**Department of Electrical and Electronics Engineering**

**Half Yearly Research Activity Report (July 2017- December 2017)**

1. **Research activities of the faculty members:**

Number of faculty members in the Department : 35

Number of faculty members with Ph. D qualification : 07

Number of faculty members pursuing Ph. D : 20

**A). Papers published by the faculty members in National and International Journals:**

**National Journal:**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No**. | **Name of the Faculty(all coauthors)** | **Title of the paper, Journal Name, Vol. No, Issue No, ISSN No, Pages , Month & Year of publication** | **Impact Factor**  **(Citations)** |
| -- | --- | --- | --- |

**International Journal:**

| **S.No**. | **Name of the Faculty(all coauthors)** | **Title of the paper, Journal Name, Vol. No, Issue No, ISSN No, Pages , Month & Year of publication** | **Impact Factor**  **(Citations)** |
| --- | --- | --- | --- |
| 1 | Deepak Arumugam,  **Dr.K.R.Santha** | Improved Performance of Integrated Generator systems with claw pole alternator for Aircraft applications , July 2017  Energy Journal, Elsevier Publication,Vol.133, pp:508-521 |  |
| 2 | Deepak Arumugam,  **Dr.K.R.Santha** | Electromagnetic & Thermal analysis of synchronous generator with different rotor structures for structures for aircraft application. Alexandria Engineering Journal, Elsevier Publication, July 2017 , pp:1-11 , September 2017 |  |
| 3 | Deepak Arumugam,  **Dr.K.R.Santha** | Performance evaluation of permanent magnet synchronous generator for aircraft applications. Energy Proceedia Journal, Elsevier Publication, August 2017, pp: 151-158. |  |

B).**Papers (presented/published) by faculty members in National & International conferences/symposiums/workshops:**

**National Conference:**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No**. | **Name of the Faculty(all coauthors)** | **Title of the paper** | **Conference Details** |
| --- | --- | --- | --- |

**International Conference:**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No**. | **Name of the Faculty(all coauthors)** | **Title of the paper** | **Conference Details** |
| 1 | C.Venkatesan,  Dr.K.Sundararaman,  Dr.M.Gopalakrishnan | Grid Integration of PMSG based Wind Energy Conversion System using Variable Frequency Transformer | IEEE International Conference on Intelligent Computing, Instrumentation and Control Technologies(ICICICT – 2017), Vimal Jyothi Engineering College, Kannur, Kerala, pp:840-845.  July 2017 |
| 2 | C.Suganthi, R.Vaishnavi  Dr.K.Sundararaman | A dual output converter with a PFC bridge- less buck front-end  INSPEC Accession Number: 17289903  DOI: 10.1109/ICPEDC.2017.8081091  Publisher: IEEE, paper published in October 2017.pp.223-228 | International Conference on Power and Embedded Drive Control (ICPEDC), 2017 at SSN College of Engineering 16-18 March 2017, |

**Technical Article Publication -----**

**C). National and International Conferences/ symposiums/ workshops/FDP/Seminar attended by the Faculty members:**

| **Sl.**  **No** | **Name of the Faculty Member** | **FDP/Short term course/Workshop/Seminar /Training Programme Details** | **Place** | **Date** | |
| --- | --- | --- | --- | --- | --- |
| **From** | **To** |
| 1 | .R.Karthikeyan | FDP on Power System Transients | College of Engineering , Anna University,Chennai | 4/12/2017 | 11/12/2017 |
| 2 | M.Sankar | FDP on Power System Transients | College of Engineering , Anna University,Chennai | 4/12/2017 | 11/12/2017 |
| 3 | C.Kamal | FDTP on Design and Mitigation Issues in Microgrid using HOMER and PVsyst. | SRM Easwari Engineering College,Chennai | 13/11/2017 | 29/11/2017 |
| 4 | Dr.S.G.Bharathidasan | Two weeks FDP on Industrial Hydraulics and Pneumatics | PSG college of Technology,Coimbatore | 29/10/2017 | 11/11/2017 |
| 5 | Dr.K.Sundararaman | Two weeks FDP on Industrial Hydraulics and Pneumatics | PSG college of Technology,Coimbatore | 29/10/2017 | 11/11/2017 |
| 6 | D.Amudhavalli | FDP on Power Converters , Control and Grid integration of Renewable Energy Sources | SSN college of Engineering , Chennai | 15/11/2017 | 29/11/2017 |
| 7 | K.Suganthi | FDP on Power Converters , Control and Grid integration of Renewable Energy Sources | SSN college of Engineering , Chennai | 15/11/2017 | 29/11/2017 |
| 8 | Dr.N.K.Mohanty | FDP on Power Converters , Control and Grid integration of Renewable Energy Sources | SSN college of Engineering , Chennai | 15/11/2017 | 29/11/2017 |
| 9 | D.S.Purushothaman | Solar Energy Training by National Institute for Entrepreneurship and Small Business Development | NIESBVD , Chennai | 11/9/2017 | 16/9/2017 |
| 10 | M.Rajan (Supporting Staff) | Solar Energy Training by National Institute for Entrepreneurship and Small Business Development | NIESBVD , Chennai | 11/9/2017 | 16/9/2017 |
| 11 | Dr.KR.Santha | e-yantra – IIT Bombay initiative for Principals meet | Anna University , Chennai | 20.10.2017 |  |
| IEEE MAS MINI POCO  (Panel for Conference Organizers) | Anna University , Chennai | 29.10.2017 |  |
| 12 | Dr.C.Gopinath | IEEE MAS MINI POCO  (Panel for Conference Organizers) | Anna University , Chennai | 29.10.2017 |  |
| 13 | K.S.Pavithra | FDP on VLSI Design | MIT Campus,Anna University | 20/11/2017 | 26/11/2017 |
| 14 | M Ranjithkumar | International Workshop on Advanced Materials and Device Technology(IWAMDT-2017) | Anna University , Chennai | 22.11.2017 | 24.11.2017 |
| 15 | S.Sudharsanam | International Workshop on Advanced Materials and Device Technology(IWAMDT-2017) | Anna University , Chennai | 22.11.2017 | 24.11.2017 |
| 16 | S.Sinthamani | International Workshop on Advanced Materials and Device Technology(IWAMDT-2017) | Anna University , Chennai | 22.11.2017 | 24.11.2017 |
| 17 | S.Anitha | International Workshop on Advanced Materials and Device Technology(IWAMDT-2017) | Anna University , Chennai | 22.11.2017 | 24.11.2017 |
| 18 | M Sasikala | International Workshop on Advanced Materials and Device Technology(IWAMDT-2017) | Anna University , Chennai | 22.11.2017 | 24.11.2017 |
| 19 | A.Tamizhselvan | National Workshop on Solar Energy | VIT Chennai organized by Kwatt Solutions LTD, IIT Mumbai | 08/12/2017 | 09/12/2017 |
| 20 | Dr.C.Gopinath | National Workshop on Solar Energy | VIT Chennai organized by Kwatt Solutions LTD, IIT Mumbai | 08/12/2017 | 09/12/2017 |
| 21 | S.V.Sreeraj | Annual Conference on MIcrochip microcontrollers and Analog ICs | Microchip Technologies | 5/12/2017 | 8/12/2017 |
| 22 | I.venkatraman | FDP on Electrical machines-I | MNM Jain Engineering college | 20/11/2017 | 26/11/2017 |
| 23 | S.Kumaravel | FDP on Electrical machines-I | MNM Jain Engineering college | 20/11/2017 | 26/11/2017 |
| 24 | D.S.Purushothaman | 6 days Training program in “Solar Energy” | Organized by NIESBUD, Chennai | 11/09/2017 | 16/11/2017 |
| 25 | K.B.Sudhakar | Emerging Computational Devices, Architectures and Computational Models | IIT Madras | 11/12/17 | 15/12/17 |

**2) Departmental research activities:**

1. **Symposium, Conferences, Workshop and Guest lecture Conducted:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl. No.** | **Event** | **Title of the Lecture** | **Date** | **Name of the Speaker / Guest** |
| 1 | Guest Lecture - Technical talk | Internet of Things | 07/08/2017 | Dr. Sabitha Ramakrishnan  Asst. Prof. (Senior Grade)  MIT Campus,Anna University, Chennai. |
| 2 | Workshop | Research Methodology | 29/9/2017 | Dr.C.Balaji ,Professor,IIT Madras |
| 3 | Seminar -IEEE | Awareness Seminar on IEEE | 20/7/2017 | Dr.KR.Santha  Vice Principal,  Prof & Head/EEE |
| 4 | IEEE Inauguration | IEEE Student Branch Inauguration | 29/8/2017 | H.R.Mohan  Vice President , IEEE  Madras Section |
| 5 | IEEE Seminar | Emerging Areas in the Field of Engineering | 5/10/2017 | Dr.KR.Santha  Vice Principal,  Prof & Head/EEE |
| 6 | Workshop | Grid Connected Photovoltaic System – Design and Installation | 6 & 7 / 10/2017 | Dr.KR.Santha  Vice Principal,  Prof & Head/EEE |
| 7 | Symposium | National Level Technical symposium – PULSE 2017 | 23/9/2017 | Shri.S.Sundaresh  Director General , DRDO,  Armament & Combat Vehicles and Engineering |
| 8 | Guest Inaugural Lecture in National Level Technical symposium – PULSE 2017 | Importance of Electrical Drives in DRDO | 23/9/2017 | Shri.S.Sundaresh  Director General , DRDO,  Armament & Combat Vehicles and Engineering |
| 9 | Guest Lecture | Energy Conservation and Safety Issues | 22.12.2017 | Mr. P. Shanmuga Sundaram, M.E.,  Executive Engineer (O & M),  Tamil Nadu Electricity Board,  Pennalur, Sriperumbudur |
| 10 | Guest Lecture and Training Program | Energy Conservation in Industries | 28.12.2017 | Er. V. Sankaranarayanan,  Retd. Chief Engineer, TNEB and BEE Certified Energy Auditor |

**B) Guest lecture delivered:**

* 1. Dr.N.K. Mohanty delivered an expert lecture in the FDP programme on Electrical Machines-I at MNM Jain college of Engineering, Chennai on 23/11/2017
  2. Dr.N.K. Mohanty delivered an expert lecture in a Workshop on the topic **Fuzzy Logic Control using MATLAB** in SVCE , Tirupathi , December 2017
  3. Mr.S.Kumaravel handled the hands on session in a Workshop on the topic **Fuzzy Logic Applications using MATLAB** in SVCE , Tirupathi, December 2017
  4. Dr.C.Gopinath delivered an expert lecture on “Electrical Machines” on 28/11/207 in the FDTP on Basic Electrical , Electronics and Instrumentation Engineering

**C) Completed funded projects in the Department:**

Institution of Engineer’s post graduate grant in aid project entitled “**Performance Analysis of Switched Reluctance Motor Drive for Electric Vehicle Application with DSP ”** has been successfully completed under the mentorship of Dr.N.K.Mohanty in July 2017. The grant was Rs 1 lakh.

**D) Faculty Recognition**

Prof.Nalin Kant Mohanty /Professor /EEE department received award for Excellence in Research from EEE CRS – Research Wing for Excellence in Professional Education & Industry under the category 6th Science & Technology awards-17 on 10/12/2017 at Mumbai, India.

* **Nodal Research Centre – Anna University Renewal**

The department is a recognized Nodal Research Centre of Anna University in the faculty of electrical engineering to pursue research in full time and part time mode. The Number of Ph.D. Scholars associated with EEE Nodal Research Centre of Anna University in part time mode is   24 and in Full Time mode is 1 while the number of Approved Mentors  is  6. The renewal process was carried out in the month of December 2017. The department successfully renewed and retained its research centre status up to December 2020 for a period of three years.

**D) Projects submitted to Funding Agencies by the Department (For the year 2017):**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl. No.** | **Name of the Project (Applied Month & Year)** | **Funding Agency** | **Amount applied** | **Coordinators** |
| 1 | Experimental Investigation of Multiport Bidirectional Converters with Hybrid Energy Storage Systems for Electric Vehicle Applications (July 2017) | DST-SERB | Rs. 24.47 Lakhs | Dr.KR Santha and  Ms.S.Arulmozhi |
| 2 | Solar PV system (1 KW) for Practical Installations Exposure (August 2017) | SVCE | Rs.75,000 | Dr.KR Santha,  Mr.D.S.Purushothaman and Mr.S.V.Sreeraj |
| 3 | Microfabrication and Characterization of Defect induced ZnO/CuO Novel LED Heterostructures (July 2017) | DST-SERB | Rs. 37.98 Lakhs | Dr.Sudhakar K Bharathan and Ms.S.Anitha |
| 4 | Nanomanufacturing and 3D printing – Atal Incubation Centre (August 2017) | Atal Incubation centre, NITI Aayog | Rs. 10 Crore | Submitted by the College through Dr.Sudhakar K Bharathan |
| 5 | Harvesting of Renewable Energy through a Variable Frequency Transformer (July 2017) | DST-SERB | Rs.39.82 Lakhs | Dr K.Sundararaman,  Dr S.G.Bharathidasan,  Mr.C.Venkatesan |
| 6 | Design and Development of PV Powered Single Stage Power Converter to Drive Fractional KW Three Phase Induction Motor (August 2017) | Tamil Nadu State Council for Scientific and Technology | Rs.10,000 | Ms.D.Amudhavalli along with UG Project Batch under ‘Students Project Scheme’ |
| 7 | Solar Powered DC-DC Converter for Wearable Devices  (August 2017) | Tamil Nadu State Council for Scientific and Technology | Rs.10,000 | Ms.S.Sinthamani along with PG Project Student under ‘Studenst Project Scheme’ |
| 8 | Low Cost Automatic Sanitary Napkin Incinerator  (August 2017) | Swachhathon 1.0 | Rs.15,000 | Dr.KR Santha,  Ms.D.Amudhavalli, Mr.D.S.Purushothaman& Bharadwaj S  (IV Year- A Batch) |

**E) Research Centre status of the department: Nodal Research Centre of Anna University- Chennai**

1. Number of Ph.D. Scholars associated with EEE Nodal Research Centre of Anna University in part time mode is **24** and in Full Time mode is **1 .**
2. Number of Approved Mentors **- 6**
3. **Ph.D. Mentors**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl**  **No.** | **Name of the Mentor** | **Designation** | **Area of Expertise** | **Number of**  **Candidates** | |
| **Internal** | **External** |
| 1 | Dr.KR.Santha | Professor and Head, EEE, SVCE | Digital signal Processing and VLSI design | 8 | 1 |
| 2 | Dr.Nalinkant Mohanty | Professor, EEE, SVCE | Power Electronics | 2 | 5 |
| 3 | Dr.Sudhakar K Bharathan | Professor, EEE, SVCE | Nano technology and Semiconductors | 5 | ---- |
| 4 | Dr.K..Sundararaman | Associate Professor, EEE, SVCE | Power Electronics  Control systems | 2 | ----- |
| 5 | Dr.R.Karthikeyan | Associate Professor, EEE, SVCE | Finite Element Analysis  Special Electrical Machines | ----- | ----- |
| 6 | Dr.S.G.Bharathidasan | Associate Professor, EEE, SVCE | Power systems  Smart grid  Renewable Energy systems | 2 | ----- |

1. **Ph.D Awarded Details**

1. P.Elangovan has successfully defended his thesis entitled “Investigation on Super-Lift Converter based Direct Torque Control of Induction Motor Drive” under the supervisorship of Dr.N.K.Mohanty , Professor , EEE Department .(October 2017)

1. A.Deepak has successfully defended his thesis entitled “Performance Improvement of Integrated Generator System for Aircraft Applications” under the supervisorship of Dr.K R.Santha ,Vice Principal , Professor & Head, EEE Department .(October 2017)
2. **The Details of Approved Mentors for Post Graduate Course M.E – Power Electronics and Drives is furnished in the following Table**

| **Sl. no** | **Name of the Faculty** | **Areas of Research / Field of Interest** |
| --- | --- | --- |
| 1 | Dr.KR.Santha | Digital Signal Processing, VLSI, Systems and Control, Asynchronous circuits, Parallel Processing, Power Electronics applications using DSP |
| 2 | Dr. C. Gopinath | Power quality |
| 3 | Dr.N.K.Mohanty | Power Electronics & Drives, Microcontroller based converters and inverters, PV cell modeling. |
| 4 | Dr. K Sundara Raman | Power Electronics Electrical Machines  Embedded System  System Theory |
| 5 | Dr. R.Karthikeyan | Finite Element Analysis  Special Electrical Machines |
| 6 | Dr. Sudhakar K Bharatan | Semiconductor Materials and Devices; Compound Semiconductor; Nanotechnology; Physical Electronics; and VLSI |
| 7 | Dr. S G Bharathi Dasan | Design & Simulation of Conventional and Intelligent Controllers, Electrical Machines Design & Analysis,Flexible AC transmission systems, Power Electronics in Power System and Smart Grid. |
| 8 | Mr. C Venkatesan | Power systems, Integration of Renewable Energy resources with grid, Smart Grid. |
| 9 | Mr. S. S. Sethuraman | Power electronics based DC to DC boost converters , Digital Signal Processing |
| 10 | Mr. T.Annamalai | Renewable Energy -Wind, Solar Power Electronics – Impedence Source Inverter, DC to DC Converter ,Soft Computing VLSI, Microcontroller |
| 11 | Ms. S Arulmozhi | Power electronics(DC-DC converters)  Control systems(Design of controllers and analysis) |
| 12 | Ms. D.Amudhavalli | Power electronics(inverters, converters and their applications), Renewable energy (Solar, wind) |
| 13 | Mr. S Kumaravel | Renewable Energy, Power system modeling and Distributed generation. |
| 14 | Ms. S.Sinthamani | Power Electronics, Special electrical machines |
| 15 | Ms.K.S.Pavithra | Electronics, VLSI, ASIC |
| 16 | Mr. R.Kannadasan | High Voltage Engineering (VFTO) |
| 17 | Mr. Ranjith kumar | Power Electronics and Electrical Machines and Nano technology |
| 18 | M.Sasikala | Nano electronics |
| 19 | Mrs.N.Shanmugavadivu | PV based renewable energy, Multi level inverters. |
| 20 | M.Sankar | Power quality |
| 21 | Maduri.M | Power Electronics |
| 22 | G.Vinoth Kumar | Electrical Drives |
| 23 | S.Angala Vaishnavi | Power Electronics and Electrical Machines |
| 24 | Rajvikram .M | Power Systems |
| 25 | S Sudarsanam | Nano electronics |
| 26 | A Tamizh selvan | Digital signal processors, VIENNA Rectifier, FPGA |
| 27 | D S Purushothaman | Power Electronics and Electrical Machines |
| 28 | S.V. Sreeraj | Power Electronics and Electrical Machines |
| 29 | V Mohanraj | Digital signal processors, VIENNA Rectifier, FPGA |
| 30 | S Anitha | Nano electronics |
| 31 | I.Venkataraman | Inveterters and Renewable Energy systems |
| 32 | C.Kamal | Modeling and control of BLDC machines , Soft computing |
| 33 | M.Rajalakshmi | Renewable Energy systems |
| 34 | Tamilmani.S | Power Electronics |
| 35 | K.Suganthi | Power Electronics |

**Student Activities:**

1. **Student Research Projects Selected for Intramural Funding (UG):**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **SL. NO.** | **NAME OF THE STUDENT** | **TITLE OF THE PROJECT** | **NAME OF THE SUPERVISOR WITH DESIGNATION** | **AMOUNT SANCTIONED** |
|  | 1. Muthiah.M,  2. Kailash.S.  3. Dinesh.R,  4. Mohana  Krishnan | Smart Glove to aid people with movement disability | Ms.S. Anitha,  Assistant Professor  Department of EEE | Rs.8,000/- |
|  | B Balachander  M.E. (Power Electronics and Drives) | Solar Powered DC-DC  Converter for Wearable Devices | Ms S Sinthamani  Assistant Professor  Department of EEE | Rs 10000 |

* Sakthi sundaram of final year has worked on an industrial project **“INTELLIGENT OUTDOOR POLE MOUNTED SWITCHGEAR CONTROL UNIT ”** for Pannicker Switchgear Ltd, Irungattukottai , Sriperumbudur during October -November 2018.

**2. List of PG projects (Phase-I) carried out by the students in the department as in house project:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl./Roll**  **No.** | **Name of the Student**  **(Reg. No.)** | **Project Title** | **Supervisor Name** |
|
| 1 | D.Anand , 160611001 | Multiport Resonant Isolated Bidirectional DC-DC Converter Interfacing PV and Battery | Ms.S.Arulmozhi ,AP / EEE |
| 2 | B.Aravindkumar  160611002 | Optimal Design of BLDC motor for the performance enhancement | Mr.C.Kamal ,AP / EEE |
| 3 | P.Ganesh  160611004 | Single Phase 3 level Modular Multilevel Inverter fed Induction Motor Drive for Solar PV Applications | Ms.N.Shanmugavadivu  AP / EEE |
| 4 | T.Sunitha  160611005 | A New Cascaded Asymmetrical Multilevel Inverter for Variable Speed Drive | Mr.T.Annamalai  AP / EEE |
| 5 | B.Balachander  160611003 | Solar Powered DC-DC Converter for Wearable Devices | Ms.S.Sinthamani  AP / EEE |
| 6 | P.Ganesh  160611004 | Single Phase 3 level Modular Multilevel Inverter fed Induction Motor Drive for Solar PV Applications | Ms.N.Shanmugavadivu  AP / EEE |

1. **Details of PG Students’ participation in workshop ,Conference, Symposium, Seminar, Short term course and publications**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl. No.** | **Name** | **Name of the Conference / Journal / Workshop** | **Venue** | **Date** |
| 1 |  |  |  |  |

**4. Details of Students’ participation in workshop ,Conference, Symposium, Seminar, Short term course and publications – UG**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Workshop Details** | | | | | **Organized by** | | **Venue and Date** | | **Number of participants** |
| Two days’ workshop on “Grid Connected Roof Top Photovoltaic System – Design and Installation” | | | | | EEE Department of Sri venkateswara College of Engineering | | Power Electronics Lab of EEE department – October 6& 7 , 2017 | | Fifty students of II , III and Final year EEE students |
| workshop on NANOSCIENCE AND NANOENGINEERING | | | | | EEE Department of Sri venkateswara College of Engineering | | SVCE 03-07-2017 | | SWATHI J  III/B |
| **INDUSTRIAL VISIT ODD SEM 2017-18 TOTAL =5** | | | | | | | | | |
| **YEAR** | **SECTION** | **DATE** | **INDUSTRY/INSTITUTE** | | **PLACE** | | **DOMAIN** | | |
| 3 | A | 5/9/2017 | OHM Energy Management Sys. Pvt. Ltd. | | Irungattukottai | | SWITCH GEARS | | |
| 3 | B | 6/9/2017 | OHM Energy Management Sys. Pvt. Ltd. | | Irungattukottai | | SWITCH GEARS | | |
| 4 | A | 25/7/2017 | IIT MADRAS - HIGH VOLTAGE RESEARCH LAB | | CHENNAI | | HIGH VOLTAGE | | |
| 4 | B | 26/7/2017 | IIT MADRAS - HIGH VOLTAGE RESEARCH LAB | | CHENNAI | | HIGH VOLTAGE | | |
| 4 | A | 10/10/2017 | SAVEETHA MEDICAL COLLEGE HOSPITAL | | THANDALAM | | BIO MEDICAL INSTRUMENTATION | | |

**In-Plant Training (IPT) and Internship (ISP) by UG Students**

| **NAME OF THE STUDENT** | **YEAR /SEC** | **IPT/ ISP** | **INDUSTRY** | **PLACE** | **DATE** |
| --- | --- | --- | --- | --- | --- |
| AKSHAYA H | 2/A | IPT | INTEGRAL COACH FACTORY | CHENNAI | 8/12/2017 TO 15/12/2017 |
| ANISHA A | 2/A | ISP | UNIQ TECHNOLOGIES | CHENNAI | 7/12/2017 TO 11/12/2017 |
| DEVASANTHOSH M K | 2/A | IPT | BSNL | TRICHY | 11/12/2017 TO 15/12/2017 |
| GANESHRAM S | 2/A | IPT | INTEGRAL COACH FACTORY | CHENNAI | 28/11/2017 TO 5/12/2017 |
| GOPIKRISHNAN R | 2/A | IPT | SF SONIC BATTERIES | TALOJA | 11/12/2017 TO 12/12/2017 |
| KATTAMANCHI RAMESH NAVEEN | 2/A | IPT | SPIC | TUTICORIN | 4/12/2017 TO 15/12/2017 |
| KUMARAPPAN M | 2/A | IPT | SF SONIC BATTERIES | TALOJA | 11/12/2017 TO 12/12/2017 |
| MOHANA AZHAHAN V | 2/A | IPT | SPIC | TUTICORIN | 4/12/2017 TO 15/12/2017 |
| NARENDRAN R | 2/B | IPT | BRAKES INDIA PVT LIMITED | CHENNAI | 6/12/2017 TO 11/12/2017 |
| NAVEEN S | 2/B | IPT | CHENNAI METRO RAIL | CHENNAI | 27/11/2017 TO 5/12/2017 |
| PADMAVATHY M | 2/B | IPT | INTEGRAL COACH FACTORY | CHENNAI | 29/11/2017 TO 6/12/2017 |
| RAKSHICK SHRINIVAS | 2/B | IPT | UNIQ TECHNOLOGIES | CHENNAI-17 | 4/12/17 TO 8/12/17 |
| REVATHI D | 2/B | IPT | REN INFO | CHENNAI | 26/11/2017 TO 28/11/2017 |
| SANJEEV R P | 2/B | IPT | CHENNAI METRO RAIL | CHENNAI | 27/11/2017 TO 5/12/2017 |
| SHALINI D | 2/B | IPT | NPCIL | KUDANKULAM | 4/12/2017 TO 12/12/2017 |
| SHOJA SHERLIN | 2/B | IPT | NPCIL | KUDANKULAM | 6/12/2017 TO 12/12/2017 |
| SHRI RANJANI L | 2/B | IPT | TVS TYRES | MADURAI | 4/12/2017 TO 9/12/2017 |
| SOUNDARIYA NARAYANAN | 2/B | IPT | INTEGRAL COACH FACTORY | CHENNAI | 12/12/2017 TO 19/12/2017 |
| SRIDHARAN M | 2/B | IPT | CHENNAI METRO RAIL | CHENNAI | 27/11/2017 TO 5/12/2017 |
| UMAYAL R | 2/B | IPT | NATIONAL SWITCHGEARS | CHENNAI | 12/6/2017 TO 27/6/2017 |
| YAZHINI N | 2/B | IPT | INDIRA GANDHI CENTRE FOR ATOMIC ENERGY | KALPAKKAM | 1/12/2017 TO 10/12/2017 |
| ARCHANA N | 3/A | IPT | NSIC-TECHNICAL SERVICES CENTRE | CHENNAI | 11/12/2017 TO 15/12/2017 |
| ASHUTOSH S | 3/A | IPT | TVS MOTOR COMPANY | CHENNAI | 4/12/2017 TO 6/12/2017 |
| DEEPIKA B | 3/A | IPT | TANTRANSCO | CHENNAI-32 | 27/11/2017 TO 1/12/2017 |
| MADHAN MONISH J | 3/A | IPT | ASHOK LEYLAND | CHENNAI | 12/12/2017 TO 16/12/2017 |
| MALATHI B | 3/A | IPT | NSIC-TECHNICAL SERVICES CENTRE | CHENNAI | 11/12/2017 TO 15/12/2017 |
| MEGHANA N | 3/A | IPT | BSNL | VELLORE | 28/11/2017 TO 01/12/2017 |
| ARUNESHWAR D | 3/A | IPT | DAIMLER VEHICLES | CHENNAI | 11/12/2017 TO 22/12/2017 |
| CHRISTON DAVID P | 3/A | IPT | ASHOK LEYLAND | CHENNAI | 12/12/2017 TO 16/12/2017 |
| ELAYA KUMAR N | 3/A | IPT | ASHOK LEYLAND | CHENNAI | 12/12/2017 TO 16/12/2017 |
| HARISH R | 3/A | IPT | ASHOK LEYLAND | CHENNAI | 12/12/2017 TO 16/12/2017 |
| HARISHWARAN K KRISHNAN V | 3/A | IPT | BSNL | CHENNAI | 20/11/2017 TO 24/11/2017 |
| RAJARAM R | 3/B | IPT | RELIANCE INDUSTRIES | SURAT | 20/11/2017 TO 5/12/2017 |
| SAKTHI SUNDARAM S | 4/B | ISP | IIT - MADRAS | CHENNAI | 1/6/2017 TO 31/7/2017 |

* **Solar Energy System Pilot Project and Consultancy**

The EEE department has successfully engineered and installed a 1 kW **‘Solar ON Grid Power System**’ at the terrace of EEE department. Its successful functioning has been demonstrated to The Secretary, SVCE. The solar team comprising Dr. KR. Santha, Professor and Head, Mr.S.V.Sreeraj and Mr.D.S.Purshothaman, Assistant Professors stated the following as three prong objectives of this initiative,

* Skill development training in the solar energy field
* Platform for extension of student academic projects on solar energy systems
* Demonstration model for prospective customers who wish to install solar energy system in their premises.

The solar plant currently generates on an average 4 units / day and this being utilized for the energy needs of EEE department through coupling into internal grid.The department envisages the following as the scope and service as consultancy in the field of solar energy.

* Engineering, procurement and construction of solar plant.
* Solar street lighting solution.
* Solar water pumping system.

As an initiative in this direction, faculty members are invited to install solar power plant for their house through EEE department’s solar team in a cost effective manner.

To disseminate the know-how acquired to student community the team also conducted a two days’ workshop on “**Grid Connected Photovoltaic System - Design and Installation**” during October 6 and 7, 2017. 51 Students benefitted from this workshop which imparted hands-on training on the Design, Engineering, Installation, Operation and Maintenance of Solar Energy Systems.

In addition to the above, the following are on the anvil.

* Marketing of consultancy work through the online marketing space “INDIAMART”.
* Linkage being created with companies who will be suppliers of accessories for solar plant installation.
* Currently the focus is on the consultancy of design, engineering, and construction of 10 kW solar plant costing Rs. 6 lakh.
* AICTE proposal on two week Faculty Development Program (FDP) will be applied.
* It is proposed to conduct in the month of January 2018, Five days Hands-on training course on the design, engineering installation, operation and maintenance of solar energy system targeting the students of entire college as well as other colleges and universities.
* Proposal being prepared to participate in the Honorable Prime Minister’s solar energy initiative ‘**Solar Chula’** on a project titled “**Solar Stove**”.
* **Interdisciplinary Centre for Nanotechnology**

In July 2016, the Management of SVCE gave approval to setup an “Interdisciplinary Centre for Nanotechnology” through joint efforts from Departments of EEE and Biotechnology. In January 2017, the construction of 500 sq.ft of Class 10,000 type Cleanroom facility was completed under the able guidance and vision of our Respected Secretary Dr.M.Sivanandham, duly supported by the Principal and Dean (Research).

**Thrust areas:**

Micro and Nano electronics, Biotechnology, Optoelectronics, Solar cells and Nano materials.

**Funding and Equipment procured:**

Intramural seed funding amounting to 7 lakhs per year has been sanctioned for 3 years.

Year 1 (2016-17): Commissioned DC sputtering unit.

Year 2 (2017-18): Upgrade to RF Magnetron Sputtering with the addition of RF Generator. (Purchase in progress)

**Coordinators:**

Centre activities are coordinated by Dr.Sudhakar, Professor of EEE, jointly coordinated by Dr.KR.Santha, Vice-Principal, and Dr. Nalinkanth Ghone, Professor of Chemical Engineering.

**Workshops:**

On March 7th, 2017, IEEE Student branch SVCE successfully conducted a One Day Workshop on “Nanoscience and Nanoengineering”. Dr.Moorthy Babu, Director, Nanoscience and Nanotechnology, Anna University was the Chief Guest for the event.

**Student Projects:**

Around 20 UG EEE students have completed their projects related to the fabrication of Solar cells in collaboration with Anna University and IIT Madras. Currently, 1 PG student and 6 Ph.D scholars (EEE and Biotech) are involved in the centre’s research.

**Industry Collaboration:**

“Interdisciplinary centre for Nanotechnology” has established an Industrial collaboration with Poseidon Solar Services Pvt. Ltd., Chennai, which has agreed to support the Centre through the supply of industry standard Silicon wafers. First batch of 8 inch silicon wafers, worth Rs. 30,000, has arrived at the Centre.

**Consulting:**

Consulting job of worth Rs.8000 has been completed. We expect to receive more consulting jobs during the even semesters of the academic year.

**Research cell(s) /area(s) of research in the department:**

Power Systems and High Voltage Engineering

* Power Systems Optimization ,Power system stability, protection and control
* High Voltage Engineering ,Transmission lines
* Modern Rectifiers and resonant Converters
* Solid state AC and DC drives

Physical Electronics

* Electromagnetics
* Electronic Devices
* Nanotechnology
* Optoelectronics
* Microelectromechanical Systems
* Power Electronics for Renewable Energy Systems

Communications and Signal Processing

* Digital signal processing
* Digital Image processing
* Remote sensing
* Communication systems
* Theory and Algorithms
* Wireless networks

Computer Architecture and Digital systems

* Digital and Analog VLSI Design
* Embedded System Design
* Advanced power semiconductor devices
* Programming with VHDL

**Training Service:**

Conducting laboratory course for AMIE (SVCE is one of the AMIE nodal centers for laboratory courses)

ISO-RO-EEE HoD/EEE