14 – 15, 2015.
20. Member of Technical Committee for the 2015 2<sup>nd</sup> International Conference on Power, Energy and Environmental Science (ICPEES 2015), Changsha, China, October 24 – 25, 2015.
21. Member of Technical Program Committee for the 2015 2<sup>nd</sup> International Conference on Civil, Environment and Transportation Engineering (ICCETE 2015), Changsha, China, October 24 – 25, 2015.
22. Member of Technical Program Committee for the 2015 International Conference on Internet of Things and Information Technology (ICITIT 2015), Changsha, China, October 24 – 25, 2015.
23. Member of Technical Committee for the 2015 4<sup>th</sup> International Conference on Communication, Electronics and Automation (ICCEAE 2015), Changsha, Hunan, China, October 24 – 25, 2015.
24. Member of Technical Committee for the 2<sup>nd</sup> International Conference on Electrical, Computer, Control Engineering (ELECCE 2015), Changsha, Hunan, China, October 24 – 25, 2015.
25. Member of Technical Program Committee for the 2015 2<sup>nd</sup> International Workshop on Materials Engineering and Computer Sciences (IWMECS 2015), Jinan, Shandong, China, October 10 – 11, 2015.
26. Member of Technical Program Committee for the International Conference on Education, Management and Information Technology (ICEMIT 2015), Jinan, Shandong, China, October 10 – 11, 2015.
27. Member of Technical Program Committee for the 2015 3<sup>rd</sup> International Conference on Networking, Communication and Computer Science (NetComCS 2015), Jinan, Shandong, China, October 10 – 11, 2015.
28. Member of Program Committee for the 2015 International Conference on Energy, Materials and Geology Environment (EMGE 2015), Guilin, China, September 12 – 13, 2015.
29. Member of Program Committee for the 2015 4<sup>th</sup> International Conference on Mechanical Engineering and Green Manufacturing (MEGM 2015), Xi'an, China, August 29 – 30, 2015.
30. Member of Program Committee for the 2015 International Conference on Electronic Information, Computation and Network Communications (EICNC 2015), Xi'an, China, August 29 – 30, 2015.
31. Member of Technical Program Committee for the 2015 2<sup>nd</sup> International Conference on Information Technology and Biomedical Engineering (ICITBE 2015), Yinchuan, China, August 15 –

16,2015.

32. Member of Technical Committee for the 2015 5th International Conference on Materials Science and Information Technology (MSIT2015), Taiyuan, China, June 27 – 28,2015.

33. Member of Technical Committee for the International Conference on Advances in Materials Science and Manufacturing Technology (AMSMT 2015), Chongqing, China, May 30 – 31,2015.

34. Member of Technical Committee for the 2015 3<sup>rd</sup> International Conference on Precision Mechanical Instruments and Measurement Technology (ICPMIMT 2015), Dalian, China, May 16 – 17,2015.

35. Member of Technical Program Committee for the 3<sup>rd</sup> International Conference on Mechanical Intelligence and Automatic Control (ICMIAC2015), Zhengzhou, China, April 12 – 13,2015.

36. Member of Technical Committee for the 2nd International Conference on Electronics Technology, Computer Science and Information processing (ETCSIP 2015), Zhengzhou, China, April 11 – 12,2015.

37. Member of Program Committee for 2015 International Conference on Mechatronics, Manufacturing and Industrial Informatics (MMII 2015), Xi'an, China, January 10 – 11, 2015.

38. Member of Technical Program Committee for 2014 5<sup>th</sup> International Conference on Power Electronics, Drives and Energy Systems (ICPDE 2014), Shenzhen, China, December 27–28, 2014.

39. Member of Program Committee for 2014 4<sup>th</sup> International Conference on Mechanical Engineering and Green Manufacturing (MEGM 2014), Shenzhen, China, December 27–28, 2014.

40. Member of Technical Program Committee for 2014 3<sup>rd</sup> International Conference on Material Engineering and Mechanical Engineering (MEME 2014), Ottawa, Canada, December 20 – 21,2014.

41. Member of Technical Program Committee for 2014 2<sup>th</sup> International Conference on Engineering Materials (ICEM 2014), Sanya, Hainan, China, November 22 – 23,2014.

42. Member of Technical Program Committee for 2014 2<sup>th</sup> International Conference on Engineering Materials and Mechanical Engineering (ICEMME 2014), Sanya, Hainan, China, November 22 – 23,2014.

43. Member of Technical Program Committee for 2014 3<sup>rd</sup> International Conference on Advanced Computer Science Applications and Technologies (ACSAT 2014), Taiyuan, China, November 08 – 09,2014.

44. Member of Technical Program Committee for 2014 3<sup>rd</sup> International Conference on Electrical Technology and Civil Engineering (ETCE2014), Taiyuan, China, November 08 – 09, 2014.

45. Member of Technical Program Committee for 2014 7<sup>th</sup> International Conference on Automation, Robotics and Applications (ICARA 2014), Taiyuan, China, November 08 – 09, 2014.

46. Member of Organizing Committee for 2014 International Conference on Material Science, Mechanical Engineering and Manufacturing (ICMSMEM 2014), Taiyuan, China, November 08 – 09, 2014.

47. Member of Technical Program Committee for 2014 International Conference on Manufacturing

Technology and Electronics (ICMTEA 2014), Taiyuan, China, November 08 – 09,2014.

48. Member of Organizing Committee for 2014 International Conference on Materials Engineering, Manufacturing Technology and Control (ICMEMTC 2014), Changsha, Hunan, October 25 – 26,2014.

49. Member of Organizing Committee for 2014 International Conference on Power, Energy and Environmental Science (ICPEES 2014), Changsha, Hunan, October 25 – 26,2014.

50. Member of Organizing Committee for 2014 International Conference on Agriculture, Food and Mechanical Engineering (ICAFME 2014), Changsha, Hunan, October 25 – 26,2014.

51. Member of Technical Program Committee for 2014 International Conference on Mechatronics Engineering and Modern Technologies in Industrial Engineering (MEMTIE 2014), Changsha, Hunan, October 25 – 26,2014.

52. Member of Organizing Committee for 2014 International Conference on Civil, Environment, and Transport Engineering (ICCETE 2014), Shijiazhuang, Hebei, China, October 11 – 12,2014.

53. Member of Organizing Committee for 2014 International Conference on Electrical, Computer, Control Engineering (ELECCE2014), Shijiazhuang, Hebei, China, October 11 – 12, 2014.

54. Member of Organizing Committee for 2014 International Conference on Environment, Energy and Applied Biotechnology (ICEEAB2014), Shijiazhuang, Hebei, China, October 11 – 12,2014.

55. Member of Technical Program Committee for 2014 3<sup>rd</sup> International Conference on Communication, Electronics and Automation (ICCEAE 2014), Shijiazhuang, Hebei, China, October 11 – 12,2014.

56. Member of Organizing Committee for 2014 International Conference on Education, Management and Information Technology (ICEMIT 2014), Hangzhou, Zhejiang, China, September 27 – 28,2014.

57. Member of Technical Program Committee for 2014 2<sup>nd</sup> International Conference on Networking, Communication and Computer Science (NetComCS 2014), Guilin, China, September 13 – 14,2014.

58. Member of Technical Committee for 2014 International Conference on Materials Science, Chemistry and Energy (ICMSCE 2014), Xi'an, China, August 30 – 31,2014.

59. Member of Technical Committee for 2014 International Conference on Mechatronics Engineering and Computing Technology (ICMECT 2014), Shanghai, China, August 09 – 10, 2014.

60. Member of Technical Committee for 2014 International Conference on Engineering Materials, Geotechnical Engineering and Environmental Engineering (ICEGEE 2014), Jinan, Shandong, China, June 22 – 23,2014.

61. Member of Technical Committee for 2014 International Conference on Advances in Materials Science and Manufacturing Technology (AMSMT 2014), Chongqing, China, May 30 – 31,2014.

62. Member of Technical Program Committee for 2014 3<sup>rd</sup> International Conference on Vehicle & Mechanical Engineering and Information Technology (VMEIT 2014), Beijing, China, April 19 – 20, 2014.

63. Member of Technical Program Committee for 2014 International Conference on Artificial Intelligence and Computer Information Technology (ICAICIT 2014), Xi'an, China, January 11 – 12,2014.
64. Member of Technical Committee for 2013 3<sup>rd</sup> International Conference on Intelligent System and Applied Materials (GSAM 2014), Taiyuan, China, December 18 – 19,2013.
65. Member of Technical Program Committee for 2013 3<sup>rd</sup> International Conference on Electrical, Electronics and Computer Engineering (NCEECE 2013), Taiyuan, China, December 28 – 29,2013.
66. Member of Technical Program Committee for 2013 3<sup>rd</sup> International Conference on ElectricalEngineeringandInformatics(ELEEI2013),Taiyuan,China,December28–29, 2013.
67. Member of Technical Program Committee for 2013 International Conference on Electronics, Communications and Networking (ICECN 2013), Beijing, China, December 14 – 15,2013.
68. Member of Technical Board for IET Chennai Networks 4<sup>th</sup> International Conference on Sustainable Energy and Intelligent System (SEISCON 2013), KCG College of Technology, Chennai, India, December 12 – 14,2013.
69. Session Chair for Technical Session IV of International Conference on Sustainable ApproachesforGreenComputing,EconomyandEnvironment(SAGCEE–2013),Salem, Tamilnadu, India, December 9 – 11, 2013 (organized by VMKV Engineering College, Salem).
70. Member of Technical Program Committee for the 3<sup>rd</sup> International Conference on Computer Application and System Modeling (ICCASM 2013), Beijing, China, July 13 – 14, 2013.
71. Member of Technical Program Committee for the 2013 International Conference on Information Technology and Computer Applications (ITCA 2013), China, June 15 – 16, 2013.
72. Member of Technical Committee for the 2013 3<sup>rd</sup> International Conference on Materials ScienceandInformationTechnology(MSIT2013),Nanjing,Jiangsu,China,June08-09, 2013.
73. Member of Technical Committee for the 2013 International Conference on Education TechnologyandManagementScience(ICETMS2013),Nanjing,Jiangsu,China,June08- 09, 2013.
74. Member of Technical Committee for the 2013 3<sup>rd</sup> International Conference on Precision Mechanical Instruments and Measurement Technology (ICPMIMT 2013), Zhengzhou Henan, China, May 25 – 26,2013.
75. MemberofTechnicalCommitteeforthe20133<sup>rd</sup>InternationalSymposiumonInformation Technology (ITSim 2013), Zhengzhou Henan, China, May 25 – 26,2013.
76. Conference Steering Chair for 2013 3<sup>rd</sup> International Conference on Information and Network Technology (ICINT 2013), Singapore, April 01 – 02,2013.
77. Member of Technical Program Committee for 2013 2<sup>nd</sup> International Conference on ComputerScienceandElectronicsEngineering(ICCSEE2013),Hangzhou,China,March 22 – 23,2013.
78. Member of Technical Committee for 2013 International Forum on Advances in Engineering (IFAE 2013), New Delhi, India, March 22 – 23,2013.

79. Conference Steering Chair for 2013 the 2<sup>nd</sup> International Conference on Traffic and Logistic Engineering (ICTLE 2013), Istanbul, Turkey, March 15 – 16,2013.
80. Member of Technical Program Committee for the 2012 National Conference on Information Technology and Computer Science (CITCS2012), China, November 16–18, 2012.
81. Member of Technical Committee for 2012 International Conference on Mechanics and Control Engineering (ICMCE 2012), Shanghai, China, August 25 – 26,2012.
82. Program Committee Chair for 2012 International Conference on Knowledge Delivery (ICKD 2012), Bali, Indonesia, May 26 – 27,2012.
83. Program Committee Chair for 2012 International Conference on Telecommunication Technology and Applications (ICTTA 2012), Bali, Indonesia, May 26 – 27,2012.
84. Program Committee Chair for 2012 International Conference on Intelligent Building and Management (ICIBM 2012), Bali, Indonesia, May 26 – 27,2012.
85. Conference Steering Chair for 2012 International Conference on Applied Physics and Mathematics (ICAPM 2012), Chennai, India, April 28 – 29,2012.
86. Conference Steering Chair for 2012 International Conference on Information and Network Technology (ICINT 2012), Chennai, India, April 28 – 29,2012.
87. Conference Steering Chair for 2012 International Conference on Traffic and Logistic Engineering (ICTLE 2012), Chennai, India, April 28 – 29,2012.
88. Member of Technical Committee for 2012 International Conference on Electronics, Nanomaterials and Component (ICENC 2012), Kunming, China, April 21 – 22,2012.
89. Member of Program Committee for 2011 3<sup>rd</sup> International Conference on Information, Electronic and Computer Science (ICIECS 2011), Tianjin, China, December 16 – 17, 2011.
90. Publicity Chair for 2011 International Conference on Electronic Design Automation (ICEDA 2011), Bangkok, Thailand, December 02 – 04,2011.
91. Publicity Chair for 2011 International Conference on Computer and Computational Intelligence (ICCCI 2011), Bangkok, Thailand, December 02 – 04,2011.
92. Publicity Chair for 2011 International Conference on Intelligent Network and Computing (ICINC 2011), Bangkok, Thailand, December 02 – 04,2011.
93. Member of Technical Committee for 2011 International Symposium on Chemical Engineering and Material Properties (ISCEMP 2011), Shenyang, China, November 04 – 06,2011.
94. Member of Technical Committee for 2011 International Conference on Material Science and Information Technology (ICMSIT 2011), Taiyuan, China, November 04 – 06,2011.
95. Member of Technical Committee for 2011 7<sup>th</sup> International Conference on MEMS, NANO and Smart Systems (ICMENS 2011), Kuala Lumpur, Malaysia, November 04 – 06,2011.
96. Member of Technical Committee for 2011 International Conference on Electronics Networks and Computers (ICENC 2011), Kuala Lumpur, Malaysia, November 04 – 06,2011.

97. Member of Technical Committee for 2011 International Conference on Embedded Systems and Microprocessors (ICESM 2011), Kuala Lumpur, Malaysia, November 04 – 06,2011.
98. Member of Technical Committee for 2011 2<sup>nd</sup> International Conference on Information, Networking and Automation (ICINA 2011), Puerto Rico, USA, October 21 - 23,2011.
99. Member of Technical Committee for 2011 International Conference on Software and Intelligent Information (ICSII 2011), Puerto Rico, USA, October 21 - 23,2011.
100. Member of Technical Committee for 2011 International Conference on Computer Engineering and Management (ICCEM 2011), Puerto Rico, USA, October 21 - 23,2011.
101. Member of Technical Committee for 2011 International Conference on Measurement and Control Engineering (ICMCE 2011), Puerto Rico, USA, October 21 - 23, 2011.
102. Program Committee Chair for 2011 2<sup>nd</sup> International Conference on Electronics and Information Engineering (ICEIE 2011), Tianjin, China, September 09 - 11,2011. Member of Technical Committee for 2011 International Conference on Energy and Electrical Systems (ICEES 2011), Kuala Lumpur, Malaysia, August 12 – 14,2011.
103. Member of Technical Committee for 2011 International Conference on Computer Design and Engineering (ICCDE 2011), Kuala Lumpur, Malaysia, August 12 – 14,2011.
104. Member of Technical Committee for 2011 the 3<sup>rd</sup> International Conference on Software Technology and Engineering (ICSTE 2011), Kuala Lumpur, Malaysia, August 12 – 14,2011.
105. Session Chair for 2<sup>nd</sup> International Conference on Sustainable Energy and Intelligent Systems (SEISCON2011), sponsored by IET, Chennai and Organized by Dr. M.G.R. Educational and Research Institute University, Chennai, July 20 - 22, 2011.
106. Program Committee Chair for 2011 International Conference on Circuits, System and Simulation (ICCSS 2011), Bangkok, Thailand, May 28 & 29,2011.
107. Program Committee Chair for 2011 International Conference on Intelligent Building and Management (ICIBM 2011), Sydney, Australia, May 13 & 14,2011.
108. Program Committee Chair for 2011 International Conference on Telecommunication Technology and Applications (ICTTA2011), Sydney, Australia, May 13 & 14,2011.
109. Program Committee Chair for 2011 International Conference on Computer Communication and Management (ICCCM2011), Sydney, Australia, May 13 & 14,2011.
110. Conference Steering Chair for 2011 International Conference on Computer, Communication and Information Technology (ICCCIT 2011), Chennai, India, April 29 & 30, 2011.
111. Conference Steering Chair for 2011 International Conference on Information and Network Technology (ICINT 2011), Chennai, India, April 29 & 30,2011.
112. Conference Steering Chair for 2011 International Conference on Traffic and Logistic Engineering (ICTLE 2011), Chennai, India, April 29 & 30,2011.
113. Conference Steering Chair for 2011 International Conference on Applied Physics and Mathematics (ICAPM 2011), Chennai, India, April 29 & 30,2011.

114. Conference Steering Chair for 2011 International Conference on Network Communications and Computer (ICNCC 2011), New Delhi, India, March 19 – 20,2011.
115. ConferenceSteeringChairfor2011InternationalConferenceonControl,Robotics and Cybernetics (ICCRC 2011), New Delhi, India, March 19 – 20,2011.
116. Conference Steering Chair for 2011 International Conference on Mechanical and Aerospace Engineering (CMAE 2011), New Delhi, India, March 19 – 20,2011.
117. PublicityChairfor2011the3<sup>rd</sup>InternationalConferenceonMachineLearning and Computing (ICMLC 2011), Singapore, February 26 - 28, 2011.
118. Program Committee Chair for 2010 the 3<sup>rd</sup> International Conference on Environmental and Computer Science (ICECS 2010), Kunming, China, October 18-19, 2010.
119. Member of Technical Committee for 2010 International Conference on Distance Learning and Education (ICDLE 2010), Puerto Rico, USA, October 3-5,2010.
120. Member of Technical Committee for 2010 the 2<sup>nd</sup> International Conference on Software Technology and Engineering (ICSTE 2010), Puerto Rico, USA, October 3-5, 2010.
121. Program Committee Chair for 2010 International Conference on Mechanical and Electronics Engineering (ICMEE 2010), Tokyo, Japan, August 01-03,2010.
122. Program Committee Chair for 2010 International Conference on Electronics and Information Engineering (ICEIE 2010), Kyoto, Japan, August 01-03,2010.
123. Publicity Chair for 2010 International Conference on Machine Learning and Computing (ICMLC 2010), Bangalore, India, February 09 - 11,2010.
124. Publicity Chair for 2010 International Conference on Data Storage and Data Engineering (DSDE 2010), Bangalore, India, February 09 & 10,2010.
125. Program Committee Chair for the 2<sup>nd</sup> International Conference on Environmental and Computer Science (ICECS 2009), Dubai, UAE, December 28 – 30,2009.
126. MemberoftheTechnicalReviewCommitteeoftheIEEEBangaloreSection-18<sup>th</sup> Annual Symposium on Emerging Needs in Computing, Communication, Signals and Power - ENCCSP 2009, Bangalore, 29<sup>th</sup> August2009.
127. Publicity Chair for 2009 International Conference on Mechanical and Electronics Engineering (ICMEE 2009), Chennai, June 27-29,2009.
128. Publicity Chair for 2009 International Conference on Software Technology and Engineering (ICSTE 2009), Chennai, June 27-29,2009.
129. Publicity Chair for 2009 International Conference on Computer and Network Technology (ICCNT 2009), Chennai, June 27-29,2009.
130. Session Chair for the 3<sup>rd</sup> National Conference organized by the Department of Electronics and Instrumentation Engineering, Vivekanandha College of Engineering for Women, Tiruchengode, April 9,2009.
131. Member of International Program Committee, 10<sup>th</sup> WSEAS International Conference on

Automation and Information (ICAI '09), Prague, Czech Republic, March 23-25, 2009. Member of Scientific Committee, 10<sup>th</sup> WSEAS International Conference on Mathematics & Computers in Biology & Chemistry (MCBC'09), Prague, Czech Republic, March 23-25, 2009.

132. Session Chair, Energy Society of India Sponsored National Conference on Demand Side Management Options for Energy Sustainability (DSMES'07), Department of Electrical and Electronics Engineering, Pondichery Engineering College, Pondichery, October 25, 2007.

133. Session Chair, DST and CSIR Sponsored National Conference on Computational Intelligence to Emerging Electric Power Systems (CIEEPS'06), Department of Electrical and Electronics Engineering, Pondichery Engineering College, Pondichery, September 7 & 8, 2006.

### **International Journal / Conference Reviewer / Editor:**

1. Member of Review Committee for the International Conference on Electrical, Electronics, Computers, Communication, Mechanical and Computing (EECCMC) organized by Priyadarshini Engineering College, Chettiyappanur, Vaniyambadi - 635751, Vellore District, Tamil Nadu, January 28<sup>th</sup> & 29<sup>th</sup>, 2018.
2. Reviewer for the 2017 2<sup>nd</sup> IEEE International Conference on Electrical, Computer and Communication Technologies (ICECCT2017) organized by SVS College of Engineering, Coimbatore and Sponsored by IEEE and IEEE Madras Section, February 22 – 24, 2017.
3. Reviewer for the World Scientific and Engineering Academy and Society (WSEAS) conferences and journals.
4. Scientific and Technical Committee & Editorial Review Board on Engineering and Applied Sciences, World Academy of Science Engineering and Technology (WASET).
5. Reviewer for International Journal of Computer and Electrical Engineering (IJCEE).
6. Reviewer for European Society for Applied Sciences and Development (EUROPMENT)
7. Reviewer for E3 Journal of Energy, Oil and Gas Research (EJEGR)
8. Editorial Board Member and Reviewer for the International Organization of Scientific Research and Development (IOSRD)
9. Reviewer for International Journal of Artificial Intelligence and Soft Computing (IJASIS), Inderscience Publishers.
10. Editor and Reviewer for International Journal of Engineering and Technology (IJET).
11. Reviewer for International Journal of Information, Intelligence and Knowledge (IJIK).
12. Member of Editorial Advisory Board of Indian Journal of Applied Research (IJAR).
13. Reviewer for Journal of Computational Biology and Bioinformatics Research (JCBBR)
14. Reviewer for the CiiT International Journal.
15. Reviewer for Indian Journal of Science and Technology
16. Reviewer for 2015 IEEE International Conference on Electrical, Computer and Communication Technologies (ICECCT2015) organized by SVS College of Engineering, Coimbatore and

Sponsored by IEEE and IEEE Madras Section, March 05 – 07,2015.

17. Member of Innovation Identification Panel for Engineering Students Innovation Challenge 2014 (ESIC 2014) organized by International Society for Scientific Research and Development (ISSRD)

18. Reviewer for 2<sup>nd</sup> International Conference on Sustainable Energy and Intelligent Systems (SEISCON 2011), sponsored by IET, Chennai and Organized by Dr. M.G.R. Educational and Research Institute University, Chennai, July 20 - 22,2011.

19. Reviewer for the 2011 4<sup>th</sup> International Conference on Computer Science and Information Technology (IEEE ICCSIT 2011), Chengdu, China, June 10 – 12, 2011. The conference has been listed in IEEE search and the conference proceedings have been included in the IEEE Xplore.

20. Reviewer for 2<sup>nd</sup> National Conference on VLSI, Embedded Systems, Signal Processing and Communication Technologies (NCVESCO'10), Chennai, India, March, 2010.

21. Reviewer in the 2<sup>nd</sup> International Conference on Applications of Digital Information and Web Technologies (ICADIWT 2009), London Metropolitan Business School, London Metropolitan University, UK, (Technical co-sponsorship by IEEE UK & RI section) August 4 – 6, 2009.

22. Reviewer in the International Conference on Advanced Computer Theory and Engineering (ICACTE 2008), Phuket, Thailand, December 20 – 28, 2008.

#### Visits Abroad:

| S. No. | Country  | Purpose   |
|--------|----------|---|
| 1.     | Malaysia | Coordinator for the Board of Studies Meeting for the Faculty of Engineering, Vinayaka Missions University, Branch Campus - Malaysia conducted in Kuala Lumpur from 26.09.2009 to 01.10.2009 |
| 2.     | Thailand | Participated in the International Conference in Bangkok, Thailand, on 25.12.2011 & 26.12.2011 with DST Travel Grant   |

|    |           |  |
|----|-----------|--|
| 3. | Singapore | Visited Vestal Corporation Singapore Pte Ltd., Singapore from 17.11.2012 to 21.11.2012 to know the feasibility of implementing e-learning platform through Vestal LeAF eClass  |
| 4. | Malaysia  | Participated in the Professional Awards Ceremony organized by Journal of Engineering Technological Research, Society of Engineers and Technicians, Kuala Lumpur, Malaysia on 11.03.2017 and 12.03.2017<br><br>Also acted as Session Chair during the 2017 International Convention on Dissemination of Innovative Research in Science, Engineering, Technology & Management Applications, Kuala Lumpur, Malaysia from 11.03.2017 to 14.03.2017 |
| 5. | Thailand  | Acted as Session Chair during the International Conference on Inventing Computing Systems and Applications (ICICSA 2018) organized by Inventive Research Organization (IRO) on 13 <sup>th</sup> and 14 <sup>th</sup> April, 2018 at Pattaya, Thailand  |

#### Invited Lectures:

| S. No.             | Area of Lecture   | Institution / Organization where lecture was delivered  | Period                   |
|--------------------|---|---|--------------------------|
| <b>2005 – 2006</b> |   |   |                          |
| 1.                 | Goal Setting  | Lions Club of Erode West, Erode   | 15.08.2005               |
| <b>2006 – 2007</b> |   |   |                          |
| 2.                 | Teaching Skills (Effective Teaching Methodologies, Effective Class Room Management, Goal Setting, Time Management etc.) | VMKVEC  | 04.09.2006 to 06.09.2006 |
| 3.                 | Energy Management Techniques  | Pondicherry Engineering College, Pondi  | 07.09.2006               |
| 4.                 | Digital Signal Processing   | Bannari Amman Institute of Technology, Sathyamangalam   | 2006                     |
| 5.                 | Time Management   | Park College of Engineering, Coimbatore   | 01.03.2007               |
| <b>2007 – 2008</b> |   |   |                          |
| 6.                 | Personality Development, Electrical Engineering – An Overview, Electrical Hazards and Safety etc                        | VMKVEC  | 25.09.2007 to 28.09.2007 |
| 7.                 | Communication Skills  | Leo Club of IRTT, IRTT, Erode   | 19.10.2007               |
| 8.                 | Viable Alternate Energy Options in Indian Perspective   | National Conference and Exhibition on Demand Side Management Options for Energy Sustainability, | 25.10.2007               |

|                    |   |  |                          |
|--------------------|---|--|--------------------------|
|                    |   | Pondicherry Engineering College, Pondi   |                          |
| 9.                 | Teaching Skills (Effective Teaching Methodologies, Effective Class Room Management, Goal Setting, Time Management etc.) | VMKVEC   | 12.11.2007 to 14.11.2007 |
| <b>2008 – 2009</b> |   |  |                          |
| 10.                | Training on Managerial Skills   | Officials / Engineers of JCB-LEXLS, Salem  | 19.07.2008               |
| 11.                | Personality Development, Electrical Engineering – An Overview, Electrical Hazards and Safety etc                        | VMKVEC   | 04.11.2008 to 07.11.2008 |
| 12.                | Teaching Skills (Effective Teaching Methodologies, Effective Class Room Management, Goal Setting, Time Management etc.) | VMKVEC   | 28.11.2008 to 30.11.2008 |
| 13.                | Personality Development, Effective Study Skills, Class Room Culture, Goal Setting, Time Management etc                  | Salem School of Architecture   | 03.12.2008 to 05.12.2008 |
| 14.                | Novel Applications of Sensors and Transducers   | 3 <sup>rd</sup> One Day National Conference on Future of Electrical & Instrumentation Technology, Vivekanandha College of Engineering for Women, Tiruchengode. | 09.04.2009               |
| <b>2009 – 2010</b> |   |  |                          |
| 15.                | Medical Imaging   | MIT, Anna University, Chromepet  | 12.02.2010               |
| <b>2010 – 2011</b> |   |  |                          |
| 16.                | DSP Applications to Modern Industrial Drives  | National Level Workshop on Modern Drives in Industrial Applications, Department of EEE, Bannariamman Institute of Technology, Sathy                            | 14.09.2010 & 15.09.2010  |
| 17.                | Goal Setting  | Vinayaka IAS Academy, Salem  | 20.03.2011               |
| 18.                | Hybrid Renewable Energy Systems   | 2 <sup>nd</sup> International Conference on Sustainable Energy and Intelligent Systems (SEISCON 2011), IET Chennai and Dr.M.G.R. University, Chennai           | 21.07.2011               |

| <b>2013 – 2014</b> |  |  |            |
|--------------------|--|--|------------|
| 19.                | Alternate Energy   | International Conference on Sustainable Approaches for Green Computing, Economy and Environment (SAGCEE'13), V.M.K.V. Engineering College, Salem | 09.12.2013 |
| 20.                | Intelligent Techniques for the improvement of Power Quality            | National Conference on Computational Intelligence in Electrical and Electronics Engineering (NCIEE), Sathyabama University, Chennai              | 06.02.2014 |
| 21.                | Recent Advancements and Challenges in Electrical Science               | 4 <sup>th</sup> National Conference on Recent Advancements and Challenges in Electrical Science, Department of EEE, IRTT, Erode                  | 27.02.2014 |
| <b>2014 – 2015</b> |  |  |            |
| 22.                | Digital Signal Processing from an Electrical Engineering Perspective   | 5 <sup>th</sup> National Conference on Recent Trends in Electrical Sciences, IRTT, Erode   | 26.02.2015 |
| 23.                | Optimization Techniques in Electrical Engineering using MATLAB         | National Workshop on Optimization Techniques in Engineering using MATLAB, Sathyabama University, Chennai   | 05.03.2015 |
| 24.                | 1. Electrical Engineers and Green Energy<br>2. Between you and Success | Technical Talk & Motivational Talk, SCAD Institute of Technology, Palladam   | 28.03.2015 |
| 25.                | Engineers and Innovations  | Second International Conference on Trends in Technology for Convergence (TITCON'15), AVS Engineering College, Salem                              | 10.04.2015 |
| <b>2015 – 2016</b> |  |  |            |
| 26.                | Recent Trends in Biomedical Signal Processing Techniques               | National Level Students Technical Meet "Vision2020". Excel Engineering College, Komarapalayam  | 25.07.2015 |

|     |  |  |            |
|-----|--|--|------------|
| 27. | 1. Higher Education Opportunities for Polytechnic Students<br>2. SmartTeaching | Orientation Lecture, Excel<br>Polytechnic<br>College,<br>Komarapalayam | 23.09.2015 |
|-----|--|--|------------|

**Programmes organized:**

| S. No.             | Nature of Programme   | Title of Programme                       | Capacity    | Institution                  | Period                   |
|--------------------|---|--|-------------|------------------------------|--------------------------|
| <b>2006 – 2007</b> |   |  |             |                              |                          |
| 1.                 | Faculty Development Programme                               | Instructional Design and Delivery        | Coordinator | VMKV Engg College            | 04.09.2006 to 06.09.2006 |
| <b>2007 – 2008</b> |   |  |             |                              |                          |
| 2.                 | Orientation Programme for 1 <sup>st</sup> year BE Students  | Orientation Programme                    | Coordinator | VMKV Engg College            | 25.09.2007 to 28.09.2007 |
| 3.                 | Science Exhibition  | Science Expo'08                          | Co-convener | VMKV Engg College            | 08.02.2008 to 11.02.2008 |
| 4.                 | Faculty Development Programme                               | Instructional Design and Delivery        | Coordinator | VMKV Engg College            | 12.11.2007 to 14.11.2007 |
| <b>2008- 2009</b>  |   |  |             |                              |                          |
| 5.                 | National Conference   | Problems and Perspectives in IT Sector   | Co-convener | VMKV Engg College            | 06.09.2008               |
| 6.                 | National Conference   | Recent Trends in Virtual Instrumentation | Co-convener | VMKV Engg College            | 25.09.2008               |
| 7.                 | Orientation Programme for 1 <sup>st</sup> year BE Students  | Orientation Programme                    | Coordinator | VMKV Engg College            | 04.11.2008 to 07.11.2008 |
| 8.                 | Refresher Course for Technicians                            | Creating 'SMARTT' Technicians            | Co-convener | VMKV Engg College            | 14.11.2008 & 15.11.2008  |
| 9.                 | Faculty Development Programme                               | Instructional Design and Delivery        | Coordinator | VMKV Engg College            | 28.11.2008 to 30.11.2008 |
| 10.                | Personality Development Programme for the B.Arch. students  | Personality Development                  | Coordinator | Salem School of Architecture | 03.12.2008 to 05.12.2008 |
| 11.                | Interdepartmental Interdisciplinary Technical Paper Contest | Recent Trends in Engineering             | Co-convener | VMKV Engg College            | 17.12.2008               |

|                    |   |  |                                |   |                          |
|--------------------|---|--|--------------------------------|---|--------------------------|
| 12.                | Workshop  | LabVIEW Applications &   | Co-convener                    | VMKV Engg College                                 | 29.01.2009               |
| 13.                | Interdepartmental Interdisciplinary Hardware Exhibition | Recent Trends in Engineering   | Co-convener                    | VMKV Engg College                                 | 30.01.2009               |
| 14.                | National Level Students Technical Symposium             | TECHSPICE'09   | Co-convener                    | VMKV Engg College                                 | 19.03.2009               |
| 15.                | National Conference                                     | Convergent Communication Technologies  | Co-convener                    | VMKV Engg College                                 | 17.04.2009               |
| <b>2009 – 2010</b> |   |  |                                |   |                          |
| 16.                | National Conference                                     | Biomedical Informatics   | Co-convener                    | VMKV Engg College                                 | 10.09.2009 & 11.09.2009  |
| 17.                | National Workshop                                       | MATLAB and its Applications in Science & Technology                          | Member of Advisory Committee   | VMKV Engg. College, ICT Academy of Tamilnadu & HP | 08.10.2009 to 10.10.2009 |
| 18.                | ISTE Convention   | 12 <sup>th</sup> ISTE Annual Convention of Tamilnadu & Pondicherry Section   | Member of Organizing Committee | VMKV Engg College                                 | 26.11.2009 & 27.11.2009  |
| 19.                | Graduation Day  | Graduation Day 2009  | Member of Organizing Committee | VMKV Engg College                                 | 29.11.2009               |
| 20.                | Workshop  | Hands-on Training on LabView   | Convener                       | VMKV Engg College                                 | 11.12.2009 & 12.12.2009  |
| 21.                | National Conference                                     | Computational Applications in Chemistry                                      | Member of Advisory Committee   | VMKV Engg College                                 | 04.02.2010 & 05.02.2010  |
| 22.                | National Conference                                     | 2 <sup>nd</sup> National Conference on Convergent Communication Technologies | Convener                       | VMKV Engg College                                 | 14.05.2010 & 15.05.2010  |
| <b>2010 – 2011</b> |   |  |                                |   |                          |
| 23.                | Faculty Development Programme                           | Instructional Design and Delivery  | Coordinator                    | Annapoorana Engg College                          | 30.08.2010 & 31.08.2010  |

|     |  |                                   |             |   |                         |
|-----|--|-----------------------------------|-------------|---|-------------------------|
| 24. | Orientation Programme for 1 <sup>st</sup> year BE Students | Orientation Programme             | Coordinator | Annapoorana Engg College                          | 13.09.2010 & 14.09.2010 |
| 25. | Faculty Development Programme                              | Instructional Design and Delivery | Coordinator | Glaze Brooke Matriculation Hr. Sec. School, Salem |                         |

#### Other Assignments:

1. Member of Staff Selection Committee of Kongu Polytechnic, Perundurai, Erode.
2. Handled guest lectures on various Technical Topics in a number of Engineering colleges.
3. Handled Personality Development Programmes in various Engineering Colleges.
4. Jury for the Students Symposiums organized by KSR College of Technology, Sengunthar Engineering College, Nandha College of Technology, Kongu Engineering College, etc.

#### Student Welfare Activities:

1. Acted as Coordinator of **LEO Club of IRTT** from 1997 to 2006, a youth wing of International Association of Lions Clubs. It is to promote Leadership Skills, improve qualities of the students and also to make the students to extend service to the community.
2. Advisor of **Leo Club of VMKVEC** at V.M.K.V. Engineering College from 2006.

#### Social Responsibilities:

1. Member of Lions Clubs International Organization since 1997. Involved in various service activities. Acted as President of Lions Club of Erode West, District Chairperson, Zone Chairperson and Region Chairperson.

#### 9. Fee Waivers

- Number of scholarship offered by the Institution, duration and amount

| S.No | Name of the Scholarship            | Number of Students got Scholarship |
|------|------------------------------------|------------------------------------|
| 1    | Economically and socially Backward | 149                                |
| 2    | Merit Scholarship                  | 168                                |
| 3    | Alumni Category                    | 11                                 |
| 4    | VMRF Staff Category                | 3                                  |

## 10. Admission

### Number of seats sanctioned with the year of approval

[https://www.avit.ac.in/aicte\\_approvals/](https://www.avit.ac.in/aicte_approvals/)

### Number of Students Admitted under various categories each year in the last three years:

#### Academic year 23-24:

| Level of course | Name of the Course  | Total Students | Approved Intake | General Male | General Female | OB C Male | OB C Female | S C Male | S C Female | S T Male | ST Female |
|-----------------|---|----------------|-----------------|--------------|----------------|-----------|-------------|----------|------------|----------|-----------|
| UG              | BIOTECHNOLOGY   | 21             | 30              | 2            | 6              | 4         | 5           | 1        | 3          | 0        | 0         |
| UG              | CIVIL ENGINEERING   | 21             | 90              |              |                | 17        |             | 3        | 0          | 0        | 0         |
| UG              | COMPUTER SCIENCE AND ENGINEERING  | 92             | 180             | 23           | 9              | 45        | 10          | 2        | 0          | 0        | 0         |
| UG              | ELECTRONICS AND COMMUNICATION ENGINEERING                                       | 50             | 60              | 10           | 0              | 28        | 10          | 0        | 0          | 0        | 1         |
| UG              | ELECTRICAL AND ELECTRONICS ENGINEERING  | 68             | 90              | 3            | 1              | 50        | 2           | 6        | 1          | 1        | 0         |
| UG              | MECHANICAL ENGINEERING  | 156            | 180             | 4            | 0              | 137       | 0           | 1        | 0          | 0        | 0         |
| UG              | BIOMEDICAL ENGINEERING  | 8              | 60              | 1            | 1              | 3         | 1           | 1        | 1          | 0        | 0         |
| UG              | COMPUTER SCIENCE AND ENGINEERING (CYBER SECURITY)                               | 29             | 90              | 3            | 1              | 23        | 1           | 0        | 0          | 0        | 0         |
| UG              | PHARMACEUTICAL ENGINEERING  | 4              | 30              | 0            | 0              | 1         | 0           | 1        | 2          | 0        | 0         |
| UG              | COMPUTER SCIENCE AND ENGINEERING (ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING) | 98             | 120             | 30           | 9              | 46        | 5           | 6        | 1          | 0        | 0         |
| UG              | COMPUTER SCIENCE AND DESIGN   | 0              | 30              | 0            | 0              | 0         | 0           | 0        | 0          | 0        | 0         |
| PG              | MANUFACTURING ENGINEERING   | 2              | 18              | 1            | 0              | 1         | 0           | 0        | 0          | 0        | 0         |
| PG              | POWER SYSTEMS ENGINEERING   | 0              | 18              | 0            | 0              | 0         | 0           | 0        | 0          | 0        | 0         |
| PG              | COMPUTER SCIENCE AND ENGINEERING  | 5              | 18              | 0            | 0              | 5         | 0           | 0        | 0          | 0        | 0         |
| PG              | EMBEDDED SYSTEMS  | 3              | 18              | 0            | 0              | 1         | 2           | 0        | 0          | 0        | 0         |

|       | TECHNOLOGIES                            |    |    |    |    |    |    |   |   |    |   |
|-------|---|----|----|----|----|----|----|---|---|----|---|
| PG    | BIOTECHNOLOGY                           | 1  | 18 | 0  | 0  | 1  | 0  | 0 | 0 | 0  | 0 |
| PG    | CONSTRUCTION ENGINEERING AND MANAGEMENT | 5  | 18 | 0  | 0  | 4  | 1  | 0 | 0 | 0  | 0 |
| PG    | MBA                                     | 53 | 60 | 3  | 2  | 24 | 19 | 3 | 2 | 0  | 0 |
| Total |   |    |    | 80 | 29 | 39 | 56 | 3 | 4 | 10 | 1 |

### Academic Year 22-23:

| Level of course | Name of the Course  | Total Students | Approved Intake | General Male | General Female | OB C Male | OB C Female | SC C Male | SC C Female | ST C Male | ST C Female |
|-----------------|---|----------------|-----------------|--------------|----------------|-----------|-------------|-----------|-------------|-----------|-------------|
| UG              | BIOTECHNOLOGY   | 30             | 30              | 1            | 5              | 14        | 6           | 2         | 2           | 0         | 0           |
| UG              | CIVIL ENGINEERING   | 34             | 90              | 3            | 0              | 20        | 1           | 5         | 0           | 0         | 0           |
| UG              | COMPUTER SCIENCE AND ENGINEERING  | 156            | 180             | 40           | 1              | 79        | 7           | 1         | 0           | 0         | 0           |
| UG              | ELECTRONICS AND COMMUNICATION ENGINEERING   | 49             | 60              | 9            | 1              | 30        | 3           | 2         | 0           | 0         | 0           |
| UG              | ELECTRICAL AND ELECTRONICS ENGINEERING  | 75             | 90              | 5            | 0              | 60        | 0           | 5         | 0           | 0         | 0           |
| UG              | MECHANICAL ENGINEERING  | 171            | 180             | 8            | 0              | 125       | 2           | 2         | 4           | 0         | 0           |
| UG              | BIOMEDICAL ENGINEERING  | 21             | 60              | 2            | 2              | 8         | 5           | 3         | 0           | 0         | 0           |
| UG              | COMPUTER SCIENCE AND ENGINEERING (CYBER SECURITY)   | 32             | 60              | 4            | 0              | 19        | 4           | 2         | 1           | 0         | 0           |
| UG              | PHARMACEUTICAL ENGINEERING  | 5              | 30              | 0            | 0              | 3         | 1           | 1         | 0           | 0         | 0           |
| UG              | COMPUTER SCIENCE AND ENGINEERING (ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING)                           | 38             | 60              | 14           | 1              | 20        | 1           | 2         | 0           | 0         | 0           |
| UG              | COMPUTER SCIENCE AND ENGINEERING (INTERNET OF THINGS AND CYBER SECURITY INCLUDING BLOCK CHAIN TECHNOLOGY) | 1              | 60              | 0            | 0              | 1         | 0           | 0         | 0           | 0         | 0           |
| UG              | COMPUTER SCIENCE AND DESIGN   | 0              | 60              | 0            | 0              | 0         | 0           | 0         | 0           | 0         | 0           |
| PG              | MANUFACTURING ENGINEERING   | 6              | 36              | 0            | 0              | 5         | 0           | 1         | 0           | 0         | 0           |
| PG              | POWER SYSTEMS   | 4              | 36              | 0            | 0              | 3         | 0           | 1         | 0           | 0         | 0           |

|    |   |    |    |    |    |    |    |   |   |   |   |
|----|---|----|----|----|----|----|----|---|---|---|---|
|    | ENGINEERING                             |    |    |    |    |    |    |   |   |   |   |
| PG | COMPUTER SCIENCE AND ENGINEERING        | 5  | 36 | 1  | 0  | 3  | 1  | 0 | 0 | 0 | 0 |
| PG | EMBEDDED SYSTEMS TECHNOLOGIES           | 2  | 36 | 0  | 0  | 0  | 1  | 0 | 1 | 0 | 0 |
| PG | BIOTECHNOLOGY                           | 5  | 36 | 0  | 1  | 2  | 2  | 0 | 0 | 0 | 0 |
| PG | CONSTRUCTION ENGINEERING AND MANAGEMENT | 12 | 36 | 1  | 0  | 8  | 0  | 2 | 0 | 1 | 0 |
| PG | MBA                                     | 49 | 60 | 4  | 2  | 21 | 13 | 7 | 1 | 1 | 0 |
|    | Total                                   |    |    | 92 | 13 | 42 | 47 | 6 | 8 | 5 | 2 |

### Academic year 21-22:

| Level of course | Name of the Course                                | Total Students | Approved Intake | General Male | General Female | OB C Male | OB C Female | SC Male | SC Female | ST Male | ST Female |
|-----------------|---|----------------|-----------------|--------------|----------------|-----------|-------------|---------|-----------|---------|-----------|
| UG              | BIOTECHNOLOGY                                     | 15             | 30              | 2            | 0              | 5         | 5           | 3       | 0         | 0       | 0         |
| UG              | CIVIL ENGINEERING                                 | 29             | 120             | 3            | 0              | 17        | 2           | 2       | 0         | 5       | 0         |
| UG              | COMPUTER SCIENCE AND ENGINEERING                  | 78             | 180             | 23           | 4              | 40        | 5           | 5       | 0         | 1       | 0         |
| UG              | ELECTRONICS & COMMUNICATION ENGINEERING           | 25             | 90              | 0            | 0              | 20        | 1           | 4       | 0         | 0       | 0         |
| UG              | ELECTRICAL AND ELECTRONICS ENGINEERING            | 60             | 120             | 4            | 45             | 5         | 0           | 5       | 0         | 1       | 0         |
| UG              | MECHANICAL ENGINEERING                            | 175            | 180             | 19           | 0              | 138       | 0           | 7       | 0         | 1       | 0         |
| UG              | BIOMEDICAL ENGINEERING                            | 26             | 60              | 4            | 0              | 15        | 5           | 1       | 1         | 0       | 0         |
| UG              | MECHATRONICS                                      | 1              | 30              | 0            | 0              | 1         | 0           | 0       | 0         | 0       | 0         |
| UG              | COMPUTER SCIENCE AND ENGINEERING (CYBER SECURITY) | 27             | 60              | 1            | 1              | 11        | 1           | 2       | 1         | 0       | 0         |

|        |   |    |    |    |    |   |    |   |   |   |   |
|--------|---|----|----|----|----|---|----|---|---|---|---|
| U<br>G | ARTIFICIAL INTELLIGENCE<br>AND DATA SCIENCE   | 33 | 60 | 2  | 1  | 2 | 5  | 1 | 2 | 0 | 0 |
| U<br>G | PHARMACEUTICAL<br>ENGINEERING                 | 16 | 30 | 2  | 0  | 0 | 2  | 2 | 0 | 0 | 0 |
| P<br>G | MANUFACTURING<br>ENGINEERING                  | 14 | 36 | 4  | 0  | 9 | 0  | 1 | 0 | 0 | 0 |
| P<br>G | POWER SYSTEMS<br>ENGINEERING                  | 10 | 36 | 1  | 0  | 6 | 2  | 0 | 1 | 0 | 0 |
| P<br>G | COMPUTER SCIENCE AND<br>ENGINEERING           | 7  | 36 | 0  | 0  | 2 | 4  | 0 | 1 | 0 | 0 |
| P<br>G | EMBEDDED SYSTEMS<br>TECHNOLOGIES              | 6  | 36 | 1  | 1  | 3 | 0  | 0 | 0 | 1 | 0 |
| P<br>G | BIOTECHNOLOGY                                 | 5  | 36 | 0  | 0  | 3 | 2  | 0 | 0 | 0 | 0 |
| P<br>G | CONSTRUCTION<br>ENGINEERING AND<br>MANAGEMENT | 22 | 36 | 6  | 2  | 0 | 1  | 3 | 0 | 0 | 0 |
| P<br>G | MBA   | 60 | 60 | 6  | 1  | 3 | 8  | 6 | 1 | 0 | 0 |
|        | Total   |    |    | 78 | 55 | 6 | 43 | 5 | 7 | 9 | 0 |

## 11. Admission Procedures

**VINAYAKA MISSION'S RESEARCH FOUNDATION  
(DEEMED TO BE UNIVERSITY), SALEM**

**ADMISSION PROCEDURES**

**Admission to BE / B.Tech / ME / M.Tech & MBA Degree Programmes:**

The admissions will be made for the above Programmes in BE/B.Tech / ME / M.Tech & MBA Degree Programmes on the basis of marks obtained in the qualifying examinations and merit based Counseling conducted by the Admission Monitoring Committee (AMC) of VMRF-DU and the eligibility criteria as prescribed by the Concerned Apex Council/VMRF-DU regulations from time to time.

**TENTATIVE COUNSELING SCHEDULE FOR THE ACADEMIC YEAR 2023-24**

|                            |  |
|----------------------------|--|
| <b>NAME OF THE FACULTY</b> | Engineering & Technology   |
| <b>COURSE</b>              | BE / B.Tech. (Full time)   |
| <b>NAME OF THE COLLEGE</b> | Aarupadai Veedu Institute of Technology, Paiyanoor, Chengalpattu Dist. |

|  |  |
|--|--|
| Advertisement in leading News paper  | 05.04.2023                             |
| Registration for Round 1 counseling  | 11.04.2023 to 03.06.2023               |
| Declaration of Merit List  | 05.06.2023                             |
| Date of Round 1 Counseling   | 09.06.2023 to 14.06.2023               |
| Last date for joining the course   | 31.07.2023                             |
| Registration for Round 2 counseling  | 01.08.2023 to 16.08.2023               |
| Declaration of Merit List  | 18.08.2023                             |
| Date of Counseling   | 22.08.2023                             |
| Last date for joining the course (candidates those who are selected through round 2 counseling). | 31.08.2023                             |
| Registration for Round 3 counseling (If required)  | 01.09.2023 to 06.09.2023               |
| Declaration of Merit List  | 07.09.2023                             |
| Date of Counseling   | 09.09.2023                             |
| Last date of joining the course (candidates those who are selected through round 3 counseling)   | 15.09.2023                             |
| Cut-off date for admission of the course   | 15.09.2023                             |
| Date of commencement of Academic session   | 2 <sup>nd</sup> Week of September 2023 |
| Verification & Registration of original certificates in the University                           | 2 <sup>nd</sup> Week of October 2023   |

|                            |  |
|----------------------------|--|
| <b>NAME OF THE FACULTY</b> | Engineering & Technology   |
| <b>COURSE</b>              | ME / M.Tech. (Full time)   |
| <b>NAME OF THE COLLEGE</b> | Aarupadai Veedu Institute of Technology, Paiyanoor, Chengalpattu Dist. |

|  |  |
|--|--|
| Advertisement in leading News paper  | 05.04.2023                             |
| Registration for Round 1 counseling  | 11.04.2023 to 20.06.2023               |
| Declaration of Merit List  | 21.06.2023                             |
| Date of Round 1 Counseling   | 24.06.2023 to 28.06.2023               |
| Last date for joining the course   | 31.07.2023                             |
| Registration for Round 2 counseling  | 01.08.2023 to 26.08.2023               |
| Declaration of Merit List  | 31.08.2023                             |
| Date of Counseling   | 02.09.2023                             |
| Last date for joining the course (candidates those who are selected through round 2 counseling). | 15.09.2023                             |
| Cut-off date for admission of the course   | 15.09.2023                             |
| Date of commencement of Academic session   | 2 <sup>nd</sup> Week of September 2023 |
| Verification & Registration of original certificates in the University                           | 2 <sup>nd</sup> Week of October 2023   |

**TENTATIVE COUNSELING SCHEDULE FOR THE ACADEMIC YEAR 2023-24**

|                            |  |
|----------------------------|--|
| <b>NAME OF THE FACULTY</b> | Management   |
| <b>COURSE</b>              | MBA  |
| <b>NAME OF THE COLLEGE</b> | Aarupadai Veedu Institute of Technology, Paiyanoor, Chengalpattu Dist. |

|  |  |
|--|--|
| Advertisement in leading News paper  | 05.04.2023                             |
| Registration for Round 1 counseling  | 11.04.2023 to 20.06.2023               |
| Declaration of Merit List  | 21.06.2023                             |
| Date of Round 1 Counseling   | 24.06.2023 to 27.06.2023               |
| Last date for joining the course   | 31.07.2023                             |
| Registration for Round 2 counseling  | 01.08.2023 to 26.08.2023               |
| Declaration of Merit List  | 31.08.2023                             |
| Date of Counseling   | 02.09.2023                             |
| Last date for joining the course (candidates those who are selected through round 2 counseling). | 15.09.2023                             |
| Cut-off date for admission of the course   | 15.09.2023                             |
| Date of commencement of Academic session   | 2 <sup>nd</sup> Week of September 2023 |
| Verification & Registration of original certificates in the University                           | 2 <sup>nd</sup> Week of October 2023   |

## 12. Criteria and Weightages for Admission

Criteria and Weightages for Admission: BE / B.TECH. (FULL TIME) - Duration: 4 Years

| S.No. | Programme (BE / BTECH)   | Duration | Eligibility  |
|-------|--|----------|--|
| 1     | Biomedical Engineering, Pharmaceutical Engineering, Biotechnology  | 4 years  | <p>Passed 10+2 examination with Physics, Chemistry and Select any one from Biology / Biotechnology / Mathematics. Obtained at least 45% marks (40% marks in case of candidates belonging to reserved category) in the above subjects taken together.</p> <p><b>Or</b></p> <p>Passed Diploma (in Engineering and Technology) examination with at least 45% marks (40% marks in case of candidates belonging to reserved category) subject to vacancies in the First Year, in case the vacancies at lateral entry are exhausted.</p>   |
| 2     | Computer Science and Engineering, Computer Science and Engineering (Artificial Intelligence and Machine Learning), Computer Science and Engineering (Cyber Security), Electrical & Electronics Engineering, Electronics & Communication Engineering, Computer Science and Design |          | <p>Passed 10+2 examination with Physics, Mathematics and Select any one from Chemistry / Computer Science / Electronics / Information Technology / Biology / Informatics Practices / Biotechnology / Technical Vocational Subject / Agriculture / Engineering Graphics / Business Studies / Entrepreneurship. Obtained at least 45% marks (40% marks in case of candidates belonging to reserved category) in the above subjects taken together.</p> <p><b>Or</b></p> <p>Passed Diploma (in Engineering and Technology) examination with at least 45% marks (40% marks in case of candidates belonging to reserved category) subject to vacancies in the First Year, in case the vacancies at lateral entry are exhausted.</p> |
| 3     | Civil Engineering, Mechanical Engineering  |          | <p>Physics, Chemistry and Mathematics</p> <p><b>Or</b></p> <p>Passed Diploma (in Engineering and Technology) examination with at least 45% marks (40% marks in case of candidates belonging to reserved category) subject to vacancies in the First Year, in case the vacancies at lateral entry are exhausted.</p>  |
| 4     | Lateral Entry  | 3 Years  | <p>a) Passed Diploma examination with at least 45% marks (40% marks in case of candidates belonging to reserved category) in ANY branch of Engineering and Technology.</p> <p><b>or</b></p> <p>b) Passed B.Sc. Degree from a recognized University as defined by UGC, with at least 45% marks (40% marks in case of candidates belonging to reserved category) and passed 10+2 examination with</p>  |

|  |  |  |  |
|--|--|--|--|
|  |  |  | <p>Mathematics as a subject.</p> <p>c) Provided that the students belonging to B.Sc. Stream, shall clear the subjects Engineering Graphics/ Engineering Drawing and Engineering Mechanics of the First Year Engineering Programme along with the Second year subjects</p> <p>d) Provided that the students belonging to B.Sc. Stream shall be considered only after filling the supernumerary seats in this category with students belonging to the Diploma stream.</p> <p>e) Passed D.Voc. Stream in the same or allied sector.</p> <p>f) In the above cases, a suitable bridge Courses, if required such as in Mathematics may be conducted.</p> |
|--|--|--|--|

BE / B.TECH. (PART TIME) - Duration: 3 1/2 Years

| Course in BE/ B.TECH.   | Qualifying Diploma  |
|---|---|
| <b>Eligibility :</b>  |   |
| Diploma in the relevant Discipline/ Field/ Programme. & Minimum of Two years Full Time work experience in a registered Firm/ Company/ Industry/ Educational and/ Government, Autonomous Organizations in the relevant field in which admission is sought. |   |
| Computer Science and Engineering /<br>Electronics and Communication<br>Engineering / Electrical and Electronics<br>Engineering  | Electrical and Electronics / Electronics and Communication /<br>Electronics and Instrumentation / Electronics Engineering<br>(Instrumentation) / Computer Technology / Instrument<br>Technology / Computer Science / Instrumentation and Control /<br>Electrical Engineering (Instruments and Control) / Electrical<br>Engineering (Sandwich) / Information Technology / Electronics<br>(WSI) / Electrical Engineering / Instrumentation Technology /<br>Computer Engineering / Computer Networking / Electrical and<br>Electronics Engg. (Sandwich) / Electronics (Robotics) /<br>Electronics (Robotics) (Sandwich)  |
| Civil Engineering   | Civil / Civil and Rural / Civil (Architecture) / Architectural<br>Assistantship / Civil (Sandwich) / Architecture (Sandwich) /<br>Environmental and Pollution Control Engg. / Civil (Rural<br>Technology) / Interior Design / Architectural Assistantship<br>(Sandwich)   |
| Mechanical Engineering  | Mechanical / Mechanical and Rural / Mechanical Design &<br>Drafting / Production / Automobile / Metallurgy / Mechatronics<br>/ Machine Tool Maintenance and Repairs / Tool and Die<br>Making / Tool Engineering / Foundry Technology /<br>Refrigeration & Air Conditioning / Agricultural / Marine /<br>Mechanical (Production) / Mechanical (Sandwich) / Foundry<br>Technology (Sandwich) / Machine Tool Maintenance and<br>Repairs (Sandwich) / Tool and Die Making (Sandwich) /<br>Production Technology / Tool Design / Mechanical (Tool &<br>Die) / Automobile Technology / Mechanical (Foundry) /<br>Agricultural Technology / Mechanical (R & A.C.) / Electronics<br>(Robotics) / Agricultural Engineering and Farm Equipment<br>Technology / Production (Sandwich) / Mechatronics<br>(Sandwich) / Electronics (Robotics) (Sandwich) |

ME / M.Tech. (Full TIME) - Duration: 2 years

| <b>Course in ME/ M.TECH.</b>  | <b>Qualifying Degree</b>   |
|---|--|
| <b>Eligibility :</b><br>Passed Bachelor's Degree or equivalent in the relevant field. & Obtained at least 50% marks (45% marks in case of candidates belonging to reserved category) in the qualifying Examination. |  |
| Biotechnology   | Chemical Engineering / Leather Technology / Genetic Engineering / Genetic Technology / Bio- Chemical Engineering/ Bio-Chemical Technology / Industrial Bio-Technology / Petroleum Engineering / Petroleum Technology / Bio-Technology / Petrochemicals Engineering / Petrochemicals Technology / Agricultural Bio-Technology / Petroleum Refining and Petrochemicals Engineering / Chemical and Electrochemical Engineering.<br>(Or)<br>M.Sc. in Bio-Chemistry / Micro-Biology / Bio-Physics / Bio-Technology / Genetics / B.Pharm |
| Computer Science and Engineering  | i) Passed Bachelor's Degree or equivalent in the relevant field Computer Science & Engineering / Information Technology / Software Engineering / Electrical and Electronics Engineering / Electronics and Communication Engineering / Electronics Engineering / Electronics and Instrumentation Engineering / Instrumentation and Control Engineering / Instrumentation Engineering.<br>(Or)<br>M.Sc. (10+2+3+2) years Pattern Information Technology / Computer Science / Software Engineering. M.C.A (10+2+3+3) years Pattern.   |
| Construction Engineering and Management   | Civil Engineering / Civil and Structural Engineering.  |
| Embedded Systems Technologies   | Electronics and Communication Engineering / Electrical and Electronics Engineering / Computer Science and Engineering/ Instrumentation and Control Engineering / Electronics and Instrumentation Engineering / Information Technology / Electronics Engineering / Instrumentation Engineering / Software Engineering.<br>(Or)<br>M.Sc. Physics / Applied Electronics / Electronics   |
| Manufacturing Engineering   | Mechanical Engineering / Production Engineering / Automobile Engineering / Aeronautical Engineering / Aerospace Engineering / Mechatronics Engineering / Industrial Engineering / Marine Engineering / Manufacturing Engineering / Material Science Engineering / Metallurgy Engineering / Industrial Safety Engineering / Material Science and Engineering / Rubber & Plastic Technology / Polymer Engineering / Mechanical and Automation Engineering.   |
| Power Systems Engineering   | Electrical and Electronics Engineering.  |

| <b>ME / M.Tech. (Part TIME) - Duration:<br/>3 years Course in ME/ M.TECH.</b>  | <b>Qualifying Degree</b> |
|--|--------------------------|
| <b>Eligibility :</b><br>Passed Degree in relevant discipline/ field/ Programme. Minimum of Two years Full Time work experience |                          |

|  |  |
|--|--|
| in a registered firm/ Company/ Industry/ Educational and/ Government, Autonomous Organizations in the relevant field in which admission is sought. |  |
| Biotechnology  | Chemical Engineering / Leather Technology / Genetic Engineering / Genetic Technology / Bio-Chemical Engineering/ Bio-Chemical Technology / Industrial Bio-Technology / Petroleum Engineering / Petroleum Technology / Bio-Technology / Petrochemicals Engineering / Petrochemicals Technology / Agricultural Bio-Technology / Petroleum Refining and Petrochemicals Engineering / Chemical and Electrochemical Engineering.<br>(Or)<br>M.Sc. in Bio-Chemistry / Micro-Biology / Bio-Physics / Bio-Technology / Genetics / B.Pharm. |
| Computer Science and Engineering   | i) Passed Bachelor's Degree or equivalent in the relevant field Computer Science & Engineering / Information Technology / Software Engineering / Electrical and Electronics Engineering / Electronics and Communication Engineering / Electronics Engineering / Electronics and Instrumentation Engineering / Instrumentation and Control Engineering / Instrumentation Engineering.<br>(Or)<br>M.Sc. (10+2+3+2) years Pattern Information Technology / Computer Science / Software Engineering. M.C.A (10+2+3+3) years Pattern.   |
| Construction Engineering and Management  | Civil Engineering / Civil and Structural Engineering.  |
| Embedded Systems Technologies  | Electronics and Communication Engineering / Electrical and Electronics Engineering / Computer Science and Engineering/ Instrumentation and Control Engineering / Electronics and Instrumentation Engineering / Information Technology / Electronics Engineering / Instrumentation Engineering / Software Engineering. (Or)<br>M.Sc. Physics / Applied Electronics / Electronics  |
| Manufacturing Engineering  | Mechanical Engineering / Production Engineering / Automobile Engineering / Aeronautical Engineering / Aerospace Engineering / Mechatronics Engineering / Industrial Engineering / Marine Engineering / Manufacturing Engineering / Material Science Engineering / Metallurgy Engineering / Industrial Safety Engineering / Material Science and Engineering / Rubber & Plastic Technology / Polymer Engineering / Mechanical and Automation Engineering.   |
| Power Systems Engineering  | Electrical and Electronics Engineering.  |

**MBA - Duration: 2 years**

**Eligibility:** Passed Bachelor Degree of minimum 3 years duration.

Obtained at least 50% marks (45% marks in case of candidates belonging to reserved category) in the qualifying Examination.

### 13. Application&Results of Admission

APPLICATIONS RECEIVED FOR THE ACADEMIC YEAR 2023-2024

| Sl.No        | Name of The Programme | Sanctioned Intake | Number of Eligible Applications Received | No. of Students admitted |
|--------------|-----------------------|-------------------|--|--------------------------|
| 1            | BE/B.Tech             | 960               | 1482                                     | 533                      |
| 2            | ME/ M.Tech/MBA        | 168               | 279                                      | 69                       |
| <b>TOTAL</b> |                       | 1128              | 1761                                     | 602                      |

### 14. Resultsof Admission Under Management seats:NA

### 15.Information of infrastructure and other resource available

Number of classrooms and size of each : 34 & 66 sq. m. to 109.4 sq. m.

Number of Tutorial rooms and size of each : 9 & Size ranging from 44 sq.m to 76.6 sq. m.

Number of Laboratories and size of each : 49 & Size ranging from 66.3 to 289 sq. m.

Number of Drawing Halls with capacity of each: 2 & Size 147.7 sq.m.

Number of Seminar Halls & size : 13 & Size ranging from 67.7 sq.m. to140 sq.m

Number of Computer Centres with capacity of each: 2 & Size 357.2 sq.m.

Online examination facility

Number of Nodes: 100

Internet bandwidth: **500Mbps**

Barrier Free environment for disabled and elderly persons: **Available**

Occupancy Certificate: Yes

Fire and Safety Certificate: Yes

Hostel Facilities: **Girls -327**  
**Boys- 710**

**Separate Dining facility for boys and girls**

**Separate Gym facility for boys and girls**

### SPORTS INFRASTRUCTURE

| S. No. | Particulars     | Nos. |
|--------|-----------------|------|
| 1      | Atheletic track | 1    |
| 2      | Long Jump Pit   | 2    |
| 3      | Discuss         | 2    |

|    |                      |   |
|----|----------------------|---|
| 4  | Javeline             | 1 |
| 5  | Volley Ball Court    | 1 |
| 6  | Volley Ball Court    | 1 |
| 7  | Basket Ball Court    | 1 |
| 8  | Ball Badminton Court | 1 |
| 9  | Ball Badminton Court | 1 |
| 10 | Shuttle Court        | 1 |
| 11 | Tennikoit Court      | 1 |
| 12 | Hand Ball            | 1 |
| 13 | Foot Ball            | 1 |
| 14 | Cricket              | 1 |
| 15 | Kabbadi              | 1 |
| 16 | Kho Kho              | 1 |
| 17 | Carrom               | 5 |
| 18 | Chess                | 5 |
| 19 | Others (specify)     |   |
|    | Throw Ball           | 1 |
|    | Table Tennis         | 2 |
|    | Short Put            | 3 |

### **LIBRARY FACILITIES**

#### **Number of Books/Titles/Journals available**

|                                  | <b>Quantity</b>   |
|----------------------------------|---|
| <b>Text Books</b>                | <b>37104</b>  |
| <b>Reference Books</b>           | <b>4984</b>   |
| <b>e-Books</b>                   | <b>88959</b>  |
| <b>Journals</b>                  | <b>155</b>  |
| <b>e-Journals</b>                | <b>58551</b>  |
| <b>Digital Database</b>          | <b>MEDLINE and other databases of NLM; Cambridge Dictionary Online (through DELNET)</b>   |
| <b>CD &amp; Video</b>            | <b>1541</b>   |
| <b>Library automation</b>        | <b>Koha with RFID</b>   |
| <b>Weeding (Hard &amp; Soft)</b> | <b>5184</b>   |
| <b>Others (specify)</b>          | <b>E- Resources IEEE, ASME, ASCE, Delnet, Refread (Remote Access) , MHRD SWAYAM PRABHA 32 DTH CHANNELS, SWAYAM, SHODH GANGA, E-SHODH SINDHU), Membership with BCL</b> |

**Library –ILMS Software** – Library is fully automated with RFID technology and KOHA ILMS.  
**International Journals – Online**

**National Digital Library (NDL) subscription details: Registered**

## **LABORATORY**

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF BIOMEDICAL ENGINEERING  
PATHOLOGY & MICRO BIOLOGY LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>Sl.No.</b> | <b>Name of Equipments</b> |
|---------------|---------------------------|
| 1.            | NewbeurCountingChamber    |
| 2.            | InoculationChamber        |
| 3.            | Microscope                |
| 4.            | Autoclave                 |
| 5.            | BunsenBurner              |
| 6.            | ColonyCounter             |
| 7.            | HotPlate                  |
| 8.            | AnalyticalBalance         |
| 9.            | Incubator                 |
| 10.           | WaterBath                 |
| 11.           | Refrigerator              |
| 12.           | Centrifuge                |
| 13.           | Uv-Spectrophotometer      |
| 14.           | FluorescentMicroscope     |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF BIOMEDICAL ENGINEERING  
DIAGNOSTIC AND THERAPEUTIC EQUIPMENT LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>Sl.No.</b> | <b>Name of Equipments</b>                     |
|---------------|---|
| 1.            | MultiparameterPatient MonitoringSystem        |
| 2.            | ECG12Leadtrainerkit                           |
| 3.            | EEGAmplifier 10-20-3Lwith SimulatorTrainerkit |
| 4.            | EMGAmplifier                                  |
| 5.            | DopplerUltrasoundKit                          |
| 6.            | ElectroSurgicalUnit                           |
| 7.            | EEG, ECG, EMG electrodes                      |
| 8.            | Singlechannel ECGbiotelemetryKit              |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF BIOMEDICAL ENGINEERING  
BIO TRANSDUCER LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>Sl.No.</b> | <b>Name of Equipments</b>   |
|---------------|---|
| 1.            | Characteristics Of Temperature Transducer Trainer Kit                   |
| 2.            | Characteristics Of Temperature Measurement Using Thermistor Trainer Kit |
| 3.            | Characteristics Of Hall Effect Transducer Trainer Kit                   |
| 4.            | Characteristics Of Optical Transducers Trainer Kit                      |
| 5.            | Characteristics Of LVDT Trainer Kit                                     |
| 6.            | Characteristics Of Strain Guage Trainer Kit                             |
| 7.            | Characteristics Of Potentiometer Transducer Trainer Kit                 |
| 8.            | Characteristics Of Pressure Transducers Trainer Kit                     |
| 9.            | Characteristics Of Piezoelectric Transducers Trainer Kit                |
| 10.           | Characteristics Of Piezoresistive Transducers Trainer Kit               |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF BIOMEDICAL ENGINEERING  
BIOMEDICAL INSTRUMENTATION LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>Sl.No.</b> | <b>Name of Equipment's</b>                    |
|---------------|---|
| 1             | MultiparameterPatient MonitoringSystem        |
| 2             | ECG12Leadtrainerkit                           |
| 3             | EEGAmplifier 10-20-3Lwith SimulatorTrainerkit |
| 4             | EMGAmplifier                                  |
| 5             | GSRmeterKitwithsimulator                      |
| 6             | Phmeter                                       |
| 7             | EEG, ECG, EMG electrodes                      |
| 8             | Optical IsolationAmplifierkit                 |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF BIOMEDICAL ENGINEERING  
BIOMEDICAL SIGNAL PROCESSING-LIST OF EQUIPMENTS  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>Sl.No.</b> | <b>Name of Equipment's</b>                     |
|---------------|--|
| 1             | <b><u>HARDWARE</u></b><br>PCSYSTEM-05No's      |
| 2             | <b><u>SOFTWARE</u></b><br>MATLABSOFTWARER2021b |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF BIOMEDICAL ENGINEERING  
BIOSENSORS AND MEASUREMENT DEVICES  
FOR UG STUDENTS  
LIST OF EQUIPMENTS**

| <b>Sl.No.</b> | <b>Name of Equipment's</b>                  |
|---------------|---|
| 1             | GSRMeterKit                                 |
| 2             | StrainGuageTransducer                       |
| 3             | TempararureMeasurementforThermistor         |
| 4             | ECG12 LeadTrainerKit                        |
| 5             | HI2210Ph Meter                              |
| 6             | EmgAmplifierwithSimulator                   |
| 7             | EEGAmplifier10-20-3lWithSimulatorTrainerKit |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF BIOMEDICAL  
ENGINEERING MEDICAL INSTRUMENTATION LAB  
FOR UG STUDENTS  
LIST OF EQUIPMENTS**

| <b>Sl.No.</b> | <b>Name of Equipment's</b>                        |
|---------------|---|
| 1             | Multiparameter Patient Monitoring System          |
| 2             | ECG 12 Lead trainer kit                           |
| 3             | EEG amplifier 10-20-3L with Simulator Trainer kit |
| 4             | EMG amplifier                                     |
| 5             | GSR meter kit with simulator                      |
| 6             | Phmeter   |
| 7             | EEG, ECG, EMG electrodes                          |
| 8             | Optical Isolation Amplifier kit                   |
| 9             | Audiometer  |
| 10            | Electro Surgical Unit                             |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF BIOTECHNOLOGY BIOCHEMISTRY LAB  
FOR UG STUDENTS  
LIST OF EQUIPMENTS**

| <b>Sl.No.</b> | <b>Name of Equipment's</b>   |
|---------------|------------------------------|
| 1             | Soxhlet Apparatus            |
| 2             | Conductivity Meter           |
| 3             | Centrifuge                   |
| 4             | Magnetic Stirrer             |
| 5             | pH Meter                     |
| 6             | Colorimeter                  |
| 7             | Hematology Auto Analyzer     |
| 8             | Turbidity Meter              |
| 9             | UV-Visible Spectrophotometer |

**VINAYAKA MISSION'S RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY, PAIYANOOR**  
**DEPARTMENT OF BIOTECHNOLOGY**  
**17BTCC82-CELL BIOLOGY LAB**  
**LIST OF EQUIPMENT**

| <b>Sl.No.</b> | <b>Name of Equipment's</b> |
|---------------|----------------------------|
| 1             | Microscope                 |
| 2             | Laminar airflow            |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF BIOTECHNOLOGY  
MICRO BIOLOGY LAB  
FOR UG STUDENTS  
LIST OF EQUIPMENTS**

| <b>Sl.No.</b> | <b>Name of Equipment's</b> |
|---------------|----------------------------|
| 1             | InoculationChamber         |
| 2             | Microscope                 |
| 3             | Haemocytometer             |
| 4             | Autoclave                  |
| 5             | BunsenBurner               |
| 6             | ColonyCounter              |
| 7             | Hot Plate                  |
| 8             | AnalyticalBalance          |
| 9             | Incubator                  |
| 10            | WaterBath                  |
| 11            | Refrigerator               |
| 12            | Centrifuge                 |
| 13            | Uv-Spectrophotometer       |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF BIOTECHNOLOGY  
ADVANCEDBIOCHEMISTRYLAB  
FOR UG STUDENTS  
LIST OF EQUIPMENTS**

| <b>Sl.No.</b> | <b>Name of Equipment's</b>  |
|---------------|-----------------------------|
| 1             | PHmeter                     |
| 2             | Colorimeter                 |
| 3             | AutoAnalyzer                |
| 4             | TurbidityMeter.             |
| 5             | UV-VisibleSpectrophotometer |
| 6             | Soxhletapparatus            |
| 7             | ConductivityMeter           |
| 8             | Centrifuge                  |
| 9             | MagneticStirrer             |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF BIOTECHNOLOGY  
MOLECULAR BIOLOGY LAB  
FOR UG STUDENTS  
LIST OF EQUIPMENTS**

| <b>Sl.No.</b> | <b>Name of Equipment's</b> |
|---------------|----------------------------|
| 1             | InoculationChamber         |
| 2             | Microscope                 |
| 3             | Haemocytometer             |
| 4             | Autoclave                  |
| 5             | BunsenBurner               |
| 6             | ColonyCounter              |
| 7             | Hot Plate                  |
| 8             | AnalyticalBalance          |
| 9             | Incubator                  |
| 10            | WaterBath                  |
| 11            | Refrigerator               |
| 12            | Centrifuge                 |
| 13            | UV-Spectrophotometer       |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF BIOTECHNOLOGY  
CHEMICAL ENGINEERING LABORATORY  
FOR UG STUDENTS  
LIST OF EQUIPMENTS**

| <b>Sl.No.</b> | <b>Name of Equipment's</b>    |
|---------------|-------------------------------|
| 1             | HeatingMantle                 |
| 2             | MagneticStirrer WithHot Plate |
| 3             | FumeExhaustHood               |
| 4             | VacuumPump                    |
| 5             | SimpleDistillation SetUp      |
| 6             | Venturimeter                  |
| 7             | OrificeMeter                  |
| 8             | DoublePipeHeatExchanger       |
| 9             | FlowThrough Pipe SetUp        |
| 10            | SteamDistillationSet Up       |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF BIOTECHNOLOGY  
BIOINSTRUMENTATIONLAB  
FOR UG STUDENTS  
LIST OF EQUIPMENTS**

| <b>Sl.No.</b> | <b>Name of Equipment's</b>  |
|---------------|-----------------------------|
| 1             | UV-VisibleSpectrophotometer |
| 2             | SoxhletApparatus            |
| 3             | ConductivityMeter           |
| 4             | Centrifuge                  |
| 5             | MagneticStirrer             |
| 6             | PhMeter                     |
| 7             | Colorimeter                 |
| 8             | AutoAnalyzer                |
| 9             | TurbidityMeter.             |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF BIOTECHNOLOGY  
GENETIC ENGINEERING LAB  
FOR UG STUDENTS  
LIST OF EQUIPMENTS**

| <b>Sl.No.</b> | <b>Name of Equipment's</b>    |
|---------------|-------------------------------|
| 1             | PCR                           |
| 2             | UV-Transilluminator           |
| 3             | DeepFreezer                   |
| 4             | UltraCentrifuge               |
| 5             | SpinWin                       |
| 6             | BlottingAppratus              |
| 7             | AgaroseGelElectrophoresisUnit |
| 8             | Sds-PageAppratus              |
| 9             | Gel-Documentation             |
| 10            | HotPlate                      |
| 11            | MicrowaveOven                 |
| 12            | CoolingCentrifuge             |
| 13            | Micropipette                  |
| 14            | LaminarAirFlow(Vertical)      |
| 15            | WaterBath                     |

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF BIOTECHNOLOGY**  
**FOOD PROCESSING TECHNOLOGY LAB**  
**FOR UG STUDENTS**  
**LIST OF EQUIPMENTS**

| <b>Sl.No.</b> | <b>Name of Equipment's</b>  |
|---------------|-----------------------------|
| 1             | Magnetic Stirrer            |
| 2             | Hot air oven                |
| 3             | Cooling Centrifuge          |
| 4             | Digital Incubator           |
| 5             | pH meter                    |
| 6             | Water bath Incubator Shaker |
| 7             | Centrifuge                  |
| 8             | Fluorescent microscope      |
| 9             | Electronic Weigh balance    |

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF BIOTECHNOLOGY**  
**DEPARTMENT OF BIOTECHNOLOGY**  
**BIOPROCESSING ENGINEERING LABORATORY**  
**FOR UG STUDENTS**

| <b>Sl.No.</b> | <b>Name of Equipment's</b>  |
|---------------|-----------------------------|
| 1             | HotAirOven                  |
| 2             | DigitalIncubator            |
| 3             | LaminarAirFlowHorizontal    |
| 4             | WaterBathIncubatorShaker    |
| 5             | MagneticStirrerWithHotPlate |
| 6             | UV-VisibleSpectrophotometer |
| 7             | Centrifuge                  |
| 8             | CoolingCentrifuge           |
| 9             | HotPlateCastIronRectangular |
| 10            | Micropipette                |
| 11            | Fermentor                   |
| 12            | Analytical Balance          |
| 13            | Electronic Weigh Balance    |
| 14            | Top Pan Balance             |

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF BIOTECHNOLOGY**  
**DOWNSTREAM PROCESSING ENGINEERING LAB**  
**FOR UG STUDENTS**

| <b>Sl.No.</b> | <b>Name of Equipment's</b>   |
|---------------|--|
| 1             | HotAirOven   |
| 2             | DigitalIncubator   |
| 3             | LaminarAirFlowHorizontal   |
| 4             | WaterBathIncubatorShaker   |
| 5             | MagneticStirrerWithHotPlate  |
| 6             | Uv-VisibleSpectrophotometer  |
| 7             | HighPerformanceLiquidChromatography                                    |
| 8             | UltrafiltrationUnit  |
| 9             | Sonicator  |
| 10            | RevolutionaryCentrifuge  |
| 11            | CoolingCentrifuge  |
| 12            | HotPlateCastIronRectangular  |
| 13            | Micropipette   |
| 14            | SoxhletExtractionMantle  |
| 15            | HeatingMantle  |
| 16            | <b>Analytical Balance</b><br>Electronic Weigh Balance<br>TopPanBalance |

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF BIOTECHNOLOGY**  
**ADVANCEDBIOCHEMISTRYLAB**  
**FOR UG STUDENTS**

| <b>Sl.No.</b> | <b>Name of Equipment's</b>  |
|---------------|-----------------------------|
| 1             | PHmeter                     |
| 2             | Colorimeter                 |
| 3             | AutoAnalyzer                |
| 4             | TurbidityMeter.             |
| 5             | UV-VisibleSpectrophotometer |
| 6             | Soxhletapparatus            |
| 7             | ConductivityMeter           |
| 8             | Centrifuge                  |
| 9             | MagneticStirrer             |

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF BIOTECHNOLOGY**  
**MICRO BIOLOGY LAB**  
**FOR PG STUDENTS**

| <b>Sl.No.</b> | <b>Name of Equipment's</b> |
|---------------|----------------------------|
| 1             | InoculationChamber         |
| 2             | Microscope                 |
| 3             | Haemocytometer             |
| 4             | Autoclave                  |
| 5             | BunsenBurner               |
| 6             | ColonyCounter              |
| 7             | Hot Plate                  |
| 8             | AnalyticalBalance          |
| 9             | Incubator                  |
| 10            | WaterBath                  |
| 11            | Refrigerator               |
| 12            | Centrifuge                 |
| 13            | UV-Spectrophotometer       |

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF BIOTECHNOLOGY**  
**GENETICENGINEERINGLABS**  
**FOR PG STUDENTS**

| <b>Sl.No.</b> | <b>Name of Equipment's</b> |
|---------------|----------------------------|
| 1             | PCR                        |
| 2             | Ligationbath               |
| 3             | Electrophoresisequipment   |
| 4             | Microscope                 |
| 5             | Laminarairflow             |
| 6             | Centrifuge                 |
| 7             | Geldocumentationsystem     |

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF BIOTECHNOLOGY**  
**IMMUNOTECHNOLOGYLAB**  
**FOR PG STUDENTS**

| <b>Sl.No.</b> | <b>Name of Equipment's</b> |
|---------------|----------------------------|
| 1             | MagneticStirrer            |
| 2             | Hotairoven                 |
| 3             | CoolingCentrifuge          |
| 4             | DigitalIncubator           |
| 5             | PHmeter                    |
| 6             | WaterbathIncubator Shaker  |
| 7             | Centrifuge                 |
| 8             | Florescentmicroscope       |
| 9             | ElectronicWeighbalance     |

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF BIOTECHNOLOGY**  
**ADVANCED BIOPROCESS LABORATORY LAB**  
**FOR PG STUDENTS**

| <b>Sl.No.</b> | <b>Name of Equipment's</b>   |
|---------------|--|
| 1             | HotAirOven   |
| 2             | DigitalIncubator   |
| 3             | LaminarAirFlowHorizontal   |
| 4             | WaterBathIncubatorShaker   |
| 5             | MagneticStirrerWithHotPlate  |
| 6             | UV-VisibleSpectrophotometer  |
| 7             | Centrifuge   |
| 8             | CoolingCentrifuge  |
| 9             | HotPlateCastIronRectangular  |
| 10            | Micropipette   |
| 11            | Fermentor  |
| 12            | SimpleDistillationSetUp  |
| 13            | HeatingMantle  |
| 14            | <b>AnalyticalBalance</b><br>ElectronicWeighBalance<br>Top PanBalance |

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF BIOTECHNOLOGY**  
**COMPUTER AIDED BUILDING DRAWINGLAB**  
**FOR UG STUDENTS**

| <b>Sl.No.</b> | <b>Name of Equipment's</b>  |
|---------------|---|
| 1             | Computers<br>Processor : Core i3@2.4 GHz<br>RAM : 2 GB<br>OSType : Windows7- 64-bit |
| 2             | AutoCADSoftware<br>Version : StudentVersion2010                                     |

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF BIOTECHNOLOGY**  
**SURVEY PRACTICAL -I LAB**  
**FOR UG STUDENTS**

| <b>S.No</b> | <b>NameofEquipments</b> |
|-------------|-------------------------|
| 1           | Chain                   |
| 2           | PlaneTable              |
| 3           | PrismaticCompass        |
| 4           | DumpyLevel              |

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF BIOTECHNOLOGY**  
**SURVEY PRACTICAL II LABORATORY**  
**FOR UG STUDENTS**

| <b>S.No</b> | <b>NameofEquipment's</b> |
|-------------|--------------------------|
| 1           | Theodolite               |
| 2           | Tacheometer              |
| 3           | Totalstation             |
| 4           | Dumpylevel               |

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF BIOTECHNOLOGY**  
**SOIL MECHANICS LAB**  
**FOR UG STUDENTS**

| <b>S.No</b> | <b>Name of Equipment's</b>                              |
|-------------|---|
| 1.          | Pyconometer   |
| 2.          | Casagrande's Apparatus                                  |
| 3.          | Plastic limit Apparatus                                 |
| 4.          | Shrinkage Limit Apparatus                               |
| 5.          | Standard and Modified Proctor's Apparatus               |
| 6.          | Unconfined compression test Apparatus                   |
| 7.          | Direct shear Apparatus                                  |
| 8.          | Consolidation test Apparatus                            |
| 9.          | Constant Head Permeability Method                       |
| 10.         | Falling Head Permeability Method                        |
| 11.         | Mechanical Sieve Shaker                                 |
| 12.         | Weighing Balance  |
| 13.         | Digital Display Constant Temperature<br>Convection Oven |

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF BIOTECHNOLOGY**  
**ENVIRONMENTAL ENGINEERING LABORATORY**  
**FOR UG STUDENTS**

| <b>S.No</b> | <b>NameofEquipment's</b> |
|-------------|--------------------------|
| 1           | PHMeter                  |
| 2           | ConductivityMeter        |
| 3           | Potentiometer            |
| 4           | CODAnalyser              |

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF BIOTECHNOLOGY**  
**COMPUTERAIDEDDESIGNANDDRAFTINGLABORATORY**  
**FOR UG STUDENTS**

| <b>S.No</b> | <b>NameofEquipment's</b>  |
|-------------|---|
| 1           | Computers<br>Processor : Core i3@2.4 GHz<br>RAM : 2 GB<br>OSType : Windows7– 64-bit |
| 2           | AutoCADSoftware<br>Version : StudentVersion2010                                     |

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF BIOTECHNOLOGY**  
**CONCRETE&CONSTRUCTIONTECHNOLOGYLAB**  
**FOR UG STUDENTS**

| <b>S.No</b> | <b>NameofEquipment's</b>            |
|-------------|-------------------------------------|
| 1.          | Vicat'sNeedleApparatus              |
| 2.          | LeChateliersApparatuswithFlask      |
| 3           | Blainesairpermeability              |
| 4           | Slumpconetestapparatus              |
| 5           | Flowtable                           |
| 6           | CompactionFactorApparatus           |
| 7           | VeeBeeconsistometer                 |
| 8           | AggregateImpactMachine              |
| 9           | AggregateCrushingValueApparatus     |
| 10          | ConcreteMixer                       |
| 11          | NeedleVibrator                      |
| 12          | ComputerizedUniversalTestingMachine |
| 13          | LoadingFramewithAccessories         |
| 14          | ReboundHammer(NDT)                  |
| 15          | WeighingBalance                     |

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF BIOTECHNOLOGY**  
**SURVEYCAMP**  
**FOR UG STUDENTS**

| <b>S.NO</b> | <b>NAMEOFTHEEQUIPMENTS</b> |
|-------------|----------------------------|
| 1.          | Theodolite                 |
| 2.          | Tacheometer                |
| 3           | Dumpylevel                 |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
NETWORKING AND CASETOOLS LAB/ ALGORITHM LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

**S.No**            **List of Equipments**  
1                    LENOVO--NOOF SYSTEM-20

**CONFIGURATION**

PROCESSOR :COREi5  
RAM            : 4GB  
HARDDISK :1TBHDD  
MONITOR :19.5'LED

2                    HP –NOOFSYSTEM–49

**CONFIGURATION**

PROCESSOR :1.6 GHZ  
DUAL CORERAM  
                  :1GBDDR2  
HARDDISK :160GBHDD  
MONITOR :18.5''LED

3                    LENOVO THINKCENTER–NOOF SYSTEM–01

**CONFIGURATION**

PROCESSOR :  
CORE 2 DUO CPU  
E750RAM  
                  :2GBD  
DR3

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>S.No</b> | <b>List of Equipments</b> |
|-------------|---------------------------|
| 1           | LENOVO--NOOF SYSTEM-20    |

**CONFIGURATION**

PROCESSOR :COREi5  
RAM : 4GB  
HARDDISK :1TBHDD  
MONITOR :19.5'LED

|   |                   |
|---|-------------------|
| 2 | HP –NOOFSYSTEM–49 |
|---|-------------------|

**CONFIGURATION**

PROCESSOR :1.6 GHZ  
DUAL CORERAM  
:1GBDDR2  
HARDDISK :160GBHDD  
MONITOR :18.5''LED

|   |                                  |
|---|----------------------------------|
| 3 | LENOVOTHINKCENTER–NOOF SYSTEM–01 |
|---|----------------------------------|

**CONFIGURATION**

PROCESSOR :  
CORE 2 DUO CPU  
E750RAM  
:2GBD  
DR3

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
OBJECT ORIENTED PROGRAMMING LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

**S.No**            **List of Equipments**  
1                    LENOVO--NOOF SYSTEM-20

**CONFIGURATION**

PROCESSOR :COREi5  
RAM            : 4GB  
HARDDISK    :1TBHDD  
MONITOR     :19.5'LED

2                    HP –NOOFSYSTEM–49

**CONFIGURATION**

PROCESSOR    :1.6 GHZ  
DUAL CORERAM  
                  :1GBDDR2  
HARDDISK :160GBHDD  
MONITOR    :18.5''LED

3                    LENOVO THINKCENTER–NOOF SYSTEM–01

**CONFIGURATION**

PROCESSOR :  
CORE 2 DUO CPU  
E750RAM  
                  :2GBD  
DR3

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
JAVA PROGRAMMING LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>S.No</b> | <b>List of Equipments</b> |
|-------------|---------------------------|
| 1           | LENOVO--NOOF SYSTEM-20    |

**CONFIGURATION**

PROCESSOR :COREi5  
RAM : 4GB  
HARDDISK :1TBHDD  
MONITOR :19.5'LED

|   |                   |
|---|-------------------|
| 2 | HP –NOOFSYSTEM–49 |
|---|-------------------|

**CONFIGURATION**

PROCESSOR :1.6 GHZ  
DUAL CORERAM  
:1GBDDR2  
HARDDISK :160GBHDD  
MONITOR :18.5''LED

|   |                                  |
|---|----------------------------------|
| 3 | LENOVOTHINKCENTER–NOOF SYSTEM–01 |
|---|----------------------------------|

**CONFIGURATION**

PROCESSOR :  
CORE 2 DUO CPU  
E750RAM  
:2GBD  
DR3

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**  
**COMPILER DESIGN LAB**  
**FOR UG STUDENTS**  
**LIST OF MAJOR EQUIPMENTS**

| <b>S.No</b> | <b>List of Equipments</b> |
|-------------|---------------------------|
| 1           | LENOVO--NOOF SYSTEM-20    |

**CONFIGURATION**

PROCESSOR :COREi5  
RAM : 4GB  
HARDDISK :1TBHDD  
MONITOR :19.5'LED

|   |                   |
|---|-------------------|
| 2 | HP –NOOFSYSTEM–49 |
|---|-------------------|

**CONFIGURATION**

PROCESSOR :1.6 GHZ  
DUAL CORERAM  
:1GBDDR2  
HARDDISK :160GBHDD  
MONITOR :18.5''LED

|   |                                  |
|---|----------------------------------|
| 3 | LENOVOTHINKCENTER–NOOF SYSTEM–01 |
|---|----------------------------------|

**CONFIGURATION**

PROCESSOR :  
CORE 2 DUO CPU  
E750RAM  
:2GBD  
DR3

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
WEB TECHNOLOGY LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

- | <b>S.No</b> | <b>List of Equipments</b> |
|-------------|---------------------------|
| 1           | LENOVO--NOOF SYSTEM-20    |

**CONFIGURATION**

PROCESSOR :COREi5  
RAM : 4GB  
HARDDISK :1TBHDD  
MONITOR :19.5'LED

- |   |                   |
|---|-------------------|
| 2 | HP –NOOFSYSTEM–49 |
|---|-------------------|

**CONFIGURATION**

PROCESSOR :1.6 GHZ  
DUAL CORERAM  
:1GBDDR2  
HARDDISK :160GBHDD  
MONITOR :18.5''LED

- |   |                                  |
|---|----------------------------------|
| 3 | LENOVOTHINKCENTER–NOOF SYSTEM–01 |
|---|----------------------------------|

**CONFIGURATION**

PROCESSOR :  
CORE 2 DUO CPU  
E750RAM  
:2GBD  
DR3

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
NETWORKING LAB  
FOR PG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

- | <b>S.No</b> | <b>List of Equipments</b> |
|-------------|---------------------------|
| 1           | LENOVO--NOOF SYSTEM-20    |

**CONFIGURATION**

PROCESSOR :COREi5  
RAM : 4GB  
HARDDISK :1TBHDD  
MONITOR :19.5'LED

- |   |                   |
|---|-------------------|
| 2 | HP –NOOFSYSTEM–49 |
|---|-------------------|

**CONFIGURATION**

PROCESSOR :1.6 GHZ  
DUAL CORERAM  
:1GBDDR2  
HARDDISK :160GBHDD  
MONITOR :18.5''LED

- |   |                                  |
|---|----------------------------------|
| 3 | LENOVOTHINKCENTER–NOOF SYSTEM–01 |
|---|----------------------------------|

**CONFIGURATION**

PROCESSOR :  
CORE 2 DUO CPU  
E750RAM  
:2GBD  
DR3

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**MICROWAVE AND OPTICAL COMMUNICATION LAB**  
**FOR UG STUDENTS**  
**LIST OF MAJOR EQUIPMENTS**

| <b>S.NO</b> | <b>List of Equipment</b>     |
|-------------|------------------------------|
| 1           | Gunn Powersupply             |
| 2           | Direct Couple MultiHole      |
| 3           | Horn Antenna                 |
| 4           | Horn Antenna                 |
| 5           | Horn Antenna                 |
| 6           | Digital Storage Oscilloscope |
| 7           | BNC to BNC                   |
| 8           | Frequency Counter            |
| 9           | KLYUSTRON Mount              |
| 10          | Fibre optic trainer kit      |

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**ANALOG AND DIGITAL COMMUNICATION LAB**  
**FOR UG STUDENTS**  
**LIST OF MAJOR EQUIPMENTS**

| <b>S.NO</b> | <b>List of Equipment</b>     |
|-------------|------------------------------|
| 1.          | Cathode Ray Oscilloscope     |
| 2.          | Cathode Ray Oscilloscope     |
| 3.          | Cathode Ray Oscilloscope     |
| 4.          | Regulated Power Supply       |
| 5.          | Regulated Power Supply       |
| 6.          | Regulated Power Supply       |
| 7.          | Regulated Power Supply       |
| 8.          | Fixed Power Supply<br>+5V    |
| 9.          | Fixed Power Supply<br>+/-5V  |
| 10.         | Fixed Power Supply<br>+/-15V |
| 11.         | Decade Resistance box        |
| 12.         | Decade Resistance Box        |
| 13.         | Decade Resistance box        |
| 14.         | Decade Capacitance           |
| 15.         | Decade Inductance            |
| 16.         | Function Generator           |
| 17.         | Function Generator           |

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**SIGNAL PROCESSING LAB**  
**FOR UG STUDENTS**  
**LIST OF MAJOR EQUIPMENTS**

| <b>S.NO</b> | <b>List of Equipment</b> |
|-------------|--------------------------|
| 1           | PersonalComputer         |
| 2           | MATLABSOFTWARE           |
| 3           | SCILABSOFTWARE           |

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**DIGITAL IMAGE PROCESSING LAB**  
**FOR UG STUDENTS**  
**LIST OF MAJOR EQUIPMENTS**

| <b>S.NO</b> | <b>List of Equipment</b> |
|-------------|--------------------------|
| 1           | PersonalComputer         |
| 2           | MATLABSoftware           |
| 3           | SCILABSoftware           |

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**DATA COMMUNICATION NETWORKING LAB**  
**FOR UG STUDENTS**  
**LIST OF MAJOR EQUIPMENTS**

| <b>S.NO</b> | <b>List of Equipment</b> |
|-------------|--------------------------|
| 1           | LTS01LANTrainerKit       |
| 2           | LSIMLANProtocolTrainer   |
| 3           | N-SIMNetwork             |

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**FPGA Systems Lab**  
**FOR UG STUDENTS**  
**LIST OF MAJOR EQUIPMENTS**

| <b>S.NO</b> | <b>List of Equipment</b> |
|-------------|--------------------------|
| 1           | PersonalComputers        |
| 2           | XilinxSoftware           |

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**EMBEDDED SYSTEMS LAB – I**  
**FOR UG STUDENTS**  
**LIST OF MAJOR EQUIPMENTS**

| <b>S.NO</b> | <b>List of Equipment</b> |
|-------------|--------------------------|
| 1           | Microcontrollerkit       |
| 2           | EmbeddedApplication      |
| 3           | PersonalComputers        |
| 4           | XilinxSoftware           |
| 5           | MATLABSoftware           |

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**EMBEDDED SYSTEMS LAB – II**  
**FOR UG STUDENTS**  
**LIST OF MAJOR EQUIPMENTS**

| <b>S.NO</b> | <b>List of Equipment</b>   |
|-------------|----------------------------|
| 1           | MicrocontrollerTrainerKit  |
| 2           | SoftwareSimulationTool     |
| 3           | PowerSupply                |
| 4           | DigitalIcTrainerKit        |
| 5           | DigitalStorageOscilloscope |

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**SEMICONDUCTORDEVICESLAB**  
**FOR UG STUDENTS**  
**LIST OF MAJOR EQUIPMENTS**

| <b>S.NO</b> | <b>List of Equipment</b>    |
|-------------|-----------------------------|
| 1           | Function Generator(Analog)  |
| 2           | CathodeRayOscilloscope      |
| 3           | RegulatedPowerSupplyDualo/p |
| 4           | FixedPowerSupply            |
| 5           | Voltmeter                   |
| 6           | Ammeter                     |
| 7           | Multimeter                  |

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**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**ANALOG CIRCUITS LAB**  
**FOR UG STUDENTS**  
**LIST OF MAJOR EQUIPMENTS**

| <b>S.No</b> | <b>List of Equipment</b>    |
|-------------|-----------------------------|
| 1           | Function Generator(Analog)  |
| 2           | CathodeRayOscilloscope      |
| 3           | RegulatedPowerSupplyDualo/p |
| 4           | FixedPowerSupply            |
| 5           | Voltmeter                   |
| 6           | Ammeter                     |
| 7           | Multimeter                  |

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**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**LINEAR INTEGRATED CIRCUITS & MICROCONTROLLERS LAB**  
**FOR UG STUDENTS**  
**LIST OF MAJOR EQUIPMENTS**

| <b>S.No</b> | <b>List of Equipment</b> |
|-------------|--------------------------|
| 1           | CathodeRayOscilloscope   |
| 2           | FunctionGenerator        |
| 3           | RegulatedPowerSupply     |
| 4           | DigitalIC TrainerKit     |
| 5           | Voltmeter                |
| 6           | Voltmeter                |
| 7           | Ammeter                  |
| 8           | Ammeter                  |
| 9           | Ammeter                  |
| 10          | FunctionGenerator        |

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**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**DIGITAL ELECTRONICS LAB**  
**FOR UG STUDENTS**  
**LIST OF MAJOR EQUIPMENTS**

| <b>S.NO</b> | <b>List of Equipment</b> |
|-------------|--------------------------|
| 1           | DigitalICTrainerKit      |
| 2           | DigitalICTester          |
| 3           | DigitalICTrainerKit      |
| 4           | DigitalICTester          |
| 5           | ConnectingWires          |

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**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**ENGINEERING SKILLS PRACTICE LAB- BASIC ELECTRONICS ENGINEERING**  
**FOR UG STUDENTS**  
**LIST OF MAJOR EQUIPMENTS**

| <b>S.NO</b> | <b>List of Equipment</b>    |
|-------------|-----------------------------|
| 1           | Function Generator(Analog)  |
| 2           | CathodeRayOscilloscope      |
| 3           | RegulatedPowerSupplyDualo/p |
| 4           | FixedPowerSupply            |
| 5           | Voltmeter                   |
| 6           | Ammeter                     |
| 7           | Multimeter                  |
| 8           | DigitalICTrainerKit         |

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**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**LINEAR INTEGRATED CIRCUITS & MICROCONTROLLERS LAB**  
**FOR UG STUDENTS**  
**LIST OF MAJOR EQUIPMENTS**

| <b>S.NO</b> | <b>List of Equipment</b> |
|-------------|--------------------------|
| 1           | CathodeRayOscilloscope   |
| 2           | FunctionGenerator        |
| 3           | RegulatedPowerSupply     |
| 4           | DigitalIC TrainerKit     |
| 5           | Voltmeter                |
| 6           | Voltmeter                |
| 7           | Ammeter                  |
| 8           | Ammeter                  |
| 9           | Ammeter                  |
| 10          | FunctionGenerator        |

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**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**LINEAR INTEGRATED CIRCUITS & MICROCONTROLLERS LAB**  
**FOR UG STUDENTS**  
**LIST OF MAJOR EQUIPMENTS**

| <b>S.NO</b> | <b>List of Equipment</b>           |
|-------------|------------------------------------|
| 1           | Micro85EBMicroprocessor            |
| 2           | Micro85EBMicroprocessor            |
| 3           | MicroprocessorKitESA85-2           |
| 4           | Micro-85AD-80Microprocessor        |
| 5           | Micro86EBMicroprocessor            |
| 6           | Micro86EBMicroprocessor            |
| 7           | Micro86EBMicroprocessor            |
| 8           | MicroZ80-Microprocessor            |
| 9           | MicroControlleMicro89C51Trainerkit |
| 10          | Micro8031/51EBTrainer              |
| 11          | 8279InterfaceBoard                 |
| 12          | DACInterface                       |
| 13          | DACInterface                       |
| 14          | 16Channel 8-bitADC                 |
| 15          | 16Channel 8-bitADC                 |
| 16          | 8253interfaceboard                 |
| 17          | Centronicsprinter                  |
| 18          | 8259interfaceboard                 |
| 19          | 8255interfaceboard                 |
| 20          | CROinterfaceboard                  |
| 21          | Steppermotorinterface              |
| 22          | Steppermotorinterface              |
| 23          | Steppermotorinterface              |
| 24          | Multiplexeddisplayboard            |
| 25          | Interface Dc Motor Speed           |
| 26          | Interface DC motor speed           |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
ELECTRICAL AND ELECTRONICS ENGINEERING  
HYDRAULICS AND STRENGTH OF MATERIALS LAB (UG)  
FOR UG STUDENTS**

**LIST OF MAJOR EQUIPMENTS**

| <b>S.NO</b> | <b>List of Equipment</b>                     |
|-------------|--|
| 1.          | Universal testing machine                    |
| 2.          | Impact testing machine                       |
| 3.          | Torsion testing machine                      |
| 4.          | Brinell testing machine                      |
| 5.          | Rockwell testing machine                     |
| 6.          | Beam testing machine                         |
| 7.          | Spring testing machine                       |
| 8.          | Gear oil pump                                |
| 9.          | Constant speed centrifugal pump              |
| 10.         | Reciprocating pump                           |
| 11.         | Jet pump                                     |
| 12.         | Multistage–multispeed centrifugal pump       |
| 13.         | Submersible pump                             |
| 14.         | Francis turbine                              |
| 15.         | Pelton wheel turbine                         |
| 16.         | Impact of jet on vanes                       |
| 17.         | Pipe friction apparatus                      |
| 18.         | Losses in pipes apparatus                    |
| 19.         | Venturimeter, orifice meter and nozzle meter |
| 20.         | Nozzle, orifice and mouth piece apparatus    |
| 21.         | Kaplan turbine test rig                      |
| 22.         | Notch apparatus                              |
| 23.         | Bernoulli's verification apparatus           |
| 24.         | Metacentric height apparatus                 |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
ELECTRICAL AND ELECTRONICS ENGINEERING  
ENGINEERING SKILL PRACTICE LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>S.NO</b> | <b>List of Equipment</b> |
|-------------|--------------------------|
| 1           | SinglePhaseauto          |
| 2           | Voltmeter                |
| 3           | Ammeter                  |
| 4           | Wattmeters               |
| 5           | SinglePhasetransformer   |
| 6           | LampLoad                 |
| 7           | Energymeter              |
| 8           | Voltmeter                |
| 9           | Voltmeter                |
| 10          | Ammeter                  |
| 11          | Ammeter                  |
| 12          | InsulationTester         |
| 12          | Multimeter               |
| 14          | Galvanometer             |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
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ELECTRICAL AND ELECTRONICS ENGINEERING  
17MECC88- COMPUTER INTEGRATED MANUFACTURING LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>S.No</b> | <b>List of Equipment</b>              |
|-------------|---------------------------------------|
| 1           | CNCMillingMachine                     |
| 2           | CNCLatheMachine                       |
| 3           | CNCTrainSimulationSoftware            |
| 4           | MastercamSoftware/EdgecamSoftwa<br>re |
| 5           | Computer                              |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
ELECTRICAL AND ELECTRONICS ENGINEERING  
SOLAR ENERGY LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>S.No</b> | <b>List of Equipment</b>       |
|-------------|--------------------------------|
| 1           | Artificial Wind generationunit |
| 2           | WindTurbine                    |
| 3           | DC-DCconverter                 |
| 4           | Inverter                       |
| 5           | Batterybank                    |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
ELECTRICAL AND ELECTRONICS ENGINEERING  
WIND ENERGY LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>S.NO</b> | <b>List of Equipment</b>     |
|-------------|------------------------------|
| 1           | ArtificialWindGenerationUnit |
| 2           | WindTurbine                  |
| 3           | DC-DCCConverter              |
| 4           | Inverter                     |
| 5           | BatteryBank                  |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
ELECTRICAL AND ELECTRONICS ENGINEERING  
SEMICONDUCTOR DEVICES LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>S.No</b> | <b>Nameofthe equipment</b> |
|-------------|----------------------------|
| 1           | DCAmmeter                  |
| 2           | DCVolmeter                 |
| 3           | CRO                        |
| 4           | Regulatedpower supply      |
| 5           | Rheostat                   |
| 6           | Decaderesistancebox        |
| 7           | Decadeinductancebox        |
| 8           | Decadecapacitancebox       |
| 9           | Dual fixed power supply    |
| 10          | FunctionGenerator          |
| 11          | Multimeter(Digital)        |
| 12          | Transformer                |
| 13          | DSO-025                    |
| 14          | Functiongenerator          |
| 15          | Galvanometer               |
| 16          | Ammeter(0-10mA)            |
| 17          | Ammeter(0-30mA)            |
| 18          | Voltmeter                  |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
ELECTRICAL AND ELECTRONICS ENGINEERING  
SEMICONDUCTOR DEVICES AND CIRCUIT  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>S.No</b> | <b>Nameofthe equipment</b> |
|-------------|----------------------------|
| 1           | CRO                        |
| 2           | FunctionalGenerator        |
| 3           | RegulatedPowerSupply       |

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
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**ELECTRICAL AND ELECTRONICS ENGINEERING**  
**ELECTRIC CIRCUITS LAB**  
**FOR UG STUDENTS**  
**LIST OF MAJOR EQUIPMENTS**

| <b>S.No</b> | <b>Nameofthe equipments</b> |
|-------------|-----------------------------|
| 1           | Regulatedpowersupply        |
| 2           | SinglePhaseautotransformer  |
| 3           | Voltmeter                   |
| 4           | Ammeter                     |
| 5           | Wattmeters                  |
| 6           | SinglePhasetransformer      |
| 7           | LampLoad,holder             |
| 8           | Energymeter                 |
| 9           | Voltmeter                   |
| 10          | Ammeter                     |
| 11          | InsulationTester            |
| 12          | Multimeter                  |
| 13          | Galvanometer                |
| 14          | Tubelightandholder          |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
ELECTRICAL AND ELECTRONICS ENGINEERING  
SENSORS AND ELECTRONIC MEASUREMENTS  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>S.No</b> | <b>Nameofthe equipments</b>  |
|-------------|--|
| 1           | DC Motor2.RTD Trainer kit3.Anderson Bridge4.Schering Bridge5.Wein bridge |
| 2           | DC Motor2.RTD Trainer kit3.Anderson Bridge4.Schering Bridge5.Wein bridge |
| 3           | DC Motor2.RTD Trainer kit3.Anderson Bridge4.Schering Bridge5.Wein bridge |
| 4           | DC Motor2.RTD Trainer kit3.Anderson Bridge4.Schering Bridge5.Wein bridge |
| 5           | DC Motor2.RTD Trainer kit3.Anderson Bridge4.Schering Bridge5.Wein bridge |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
ELECTRICAL AND ELECTRONICS ENGINEERING  
MEASUREMENTS AND INSTRUMENTATION LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>S.No</b> | <b>Nameoftheequipments</b>  |
|-------------|-----------------------------|
| 1           | SineSquare                  |
| 2           | Regulatedpower              |
| 3           | DCfixedpower                |
| 4           | DCfixedpower                |
| 5           | DigitalMultimeter           |
| 6           | AndersonBridge              |
| 7           | ScheringBridge              |
| 8           | LVDTrainer                  |
| 9           | Thermocouple                |
| 10          | StandaloneDAC               |
| 11          | StandaloneADC               |
| 12          | InstrumentationKit          |
| 13          | SinglePhaseload             |
| 14          | ThreePhaseload              |
| 15          | DecadeResistancebox         |
| 16          | DecadeInductancebox         |
| 17          | DecadeCapacitancebox        |
| 18          | Ammeter(0-1A)MC             |
| 19          | Ammeter(0-10mA)MC           |
| 20          | Ammeter(0-50mA)MC           |
| 21          | SinglePhaseload             |
| 22          | Ammeter(0-5-10A)MI          |
| 23          | Ammeter(0-10-20A)MI         |
| 24          | Voltmeter(0-300-600V)       |
| 25          | Wattmeter(0-150-300-60)     |
| 26          | Wattmeter(0-150-300-60)     |
| 27          | ResistanceMeasurement       |
| 28          | PressureMeasurement         |
| 29          | TorqueMeasurement           |
| 30          | ThreePhaseResistiveLoad     |
| 31          | Galvanometer                |
| 32          | TestingofEnergymeter        |
| 33          | Calibrationofwattmeter      |
| 34          | Testingofcurrent            |
| 35          | Calibrationofammeter        |
| 36          | Designconstruction          |
| 37          | Strainmeasurementtrainerkit |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
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ELECTRICAL AND ELECTRONICS ENGINEERING  
CONTROL SYSTEMS LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>SINo</b> | <b>NameoftheEquipments</b>  |
|-------------|---|
| 1           | Transfer function of Separately and self excited DCgenerator trainerkit |
| 2           | Synchrotransmitter&Receivertrainerkit                                   |
| 3           | LeadlagNetworksimulator   |
| 4           | Processcontrolsimulator-PIDcontroller                                   |
| 5           | ACservomotorpositioncontroller  |
| 6           | DCmotorpositioncontrolsystem  |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
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ELECTRICAL AND ELECTRONICS ENGINEERING  
MICROCONTROLLERS LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>SINo</b> | <b>NameoftheEquipment</b>    |
|-------------|------------------------------|
| 1           | 8085MicroprocessortrainerKit |
| 2           | 8086Microprocessortrainerkit |
| 3           | 8051Microprocessortrainerkit |
| 4           | Trafficlightcontroller       |
| 5           | Analoganddigitalconverter    |
| 6           | Digitalandanalogconverter    |
| 7           | LED7Segmentinterface         |
| 8           | LCDInterface                 |
| 9           | Fixedpowersupply             |
| 10          | Steppermotor                 |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
ELECTRICAL AND ELECTRONICS ENGINEERING  
DYNAMICS LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>S.No</b> | <b>LISTOFEQUIPMENTS</b> |
|-------------|-------------------------|
| 1           | Centrifugal Governor    |
| 2           | Gyroscopic Couple       |
| 3           | Tri-Filar Suspension    |
| 4           | Bi-Filar Suspension     |
| 5           | Compound Pendulum       |
| 6           | Spring Mass System      |
| 7           | Whirling Of Shaft       |

**INAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
ELECTRICAL AND ELECTRONICS ENGINEERING  
17EECC83 - ELECTRICAL MACHINES – I LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>SINo</b> | <b>NameoftheEquipments</b>              |
|-------------|---|
| 1           | ACDistributionPanel                     |
| 2           | DCRectifier Panel                       |
| 3           | DCDistributionPanel                     |
| 4           | DCShuntMotor                            |
| 5           | DCSeriesMotor                           |
| 6           | DCCompoundMotor                         |
| 7           | DCShuntMotorcoupledwithDCShuntGenerator |
| 8           | SinglePhaseTransformer                  |
| 9           | ThreePhaseTransformer                   |

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ELECTRICAL AND ELECTRONICS ENGINEERING  
17EECC85 - ELECTRICAL MACHINES – II LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>SINo</b> | <b>NameoftheEquipments</b>         |
|-------------|------------------------------------|
| 1           | ACDistributionPanel                |
| 2           | DCRectifier Panel                  |
| 3           | DCDistributionPanel                |
| 4           | DCShuntMotor coupledwithAlternator |
| 5           | 3PhaseSquirrelCageInductionMotor   |
| 6           | 3phaseslipringInductionmotor       |
| 7           | 3PhaseSynchronousinductionmotor    |
| 8           | 1PhaseInductionMotor               |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
ELECTRICAL AND ELECTRONICS ENGINEERING  
PROGRAMMABLE LOGIC CONTROLLER  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>SINo</b> | <b>NameoftheEquipment</b>            |
|-------------|--------------------------------------|
| 1           | PLCBasedTrainerKit                   |
| 2           | PLCTrainerKit                        |
| 3           | FlowProcessControl                   |
| 4           | PressureProcessControl               |
| 5           | BottleFillingSystemUsingPLC          |
| 6           | InterfacingandNon-InterfacingSystems |
| 7           | SimpleTrafficLightControllerSystem   |
| 8           | ControlValvePositionerController     |
| 9           | Compressor                           |
| 10          | BasicElectroPneumaticWithPLC         |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
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ELECTRICAL AND ELECTRONICS ENGINEERING  
POWER ELECTRONICS LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>SINo</b> | <b>NameoftheEquipments</b>   |
|-------------|--|
| 1           | SCR,MOSFET,TRIAC,IGBTTrainerKit  |
| 2           | SCRhalf&fullycontrolledtrainerkit  |
| 3           | SCRsinglephasecycloconverterkit(SCR,MOSFET,TRIAC,I<br>GBT)                                   |
| 4           | CRO(Dual)20 MHZ  |
| 5           | ACVoltageControllertrainerkit  |
| 6           | ResonantDC-DCKit   |
| 7           | Digitalmultimeter  |
| 8           | Thyristorised Drive for 1 HP DC motor(Bridge<br>converterThyristorisedDrivefor 1 HPDC motor) |
| 9           | Voltage& Currentcommutationkit   |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
ELECTRICAL AND ELECTRONICS ENGINEERING  
POWER SYSTEM SIMULATION LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>SINo</b> | <b>NameoftheEquipments</b>                                     |
|-------------|--|
| 1           | RDP Laptop Intel Quad core processor Z8350<br>(upto1.92GHZ)-30 |
| 2           | ScilabSoftware   |
| 3           | Printer  |

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ELECTRICAL AND ELECTRONICS ENGINEERING  
ROBOTICS LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>SINo</b> | <b>NameoftheEquipments</b> |
|-------------|----------------------------|
| 1           | DOBOTS SOFTWARE            |
| 2           | COMPUTER                   |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
ELECTRICAL AND ELECTRONICS ENGINEERING  
POWER ELECTRONICS FOR POWER SYSTEMS LAB  
FOR PG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>SINo</b> | <b>NameoftheEquipments</b>                                    |
|-------------|---|
| 1           | RDP Laptop Intel Quad core processor<br>Z8350(upto1.92GHZ)-30 |
| 2           | ScilabSoftware  |

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AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
ELECTRICAL AND ELECTRONICS ENGINEERING  
POWER SYSTEM SIMULATION – II  
FOR PG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>SINo</b> | <b>NameoftheEquipment</b>                                     |
|-------------|---|
| 1           | RDP Laptop Intel Quad core processor<br>Z8350(upto1.92GHZ)-30 |
| 2           | ScilabSoftware  |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF MECHANICAL ENGINEERING  
MACHINE DRAWING LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

**S.No    List of Equipments**

- |   |   |
|---|---|
| 1 | COMPUTER<br><br>CPUMAKE        – HPPROCESSOR    -<br>INTELCOREi5RAM                    -4GB<br>ROM    -500GB<br>MONITOR        -COMPAQ<br>OPERATING SYSTEM-<br>WINDOWS7(Ultimate) |
| 2 | SOFTWARE –CATIAV5R21  |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF MECHANICAL ENGINEERING  
MANUFACTURING TECHNOLOGY LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>Sl.No</b> | <b>NameoftheEquipment</b>  |
|--------------|----------------------------|
| 1            | Benchgrindingmachine       |
| 2            | Capstan&turretlathe        |
| 3            | Shapingmachine             |
| 4            | Slottingmachine            |
| 5            | Planingmachine             |
| 6            | Horizontalmillingmachine   |
| 7            | Radialdrillingmachine      |
| 8            | Surfacegrindingmachine     |
| 9            | Tooland cutter             |
| 10           | Pillardrillingmachine      |
| 11           | Cylindricalgrindingmachine |
| 12           | Heavydutylathe             |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF MECHANICAL ENGINEERING  
ENGINE TESTING LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>Sl.No</b> | <b>NameoftheEquipment</b>                                      |
|--------------|--|
| 1            | RedWoodViscometer.   |
| 2            | FlashPointandFire PointSetup.                                  |
| 3            | Cutsectional,4strokeSinglecylinderedDieselEngine.              |
| 4            | Cutsectional,2stroke<br>SinglecylinderedPetrolEngine.          |
| 5            | Fourstroke,TwincylinderedDieselEngine.                         |
| 6            | Fourstroke,4-cylinderedPetrol Engine                           |
| 7            | Fourstroke,Singlecylindered DieselEngine.                      |
| 8            | VariableCompressionRatio,SingleCylindered,4strokeDieselEngine. |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF MECHANICAL ENGINEERING  
DYNAMICS AND METROLOGY LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>Sl.No</b> | <b>NameOftheEquipment</b> |
|--------------|---------------------------|
| 1            | Governor                  |
| 2            | GyroscopicCouple          |
| 3            | Tri-FilarSuspensionSystem |
| 4            | CompoundPendulum          |
| 5            | SpringMass System         |
| 6            | WhirlingOfShaft           |
| 7            | BevelProtector            |
| 8            | Sine Bar                  |
| 9            | Rotameter                 |
| 10           | ProfileProjector          |
| 11           | Lvdt                      |
| 12           | Stroboscope               |
| 13           | LatheToolDynamometer      |



**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF MECHANICAL ENGINEERING  
INDUSTRIAL AUTOMATION LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>Sl.No</b> | <b>NameOftheEquipments</b>                                     |
|--------------|--|
| 1            | Basicpneumatictrainer kit.                                     |
| 2            | Basicpneumatictrainer kitwith<br>electricalcontrols/PLCcontrol |
| 3            | Basichydraulictrainerkit                                       |
| 4            | Automaticbottlefillingmachine                                  |
| 5            | Speedcontrollerof ACand DCdrives                               |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF MECHANICAL ENGINEERING  
HYDRAULICS AND PNEUMATICS SYSTEM LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>Sl.No</b> | <b>NameOftheEquipments</b>                       |
|--------------|--|
| 1            | StudyofSpeedControlCircuitonHydraulicTrainer     |
| 2            | StudyofSequencingCircuitonHydraulicTrainer       |
| 3            | StudyofSynchronizingCircuitonHydraulicTrainer    |
| 4            | StudyofRegenerativeCircuitonHydraulicTrainer     |
| 5            | StudyofCounterbalancingCircuitonHydraulicTrainer |
| 6            | StudyofISO/GISFluid PowerSymbols                 |
| 7            | Designandassemblyof hydraulic/pneumaticcircuit   |
| 8            | VisitReportforDemonstrationofFluidPower Circuit  |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF MECHANICAL ENGINEERING  
ENGINEERING SKILLS PRACTICE LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>Sl.No</b> | <b>NameOftheEquipments</b> |
|--------------|----------------------------|
| 1            | PowerHacksawMachine        |
| 2            | WoodCuttingMachine         |
| 3            | ArcWeldingMachine          |
| 4            | FittingVice                |
| 5            | CarpentryVice              |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF MECHANICAL ENGINEERING  
MANUFACTURING PROCESS LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>S.No</b> | <b>Nameofequipments</b>             |
|-------------|-------------------------------------|
| 1           | CentreLathe4 1/2"                   |
| 2           | CentreLathe4 1/2"                   |
| 3           | CentreLathe4 1/2"                   |
| 4           | Doubleendedbenchgrinding<br>Machine |

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF MECHANICAL ENGINEERING**  
**METALLURGY LAB (UG)**  
**FOR UG STUDENTS**  
**LIST OF MAJOR EQUIPMENTS**

| <b>Sl.No</b> | <b>NameOftheEquipment</b>                    |
|--------------|--|
| 1            | LinishingMachine                             |
| 2            | MuffleFurnaces                               |
| 3            | MetallurgicalMicroscopes                     |
| 4            | DoublediscPolishingMachines                  |
| 5            | MetallographyPolishingstands                 |
| 6            | RockwellHardnessTestingMachine               |
| 7            | StandardMetallographicSpecimenswithDesicator |
| 8            | Dryer  |

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF MECHANICAL ENGINEERING**  
**AUTOMOBILE ENGINEERING**  
**FOR UG STUDENTS**  
**LIST OF MAJOR EQUIPMENTS**

| <b>Sl.No</b> | <b>ListOfEquipments</b>                                  |
|--------------|--|
| 1            | 6CYLINDERDIESELENGINE.                                   |
| 2            | 4CYLINDERPETROLENGINE                                    |
| 3            | 3CYLINDERPERTOLENGINE                                    |
| 4            | SynchromeshGearBox,TransferCase                          |
| 5            | SteeringGearBox,DrumBrake                                |
| 6            | OilFilter,FuelFilter,FuelInjector, Carburetor,MpfiEngine |
| 7            | IgnitionCoil.  |
| 8            | OilPump  |
| 9            | DialBoreGauge  |
| 10           | ClutchAssembly   |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF MECHANICAL ENGINEERING  
COMPUTER INTEGRATED MANUFACTURING LAB  
FOR UG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>Sl.No</b> | <b>ListOfEquipments</b>         |
|--------------|---------------------------------|
| 1            | Laggedpipeapparatus             |
| 2            | Twoslabguardedhotplateapparatus |
| 3            | Compositewallapparatus          |
| 4            | Pin-finapparatus                |
| 5            | Naturalconvectionapparatus      |
| 6            | Forcedconvectionapparatus       |
| 7            | Emissivityapparatus             |
| 8            | Heatexchanger                   |
| 9            | StefanBoltzmann'sapparatus      |
| 10           | Insulatingpowderapparatus       |

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF MECHANICAL ENGINEERING**  
**DYNAMICS LAB**  
**FOR UG STUDENTS**  
**LIST OF MAJOR EQUIPMENTS**

| <b>S.No</b> | <b>List of Equipments</b> |
|-------------|---------------------------|
| 1           | Centrifugal Governor      |
| 2           | Gyroscopic Couple         |
| 3           | Tri-Filar Suspension      |
| 4           | Bi-Filar Suspension       |
| 5           | Compound Pendulum         |
| 6           | Spring Mass System        |
| 7           | Whirling Of Shaft         |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF MECHANICAL ENGINEERING  
AUTOMATION LAB  
FOR PG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>S.No</b> | <b>ListOfEquipments</b>                                    |
|-------------|--|
| 1           | BasicPneumaticTrainerKit                                   |
| 2           | BasicPneumaticTrainerKitWith ElectricalControls/PLCControl |
| 3           | BasicHydraulic TrainerKit                                  |
| 4           | AutomaticBottleFillingMachine                              |
| 5           | SpeedControllerOfACAndDCDrives                             |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF MECHANICAL ENGINEERING  
COMPUTER INTEGRATED MANUFACTURING LAB  
FOR PG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| <b>Sl.No</b> | <b>NameoftheEquipments</b>        |
|--------------|-----------------------------------|
| 1            | CNCMillingMachine                 |
| 2            | CNCLatheMachine                   |
| 3            | CNCTrainSimulationSoftware        |
| 4            | MastercamSoftware/EdgecamSoftware |
| 5            | Computer                          |

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF MECHANICAL ENGINEERING  
MODELLING AND ANALYSIS LAB  
FOR PG STUDENTS  
LIST OF MAJOR EQUIPMENTS**

| Sl.No | NameofTheEquipments  |
|-------|--|
| 1     | <p style="text-align: center;">COMPUTER</p> <p>CPUMAKE – HPPROCESSOR</p> <p style="text-align: center;">-</p> <p>INTELCOREi5RAM -</p> <p>4GB</p> <p>ROM -500GB</p> <p>MONITOR -COMPAQ</p> <p>OPERATINGSYSTEM-<br/>WINDOWS7(Ultimate)</p> |
| 2     | <b>SOFTWARE -ANSYS16.0</b>   |

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF HUMANITIES AND SCIENCE**  
**DEPARTMENT OF PHYSICS**  
**PHYSICAL SCIENCES LAB: PART-A REAL AND VIRTUAL LAB IN PHYSICS LAB**  
**FOR UG STUDENTS**  
**LIST OF MAJOR EQUIPMENTS**

**S.No    List of Equipments**

- 1    TravellingMicroscope
- 2    TorsionalPendulumSetup
- 3    UltrasonicInterferometer
- 4    Spectrometer
- 5    LaserSource
- 6    Poiseuille'ssetup
- 7    Lee'sdiscsetup
- 8    PostOfficebox
- 9    Potentiometer
- 10   Air-wedgesetup
- 11   Band-gapdeterminationkit

**VINAYAKA MISSIONS RESEARCH FOUNDATION  
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**

**DEPARTMENT OF HUMANITIES AND SCIENCE**

**DEPARTMENT OF PHYSICS**

**PHYSICAL SCIENCES LAB: PART-A REAL AND VIRTUAL LAB IN CHEMISTRY LAB**

**FOR UG STUDENTS**

**LIST OF MAJOR EQUIPMENTS**

**S.No List of Equipments**

1. PH Meter
2. Conductivity Meter
3. Potentiometer
4. UV Visible Spectrometer

**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF HUMANITIES AND SCIENCE**  
**DEPARTMENT OF ENGLISH**  
**ENGLISH LANGUAGE LAB**  
**FOR UG STUDENTS**  
**LIST OF MAJOR EQUIPMENTS**

| <b>Sl.No</b> | <b>List of Equipments</b> |
|--------------|---------------------------|
| 1            | MONITOR                   |
| 2            | UPS                       |
| 3            | HEADSET                   |
| 4            | KEYBOARD                  |
| 5            | MOUSE                     |
| 6            | N-COMPUT                  |

**DEPARTMENT OF BIOMEDICAL ENGINEERING**  
**PATHOLOGY & MICRO BIOLOGY LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>   |
|---------------|--|
| 1.            | Sterilization techniques   |
| 2.            | Preparation of culture media for microorganisms                          |
| 3.            | ABO blood grouping   |
| 4.            | Cross matching of blood  |
| 5.            | Hemoglobin estimation  |
| 6.            | Bleeding time and clotting time  |
| 7.            | Study and handling of light microscope                                   |
| 8.            | Total RBC count  |
| 9.            | Peripheral smear study (i) Morphology (ii) WBC differential count.       |
| 10.           | Manual paraffin tissue processing and section cutting<br>(demonstration) |
| 11.           | Cryoprocessing of tissue and cryo-sectioning (demonstration)             |
| 12.           | Urine physical and chemical examination.                                 |
| 13.           | Simple Staining  |
| 14.           | Gram's Staining  |
| 15.           | Widal's slide test   |

**DEPARTMENT OF BIOMEDICAL ENGINEERING**  
**BIO TRANSDUCER LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>  |
|---------------|---|
| 1             | Characteristics of Temperature Transducers.                                     |
| 2             | Temperature Measurement using Thermistor and its Linearization characteristics. |
| 3             | Characteristics of Optical Transducer.  |
| 4             | Characteristics of LVDT.  |
| 5             | Characteristics of Hall effect Transducer.                                      |
| 6             | Characteristics of Strain Gauge.  |
| 7             | Characteristics of Potentiometer Transducer.                                    |
| 8             | Characteristics of Pressure transducer  |
| 9             | Characteristics of Piezo electric transducers                                   |
| 10            | Characteristics of Piezo resistive transducers                                  |

**DEPARTMENT OF BIOMEDICAL ENGINEERING**  
**BIOMEDICAL INSTRUMENTATION LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>                        |
|---------------|---|
| 1             | Blood pressure measurement using sphygmomanometer |
| 2             | Design of instrumentation amplifier               |
| 3             | Measurement PH using PH meter                     |
| 4             | Galvanic Skin resistance measurement              |
| 5             | Recording of ECG using ECG simulator              |
| 6             | Recording of EEG using EEG simulator              |
| 7             | Recording of EMG using EMG simulator              |
| 8             | Optical Isolation Amplifier                       |
| 9             | Study of Phono Cardiogram (PCG)                   |
| 10            | Study of Types of electrodes                      |

**DEPARTMENT OF BIOMEDICAL ENGINEERING**  
**BIOMEDICAL SIGNAL AND IMAGE PROCESSING LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>  |
|---------------|---|
| 1             | Representation of basic discrete time signals.                      |
| 2             | Computation of convolution –linear convolution.                     |
| 3             | Response of a difference equation to initial conditions; stability. |
| 4             | DFT and FFT computation.  |
| 5             | FIR filter design using windowing techniques                        |
| 6             | IIR filters design-digital Butterworth filter and Chebyshev filter. |
| 7             | Simulation of Bio-signals.  |
| 8             | Analysis of ECG, EEG & EMG signals                                  |

**DEPARTMENT OF BIOMEDICAL ENGINEERING**  
**DIAGNOSTIC AND THERAPEUTIC EQUIPMENT LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>      |
|---------------|---------------------------------|
| 1             | 12 Lead ECG                     |
| 2             | Recording of EEG                |
| 3             | Electro ocular graph (EOG)      |
| 4             | Short wave diathermy            |
| 5             | Surgical diathermy              |
| 6             | Recording of EMG                |
| 7             | Ultrasound blood flow meter     |
| 8             | Biotelemetry                    |
| 9             | Study of Lithotripsy            |
| 10            | Study of radiotherapy equipment |

**DEPARTMENT OF BIOMEDICAL ENGINEERING**  
**BIOSENSORS AND MEASUREMENT DEVICES**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>                           |
|---------------|--|
| 1             | Characteristics of temperature transducers.          |
| 2             | Characteristics of pressure and optical transducers. |
| 3             | Characteristics of strain gauge.                     |
| 4             | Blood pressure measurement using sphygmomanometer.   |
| 5             | Design of instrumentation amplifier.                 |
| 6             | Measurement PH using PH meter.                       |
| 7             | Galvanic Skin resistance measurement.                |
| 8             | Recording of ECG using ECG simulator.                |
| 9             | Recording of EEG using EEG simulator.                |
| 10            | Recording of EMG using EMG simulator                 |

**DEPARTMENT OF BIOMEDICAL ENGINEERING**  
**MEDICAL INSTRUMENTATION LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>   |
|---------------|--|
| 1             | Design and analysis of biological pre amplifiers.  |
| 2             | Plotting of human auditory response using audiometer.  |
| 3             | Recording of ECG signal and analysis   |
| 4             | Recording of EMG-Signal  |
| 5             | Recording of EEG-Signal  |
| 6             | Recording of various physiological parameters using patient monitoring system and telemetry units. |
| 7             | Measurement of pH and conductivity.  |
| 8             | Study of ESU – cutting and coagulation modes   |
| 9             | Study of characteristics of optical Isolation amplifier  |
| 10            | Galvanic skin resistance (GSR) measurement   |

**DEPARTMENT OF BIOTECHNOLOGY**  
**CHEMICAL ENGINEERING LABORATORY**  
**FOR UG STUDENTS**  
**LIST OF EXPERIEMENTS**

| <b>S.NO</b> | <b>NAME OF THE EXPERIMENTS</b>          |
|-------------|---|
| 1.          | Simple Distillation                     |
| 2.          | Parallel Flow Heat Exchanger            |
| 3.          | Counter Flow Heat Exchangers            |
| 4.          | Bath Adsorption                         |
| 5.          | Batch Sedimentation                     |
| 6.          | Liquid Liquid Equilibrium In Extraction |
| 7.          | Solid Liquid Extraction – Leaching      |
| 8.          | Plate And Frame Filter Press            |
| 9.          | Determination Of Screen Effectiveness   |
| 10.         | Calibration Of Orifice Meter            |
| 11.         | Calibration Of Venturimeter             |
| 12.         | Steam Distillation                      |
| 13.         | Jaw Crusher                             |
| 14.         | Pressure Drop In Pipes                  |

**DEPARTMENT OF BIOTECHNOLOGY**

**BIOORGANIC CHEMISTRY LAB**

**FOR UG STUDENTS**

**LIST OF EXPERIMENTS**

| <b>S.No</b> | <b>NAME OF THE EXPERIMENTS</b>  |
|-------------|---|
| 1           | Synthesis of Aspirin  |
| 2           | Hydrolysis of Sucrose   |
| 3           | Preparation of Pyruvic acid from Tartaric acid.                             |
| 4           | Preparation of Oleic acid   |
| 5           | Preparation of alpha D- glucopyranose pentaacetate                          |
| 6           | Preparation of Lycopene from Tomato paste                                   |
| 7           | Preparation of L-Proline.   |
| 8           | Preparation of 1,2,5,6 di-O-Cyclohexylidene-alpha-D-glucofuranose.          |
| 9           | Preparation of s-ethyl hydroxybutonate from ethyl acetoacetate using Yeast. |
| 10          | Preparation of s-ethyl hydroxybutonate using 3,5-dinitrobenzoate.           |

**DEPARTMENT OF BIOTECHNOLOGY**  
**CELL BIOLOGY LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENT**

| <b>S.No</b> | <b>NAME OF THE EXPERIMENTS</b>  |
|-------------|---|
| 1.          | Introduction to principles of sterilization techniques and cell propagation.          |
| 2.          | Principles of Microscopy.   |
| 3.          | Isolation of Cell organelle – Mitochondria, Microtubules, Actin and Myosin filaments. |
| 4.          | Cell Fractionation – Separation of peripheral blood mononuclear cells from blood.     |
| 5.          | Cell staining - Gram's staining, Leishman staining                                    |
| 6.          | Cell counting - Trypan blue assay, Alamar blue assay.                                 |
| 7.          | Osmosis and Tonicity.   |
| 8.          | Staining for different stages of mitosis in <i>Allium cepa</i> (Onion).               |

**DEPARTMENT OF BIOTECHNOLOGY**  
**MOLECULAR BIOLOGY LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| S.NO | NAME OF THE EXPERIMENT                                  |
|------|---|
| 1    | General guidelines for working in molecular biology lab |
| 2    | Isolation of genomic dna from <i>e. Coli</i>            |
| 3    | Quantitative analysis of dna                            |
| 4    | Plasmid dna isolation                                   |
| 5    | Isolation of mitochondria from yeast cell               |
| 6    | Elution of dna from agarose gel electrophoresis         |
| 7    | Isolation of dna from animal                            |
| 8    | Agarose gel electrophoresis                             |

**DEPARTMENT OF BIOTECHNOLOGY**

**GENETIC ENGINEERING LAB**

**FOR UG STUDENTS**

**LIST OF EXPERIMENTS**

| <b>Expt:<br/>No</b> | <b>NAME OF THE EXPERIMENT</b>                                      |
|---------------------|--|
|                     | General guidelines for working in genetic engineering lab          |
| 1                   | Isolation of DNA from plant  |
| 2                   | Isolation of DNA from animal                                       |
| 3                   | Isolation of fungal DNA  |
| 4                   | B-galactosidase selection using iptg and x-gal                     |
| 5                   | Single and double digestion of lambda DNA with restriction enzymes |
| 6                   | Ligation of DNA  |
| 7                   | GFP cloning  |
| 8                   | Polymerase chain reaction  |
| 9                   | Southern hybridization   |
| 10                  | Protein separation by sds- page                                    |

**DEPARTMENT OF BIOTECHNOLOGY**  
**GENETIC ENGINEERING LAB**  
**FOR PG STUDENT**  
**LIST OF EXPERIMENTS**

| <b>S.NO</b> | <b>NAME OF THE EXPERIMENT</b>  |
|-------------|--|
| 1.          | Leishmanstaining   |
| 2.          | Giemsa staining  |
| 3.          | Osmosis andtonicity  |
| 4.          | Tryphan blue assay   |
| 5.          | Staining for different stages of mitosis in Allium cepa(Onion)                       |
| 6.          | Staining for different stages of meiosis using(Grasshopper)                          |
| 7.          | Blue and White selection forrecombinants   |
| 8.          | Isolation of Genomic DNA from Plant / Animal / BacterialCells                        |
| 9.          | Isolation of TotalRNA  |
| 10.         | Isolation of PlasmidDNA  |
| 11.         | Quantification of DNA andRNA   |
| 12.         | Gel Electrophoresis of DNA – Agarose Gel, Polyacrylamidegel.                         |
| 13.         | SouthernBlotting.  |
| 14.         | Polymerase ChainReaction.  |
| 15.         | Elution of Plasmid DNA from Agarose gel.   |
| 16.         | Restriction digestion of Bacterial Genomic and PlasmidDNA.                           |
| 17.         | Ligation ofDNA.  |
| 18.         | Preparation of CompetentCells.   |
| 19.         | Transformation in E.Coli.  |
| 20.         | Screening and selection of Recombinants and Confirmation of<br>InsertDNA in Plasmid. |
| 21.         | SDS-PAGE.  |
| 22.         | WesternBlotting.   |

**DEPARTMENT OF BIOTECHNOLOGY**

**BIOCHEMISTRY LAB**

**FOR UG STUDENT**

**LIST OF EXPERIMENTS**

| <b>S.NO</b> | <b>NAME OF THE EXPERIMENT</b>   |
|-------------|---|
| 1.          | PH measurements and Buffer preparations.  |
| 2.          | Estimation of Ascorbic acid by Titrimetric method using 2,6Dichlorophenol Indophenol. |
| 3.          | Determination of Saponification value of Edibleoil.                                   |
| 4.          | Determination of Acid number of Edibleoil   |
| 5.          | Determination of Iodine value of oil.   |
| 6.          | Isolation of Chloroplast from spinachleaves   |
| 7.          | Cheese production fromMilk  |
| 8.          | Casein fromMilk   |
| 9.          | Starch from Potato  |

**DEPARTMENT OF BIOTECHNOLOGY**

**ADVANCED BIOCHEMISTRY LAB**

**FOR UG STUDENTS**

**LIST OF EXPERIEMNT**

| <b>S.NO</b> | <b>NAME OF THE EXPERIMENT</b>                                       |
|-------------|---|
| 1           | Qualitative Analysis of Carbohydrates.                              |
| 2           | Qualitative Analysis of Amino acids.                                |
| 3           | Qualitative Analysis of Lipids.                                     |
| 4           | Qualitatively analysis of Normal and abnormal constituents of Urine |
| 5           | Estimation of Glucose by O-toluidine method.                        |
| 6           | Protein estimation by Biuret,                                       |
| 7           | Estimation of Cholesterol by Zak's method.                          |
| 8           | Estimation of urea DAM method.                                      |
| 9           | Estimation of Hemoglobin.   |
| 10          | Separation of plant pigments by column chromatography(Demo).        |

**DEPARTMENT OF BIOTECHNOLOGY**  
**BIOINSTRUMENTATION LAB**  
**FOR UG STUDENT**  
**LIST OF EXPERIMENT**

| <b>S.NO</b> | <b>NAME OF THE EXPERIMENT</b>  |
|-------------|--|
| 1           | Validating Lambert – Beer’s law using $\text{KMnO}_4$ .                          |
| 2           | Determination of complementary color and complementary wavelength                |
| 3           | Precision and Validity in an experiment using Absorption spectroscopy.           |
| 4           | Finding the Stoichiometry of the Fe (1,10Phenanthroline Complex) spectroscopy.   |
| 5           | UV spectra of Nucleic Acid.  |
| 6           | Estimation of Alizarin Aluminium complex   |
| 7           | Estimation of $\text{Al}^{3+}$ concentration using Alizarin in the spectrometer. |
| 8           | Estimation of Sulphate by Nephelometry.  |
| 9           | Experiments on<br>a) Conductivity meter<br>b) Turbidity meter.                   |
| 10          | Estimation of Dissolved oxygen.  |
| 11          | Determination of $\text{Fe}^{2+}$ content in fruit juices                        |

**DEPARTMENT OF BIOTECHNOLOGY**  
**ADVANCED BIOCHEMISTRY LAB**  
**FOR PG STUDENT**

**LIST OF EXPERIMENT**

**S.NO**

**NAME OF THE EXPERIMENT**

**Qualitative Analysis**

1

- (i) Carbohydrates
- (ii) Lipids
- (iii) Proteins
- (iv) Normal and abnormal constituents of urine.
- (i) Estimation of glucose by ortho – Toluidine method
- (ii) Estimation of blood urea by Nessler's method
- (iii) Estimation of cholesterol by Zak's method
- (iv) Estimation of bilirubin by Malloy and Erelly method
- (v) Estimation of protein by Lowry's method
- (vi) Estimation of nucleic acids by spectrophotometric method
- (vii) Estimation of haemoglobin by Shali's method.
- (viii) Determination of Erythrocyte Sedimentation Rate by using Westergren Pipette

3

Chromatography

Separation of sugars and amino acids by Paper chromatography

Extraction of lipids and analysis by TLC

4

Enzyme assay

- (i) Determination of serum LDH activity
- (ii) Determination of Serum Glutamate Oxaloacetate Transaminase (SGOT) by Mohn and Cook method.
- (iii) Determination of Serum Glutamate Pyruvate Transaminase (SGPT) by IFCC Method

**DEPARTMENT OF BIOTECHNOLOGY**  
**IMMUNOLOGY LAB**  
**FOR UG STUDENT**  
**LIST OF EXPERIMENT**

| <b>S.NO</b> | <b>NAME OF THE EXPERIMENT</b>                           |
|-------------|---|
| 1           | Handling of animals, immunization and raising antisera. |
| 2           | Identification of cells in a bloodsmear.                |
| 3           | Identification of bloodgroups.                          |
| 4           | Immunodiffusion   |
| 5           | Immuno electrophoresis.                                 |
| 6           | Testing for Typhoid antigens by Widaltest.              |
| 7           | Enzyme Linked ImmunoSorbent Assay(ELISA).               |
| 8           | Isolation of peripheral blood mononuclearcells.         |
| 9           | Isolation of monocytes fromblood.                       |
| 10          | Immunofluorescence                                      |

**DEPARTMENT OF BIOTECHNOLOGY**  
**FOOD PROCESSING TECHNOLOGY LAB**  
**FOR UG STUDENT**

**LIST OF EXPERIMENT**

| <b>S.NO</b> | <b>NAME OF THE EXPERIMENT</b>          |
|-------------|--|
| 1           | Preparation of Orangesquash            |
| 2           | Preparation of Mango jam anfjelly      |
| 3           | Preparation of Tomatoketchup.          |
| 4           | Preparation of CannedPea               |
| 5           | Preparation of Mangopickle.            |
| 6           | Experiment on Preparation of fruitbar. |
| 7           | Preparation of Frozenprawn             |
| 8           | Preparation of chillisauce             |
| 9           | Preparation ofbread                    |
| 10          | Identification ofAdulterant            |

**DEPARTMENT OF BIOTECHNOLOGY**  
**BIOPROCESSING ENGINEERING LABORATORY**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENT**

| <b>S.NO</b> | <b>NAME OF THE EXPERIMENT</b>                   |
|-------------|---|
| 1           | Batch growth kinetics of <i>bacteria</i>        |
| 2           | Media optimization by plackett and burman       |
| 3           | Effect of temperature on enzyme activity        |
| 4           | Effect of ph on enzyme activity                 |
| 5           | Enzyme immobilization kinetics – gel entrapment |
| 6           | Enzyme immobilization – cross linking           |
| 7           | Enzyme kinetics – michelis-menton parameters    |
| 8           | Enzyme inhibition                               |
| 9           | Production of wine by yeast                     |
| 10          | Production of amino acid                        |
| 11          | Production of yogurt                            |

**DEPARTMENT OF BIOTECHNOLOGY**  
**IMMUNOTECHNOLOGY LAB**  
**FOR PG STUDENT**  
**LIST OF EXPERIMENT**

| <b>S.NO</b> | <b>NAME OF THE EXPERIMENT</b>                               |
|-------------|---|
| 1           | Handling of animals, immunization and raising antisera.     |
| 2           | Identification of cells in a blood smear.                   |
| 3           | Identification of blood groups.                             |
| 4           | Immunodiffusion and immunoelectrophoresis.                  |
| 5           | Testing for Typhoid antigens by Widal test.                 |
| 6           | Enzyme Linked Immunosorbent Assay (ELISA).                  |
| 7           | Isolation and culture of peripheral blood mononuclear cells |
| 8           | Isolation of monocytes from blood.                          |
| 9           | Immunofluorescence.   |
| 10          | Identification of T-cell rosetting using sheep RBC          |

**DEPARTMENT OF BIOTECHNOLOGY**  
**ADVANCED BIOPROCESS LABORATORY**  
**FOR PG STUDENT**  
**LIST OF EXPERIMENTS**

| <b>S.NO</b> | <b>NAME OF THE EXPERIMENT</b>                                |
|-------------|--|
| 1           | Batch growth kinetics of <i>bacteria</i> -                   |
| 2           | Effect of substrate concentration on growth of <i>e.coli</i> |
| 3           | Effect of temperature on enzyme activity                     |
| 4           | Effect of ph on enzyme activity                              |
| 5           | Enzyme immobilization kinetics – gel entrapment              |
| 6           | Enzyme immobilization – cross linking                        |
| 7           | Enzyme kinetics – michelis-menton parameters                 |
| 8           | Production of wine   |
| 9           | Determination of kla by sodium sulphite oxidation method     |
| 10          | Demonstration of a fermentor and its components              |
| 11          | Centrifugation   |
| 12          | Ammonium sulphate precipitation                              |
| 13          | Simple distillation  |
| 14          | Batch sedimentation  |
| 15          | Liquid – liquid extraction                                   |

**DEPARTMENT OF BIOTECHNOLOGY**  
**PATHOLOGY AND MICRO BIOLOGY**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENT**

| <b>S.NO</b> | <b>NAME OF THE EXPERIMENT</b>  |
|-------------|--|
| 1           | Sterilization techniques   |
| 2           | Preparation of culture media for micro organisms                         |
| 3           | ABO blood grouping   |
| 4           | Cross matching of blood  |
| 5           | Hemoglobin estimation  |
| 6           | Bleeding time and clotting time  |
| 7           | Study and handling of light microscope                                   |
| 8           | Total RBC count  |
| 9           | Peripheral smear study (i) Morphology (ii) WBC differential count.       |
| 10          | Manual paraffin tissue processing and section cutting<br>(demonstration) |
| 11          | Cryo processing of tissue and cryo-sectioning (demonstration)            |
| 12          | Urine physical and chemical examination.                                 |
| 13          | Simple Staining  |
| 14          | Gram's Staining  |
| 15          | Widal slide test   |

**DEPARTMENT OF BIOTECHNOLOGY**  
**MICROBIOLOGY LABORATORY**  
**FOR UG STUDENT**  
**LIST OF EXPERIMENT**

| <b>S.NO</b> | <b>NAME OF THE EXPERIMENT</b>                               |
|-------------|---|
| 1.          | Principles Of Microscopy                                    |
| 2.          | Sterilization   |
| 3.          | Preparation Of Culture Media For Micro Organisms            |
| 4.          | Preparation Of Agar Slants And Agar Plates                  |
| 5.          | Pure Culture Techniques                                     |
| 6.          | Simple Staining   |
| 7.          | Gram's Staining   |
| 8.          | Enumeration Of Bacteria From Soil                           |
| 9.          | Environmental Sample Analysis                               |
| 10.         | Analysis of Milk Sample                                     |
| 11.         | <i>In vitro</i> Determination Of Anti Microbial Sensitivity |
| 12.         | Bacterial Growth Curve                                      |
| 13.         | Quantitation Of Microbes                                    |
| 14.         | Effect Of Different pH on Bacterial Growth                  |
| 15.         | Biochemical Test-Indole production test                     |
| 16.         | Urease test   |

**DEPARTMENT OF BIOTECHNOLOGY  
DOWNSTREAM PROCESSING ENGINEERING LAB  
FOR UG STUDENT**

**LIST OF EXPERIMENT**

| <b>S.NO</b> | <b>NAME OF THE EXPERIMENT</b>  |
|-------------|--|
|             | <b>REMOVAL OF INSOLUBLES</b>   |
| 1.          | Cell disruption by sonication  |
| 2.          | Centrifugation studies during settling of yeast cells                            |
| 3.          | Flocculation   |
|             | <b>ISOLATION OF PRODUCTS</b>   |
| 4.          | Isolation of casein from milk ( Isoelectric precipitation)                       |
| 5.          | Precipitation of protein by salting out method (Ammonium sulphate precipitation) |
| 6.          | Ultra filtration of protein  |
| 7.          | Aqueous two phase extraction of protein  |
|             | <b>PURIFICATION</b>  |
| 8.          | Separation of plant pigments by Thin layer Chromatography                        |
| 9.          | High Performance liquid Chromatography   |
|             | <b>POLISHING</b>   |
| 10.         | Crystallization of a product   |

**DEPARTMENT OF BIOTECHNOLOGY**  
**MICROBIOLOGY LAB**  
**FOR PG STUDENTS**  
**LIST OF EXPERIMENT**

| <b>S.NO</b> | <b>NAME OF THE EXPERIMENT</b>                                   |
|-------------|---|
| 1           | Sterilization Techniques  |
| 2           | Preparation Of Culture Media For Micro Organisms                |
|             | a. Broth type media   |
|             | b. Solid type media   |
| 3           | Culture of Micro organisms                                      |
|             | a. Pure culture techniques                                      |
|             | b. i) Streak plate  |
|             | c. ii) Spread plate   |
|             | d. iii) Pour plate  |
| 4           | Identification of Microorganisms                                |
|             | <b>Staining Techniques</b>                                      |
|             | a. Simple staining  |
|             | b. Gram staining  |
|             | c. Endospore staining   |
|             | d. Acid Fast staining   |
|             | e. Hanging drop   |
|             | <b>Biochemical Testing</b>                                      |
|             | f. Indole Test  |
|             | g. Urease Test  |
| 5           | Environmental Sample Analysis                                   |
|             | i) Isolation and enumeration of microbes from soil sample       |
| 6           | Food Microbiology   |
|             | i) Analysis of milk sample                                      |
| 7           | Clinical Microbiology   |
|             | i) Isolation of normal mouthflora                               |
|             | ii) <i>In vitro</i> Determination of Anti Microbial Sensitivity |

**DEPARTMENT OF CIVIL ENGINEERING**  
**SURVEY PRACTICAL -I LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>  |
|---------------|---|
| 1             | <b>CHAIN SURVEYING</b> <ul style="list-style-type: none"><li>• Ranging – ranging and traverse.</li></ul>  |
| 2             | <b>COMPASS SURVEYING</b> <ul style="list-style-type: none"><li>• Traverse.</li></ul>  |
| 3             | <b>PLANETABLE SURVEYING.</b> <ul style="list-style-type: none"><li>• Triangulation to find the distance between inaccessible points with and without known scale. – Three-point problem, two point problem.</li></ul> |
| 4             | <b>LEVELLING</b> <ul style="list-style-type: none"><li>• Study of levels and leveling staff – Fly leveling using dumpy level. – fly leveling using tilting level. – Check leveling.</li></ul>                         |
| 5             | <b>THEODOLITE SURVEYING</b> <ul style="list-style-type: none"><li>• Study of theodolite measurement of angles by reiteration and repetition - measurement of vertical angles</li></ul>                                |

**DEPARTMENT OF CIVIL ENGINEERING**  
**SURVEY PRACTICAL -II LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>   |
|---------------|--|
| 1.            | Study of theodolite and measurement of horizontal angle by repetition method.                |
| 2.            | Measurement of horizontal angle by reiteration method.                                       |
| 3.            | Determine the distance and heights of the objects using Stadia tacheometric method.          |
| 4.            | Determine the distance and heights of the objects using tangential tacheometric method       |
| 5.            | Find the gradient between two points using stadia and tangential tacheometric principle.     |
| 6.            | Find the distance and elevation of the inaccessible (single) object by single plane method.  |
| 7.            | Find the distance and elevation of the inaccessible (single) object by double plane method.  |
| 8.            | Find the elevation of the inaccessible (double) object by double plane method.               |
| 9.            | Determine the elevation of the given point using subtense bar.                               |
| 10.           | Measurement of horizontal, sloping and vertical distances of the object using Total station. |
| 11.           | Setting out a circular curve using Total Station.  |
| 12.           | Using profile levelling, plot the longitudinal section and cross section of road             |

**DEPARTMENT OF CIVIL ENGINEERING**  
**SURVEY CAMP**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>              |
|---------------|---|
| 1.            | Triangulation                           |
| 2.            | Trilateration                           |
| 3.            | Road Profile leveling                   |
| 4.            | Calculation of area using Offset Method |
| 5.            | Height of a building                    |

**DEPARTMENT OF CIVIL ENGINEERING**  
**COMPUTER AIDED BUILDING DRAWING LABORATORY**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>  |
|---------------|---|
| 1.            | Principles of planning, orientation and complete joinery details (Paneled and Glazed Doors and Windows) |
| 2.            | Buildings with load bearing walls   |
| 3.            | Buildings with sloping roof   |
| 4.            | R.C.C. framed structures  |
| 5.            | Industrial buildings – North light roof structures  |

**DEPARTMENT OF CIVIL ENGINEERING**  
**COMPUTER AIDED DESIGN AND DRAWING LABORATORY**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>  |
|---------------|---|
| 1.            | Design and drawing of R.C.C. cantilever and counter fort type retaining walls with reinforcement details  |
| 2.            | Design of solid slab and R.C. Tee beam bridges for IRC loading and reinforcement detail   |
| 3.            | Design of rectangular, pressed and hemispherical bottomed steel tank – staging –riveted joints detailed drawing   |
| 4.            | Design of circular, rectangular and intze type water tank reinforcement details   |
| 5.            | Design of plate girder – twin girder deck type railway bridge – through type and deck type highway bridges – Truss girder bridges – detailed drawing – riveted connection |

**DEPARTMENT OF CIVIL ENGINEERING**  
**SOIL MECHANICS LABORATORY**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>   |
|---------------|--|
| 1.            | Grain size distribution - Sieve analysis   |
| 2.            | Grain size distribution - Hydrometer analysis  |
| 3.            | Atterberg limits test  |
| 4.            | Determination of moisture - Density relationship using standard proctor.   |
| 5.            | Permeability determination (constant head and falling head methods)  |
| 6.            | Specific gravity of soil grains  |
| 7.            | Relative density of sand   |
| 8.            | Determination of shear strength parameters <ul style="list-style-type: none"><li>a) Direct shear test on cohesion less soil</li><li>b) Unconfined compression test in cohesive soil</li><li>c) Triaxial compression test</li></ul> |
| 9.            | One dimensional consolidation test   |

**DEPARTMENT OF CIVIL ENGINEERING**  
**ENVIRONMENTAL ENGINEERING LABORATORY**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>  |
|---------------|---|
| 1.            | Sampling, preservation methods and significance of characterisation of water and wastewater |
| 2.            | Determination of<br>1)pH and turbidity<br>2)Hardness  |
| 3.            | Determination of Iron & Fluoride  |
| 4.            | Determination of residual Chlorine  |
| 5.            | Determination of Chlorides  |
| 6.            | Determination of Ammonia Nitrogen   |
| 7.            | Determination of Sulphate   |
| 8.            | Determination of Optimum Coagulant Dosage   |
| 9.            | Determination of available Chlorine in Bleaching powder                                     |
| 10.           | Determination of Dissolved Oxygen   |
| 11.           | Determination of suspended, volatile and fixed solids                                       |
| 12.           | B.O.D. test   |
| 13.           | C. O.D. test  |
| 14.           | Introduction to Bacteriological Analysis (Demonstration only)                               |

**DEPARTMENT OF CIVIL ENGINEERING**  
**CONCRETE & CONSTRUCTION TECHNOLOGY LABORATORY**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>                  |
|---------------|---|
| 1.            | Compressive Strength Test on Bricks         |
| 2.            | Water Absorption Test on Bricks             |
| 3.            | Specific gravity Test on Cement             |
| 4.            | Soundness Test on Cement                    |
| 5.            | Consistency and Setting Time Test on Cement |
| 6.            | Crushing Strength Test on Aggregates        |
| 7.            | Impact Resistance Test on Aggregates        |
| 8.            | Slump cone on concrete                      |
| 9.            | Flow table test on concrete                 |
| 10.           | Cube and Cylinder strength on concrete      |
| 11.           | Crushing Strength Test on Aggregates        |

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**COMPUTER PROGRAMMING LAB**

**FOR UG STUDENTS**

**LIST OF EXPERIMENTS**

| <b>S.No</b> | <b>List of Experiments</b>  |
|-------------|---|
| 1.          | Basic programs to understand different types of data, operators and expressions.  |
| 2.          | Programs using control structures   |
|             | i) Factorial of a number<br>ii) Fibonacci series<br>iii) Generating prime numbers<br>iv) Generating Armstrong numbers<br>v) Greatest common divisor |
| 3.          | Programs using arrays   |
|             | i) Merging of arrays<br>ii) Array order reversal<br>iii) Selection sort<br>iv) Bubble sort<br>v) Insertion sort                                     |
| 4.          | . Programs using strings  |
|             | i) Palindrome checking<br>ii) String sorting<br>iii) Linear pattern search<br>iv) Text line editing   |
| 5.          | Programs using functions  |
| 6.          | Programs using pointers   |
| 7.          | Programs using structures   |

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**  
**RICH INTERNET APPLICATION DEVELOPMENT LAB**

**FOR UG STUDENTS**

**List of Experiments**

| <b>S.No</b> | <b>Name of Experiments</b>  |
|-------------|---|
| 1.          | Use HTML5 markup tags for structuring web page  |
| 2.          | Use HTML5 with appropriate CSS properties and elements for styling, formatting, and enhancing web pages |
| 3.          | Construct and validate web pages using HTML5 and CSS3   |
| 4.          | Implement client-side application logic using JavaScript  |
| 5.          | Define XML related concepts and languages   |
| 6.          | Compare and contrast between HTML and XML   |
| 7.          | Validate XML documents for correctness.   |
| 8.          | Create JSON in JavaScript and insert JSON data into HTML  |
| 9.          | Implement Server-Side script to serve client-side requests  |
| 10.         | Develop dynamic web pages using Ajax technology   |

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**  
**C# AND .NET APPLICATION DEVELOPMENT LAB**  
**FOR UG STUDENTS**  
**List of Experiments**

| <b>S.No</b> | <b>Name of Experiments</b>  |
|-------------|---|
| 1.          | Classes and Objects using out, ref and params                             |
| 2.          | Student Information System using Properties                               |
| 3.          | Banking Application using Inheritance                                     |
| 4.          | Library Management using Predefined Interfaces                            |
| 5.          | Students Admission using User defined Interfaces                          |
| 6.          | Solving Postfix Expressions using Stack                                   |
| 7.          | Solving Complex Numbers using Operator Overloading                        |
| 8.          | Matrix Addition, Subtraction, Multiplication and Division using Delegates |
| 9.          | User Subscription for News Events using Events                            |
| 10.         | Calculator using Windows Application                                      |
| 11.         | Advanced Windows Controls   |

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**  
**DATABASE MANAGEMENT SYSTEM LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>S.No</b> | <b>Name of the Experiments</b>   |
|-------------|--|
| 1           | Write a program to illustrate the creation of a database and writing SQL queries to retrieve information from the database |
| 2           | Write a program to perform Insertion, Deletion, Modifying, Altering, Updating and Viewing records based on conditions      |
| 3           | Write a program to illustrate Simple SQL Queries   |
| 4           | Write a program to analyze and model a database application  |
| 5           | Write a program to illustrate the creation and Modification of Tables without normalization                                |
| 6           | Write a program to illustrate the creation and Modification of Tables with normalization                                   |
| 7           | Write a program to illustrate Integrity Constraints enforcement  |
| 8           | Write a program to illustrate Complex SQL Queries  |
| 9           | Write a program to illustrate the creation and usage of other database objects   |
| 10          | Write a program to illustrate the creation of Procedures, Functions and Package with Cursor                                |
| 11          | Write a program to illustrate the creation of Triggers.  |
| 12          | Write a program to illustrate the creation of composite data types in PL/SQL   |

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**ALGORITHM LAB**

**FOR UG STUDENTS**

**LIST OF EXPERIMENTS**

| <b>S.No</b> | <b>Name of the Experiments</b>  |
|-------------|---|
| 1           | Write a program to illustrate basic algorithm design and asymptotic notations   |
| 2           | Write a program to illustrate algorithm design involving sorting and selection  |
| 3           | Write a program to illustrate algorithm design involving union find structures  |
| 4           | Write a program to illustrate algorithm design involving hash tables and priority queues                                  |
| 5           | Write a program to illustrate Divide and Conquer Algorithm design   |
| 6           | Write a program to illustrate Greedy Algorithm design   |
| 7           | Write a program to illustrate algorithm design involving trees like search trees, interval trees, k-d trees and AVL trees |
| 8           | Write a program to illustrate Dynamic Programming Algorithm design  |
| 9           | Write a program to illustrate Branch-and-Bound Algorithms   |
| 10          | Write a program to illustrate Algorithm design involving graphs   |
| 11          | Write a program to illustrate Algorithm design involving String matching.   |
| 12          | Write a program to illustrate Algorithm design based on Network Flows.  |

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**OPERATING SYSTEMS LAB**

**FOR UG STUDENTS**

**List of Experiments**

| <b>S.No</b> | <b>Name of the Experiments</b>  |
|-------------|---|
| 1           | Execute Basic UNIX commands.  |
| 2           | Write C programs to simulate UNIX commands like ls, grep, etc.  |
| 3           | Given the list of processes, their CPU burst times and arrival times, display/print the Gantt chart for FCFS and SJF. For each of the scheduling policies, compute and print the average waiting time and average turnaround time. (2sessions).             |
| 4           | Given the list of processes, their CPU burst times and arrival times, display/print the Gantt chart for Priority and Round robin. For each of the scheduling policies, compute and print the average waiting time and average turnaround time. (2sessions). |
| 5           | Developing Application using Inter Process communication (using shared memory, pipes or message queues).  |
| 6           | Implement the Producer – Consumer problem using semaphores.   |
| 7           | Implement some memory management schemes – I.   |
| 8           | Implement some memory management schemes – II.  |
| 9           | Implement any file allocation technique (Linked, Indexed or Contiguous)   |

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**  
**NETWORKING LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>SL.NO</b> | <b>Name of Experiments</b>  |
|--------------|---|
| 1.           | Implementation of Stop and Wait Protocol and Sliding Window Protocol. |
| 2.           | Study of Socket Programming and Client – Server model                 |
| 3.           | Write a code simulating ARP /RARP protocols.                          |
| 4.           | Write a code simulating PING and TRACEROUTE commands                  |
| 5.           | Create a socket for HTTP for web page upload and download.            |
| 6.           | Simple Tcp/Ip Client Server Communication                             |
| 7.           | UDP Echo Client Server Communication                                  |
| 8.           | Half Duplex Chat Using TCP/IP   |
| 9.           | Full Duplex Chat Using TCP/IP   |
| 10.          | Implementation Of File Transfer Protocol                              |
| 11.          | Remote Command Execution Using UDP                                    |
| 12.          | ARP Implementation Using UDP  |

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**JAVA PROGRAMMING LAB**

**FOR UG STUDENTS**

**LIST OF EXPERIMENTS**

| <b>SL.NO</b> | <b>NAME OF EXPERIMENTS</b>  |
|--------------|---|
| 1.           | Write a JAVA program to search the largest element from the given array.  |
| 2.           | Write a JAVA program to sort the strings in an alphabetical order.  |
| 3.           | Write a JAVA program to extract a portion of a character string and to print the extracted portion and the remaining portion of the string. Assume that m characters are extracted, starting with the nth character.                                  |
| 4.           | Write a JAVA program for illustrating overloading and overriding methods in JAVA.   |
| 5.           | Write a JAVA program which illustrates the implementation of multiple inheritance using interfaces in JAVA.   |
| 6.           | Write a JAVA program to create your package for basic mathematical operations such as add,  |
| 7.           | Subtract, multiply. Demonstrate the use of this package in another class.   |
| 8.           | Write a JAVA program that counts the number of digits in a given number. If an alphabet is entered instead of a number, the program should not terminate. Instead it should display appropriate error message. (Exception Handling).                  |
| 9.           | Write a JAVA program to move the text “JAVA PROGRAMMING LAB” diagonally using Applet.   |
| 10.          | Write a JAVA program to create an Applet with a label “Do you know car driving?” and two buttons Yes, NO.   |
| 11.          | When the user clicks “Yes” button, the message “Congrats” must be displayed. When the user clicks “NO “button, “Regrets” must be displayed.   |
| 12.          | Write a JAVA program to animate the face image using Applet.  |
| 13.          | Write a JAVA program to create four Text fields for the name, street, city and pin code with suitable Labels. Also add a button called “My Details”. When you click the button, your name, street, city, and pin code must appear in the Text fields. |

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
CASE TOOLS LAB  
FOR UG STUDENTS  
LIST OF EXPERIMENTS**

| SL.NO | NAME OF EXPERIMENTS  |
|-------|--|
| 1.    | Prepare the following documents for two or three of the experiments listed below and develop the software engineering methodology.   |
| 2.    | Program Analysis and Project Planning. Thorough study of the problem – Identify project scope, Objectives, Infrastructure.   |
| 3.    | Software requirement Analysis Describe the individual Phases / Modules of the project, Identify deliverables.  |
| 4.    | Data Modelling Use work products – Data dictionary, Use diagrams and activity diagrams, build and test class diagrams, Sequence diagrams and add interface to class diagrams.  |
| 5.    | Software Development and Debugging   |
| 6.    | Software Testing   |
| 7.    | Prepare test plan, perform validation testing, Coverage analysis, memory leaks, develop test case hierarchy, Site check and Site monitor.  |
| 8.    | Create an Application for any 2 of the following :   |
| 9.    | Quiz System<br>Student Marks Analyzing System<br>Online Ticket Reservation System<br>Payroll System<br>Course Registration System<br>Expert Systems<br>ATM Systems<br>Stock Maintenance<br>Real-Time Scheduler<br>Remote Procedure Call Implementation |

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**  
**DATA STRUCTURES LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>                            |
|---------------|---|
| 1.            | Exercises using Objects, Classes, Inheritance         |
| 2.            | Operator Overloading and Polymorphism                 |
| 3.            | Array implementation of List Abstract Data Type (ADT) |
| 4.            | Linked list implementation of List ADT                |
| 5.            | Cursor implementation of List ADT                     |
| 6.            | Array implementations of Stack ADT                    |
| 7.            | Linked list implementations of Stack ADT              |
| 8.            | Queue ADT   |
| 9.            | Search Tree ADT - Binary Search Tre                   |
| 10.           | Heap Sort   |
| 11.           | Quick Sort  |

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**  
**OBJECT ORIENTED PROGRAMMING LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>  |
|---------------|---|
| 1.            | Write a program to illustrate function overloading feature  |
| 2.            | Write a program to illustrate the overloading of various operators Ex. Binary operators, Unary operators, New and Delete operators.   |
| 3.            | Write a program to illustrate the use of following functions: a) Friend functions b) Inline functions c) Static Member functions d) Function with default arguments                   |
| 4.            | Write a program to illustrate the use of destructor and the various types of constructors (no arguments, constructor, constructor with arguments, copy constructor etc).              |
| 5.            | Write a program to illustrate the various forms of inheritance: Ex. Single, Multiple, multilevel, hierarchical inheritance etc.   |
| 6.            | Write a program having student as an abstract class and create many derived classes such as Engg. Science, Medical, etc. from student's class. Create their objects and process them. |
| 7.            | Write a program to illustrate the use of virtual functions.   |
| 8.            | Write a program to illustrate the use of virtual base class.  |
| 9.            | Write a program to illustrate file handling operations: Ex. a) Copying a text files b) Displaying the contents of the file etc.   |
| 10.           | Write a program to illustrate how exceptions are handled (ex: division-by-zero, overflow and underflow in stack etc).   |
| 11.           | Write a program to illustrate function overloading feature  |

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**  
**COMPILER DESIGN LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>  |
|---------------|---|
| 1.            | Write a program for Constructing NFA from a regular Expression.     |
| 2.            | Write a program for Constructing DFA from a regular Expression.     |
| 3.            | Write a program to find leading and Trailing of the given Grammar.  |
| 4.            | Write a program for constructing Top Down Parsing table.            |
| 5.            | Write a program to implement Shift reduce parsing Algorithm.        |
| 6.            | Write a program to implement Operator precedence Parsing Algorithm. |
| 7.            | Write a program to find the Closure of the given Grammar.           |
| 8.            | Write a program for constructing LR Parsing table.                  |
| 9.            | Write a program to generate DAG for the given expression.           |
| 10.           | Write a program to simulate the storage management.                 |
| 11.           | Write a program to generate a code for a given intermediate code    |

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**  
**ADVANCED JAVA PROGRAMMING LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>  |
|---------------|---|
| 1.            | Write a Java Program to implement multithreading (three threads using single run method). |
| 2.            | Write a Java Program to implement the calculator.   |
| 3.            | Write a Java Program to implement the URL.  |
| 4.            | Write a Java Program to implement the InetAddress.  |
| 5.            | Write a Java Program for Sending E-mail in Java.  |
| 6.            | Write a Java Program to implement Single Client-Server Communication.                     |
| 7.            | Write a Java Program to implement the Login_Id Form using JDBC.                           |
| 8.            | Write a Java Program to implement the SQL commands using JDBC.                            |
| 9.            | Write a Java Program to implement the JTrees.   |
| 10.           | Write a Java Program to implement the JTable.   |
| 11.           | Write a Java Program to create the table using JDBC.                                      |
| 12.           | Write a Java Program to implement Remote Method Invocation.                               |

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**  
**DATA STRUCTURES LAB**  
**FOR PG STUDENTS**

**List of Experiments**

| <b>S.No</b> | <b>Name of Experiments</b>             |
|-------------|--|
| 1.          | MinHeap                                |
| 2.          | Deaps                                  |
| 3.          | LeftistHeap                            |
| 4.          | AVL Tree                               |
| 5.          | B-Tree                                 |
| 6.          | Tries                                  |
| 7.          | Quick Sort                             |
| 8.          | Convexhull                             |
| 9.          | 0/1 Knapsack using Dynamic Programming |
| 10.         | Graph coloring using backtracking      |

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**  
**NETWORKING LAB**  
**FOR PG STUDENTS**  
**List of Experiments**

| <b>S.No</b> | <b>Name Of Experiments</b>  |
|-------------|---|
| 1.          | SocketProgramming   |
| 2.          | TCP Sockets   |
| 3.          | UDP Sockets   |
| 4.          | Applications using Sockets  |
| 5.          | Simulation of Sliding Window Protocol                                 |
| 6.          | Simulation of Routing Protocols                                       |
| 7.          | Development of applications such as DNS/HTTP/ E-mail/ Multi-user Chat |
| 8.          | Simulation of Network Management Protocols                            |
| 9.          | Study of Network Simulator Packages – such as opnet, ns2, etc.        |

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**  
**OPERATING SYSTEM LAB**  
**FOR PG STUDENTS**  
**List of Experiments**

**MULTIPROCESSOR OPERATING SYSTEMS**

PROGRAM 1 – Semaphores-Multiprocessor operating systems

Assume there are three processes: Pa, Pb, and Pc. Only Pa can output the letter A, Pb B, and Pc C.

Utilizing only semaphores (and no other variables) the processes are synchronized so that the output satisfies the following conditions:

- a) A B must be output before any C's can be output.
- b) B's and C's must alternate in the output string, that is, after the first B is output, another B cannot be output until a C is output.

Similarly, once a C is output, another C cannot be output until a B is output.

- c) The total number of B's and C's which have been output at any given point in the output string cannot exceed the number of A's which have been output up to that point.

Examples

AACB            -- invalid, violates a) ABACAC -- invalid, violates b) AABCABC -- invalid,  
violates c) AABCAAABC -- valid

AAAABCBC -- valid AB -- valid

## PROGRAM2–Multithreading-MultiprocessoroperatingsystemsTheCigaretteSmokersProblem

Consider a simulation with three *smoker* threads and one *agent* thread. Each smoker continuously makes a cigarette and smokes it. But to make a cigarette, a smoker needs three ingredients: tobacco, paper, and matches. One of the smoker threads has only paper, another has only tobacco, and the third has only matches. The agent thread has an infinite supply of all three materials. The three smoker threads are initially blocked. The agent places two randomly chosen (different) ingredients on the table and unblocks the one smoker who has the remaining ingredient. The agent then blocks.

The unblocked smoker removes the two ingredients from the table, makes a cigarette, and smokes it for a random amount of time, unblocking the agent on completion of smoking the cigarette. The agent then puts out another random two of the three ingredients, and the cycle repeats.

Write a multi-class multithreaded Java program that uses a monitor to synchronize the agent thread and the three smoker threads. Do not mechanically translate semaphore code into monitor code! The agent thread executes in an agent object created from an agent class. Each smoker thread executes in a smoker object. All smoker objects are created from one smoker class whose constructor is used to specify the ingredient possessed by the smoker object. A driver class with a main method constructs the objects and starts the threads.

Use a single monitor object instantiated from a class *Control* for synchronization. Each of the four threads invokes a synchronized monitor method for its synchronization.

No semaphores are allowed. No synchronized blocks are allowed, only synchronized methods. No busy waiting is allowed. No calls to `nap` inside a synchronized method are allowed (do not `nap` while holding the monitor object's lock, that is, while inside a synchronized method or while inside a method called by a synchronized method).

### PROGRAM3–Multiplesleepingbarbers-Multiprocessoroperatingsystems

Write a multi-class multithreaded Java program that simulates multiple sleeping barbers, all in one barbershop that has a finite number of chairs in the waiting room. Each customer is instantiated from a single Customer class, each barber is instantiated from a single Barber class.

### Networkoperatingsystems

### PROGRAM4–Networkoperatingsystems

Establish a Lab setup for the following network operating systems based programs based on the skills in networking on your own. E.g. for identifying networking hardware, identifying different kinds of network cabling and network interface cards can be done.

#### Exercises

1. Identifying Local Area Network Hardware
2. Exploring Local Area Network Configuration Options
3. Verifying TCP/IP Settings
4. Sharing Resources
5. Testing LAN Connections

## Real timeoperatingsystems

### PROGRAM5–Realttimeoperatingsystems

Areal-timeprogramimplementinganalarmclockshallbedeveloped.[Alarmclock,usingCand Simple\_OS]

Theprogramshallfulfillthefollowing requirements:

Clock with alarm functionality shall be implemented, It shall be possible to set the time, Itshallbepossibletoasetthealarmtime,thealarmshallbe*enabled*whenthealarmtimeis set, the alarm shall be *activated* when the alarm is enabled, and when the current timeis equal to the alarm time, an activated alarm must be acknowledged. Acknowledgementof an alarm shall lead to the alarm being *disabled*, *the* alarm is enabled again when anew alarm time is set, an alarm which is not acknowledged shall be repeated every 10seconds. The program shall communicate with a graphical user interface, where thecurrent time shall be displayed, and where the alarm time shall be displayed when thealarm is enabled. It shall be possible to terminate the program, using a command whichis sentfromthegraphical userinterface.

## Database operating systems

### PROGRAM 6 – Transactions and Concurrency - Database operating systems

#### Exercises

Assume any application (e.g. banking) on your own and do the following exercises.

1. Investigate and implement the ObjectStore's concurrency options.
2. Implement the concurrency conflict that occurs between multiple client applications.
3. Observe and implement the implication of nested transactions.

## Distributed operating systems

### PROGRAM 7 – Distributed operating systems

1. Design a RMI Lottery application. Each time you run the client program -- "java LotteryClient n", the server program "LotteryServer" will generate a set of Lottery numbers. Here n is a positive integer, representing the money you will spend on Lottery in sterling pounds. Write this program in a proper engineering manner, i.e. there should be specifications, design (flow chart, FD, or pseudocode), coding, test/debug, and documentation.
2. Consider a distributed system that consists of two processes which communicate with each other. Let P be a state predicate on the local state of one process and Q be a state predicate on the local state of the other process. Assume that neither P nor Q are stable (i.e. closed).

Design a superimposed computation which detects that there exists an interleaving of underlying events in this system where at some state  $P \wedge Q$  holds. (A superposed computation is one that does not affect the underlying system; it may read but not write the state of the underlying system. Events in a superposed computation may occur in at the same instant as the underlying events and/or at different instants.) State any assumptions you make.

[Hint: Use vector clocks.]

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**WEB TECHNOLOGY**

**FOR PG STUDENTS**

**LIST OF EXPERIMENT**

| <b>S.No</b> | <b>Name of the Experiments</b>  |
|-------------|---|
| 1.          | Creation of HTML pages with frames, links, tables and other tags  |
| 2.          | Usage of internal and external CSS along with HTML pages  |
| 3.          | Client side Programming   |
| 4.          | Java script for displaying date and comparing two dates   |
| 5.          | Form Validation including text field, radio buttons, check boxes, list box and other controls                     |
| 6.          | Usage of ASP/JSP objects response, Request, Application, Session, Server,   |
| 7.          | ADO etc   |
| 8.          | Writing online applications such as shopping, railway/air/bus ticket reservation system with set of ASP/JSP pages |
| 9.          | Using sessions and cookies as part of the web application   |
| 10.         | Writing Servlet Program using HTTP Servlet  |
| 11.         | Any online application with database access   |
| 12.         | Creation of XML document for a specific domain  |
| 13.         | Writing DTD or XML schema for the domain specific XML document  |
| 14.         | Parsing an XML document using DOM and SAX Parsers   |
| 15.         | Sample web application development in the open source environment   |

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**SEMICONDUCTOR DEVICES LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>                   |
|---------------|--|
| 1.            | Half Wave Rectifier                          |
| 2.            | Full Wave Rectifier                          |
| 3.            | Clipper                                      |
| 4.            | Clamper                                      |
| 5.            | Input/output Characteristics of CE Amplifier |
| 6.            | Input/output Characteristics of CC Amplifier |
| 7.            | Transfer Characteristics of JFET             |
| 8.            | Voltage Regulator                            |
| 9.            | TRIAC, DIAC                                  |
| 10.           | SCR  |

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**ANALOG CIRCUITS LAB**

**FOR UG STUDENTS**

**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>   |
|---------------|--|
| 1.            | Design, Simulation and Hardware realization of Single Stage Common Emitter amplifier for given specification   |
| 2.            | Simulation & Hardware realization of Feedback amplifiers and its frequency analysis <ul style="list-style-type: none"><li>a) Voltage Series</li><li>b) Current Shunt</li></ul> |
| 3.            | Design, Simulation and Hardware realization of Sinusoidal waveform generators. <ul style="list-style-type: none"><li>a) RC Oscillators</li><li>b) LC Oscillators</li></ul>     |
| 4.            | Design and simulation of Power amplifiers  |
| 5.            | Frequency Response characterization of Tuned amplifier circuit. <ul style="list-style-type: none"><li>a) Single Tuned</li><li>b) Double Tuned</li></ul>                        |
| 6.            | Design and hardware realization of Multistage Amplifier for given specification <ul style="list-style-type: none"><li>a) Cascade</li><li>b) Darlington</li></ul>               |
| 7.            | Design and simulation of Differential pair circuit with active load and current references and its frequency analysis.   |
| 8.            | Miniproject.   |



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**DIGITAL LOGIC CIRCUITS & DESIGN LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

**Sl.No.**

**Name of Experiments**

**Hardware Experiments**

1. Design and implementation of Adders using logic gates.
2. Design and implementation of Sub tractors using logic gates.
3. Design and implementation of BCD to Excess -3 code converter using logic gates
4. Design and implementation of Binary to Gray code converter using logic gates
5. Design and implementation of 4 bit BCD adder using IC 7483
6. Design and implementation of 2 Bit Magnitude comparator using logic gates
7. Design and implementation of Multiplexer and De-Multiplexer using logic gates
8. Design and implementation of encoder and decoder using logic gates
  
9. Design and implementation of 3 bit synchronous up/down counter.
10. Implementation of SISO, SIPO, and PISO shift registers using flip flops.

**Software Experiments using HDL**

11. Design and Simulation of Full adder circuit using Gate level modelling
12. Design and Simulation of 2X2 multiplier circuit using structural level modeling.
13. Design and Simulation of 8 to 1 Multiplexer circuit using behavioural level modeling.



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**MICROPROCESSOR LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>  |
|---------------|---|
| 1.            | 8085 & 8086 Assembly Language Program (ALP) for Arithmetic Operations                                     |
| 2.            | 8051 Assembly Language Program (ALP) for Arithmetic Operations.   |
| 3.            | 8051 Assembly Language Program (ALP) for Logical Operations.  |
| 4.            | 8051 Assembly Language Program (ALP) for Bit Manipulation Operations.                                     |
| 5.            | 8051 Assembly Language Program (ALP) for arrange the numbers in Ascending and Descending order.           |
| 6.            | 8051 Assembly Language Program (ALP) for Interrupt & UART Operations.                                     |
| 7.            | Interfacing an ADC to 8051 Controller.  |
| 8.            | Interfacing DAC to 8051 Controller and generate Square, Triangular & Saw-tooth waveform.                  |
| 9.            | Interfacing a Stepper motor to 8051 Controller and operate it in clockwise and anti-clockwise directions. |
| 10.           | Interfacing a Keyboard & Display controller (8279) to 8051 Controller.                                    |

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**SIGNAL PROCESSING LAB**

**FOR UG STUDENTS**

**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>  |
|---------------|---|
| 1.            | Generate different time signals and display the same.                         |
| 2.            | Compute the linear convolution of a signal using DFT.                         |
| 3.            | Compute the circular convolution of a given signal.                           |
| 4.            | Design analog Chebyshev filters and apply bilinear transformation             |
| 5.            | Design analog Butterworth filters and apply bilinear transformation           |
| 6.            | Design analog Chebyshev filters and apply impulse invariance transformation   |
| 7.            | Design analog Butterworth filters and apply impulse invariance transformation |
| 8.            | Design FIR filters using Fourier series method and frequency sampling methods |
| 9.            | Design FIR filters using Different windowing techniques                       |
| 10.           | Effect of quantizations   |

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**DIGITAL IMAGE PROCESSING LAB**

**FOR UG STUDENTS**

**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>  |
|---------------|---|
| 1.            | To acquire an image, store in different formats and display the properties of the images.   |
| 2.            | To find the discrete Fourier transform of a gray scale image and perform inverse transform to get back the image                    |
| 3.            | Analyze the rotation and convolution properties of the Fourier transform using any gray scale image                                 |
| 4.            | Find the discrete cosine transform of a given image. Compare discrete Fourier transform and discrete cosine transforms              |
| 5.            | Apply histogram equalization for enhancing the given images   |
| 6.            | Perform image enhancement, smoothing and sharpening, in spatial domain using different spatial filters and compare the performances |
| 7.            | Perform image enhancement, smoothing and sharpening, in frequency domain using different filters and compare the performances       |
| 8.            | Perform noise removal using different spatial filters and compare their performances  |
| 9.            | For the given image perform edge detection using different operators and compare the Results  |
| 10.           | For a given image, compress and decompress using wavelets. Study and compare the efficiency of the scheme with any two schemes      |

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**DATA COMMUNICATION NETWORKING LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>  |
|---------------|---|
| 1.            | Study of serial data Communication between two computers                |
| 2.            | Study of Parallel data Communication between two computers.             |
| 3.            | Study of Network Topologies – Star, Bus & Ring                          |
| 4.            | Implementation of stop and wait protocol using simulator.               |
| 5.            | Implementation of Sliding window protocol using simulator.              |
| 6.            | Implementation of Go-Back N protocol using simulator.                   |
| 7.            | Implementation of Selective Repeat protocol using simulator             |
| 8.            | Study the performance of the network with CSMA/ CD protocol             |
| 9.            | Study the performance of the network with CSMA/ CA protocol             |
|               | Implementation of routing algorithm                                     |
| 10.           | a. Distance vector Routing Algorithm<br>b. Link State Routing Algorithm |
| 11.           | Encryption and Decryption   |
| 12.           | Study of Ethernets and Fast Ethernets                                   |

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**FPGA SYSTEM DESIGN LAB**

**FOR UG STUDENTS**

**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>   |
|---------------|--|
| 1.            | Implementation of Logic Gates –Data flow model and Behavioural model |
| 2.            | Combinational logic circuits –Adders and Subtractor                  |
| 3.            | Code converters-Binary to Gray and Gray to Binary                    |
| 4.            | 3 to 8 Decoder –74138  |
| 5.            | 4 Bit Comparator –7485   |
| 6.            | 8 x 1 Multiplexer –74151 and 2X4 De-multiplexer –74155               |
| 7.            | 16 x 1 Multiplexer –74150 and 4X16 De-multiplexer –74154             |
| 8.            | Sequential circuits -Flip-Flops                                      |
| 9.            | Decade counter –7490.  |
| 10.           | Synchronous & Asynchronous Counters                                  |
| 11.           | Shift registers –7495.   |
| 12.           | Universal shift registers –74194/195.                                |
| 13.           | RAM (16 x 4) –74189 (Read and Write operations).                     |
| 14.           | Stack and Queue Implementation using RAM                             |

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**EMBEDDED SYSTEMS LAB - I**  
**FOR PG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>   |
|---------------|--|
|               | Design with 8 bit Microcontrollers 8051/PIC Microcontrollers   |
| 1.            | i) I/O Programming, Timers, Interrupts, Serial port programming<br>ii) PWM Generation, Motor Control, ADC/DAC, LCD and RTC Interfacing, Sensor Interfacing<br>iii) Both Assembly and C programming |
| 2.            | Design with 16 bit processors<br>I/O programming, Timers, Interrupts, Serial Communication,  |
| 3.            | Design with ARM Processors.<br>I/O programming, ADC/DAC, Timers, Interrupts,   |
| 4.            | Study of one type of Real Time Operating Systems (RTOS)  |
| 5.            | Electronic Circuit Design of sequential, combinational digital circuits using CAD Tools  |
| 6.            | Simulation of digital controllers using MATLAB/LabVIEW.  |
| 7.            | Programming with DSP processors for Correlation, Convolution, Arithmetic adder, Multiplier, Design of Filters - FIR based , IIR based  |
| 8.            | Design with Programmable Logic Devices using Xilinx/Altera FPGA and CPLD Design and Implementation of simple Combinational/Sequential Circuits   |
| 9.            | Network Simulators<br>Simple wired/ wireless network simulation using NS2  |
| 10.           | Programming of TCP/IP protocol stack   |

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**EMBEDDED SYSTEMS LAB - II**  
**FOR PG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>   |
|---------------|--|
| 1.            | ATMEL CPLDs – Prochip designer a) Schematic entry b) VHDL entry  |
| 2.            | AT40K FPGA series – synthesis – design – simulation of application programs                                  |
| 3.            | Xilinx EDA design tools – device programming – PROM programming  |
| 4.            | Programming & Simulation in GUI Simulators /Tools  |
| 5.            | Code compressor studio for embedded DSP using Texas tool kit   |
| 6.            | Programming ARM processor :ARM7 / ARM9/ARM Cortex, Study on incircuit Emulators, cross compilers , debuggers |
| 7.            | IPCORE usage in VOIP through SoC2 tools  |
| 8.            | Programming with Rasberry Pi Microcontroller Board :Study on incircuit Emulators, crosscompilers, debuggers  |
| 9.            | Third party tools for embedded java and embedded C++ applications through cadence tools                      |

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**MICROWAVE AND OPTICAL COMMUNICATION LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b> |
|---------------|----------------------------|
|---------------|----------------------------|

**MICROWAVE**

- |   |   |
|---|---|
| 1 | Characteristics of Gunn diode Oscillator.           |
| 2 | Characteristics of Reflex Klystron oscillator.      |
| 3 | Characteristics of Directional Coupler              |
| 4 | Characteristics of E / H Plane waveguide Tee        |
| 5 | Characteristics of Magic Tee.                       |
| 6 | Horn Antenna – Gain and directional Characteristics |

**OPTICAL COMMUNICATION**

- |   |   |
|---|---|
| 1 | Numerical aperture determination for fibers     |
| 2 | D.C. Characteristics of LED and PIN Photo Diode |
| 3 | Optical transmission using Analog Modulation    |
| 4 | Data transmission through Fiber Optic Link.     |
| 5 | PI Characteristics of LASER diode.              |

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**ANALOG AND DIGITAL COMMUNICATION LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>                                     |
|---------------|--|
| 1.            | Signal Sampling and Reconstruction.                            |
| 2.            | Generation of Amplitude Modulation and Demodulation            |
| 3.            | Frequency Modulation and Demodulation                          |
| 4.            | Pre-emphasis and De-emphasis                                   |
| 5.            | Pulse Amplitude Modulation, Pulse Position Modulation          |
| 6.            | Generation of ASK,FSK  |
| 7.            | Generation of PSK and QPSK                                     |
| 8.            | Generation of PN Sequences and Direct sequence spread spectrum |
| 9.            | Simulation of Analog Modulation schemes in MATLAB              |
| 10.           | Simulation of Analog Demodulation schemes in MATLAB            |

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**  
**ENGINEERING SKILLS PRACTICE LAB**  
**A. BASIC ELECTRICAL ENGINEERING**  
**FOR UG STUDENTS**

| <b>Sl.No.</b> | <b>List of Experiments</b>  |
|---------------|---|
| 1.            | Residential house wiring using switches, fuse, indicator, lamp and energy meter.              |
| 2.            | Fluorescent lamp wiring.  |
| 3.            | Stair case wiring.  |
| 4.            | Measurement of electrical quantities – voltage, current, power & power factor in RLC circuit. |
| 5.            | Measurement of energy using single phase energy meter.  |
| 6.            | Measurement of resistance to earth of an electrical equipment.                                |

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**  
**ELECTRIC CIRCUITS LAB**  
**FOR UG STUDENTS**

| <b>Sl.No.</b> | <b>List of Experiments</b>                            |
|---------------|---|
| 1.            | Verification of Ohm's Law                             |
| 2.            | Verification of Kirchhoff's laws                      |
| 3.            | Verification of Thevenin's Theorem                    |
| 4.            | Verification of Norton's Theorem                      |
| 5.            | Verification of Superposition theorem                 |
| 6.            | Verification of Reciprocity theorem                   |
| 7.            | Verification of Maximum Power Transfer theorem        |
| 8.            | Time Domain analysis of RC transient circuits         |
| 9.            | Time Domain analysis of RL transient circuits         |
| 10.           | Series Resonance Circuit                              |
| 11.           | Parallel Resonance Circuit                            |
| 12.           | Three Phase Power Measurement by Two Wattmeter method |

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**  
**PROGRAMMABLE LOGIC CONTROLLERS LAB**  
**FOR UG STUDENTS**

| <b>Sl.No.</b> | <b>List of Experiments</b>  |
|---------------|---|
| 1.            | PLC ladder diagram using logic gates.                                   |
| 2.            | Stepper Motor interface.  |
| 3.            | D.C motor controller interface.   |
| 4.            | Linear actuation of hydraulic cylinder with counter and speed control.  |
| 5.            | Sequential operation of pneumatic cylinders.                            |
| 6.            | Traffic light controller.   |
| 7.            | Speed control of DC motor using PLC.                                    |
| 8.            | Testing of Relays using PLC.  |
| 9.            | Design of ON / OFF control in Flow and Pressure process control in PLC. |

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**  
**POWER ELECTRONICS LAB**  
**FOR UG STUDENTS**

| <b>Sl.No.</b> | <b>List of Experiments</b>          |
|---------------|-------------------------------------|
| 1.            | Characteristics of SCR & TRIAC      |
| 2.            | Characteristics of MOSFET and IGBT  |
| 3.            | AC to DC Half controlled converter  |
| 4.            | AC to DC fully controlled converter |
| 5.            | Voltage Commutated Chopper          |
| 6.            | Resonant DC to DC converter         |
| 7.            | AC Voltage Controller               |
| 8.            | Single Phase Cyclo-converter        |
| 9.            | Converter fed DC Motor Drive        |
| 10.           | Inverter fed Induction Motor Drive  |

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**  
**POWER SYSTEM SIMULATION LAB**  
**FOR UG STUDENTS**

| <b>Sl.No.</b> | <b>List of Experiments</b>  |
|---------------|---|
| 1.            | Computation of Parameters and Modeling of Transmission Lines  |
| 2.            | Formation of Network Matrices and Solution of Networks  |
| 3.            | Power Flow Analysis - I: Solution of Power Flow and Related Problems Using Gauss-Seidel Method.                     |
| 4.            | Power Flow Analysis II: Solution of Power Flow and Related Problems Using Newton-Raphson and FastDecoupled Methods. |
| 5.            | Short Circuit Analysis.   |
| 6.            | Transient and Small Signal Stability Analysis: Single-Machine Infinite Bus System.                                  |
| 7.            | Transient Stability Analysis of Multimachine Power Systems.   |
| 8.            | Electromagnetic Transients in Power Systems.  |
| 9.            | Load – Frequency Dynamics of Single and Two-Area Power Systems.   |
| 10.           | Unit Commitment and Economic Dispatch in Power Systems.   |

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**  
**MICROCONTROLLERS LAB**  
**FOR UG STUDENTS**

| <b>Sl.No.</b> | <b>List of Experiments</b>  |
|---------------|---|
| 1.            | 8085 & 8086 Assembly Language Program (ALP) for Arithmetic Operations   |
| 2.            | 8051 Assembly Language Program (ALP) for Arithmetic Operations  |
| 3.            | 8051 Assembly Language Program (ALP) for Logical Operations   |
| 4.            | 8051 Assembly Language Program (ALP) for Bit Manipulation Operations  |
| 5.            | 8051 Assembly Language Program (ALP) for arrange the numbers in Ascending and Descending order  |
| 6.            | 8051 Assembly Language Program (ALP) for Interrupt & UART Operations  |
| 7.            | Interfacing an ADC to 8051 Controller   |
| 8.            | Interfacing DAC to 8051 Controller and generate Square, Triangular & Saw-tooth waveform   |
| 9.            | Interfacing a Stepper motor to 8051 Controller and operate it in clockwise and anti-clockwise directions. Interfacing a Keyboard & Display controller (8279) to 8051 Controller |

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**  
**MEASUREMENTS AND INSTRUMENTATION LAB**  
**FOR UG STUDENTS**

| <b>Sl.No.</b> | <b>List of Experiments</b>                                  |
|---------------|---|
| 1.            | Study of displacement and pressure transducers (LVDT).      |
| 2.            | Measurement of water level using capacitive Transducer      |
| 3.            | Measurement of strain using strain Gauge                    |
| 4.            | Study of temperature measuring transducers (Thermocouples). |
| 5.            | AC Bridges.   |
| 6.            | DC Bridges.   |
| 7.            | Instrumentation amplifiers.                                 |
| 8.            | A/D and D/A converter.                                      |
| 9.            | Calibration of Current Transformer                          |
| 10.           | Calibration of Single phase Energy meter.                   |
| 11.           | Calibration of Three phase Energy meter.                    |
| 12.           | Measurement of Three phase power and power factor.          |

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**  
**SEMICONDUCTOR DEVICES LAB**  
**FOR UG STUDENTS**

| <b>Sl.No.</b> | <b>List of Experiments</b>               |
|---------------|--|
| 1.            | HalfWaveRectifier                        |
| 2.            | FullWaveRectifier                        |
| 3.            | Clipper                                  |
| 4.            | Clamper                                  |
| 5.            | Input/outputCharacteristicsofCEAmplifier |
| 6.            | Input/outputCharacteristicsofCCAmplifier |
| 7.            | TransferCharacteristicsofJFET            |
| 8.            | VoltageRegulator                         |
| 9.            | TRIAC,DIAC                               |
| 10.           | SCR                                      |

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

**ELECTRICAL MACHINES – I LAB**

**FOR UG STUDENTS**

| <b>Sl.No.</b> | <b>List of Experiments</b>   |
|---------------|--|
| 1.            | Load test on DC shunt motor.   |
| 2.            | Load test on DC series motor.  |
| 3.            | Speed control of DC shunt motor.   |
| 4.            | Open circuit and load characteristics of DC generator (Self and Separately Excited). |
| 5.            | Load test on dc compound generator.  |
| 6.            | Load test on single phase transformer.   |
| 7.            | Open circuit & Short circuit test on single phase transformer.                       |
| 8.            | Swinburne's test.  |
| 9.            | Separation of Losses in single phase transformer.                                    |
| 10.           | Hopkinson's test.  |
| 11.           | Sumpner's test on 1-phase transformer.   |
| 12.           | Study of three phase transformer connections.  |
| 13.           | Study of DC Starters.  |

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

**ELECTRICAL MACHINES – II LAB**

**FOR UG STUDENTS**

| <b>Sl.No.</b> | <b>List of Experiments</b>  |
|---------------|---|
| 1.            | Regulation of 3-phase Alternator by EMF and MMF methods   |
| 2.            | Regulation of 3-phase Alternator by ZPF and ASA method  |
| 3.            | Slip test on 3-phase Alternator   |
| 4.            | Load characteristics of 3-phase Alternator by bus bar loading   |
| 5.            | V and inverted V curve of Synchronous motors  |
| 6.            | Load test on 3-phase Induction motor  |
| 7.            | Load test on 1-phase Induction motor  |
| 8.            | No load and Blocked Rotor test on three phase induction motor   |
| 9.            | Equivalent circuit and pre – determination of performance characteristics of single-phase Induction motor |
| 10.           | Separation of losses in three-phase induction motor   |
| 11.           | Speed control of three phase induction motor  |
| 12.           | Study of Linear induction motor and Synchronic Induction motor  |

**DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING**  
**CONTROL SYSTEMS LAB**  
**FOR UG STUDENTS**

| <b>Sl.No.</b> | <b>List of Experiments</b>                                   |
|---------------|--|
| 1.            | TransferfunctionofselfandseparatelyexcitedDCGenerator        |
| 2.            | Transferfunction ofArmatureand Fieldcontrolled DCMotor       |
| 3.            | Transferfunction ofACServomotor                              |
| 4.            | FrequencyresponseofLag,Lead&Lag–Leadnetworks                 |
| 5.            | Studyof SynchrosandDCStepperMotor                            |
| 6.            | TransferfunctionofWard–LeonardmethodofspeedcontrolofDCmotor  |
| 7.            | StudyofDC PositionControlssystemandstudyofvarioustransducers |
| 8.            | Study ofP,PIandPIDControllers(First Order)                   |
| 9.            | Analogandsimulationoftype–0andtype –1systems                 |
| 10.           | Stabilityanalysis ofLinearSystems                            |
| 11.           | Digitalsimulationoffirstordersystems                         |
| 12.           | Digitalsimulationofsecondordersystems                        |

**DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING**  
**DIGITAL LOGIC CIRCUITS & DESIGN LAB**  
**FOR UG STUDENTS**

| <b>Sl.No.</b> | <b>List of Experiments</b>   |
|---------------|--|
| 1.            | Design and implementation of Adders using logic gates                                |
| 2.            | Design and implementation of Subtractors using logic gates                           |
| 3.            | Design and implementation of BCD to Excess-3 code converter using logic gates        |
| 4.            | Design and implementation of Binary to Gray code converter using logic gates         |
| 5.            | Design and implementation of 4 bit BCD adder using IC 7483                           |
| 6.            | Design and implementation of 2 Bit Magnitude comparator using logic gates            |
| 7.            | Design and implementation of Multiplexer and De-Multiplexer using logic gates        |
| 8.            | Design and implementation of encoder and decoder using logic gates                   |
| 9.            | Design and implementation of 3 bit synchronous up/down counter                       |
| 10.           | Implementation of SISO, SIPO, and PISO shift registers using flip flops              |
| 11.           | Design and Simulation of Full adder circuit using Gate level modelling               |
| 12.           | Design and Simulation of 2X2 multiplier circuit using structural level modeling      |
| 13.           | Design and Simulation of 8 to 1 Multiplexer circuit using behavioural level modeling |

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**  
**SOLID STATE DRIVES LAB**  
**FOR UG STUDENTS**

| <b>Sl.No.</b> | <b>List of Experiments</b>                                 |
|---------------|--|
| 1.            | Converter fedDCMotorDrive                                  |
| 2.            | InverterfedInduction MotorDrive                            |
| 3.            | V/FControlof VSIFedInductionMotor.                         |
| 4.            | Rotor Resistance Controlof Induction Motor.                |
| 5.            | SimulationofPWMInverterfedsinglephaseinductionmotorcontrol |
| 6.            | SimulationofPWMInverterfedthreephaseinductionmotorcontrol  |
| 7.            | SimulationofCSIfedinductionmotordriveanalysis              |
| 8.            | SimulationofVSIfedinductionmotordriveanalysis              |

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**  
**LINEAR INTEGRATED CIRCUITS LAB**  
**FOR UG STUDENTS**

| <b>Sl.No.</b> | <b>List of Experiments</b>   |
|---------------|--|
| 1.            | Design of Inverting and Non-Inverting amplifier using operational amplifier. |
| 2.            | Design of Adders and Subtractors using operational amplifier                 |
| 3.            | Design of Integrators and Differentiators using operational amplifiers.      |
| 4.            | Design of comparators using operational amplifiers.                          |
| 5.            | Design of rectifiers using operational amplifiers.                           |
| 6.            | Design of oscillators using operational amplifier                            |
| 7.            | Design of Astable and Monostable Multivibrators using IC 555 Timer           |
| 8.            | Design of filters using operational amplifier.                               |
| 9.            | Design of Digital to analog converter and Analog to Digital converters       |
| 10.           | Design and implementation of Phase Locked Loops.                             |

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**  
**SEMICONDUCTOR DEVICES AND CIRCUITS LAB**  
**FOR UG STUDENTS**

| Sl.No. | List of Experiments   |
|--------|---|
| 1      | To study experimentally the characteristics of Diodes, BJT's and FET's.   |
| 2      | To plot the input and output characteristics of a transistor in CE Configuration and to compute the h-parameters                              |
| 3      | To study Drain characteristics and Transfer characteristics & to find the Transconductance, Drain resistance and Amplification factor of JFET |
| 4      | Simulation & Hardware realization of Half wave & Full wave Rectifier with and without Filter.   |
| 5      | Simulation & Hardware realization of Clipping & Clamping circuits   |
| 6      | Simulation & Hardware realization of Voltage Series Feedback amplifiers and its frequency analysis  |
| 7      | Design, Simulation and Hardware realization of Sinusoidal waveform generators.<br>a. RC Oscillators<br>b. LC Oscillators                      |
| 8      | Design and simulation of Power amplifiers   |
| 9      | Frequency Response characterization of Single Tuned amplifier circuit.  |
| 10     | Miniproject   |

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**  
**ROBOTICS LAB**  
**FOR UG STUDENTS**

| <b>Sl.No.</b> | <b>List of Experiments</b>  |
|---------------|---|
| 1.            | Study of different types of robots based on configuration and application.                                    |
| 2.            | Study of different type of links and joints used in robots 3)   |
| 3.            | Study of components of robots with drive system and end effectors.  |
| 4.            | Simulation of Forward and Inverse Kinematics using Robo Analyzer  |
| 5.            | Simulation of Workspace Analysis of a 6 axis robot.   |
| 6.            | Forward and inverse kinematics using QBot 2   |
| 7.            | Verification of transformation (Position and orientation) with respect to gripper and world coordinate system |
| 8.            | Estimation of accuracy, repeatability and resolution.   |

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**  
**SOLAR ENERGY LAB**  
**FOR UG STUDENTS**

| <b>Sl.No.</b> | <b>List of Experiments</b>   |
|---------------|--|
| 1.            | I-V and P-V characteristics with series and parallel combination of modules  |
| 2.            | Effect of variation in tilt angle and shading on PV module power   |
| 3.            | Power flow calculations of standalone PV system of DC load with battery  |
| 4.            | Power flow calculations of standalone PV system of AC load with battery  |
| 5.            | Power flow calculations of standalone PV system of DC and AC load with battery   |
| 6.            | Charging and discharging characteristics of battery  |
| 7.            | Interfacing of hardware using RS232 ports and suitable software  |
| 8.            | Evaluation of Active, Reactive Power & Apparent Energy Flow between Grid-Tied Inverter, Grid & Load and Net Metering concept |
| 9.            | Grid Synchronization of Solar PV Inverter and its Performance Analysis   |
| 10.           | Impact of Transmission Line Inductance on Voltage Quality at PCC   |

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**  
**WIND ENERGY LAB**  
**FOR UG STUDENTS**

| <b>Sl.No.</b> | <b>List of Experiments</b>   |
|---------------|--|
| 1.            | Evaluate the efficiency of charge controller used in the Wind Energy Training System (WETS)                              |
| 2.            | Evaluate the cut-in speed of wind turbine experimentally   |
| 3.            | Evaluate the Tip Speed ratio (TSR) at different wind speeds  |
| 4.            | Draw the turbine Power versus wind speed curve   |
| 5.            | Draw the curve between TSR and coefficient of power  |
| 6.            | Draw the power curve of turbine with respect to the rotational speed of rotor at fix wind speeds                         |
| 7.            | Demonstrate the power analysis at turbine output (for high wind speeds)  |
| 8.            | Demonstrate the power analysis at different branches of wind turbine energy system (at high frequency) with AC load only |
| 9.            | Demonstrate the power analysis at different branches of wind turbine energy system (at high frequency) with DC load only |

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**  
**SENSORS AND ELECTRONIC MEASUREMENTS LAB**  
**FOR UG STUDENTS**

| <b>Sl.No.</b> | <b>List of Experiments</b>                               |
|---------------|--|
| 1.            | Speed measurement using Photoelectric tachometer         |
| 2.            | Digital transducer – shaft angle encoder                 |
| 3.            | Strain gauge characteristics                             |
| 4.            | Torque measurement                                       |
| 5.            | Displacement measurement using potentiometric transducer |
| 6.            | Measurement of Temperature using RTD                     |
| 7.            | Measurement of temperature using Thermocouple            |
| 8.            | Measurement of Capacitance using Schering bridge         |
| 9.            | Measurement of Frequency using Wein bridge               |
| 10.           | Measurement of Inductance using Anderson bridge          |

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

**POWER SYSTEM SIMULATION – II LAB**

**FOR PG STUDENTS**

| <b>Sl.No.</b> | <b>List of Experiments</b>   |
|---------------|--|
| 1.            | Contingency analysis: Generator shift factors and line outage distribution factors |
| 2.            | Small signal stability analysis: SMIB and Multi machine configuration              |
| 3.            | Transient stability analysis of Multi – machine configuration                      |
| 4.            | Economic dispatch with line flow constraints                                       |
| 5.            | Unit commitment: Priority-list schemes and dynamic programming                     |
| 6.            | Co-ordination of over current and distance relays for radial line protection       |
| 7.            | Induction motor starting analysis  |
| 8.            | Analysis of switching surge using EMTP   |

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

**POWER ELECTRONICS FOR POWER SYSTEMS LAB  
FOR PG STUDENTS**

| <b>Sl.No.</b> | <b>List of Experiments</b>  |
|---------------|---|
| 1.            | Single Phase Semi-converter with R-L and R-L-E loads for continuous and discontinuous conduction modes  |
| 2.            | Single Phase Full- Converter With R-L And R-L-E Loads for Continuous and Discontinuous Conduction Modes |
| 3.            | Three phase full-converter with R-L-E load  |
| 4.            | MOSFET, IGBT based Choppers   |
| 5.            | IGBT based Single phase inverters   |
| 6.            | Single phase AC voltage controller  |
| 7.            | Modeling of PV system   |
| 8.            | Modeling of Wind Energy conversion System   |
| 9.            | Modeling of HVDC  |
| 10.           | Modeling of reactive power control  |

**DEPARTMENT OF MECHANICAL ENGINEERING**  
**AUTOMOBILE ENGINEERING LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>   |
|---------------|--|
| 1.            | Dismantling & Assembling Of 6 Cylinder Petrol Engine.  |
| 2.            | Dismantling & Assembling Of 4 Cylinder Petrol Engine   |
| 3.            | Dismantling & Assembling Of 3 Cylinder Diesel Engine   |
| 4.            | Dismantling & Assembling Of Gear Box – Sliding Mesh, Constant Mesh & Synchronesh Gear Box, Transfer Case |
| 5.            | Dismantling & Assembling Of Steering System, Braking System  |
| 6.            | Study Of Oil Filter, Fuel Filter, Fuel Injection System, Carburettor, MPFI                               |
| 7.            | Study Of Ignition System Components – Coil, Magneto And Electronic Ignition Systems.                     |
| 8.            | Study Of Engine Cooling System Components, Study Of Engine Lubrication System Components                 |
| 9.            | Ovality And Taper Measurement Of Cylinder Bore And Comparison With Standard Specifications               |
| 10.           | Clutch 2 Types – Coil Spring & Diaphragm Spring Clutches   |

**DEPARTMENT OF MECHANICAL ENGINEERING**  
**COMPUTER INTEGRATED MANUFACTURING LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b>                           | <b>Name of Experiments</b>   |
|---|--|
| <b>Introduction</b>                     |  |
| 1.                                      | Study of G and M codes   |
| 2.                                      | Manual Part Programming for CNC Machines using Stand G and M Code. |
| 3.                                      | Machining practice on Trainer Type CNC Machines-                   |
| 4.                                      | Simulation of tool path using any CAM Software                     |
| <b>Part programming in CNC Milling</b>  |  |
| 1.                                      | Point to point motions   |
| 2.                                      | Linear motions   |
| 3.                                      | Circular interpolations  |
| 4.                                      | Contour motions  |
| 5.                                      | Rectangular pocketing  |
| 6.                                      | Mirroring  |
| 7.                                      | Circular Pocketing   |
| 8.                                      | Fixed /canned cycles   |
| 9.                                      | Subroutines  |
| <b>Part programming for CNC Turning</b> |  |
| 1.                                      | Turning and facing   |
| 2.                                      | Step turning, Taper Turning  |
| 3.                                      | Grooving   |
| 4.                                      | Fixed/Canned Cycles  |
| 5.                                      | Thread cutting Cycles  |
| 6.                                      | Peck Drilling Cycles   |

**DEPARTMENT OF MECHANICAL ENGINEERING**  
**HEAT TRANSFER LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>  |
|---------------|---|
| 1.            | Determination of Thermal conductivity (Lagged Pipe)                         |
| 2.            | Determination of Emissivity   |
| 3.            | Determination of Heat transfer co-efficient through Forced Convection.      |
| 4.            | Determination of Heat transfer co-efficient through Natural Convection.     |
| 5.            | Determination of Heat transfer co-efficient of Pin-Fin Apparatus.           |
| 6.            | Determination of Stefan Boltzmann's Constant.                               |
| 7.            | Determination of Thermal conductivity (Two Slabs Guarded Hot Plate Method). |
| 8.            | Determination of Effectiveness of a Heat Exchanger by Parallel Flow.        |
| 9.            | Determination of Effectiveness of a Heat Exchanger by Counter Flow.         |
| 10.           | Determination of Thermal conductivity of the Composite wall.                |
| 11.           | Determination of Thermal conductivity (Insulating Powder).                  |

**DEPARTMENT OF MECHANICAL ENGINEERING**  
**METALLURGY LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>                   |
|---------------|--|
| 1.            | Introduction to Metallography                |
| 2.            | Preparation of Metallographic Specimen       |
| 3.            | Heat Treatment – Normalising                 |
| 4.            | Heat Treatment – Annealing                   |
| 5.            | Heat Treatment – Hardening                   |
| 6.            | Heat Treatment – Tempering                   |
| 7.            | Identification of Low Carbon Steel           |
| 8.            | Identification of Austenitic Stainless Steel |
| 9.            | Identification of Grey Cast Iron             |
| 10.           | Identification of Nodular Cast Iron          |
| 11.           | Identification of Brass (Copper Alloy)       |
| 12.           | Identification of Aluminium Alloy            |



**DEPARTMENT OF MECHANICAL ENGINEERING**  
**MANUFACTURING PROCESS LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>  |
|---------------|---|
| 1.            | Exercise on plain turning and facing of given cylindrical MS specimen.                        |
| 2.            | Exercise on step turning and chamfering.  |
| 3.            | Exercise on taper turning of given specification on a cylindrical specimen.                   |
| 4.            | Manufacture of external or internal threads of given specification on a cylindrical Specimen. |
| 5.            | Exercise on step turning with knurling of given specification on a cylindrical specimen       |
| 6.            | Exercise on drilling, boring and reaming on the given MS plate.                               |
| 7.            | Exercise on eccentric turning in lathe on a given specimen.                                   |
| 8.            | Exercise on drilling with internal thread on a given specimen.                                |

**DEPARTMENT OF MECHANICAL ENGINEERING**  
**DYNAMICS LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>   |
|---------------|--|
| 1.            | Perform an experiment on Watt and Porter Governor and to find the Stability and sensitivity  |
| 2.            | Determine the controlling force and speed of a Proell Governor   |
| 3.            | Determine the position of sleeve against controlling force and speed of a Hartnell Governor and to plot the characteristic curve of radius of rotation |
| 4.            | Analyze the motion of gyroscope couple using Motorized Gyroscope   |
| 5.            | Determination of critical speed of whirling shaft  |
| 6.            | Determination of Natural frequency of single degree freedom system in a spring mass system   |
| 7.            | Determination of Radius of Gyration using Compound pendulum  |
| 8.            | Determine the Moment of Inertia by Tri-filar and Bifilar suspension.   |

**DEPARTMENT OF MECHANICAL ENGINEERING**  
**AUTOMATION LAB**  
**FOR PG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>                                   |
|---------------|--|
| 1.            | Simulation of single and double acting cylinder circuits     |
| 2.            | Simulation of Hydraulic circuits                             |
| 3.            | Simulation of electro pneumatic circuits                     |
| 4.            | Simulation of electro hydraulic circuits                     |
| 5.            | Simulation of PLC circuits                                   |
| 6.            | Exercises on linear and angular measurements                 |
| 7.            | Exercises on speed measurements                              |
| 8.            | Exercises on Vibration measurements                          |
| 9.            | Exercises on Motion controller using servo motors, encoders. |
| 10.           | Exercises on fiber optics transducers.                       |
| 11.           | Exercises on stepper motor.                                  |
| 12.           | Exercises on microprocessor based data acquisition system.   |

**DEPARTMENT OF MECHANICAL ENGINEERING**  
**FINITE ELEMENT ANALYSIS LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>                              |
|---------------|---|
| 1.            | Study of analysis and its benefits                      |
| 2.            | Stress analysis of cantilever and simply supported beam |
| 3.            | Application of distributed loads                        |
| 4.            | Nonlinear analysis of cantilever beam                   |
| 5.            | Buckling analysis                                       |
| 6.            | Stress analysis of axis-symmetry vessels                |
| 7.            | Static analysis of two-dimensional truss                |
| 8.            | Transient thermal conduction                            |
| 9.            | Conductive heat transfer analysis                       |
| 10.           | Plane stress bracket                                    |
| 11.           | Modal analysis of simply supported beam                 |
| 12.           | Harmonic analysis of a cantilever beam                  |

**DEPARTMENT OF MECHANICAL ENGINEERING**  
**INDUSTRIAL AUTOMATION LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>   |
|---------------|--|
| 1.            | To design a Speed control circuits for double acting cylinder.   |
| 2.            | To design a Synchronization circuit for two cylinders.   |
| 3.            | To design a Continuous reciprocation of double acting cylinder.  |
| 4.            | To design a Sequencing of two cylinder circuits  |
| 5.            | To design a Cascading circuit for trapped signals-2groups  |
| 6.            | Implementation of Logic Circuits: AND OR   |
| 7.            | Design of Basic Electro Pneumatic Circuits: Continuous reciprocation of cylinder(with timer and counter) |
| 8.            | Design and testing of Force, Velocity calculations in Hydraulic  |
| 9.            | Automatic bottle filling Machine   |
| 10.           | Design and simulation of PLC Control Pneumatic/ Hydraulic linear actuator circuits.                      |
| 11.           | To design a Water Level Controller using PLC.  |
| 12.           | To design a PLC Controlled Material Handling System.   |

**DEPARTMENT OF MECHANICAL ENGINEERING**  
**DYNAMICS AND METROLOGY LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>   |
|---------------|--|
| 1.            | Perform an experiment on Watt and Porter Governor to prepare performance characteristic curves and to find stability and sensitivity                   |
| 2.            | Determine the position of sleeve against controlling force and speed of a Hartnell governor and to plot the characteristic curve of radius of rotation |
| 3.            | Analyse the motion of a motorized gyroscope when the couple is applied along its spin axis and determine gyroscopic couple                             |
| 4.            | Determine the Moment of Inertia by compound pendulum and tri-filar suspension.   |
| 5.            | Determine the frequency of undamped free vibration and damped forced vibration of an equivalent spring mass system.                                    |
| 6.            | Determine whirling speed of shaft theoretically and experimentally.  |
| 7.            | Angular Measurements using Bevel Protector and Sine Bar  |
| 8.            | Flow Measurement using a Rotameter.  |
| 9.            | Fundamental dimension measurement of a gear using a contour projector.   |
| 10.           | Measurement of Displacement using Linear Variable Differential Transducer.   |
| 11.           | Measurement of speed of Motor using Stroboscope.   |
| 12.           | Measurement of cutting forces using Lathe Tool Dynamometer   |

**STUDY EXPERIMENTS**

13. Measurement of various diameters of screw thread using Tool makers Microscope
14. Measurement of Temperature by using Thermocouples (J- Type, K-Type).

**DEPARTMENT OF MECHANICAL ENGINEERING**  
**ENGINE TESTING LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>  |
|---------------|---|
| 1.            | Determination of Viscosity of the given specimen oil by using Red Wood Viscometer.                        |
| 2.            | Determination of Flash Point and Fire Point of the given fuel sample.                                     |
| 3.            | Actual valve timing diagram of a four stroke engine and comparison with theoretical valve timing diagram. |
| 4.            | Actual port timing diagram of a two stroke engine and comparison with theoretical port timing diagram.    |
| 5.            | Performance test on a four stroke single/ two cylinder diesel engine.                                     |
| 6.            | Determination of frictional power of a four cylinder petrol engine by conducting a Morse test.            |
| 7.            | Conduct a retardation test and determine frictional power in a diesel engine.                             |
| 8.            | Performance test on variable compression ratio engine with biofuel.                                       |

**DEPARTMENT OF MECHANICAL ENGINEERING**  
**MACHINE DRAWING LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>  |
|---------------|---|
|               | <b>Drawing of Machine Elements and simple parts</b>   |
|               | Selection of Views, additional views for the following machine elements and parts with every drawing proportions  |
| 1.            | Popular forms of Screw threads, bolts, nuts, stud bolts, tap bolts, setscrews.                                    |
| 2.            | Keys, cotter joints and knuckle joint.  |
| 3.            | Riveted joints for plates   |
| 4.            | Shaft coupling, spigot and socket pipe joint.   |
| 5.            | Journal, pivot and collar and foot step bearings.   |
|               | <b>Assembly Drawings</b>  |
|               | Drawings of assembled views for the part drawings of the following using conventions and easy drawing proportions |
| 1.            | Engine parts – stuffing boxes, cross heads, Eccentrics, Petrol Engine connecting rod, piston assembly.            |
| 2.            | Other machine parts - Screws jacks, Machine Vices Plummer block, Tailstock.                                       |
| 3.            | Valves: Steam stop valve, spring loaded safety valve, feed check valve and aircock.                               |

**DEPARTMENT OF MECHANICAL ENGINEERING**  
**MANUFACTURING TECHNOLOGY LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>  |
|---------------|---|
| 1.            | Make a square end from a given round bar by using shaping machine.  |
| 2.            | Make an inclined surface from a given specimen by using shaping machine.  |
| 3.            | Make a hexagonal block from a given round stock by using plain milling machine.   |
| 4.            | Make a spur gear from the given blank by using universal milling machine.   |
| 5.            | Make an external keyway on a given round rod by using vertical milling machine.   |
| 6.            | Make an internal keyway on a given hollow specimen by using slotting machine.   |
| 7.            | Make a grinding process on a machined surface as given surface finish by using cylindrical  |
| 8.            | Make an internal thread cutting on a given specimen as per given dimensions by the sequence drilling, boring, reaming and tapping by using respective tools and machines. |

**DEPARTMENT OF MECHANICAL ENGINEERING**  
**HYDRAULICS AND PNEUMATIC SYSTEM LAB**  
**FOR UG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>                             |
|---------------|--|
| 1.            | Study of Speed Control Circuit on Hydraulic Trainer    |
| 2.            | Study of Speed Control Circuit on Hydraulic Trainer    |
| 3.            | Study of Synchronizing Circuit on Hydraulic Trainer    |
| 4.            | Study of Regenerative Circuit on Hydraulic Trainer     |
| 5.            | Study of Counterbalancing Circuit on Hydraulic Trainer |
| 6.            | Study of ISO/GIS Fluid Power Symbols                   |
| 7.            | Design and assembly of hydraulic / pneumatic circuit   |
| 8.            | Visit Report for Demonstration of Fluid Power Circuit  |



## **B.BASIC MECHANICAL ENGINEERING**

| <b>Sl.No.</b> | <b>Name of Experiments</b>                         |
|---------------|--|
| 1.            | Tee – Fitting.                                     |
| 2.            | Vee – Fitting.                                     |
| 3.            | Preparation of a mould for a single piece pattern. |
| 4.            | Preparation of a mould for a split piece pattern.  |
| 5.            | Half- Lap Joint in Carpentry.                      |
| 6.            | Dove Tail Joint in Carpentry.                      |
| 7.            | Lap Joint – Welding.                               |
| 8.            | Butt Joint – Welding.                              |

**DEPARTMENT OF MECHANICAL ENGINEERING**  
**MODELLING AND ANALYSIS LAB**  
**FOR PG STUDENTS**  
**LIST OF EXPERIMENTS**

| <b>Sl.No.</b> | <b>Name of Experiments</b>                              |
|---------------|---|
| 1.            | Study of analysis and its benefits                      |
| 2.            | Stress analysis of cantilever and simply supported beam |
| 3.            | Application of distributed loads                        |
| 4.            | Nonlinear analysis of cantilever beam                   |
| 5.            | Buckling analysis                                       |
| 6.            | Stress analysis of axis-symmetry vessels                |
| 7.            | Static analysis of two-dimensional truss                |
| 8.            | Transient thermal conduction                            |
| 9.            | Conductive heat transfer analysis                       |
| 10.           | Plane stress bracket                                    |
| 11.           | Modal analysis of simply supported beam                 |
| 12.           | Harmonic analysis of a cantilever beam                  |

**DEPARTMENT OF MECHANICAL ENGINEERING**

**CIM LAB**

**FOR PG STUDENTS**

**LIST OF EXPERIMENTS**

**Sl.No.**

**Name of Experiments**

**Exercise on CNC Lathe:**

1. Plain Turning
2. Step turning
3. Taper turning
4. Threading
5. Grooving
6. canned cycle

**Exercise on CNC Milling Machine**

7. Profile Milling
8. Mirroring
9. Scaling
10. canned Cycle

**Study of Sensors**

11. Transducers & PLC: Hall-effect sensor, Pressure sensors, Strain gauge, PLC, LVDT, Load cell, Angular potentiometer, Torque, Temperature & Optical Transducers.
12. Mini project on any one of the CIM elements is to be done. Software or hardware simulating a CIM element.

**CAD LABORATORY -2D modeling and 3D modeling of components**

13. Bearing
14. Couplings
15. Gears
16. Sheet metal components
17. Jigs, Fixtures and Die assemblies.

**DEPARTMENT OF HUMANITIES AND SCIENCES**

**DEPARTMENT OF ENGLISH**

**ENGLISH LANGUAGE LAB**

**FOR UG STUDENTS**

**LIST OF EXPERIMENTS**

| <b>Sl. No.</b> | <b>Name of Experiments</b>   |
|----------------|------------------------------|
| 1.             | Listening Skill (Activity 1) |
| 2.             | Listening Skill (Activity 2) |
| 3.             | Listening Skill (Activity 3) |
| 4.             | Listening Skill (Activity 4) |
| 5.             | Listening Skill (Activity 5) |
| 6.             | Phonetics                    |
| 7.             | Accents and MTI              |
| 8.             | Speaking Skill (Activity 1)  |
| 9.             | Speaking Skill (Activity 2)  |
| 10.            | Speaking Skill (Activity 3)  |
| 11.            | Speaking Skill (Activity 4)  |
| 12.            | Speaking Skill (Activity 5)  |
| 13.            | Case Study 1                 |
| 14.            | Case Study 2                 |
| 15.            | TOEFL                        |
| 16.            | BEC                          |

**DEPARTMENT OF HUMANITIES AND SCIENCES**

**DEPARTMENT OF PHYSICS**

**PHYSICAL SCIENCES (REAL AND VIRTUAL LAB IN PHYSICS) LAB**

**FOR UG STUDENTS**

**LIST OF EXPERIMENTS**

| <b>Sl. No.</b> | <b>Name of Experiments</b>  |
|----------------|---|
| 1.             | Young's Modulus of a bar – Non uniform bending.   |
| 2.             | Torsional Pendulum – Determination of Rigidity modulus of the wire.                               |
| 3.             | Determination of Viscosity of a liquid – Poiseulle's Method.                                      |
| 4.             | Ultrasonic Interferometer – Determination of velocity of sound and compressibility of the liquid. |
| 5.             | Diode Laser – Determination of Particle size.   |
| 6.             | Spectrometer – Determination of Wavelength of the mercury Spectrum.                               |
| 7.             | Air-wedge – Determination of thickness of the material.   |
| 8.             | Determination of thermal conductivity of bad conductor – Lee's Disc Apparatus.                    |
| 9.             | Band Gap Apparatus – Determination of Band gap of a thermistor.                                   |
| 10.            | Young's Modulus of a bar – Non uniform bending.   |
| 11.            | Torsional Pendulum – Determination of Rigidity modulus of the wire.                               |
| 12.            | Determination of Viscosity of a liquid – Poiseulle's Method.                                      |
| 13.            | Specific resistance of a wire - Potentiometer   |

**DEPARTMENT OF HUMANITIES AND SCIENCES**

**DEPARTMENT OF CHEMISTRY**

**PHYSICAL SCIENCES LAB: PART – B ENGINEERING CHEMISTRY LAB**

**FOR UG STUDENTS**

**LIST OF EXPERIMENTS**

| <b>Sl. No.</b> | <b>Name of Experiments</b>   |
|----------------|--|
| 1.             | . Determination of Hardness by EDTA method.                          |
| 2.             | Estimation of Hydrochloric acid by Conductometric method.            |
| 3.             | Acid base titration by pH method.                                    |
| 4.             | Estimation of ferrous ion by Potentiometric method.                  |
| 5.             | Determination of Dissolved oxygen by Winkler's method                |
| 6.             | Estimation of Sodium by Flame photometer                             |
| 7.             | Estimation of copper from Copper Ore Solution                        |
| 8.             | Estimation of iron by spectrophotometer                              |
| 9.             | Separation of mixture of components using thin layer chromatography. |
| 10.            | Corrosion experiment by weight loss methods.                         |

## COMPUTING FACILITIES

Internet Bandwidth: **500 Mbps**

| SI.No | Nameof theItem | NumberofQuantity |
|-------|----------------|------------------|
| 1     | Desktop        | 561              |
| 2     | MiniLaptop     | 20               |
| 3     | Laptop         | 20               |

### SERVERROOMEQUIPMENTS

| S.NO | EQUIPMENT                               | CONFIGURATION   | QTY |
|------|---|---|-----|
| 1    | SYSTEM –<br>HPPROLIANTML110             | PROCESSOR: INTEL XEON @1.86 GHZ<br>RAM:4GB<br>HDD:250GB     | 3   |
| 2    | SYSTEM –<br>HPDL380G5                   | PROCESSOR: INTEL XEON @1.86 GHZ<br>RAM:2GB<br>HDD:72 GB     | 1   |
| 3    | SYSTEM-<br>DELLPOWEREDGET31<br>0        | PROCESSOR: INTEL XEON @1.86 GHZ<br>RAM:4GB<br>HDD:500GB     | 1   |
| 4    | SYSTEM-<br>DELLOPTIPLEX302<br>0         | PROCESSOR: INTEL CORE I5 @ 3.20 GHZ<br>RAM:4GB<br>HDD:1TB   | 2   |
| 5    | SYSTEM -<br>HPPROLAINT<br>BL260CG5      | PROCESSOR: INTEL XEON @3.00 GHZ<br>RAM:4GB<br>HDD:500GB     | 1   |
| 6    | ASSEMBLED SYS<br>TEM                    | PROCESSOR: INTEL CORE I3 @ 3.70 GHZ<br>RAM:4GB<br>HDD:1TB   | 1   |
| 7    | ASSEMBLED SYS<br>TEM                    | PROCESSOR: INTEL CORE I3 @ 3.70 GHZ<br>RAM:4GB<br>HDD:500GB | 1   |
| 8    | MICROTIK<br>ROUTERCCR1009-7G-<br>1C-15+ | MICROTIK GIGABIT ROUTER                                     | 1   |
| 9    | SOPHOS<br>XG430FIREWALL                 | 1000NODESSUPPORT  | 1   |
| 10   | EXTREAM<br>SUMMITX460-24X<br>CORESWITCH | MANAGEABLE28PORT  | 1   |
| 11   | HIKE VISION<br>64CHANNELNVR             | 64CHANNELNVRFULLHD1080                                      | 4   |

### Major software packages available:

| S. NO. | Department | Name   |
|--------|------------|--|
| 1      | Mechanical | CATIA V5 academic discover package               |
| 2      | Mechanical | PROE wildfire 3.0                                |
| 3      | Mechanical | Autodesk Inventor Professional 2009 solution Set |

|    |                                |  |
|----|--------------------------------|--|
| 4  | Mechanical                     | Solid Works  |
| 5  | Mechanical                     | ANSYS 16.0 ACADEMIC TEACHING MECHANICAL (2,56,000 nodes) + CFD(5,12,000 nodes) |
| 6  | Mechanical                     | Edge Cam   |
| 7  | Mechanical                     | MASTERCAM for solidworks Version X7  |
| 8  | Mechanical                     | ESI(Tronic) Bosch Vehicle Diagnostic Software                                  |
| 9  | Mechanical                     | CNC  |
| 10 | Mechanical                     | Automation Studio  |
| 11 | Mechanical                     | QCAD   |
| 12 | Mechanical                     | OpenFoam   |
| 13 | Mechanical                     | Openmodelica   |
| 14 | Mechanical                     | Lab view IC engine automation software VCR lab                                 |
| 15 | EEE                            | COMOS plant Engineering software   |
| 16 | EEE                            | SIMATIC Pcs 7 Software Trainer Package V 8.2                                   |
| 17 | EEE                            | Simit Simulation Framework   |
| 18 | EEE                            | Scilab   |
| 19 | EEE                            | e Sim  |
| 20 | CSE                            | Windows -11  |
| 21 | CSE                            | Window-10  |
| 22 | CSE                            | NS2 SIMULATION   |
| 23 | CSE                            | JDK  |
| 24 | CSE                            | Turbo C++ Compiler   |
| 25 | CSE                            | Visual Studio 10 (Free IDE)  |
| 26 | CSE                            | STAR UML   |
| 27 | CSE                            | Turbo C++ Compiler   |
| 28 | CSE                            | HTML, XML (Any Browsers)   |
| 29 | ECE                            | L-SIM Simulator  |
| 30 | ECE                            | N-Sim Simulator  |
| 31 | ECE                            | Xilinx   |
| 32 | ECE                            | Arudino  |
| 33 | ECE                            | e sim  |
| 34 | ECE                            | Scilab   |
| 35 | ECE                            | Tinker Cad   |
| 36 | ECE                            | NS2  |
| 37 | English                        | Orell Talk   |
| 38 | Centre for Nano technology Lab | Instrument Software for AFM  |
| 39 | Centre for Nano technology Lab | Instrument Software for FITR   |
| 40 | Centre for Nano technology Lab | Instrument Software for UV-Spectrometer  |

Innovation Cell: Available

Social Media Cell: Available

Compliance of NAD: yes

Facilities:<https://www.avit.ac.in/campus/hostel.php>

## 16. Placement details of students in the last 3 years

| S.No | Department    | 22-23 | 21-22 | 20-21 |
|------|---------------|-------|-------|-------|
| 1    | Biotechnology | 9     | 8     | 4     |
| 2    | Biomedical    | 18    | 5     | 16    |
| 3    | Civil         | 11    | 30    | 26    |
| 4    | CSE           | 46    | 42    | 38    |
| 5    | ECE           | 10    | 21    | 25    |
| 6    | EEE           | 11    | 17    | 13    |
| 7    | Mechatronics  | 9     | 5     | 5     |
| 8    | Mechanical    | 33    | 87    | 80    |
| 9    | Automobile    | -     | 4     | 5     |

## 17. List of Research Projects / Consultancy works

### Projects Carried out, funding agency, Grant received

| Name of the Project   | Name of the Principal Investigator/ Co Investigator | Name of the Funding agency              | Department of Principal Investigator/ Co Investigator | Year of Award | Funds provided (INR in Lakhs) | Duration of the project |
|---|---|---|---|---------------|-------------------------------|-------------------------|
| Nanopore-Based Biosensing Precepts for Identifying Specific Amino Acids: A Novel Approach for the Detection of Early Tumour Cells | Dr. S. Shanmuga Sundar                              | Start-up Research Grant in DST SERB     | Biotechnology   | 2023-2024     | 20.94                         | 2 years                 |
| Performance Analysis and assessment of Ferrock Cement infused Steel Composite Tubular Column under Seismic loading                | Vijayan D S   | TARE Scheme-SERB                        | Civil   | 2022-2023     | 15                            | 3 years                 |
| Efficient Power Management System by Implementing Solid State Transformer   | Vijay J   | MSME                                    | ECE   | 2022-23       | 12.6                          | 1 Year                  |
| Preventive Women's Safety App using Location based Alerting   | Chitra.L  | Department of Science & Technology-SEED | Electrical and Electronics Engineering                | 2019-20       | 13.22                         | 2 Years                 |

**Publication in last 3 years**

| <b>S.No</b> | <b>Year</b> | <b>No. of Journals</b> |
|-------------|-------------|------------------------|
| 1           | 2023        | 212                    |
| 2           | 2022        | 155                    |
| 3           | 2021        | 174                    |

**Consultancy Works in last 3 Years**

| <b>Name of the consultant</b>         | <b>Name of advisory / R&amp;D consultancy/clinical trial project</b> | <b>Consulting/Sponsoring agency with contact details</b>   | <b>Year</b> | <b>Revenue generated (INR in Lakhs)</b> |
|---------------------------------------|--|--|-------------|---|
| Dept. of Mechanical Engineering,AVIT  | Alternate fuel Testing Research Lab                                  | Research Scholars, Sathyabama University                   | 2023-2024   | 0.05                                    |
| Dept. of Biotechnology,AVIT           | Test the efficacy of UVC Lamp  | Spotless AI Ltd., Coimbatore.                              | 2023-2024   | 2                                       |
| Dept. of Mechanical Engineering,AVIT  | Alternate fuel Testing Research Lab                                  | Research Scholars, Sathyabama University                   | 2023-2024   | 0.05                                    |
| Department of Civil Engineering, AVIT | Cube Testing   | Sathlokar Synergy Pvt. Ltd                                 | 2023-2024   | 0.009                                   |
| Department of Civil Engineering, AVIT | Cube Testing   | Sathlokar Synergy Pvt. Ltd                                 | 2023-2024   | 0.057                                   |
| Department of Civil Engineering, AVIT | Evaluation of Structural adequacy of Industrial Steel structure      | Ms. Xylosuisse Private Limited                             | 2023-2024   | 0.2                                     |
| Department of Civil Engineering, AVIT | Cube Testing   | Sathlokar Synergy Pvt. Ltd                                 | 2023-2024   | 0.027                                   |
| Department of Civil Engineering, AVIT | Steel Design of Entrance Arch  | Arun Excello- Estancia                                     | 2023-2024   | 0.15                                    |
| Department of Civil Engineering, AVIT | Steel Mezzanine and Terrece Water Proof                              | Rtn.Vipin  | 2023-2024   | 0.12475                                 |
| Department of Civil Engineering, AVIT | Soil Test Report   | Samymal Constructions                                      | 2023-2024   | 0.064                                   |
| Department of Civil Engineering, AVIT | Solar Panel Frame Design   | United Shakthi Associates                                  | 2023-2024   | 0.12                                    |
| Department of Civil Engineering, AVIT | Evaluation of Fire damage building                                   | Thirusakthivel   | 2023-2024   | 0.1                                     |
| Dept. of Mechanical Engineering,AVIT  | Alternate fuel Testing Research Lab                                  | Research Scholars, SRM Institute of Science and Technology | 2023-2024   | 0.1                                     |

|                                       |                                     |   |           |        |
|---------------------------------------|-------------------------------------|---|-----------|--------|
| Dept. of Mechanical Engineering,AVIT  | Alternate fuel Testing Research Lab | Research Scholars, SRM Institute of Science and Technology  | 2023-2024 | 0.025  |
| Dept. of Mechanical Engineering,AVIT  | Alternate fuel Testing Research Lab | Research Scholars, SRM Institute of Science and Technology  | 2023-2024 | 0.05   |
| Department of Civil Engineering, AVIT | Concrete Cube Testing               | A.Rajamoorthy - AVIT Staduim work                           | 2023-2024 | 0.006  |
| Department of Civil Engineering, AVIT | Concrete Cube Testing               | A.Rajamoorthy - AVIT Staduim work                           | 2023-2024 | 0.006  |
| Department of Civil Engineering, AVIT | Compression Testing                 | Sri Varahai Construction, Chennai                           | 2022-2023 | 0.014  |
| Department of Civil Engineering, AVIT | Compression Testing                 | Mrs. Theerkadharshni, Research Scholar                      | 2022-2023 | 0.04   |
| Department of Civil Engineering, AVIT | Compression Testing                 | Sri Varahai Construction, Chennai                           | 2022-2023 | 0.006  |
| Department of Civil Engineering, AVIT | Compression Testing                 | Sri Varahai Construction, Chennai                           | 2022-2023 | 0.008  |
| Department of Civil Engineering, AVIT | Compression Testing                 | Sri Varahai Construction, Chennai                           | 2022-2023 | 0.01   |
| Department of Civil Engineering, AVIT | Evaluation report                   | United Shakthi Associates                                   | 2022-2023 | 0.0855 |
| Dept. of Mechanical Engineering,AVIT  | Alternate fuel Testing Research Lab | Research Scholars, Nachimuthu Polytechnic college, Pollachi | 2022-2023 | 0.035  |
| Department of Civil Engineering, AVIT | Structural Drawing                  | Jayakrishna ,Proprietor,M/s Jayam Ventures-9884362527       | 2022-2023 | 0.09   |
| Department of Civil Engineering, AVIT | Structural Drawing                  | G K Constructions   | 2022-2023 | 0.3    |
| Department of Civil Engineering, AVIT | Geo technical Report                | Contractor for IGCAR  | 2022-2023 | 0.195  |
| Dept. of Mechanical Engineering,AVIT  | Alternate fuel Testing Research Lab | Research Scholars, J J College of Engineeringand Technology | 2022-2023 | 0.0425 |
| Dept. of Mechanical Engineering,AVIT  | Alternate fuel Testing Research Lab | Research Scholars, Veltech University                       | 2022-2023 | 0.07   |
| Department of Civil Engineering, AVIT | Structural Drawing                  | Mr.Vignesh Shankar  | 2022-2023 | 0.04   |
| Department of Civil Engineering, AVIT | Structural Drawing                  | Mr.K.Aathiram, Lithika Construction, Thirukkalukundram      | 2022-2023 | 0.1502 |

|                                       |           |   |           |       |
|---------------------------------------|-----------|---|-----------|-------|
| Department of Civil Engineering, AVIT | Soil Test | Contractor,IGCAR, Kalpakkam   | 2021-2022 | 0.432 |
| Department of Civil Engineering, AVIT | Soil Test | Aurobindo Reality & Infrastructure Pvt. Ltd., Vittilapuram, Chengalpet District | 2021-2022 | 0.316 |
| Department of Civil Engineering, AVIT | Soil Test | Aurobindo Reality & Infrastructure Pvt. Ltd., Vittilapuram, Chengalpet District | 2021-2022 | 0.04  |

### MOUs with Industries/organisations

| S.No. | MoU Collaboration                          | Name of the partnering Institution / Industry /Research Lab /Corporate |
|-------|--|--|
| 1     | Innovation - Academics, Training, Research | Tamilnadu Technology Hub - iTNT Foundation                             |
| 2     | Academics, Training, Research              | Delta star power projects services pvt ltd                             |
| 3     | Academics, Training, Research              | SimBioen Labs and Scientific Services                                  |
| 4     | Academics, Training, Research              | NEC  |
| 5     | Academics, Training, Research, Internship  | Intel Technology   |
| 6     | Academics, Training, Research              | Chipware Technologies Pvt. Ltd   |
| 7     | Academics, Training, Research              | Seattle University   |
| 8     | Academics, Training, Research              | Ramco Cements Limited  |
| 9     | Academics, Training, Research              | NITTTR, Chennai  |
| 10    | Academics, Training, Research              | Taylor's university  |
| 11    | Academics, Training, Research              | Bosch  |
| 12    | Academics, Training, Research              | Veridian   |
| 13    | Academics, Training, Internship            | Infosys Spring Board   |
| 14    | Academics, Training, Research              | Salem Infotech   |
| 15    | Academics, Training                        | Kriatec Services Pvt. Ltd  |
| 16    | Academics, Training, Research              | Avanzo   |
| 17    | Academics, Training, Research              | Nila Apps  |
| 18    | Academics, Training, Research              | Bentley Systems Pvt Ltd  |
| 19    | Academics, Training, Research              | Tesla Minds  |
| 20    | Academics, Training, Research              | Wollo University   |
| 21    | Academics, Training, Research              | Vinveli Automated Systems  |

|    |  |  |
|----|--|--|
| 22 | Training On Advanced Areas Of Biotechnology              | Golden Jubilee Biotech Park , Chennai                      |
| 23 | Training On Advanced Areas Of Biotechnology              | Softgel Healthcare Pvt. Ltd,<br>Pudhupakkam, Kelampakkam   |
| 24 | Academics, Research, Internship And Placements           | Siemens Industry Software (India) Pvt. Ltd                 |
| 25 | Academics, Training, Research, Internship And Placements | M/S Corner stone Automations                               |
| 26 | Academics, Training, Research, Internship And Placements | Gbl – Prayojana Construction Management Training Institute |
| 27 | Academics, Training, Research, Internship And Placements | Orion Automotive And Tubular Batteries                     |
| 28 | Academics, Training, Research                            | NIT, Dimapur, Nagaland                                     |
| 29 | Research Collaborations                                  | Society For Electronic Transaction And Security (SETS)     |
| 30 | Academics, Training, Research                            | National Polytechnic Institute, Dhaka, Bangladesh          |
| 31 | Academics, Training, Research                            | Npi University Of Bangladesh, Manikgonj, Bangladesh        |
| 32 | Academics, Training, Research                            | Oakland University, Uk                                     |
| 33 | Academics, Training, Research, Internship                | M/S Emaar Solar Power System                               |
| 34 | Academics, Training, Research, Internship                | M/S Maya Solar Power System Pvt. Ltd.                      |
| 35 | Academics, Training, Research, Internship                | M/S Dorcas Upholding Hands                                 |
| 36 | Academics, Training, Research, Internship                | Lawrence & Mayo Pvt.Ltd                                    |
| 37 | Training   | Women Entrepreneurs India, Chennai                         |
| 38 | Academics, Training, Research                            | Naresuan University, Phitsanulok, Thailand                 |
| 39 | Academics, Training, Research, Internship                | M/S Steinbei'S Solar Research Centre                       |
| 40 | Academics, Training, Internship                          | Gss, Japan   |
| 41 | Academics, Training, Internship                          | Star Trace   |
| 42 | Academics, Training                                      | Vijaya Prakash Housing & Infra                             |
| 43 | Academics, Training, Value Added Course                  | Spoken Tutorial, IIT Bombay                                |
| 44 | Academics, Training, Internship                          | Vi Micro Systems   |

**AICTE APPROVAL LETTERS:**

[https://www.avit.ac.in/aicte\\_approvals/](https://www.avit.ac.in/aicte_approvals/)