SYED AMMAL ENGINEERING COLLEGE



(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)

An ISO 9001:2015 Certified Institution | (NBA Accredited UG Courses: CSE, EEE & MECH)

Dr. E.M. Abdullah Campus, Ramanathapuram - 623 502, Tamilnadu.





Mobile: 94873 04000, 84893 04000, 87548 88877 E-mail: office@syedengg.ac.in, saec@syedengg.ac.in Web: www.syedengg.ac.in

Department of Electrical and Electronics Engineering

<u>News Letter – 2020 - 21</u>

The Department of Electrical and Electronics Engineering was established in the year 1998. The department offers 4 years UG programme in B.E Electrical and Electronics Engineering and 2 years PG programme in M.E Embedded System Technologies. It has sophisticated infrastructure, excellent Machines, Embedded and Electronics labs, and Highly Qualified, Motivated and Experienced Faculty members to enhance the student's knowledge in their respective field.

Department Vision and Mission:

VISION

To be a centre of excellence in teaching and research in Electrical and Electronics Engineering, to produce highly skilled, excellent engineers who can serve the society.

MISSION

- Provide exemplary learning environment and quality professional education.
- Empower rural students with skills and knowledge for innovation through curricular, cocurricular and extracurricular activities.
- Providing ample opportunities to learn moral and ethical values to serve the society and nation.

Introduction:

Our departmental newsletter "News Letter of EEE ' 2020 - 21" facilitates our students and faculty members to publish their achievements and efforts. It provides a motivation to the juniors and classmates to "see and follow" the steps on the success path taken by their seniors. This also gives a reason to be proud of their classmates, seniors and faculty members.

"News Letter of EEE' 2020 - 21" reflects the success stories of our students and the faculty members. It is circulated to all students and faculty members containing information including placements, sport events, paper presentations, conferences etc.

Department Activities:

- 1. The Departments of EEE organized six days online STTP named as "**Digital Controllers** for Power Electronics Applications" Phase I on 13-07-2020 to 18-07-2020.
- 2. The Departments of EEE organized six days online STTP named as "**Digital Controllers** for Power Electronics Applications" Phase II on 03-08-2020 to 08-08-2020.
- 3. The Departments of EEE organized six days online STTP named as "**Digital Controllers** for Power Electronics Applications" Phase III on 07-09-2020 to 12-09-2020.

Parent Teachers Meeting

To redress the grievances of the parents and students, every year, we conduct parents and teachers Association Meeting. This academic year also large number of parents attended these meetings through online mode and expressed their views and suggestions. The suggestions and views expressed by the parents will be brought to the knowledge of Principal and Correspondent for immediate action. This will make the relationship between students, their parents and college becomes cordial and cooperative.

Paper Presentation/ Workshop/ Seminar and Symposium attended by the Students:

| Sl | Date | Name of the | Title of the Paper | Name of the | Venue |
|----|-----------------------|-----------------|----------------------|-------------|----------------------|
| No | | Participant | Published | Conference | |
| 1 | 11 th – | Mohamed Sahal | Development of | ICRAI-2020 | Syed Ammal |
| | 12 th Sept | A, Karthik K | Aqua Battery Using | | Engineering College, |
| | 2020 | IV-EEE | Water and Table Salt | | Ramanathapuram |
| 2 | 11 th – | Balaji K G, | Maximum Power | ICRAI-2020 | Syed Ammal |
| | 12 th Sept | Lingesh Kumar | Utilization of PV | | Engineering College, |
| | 2020 | S, Anserdeen S | Power Using Dual | | Ramanathapuram |
| | | IV-EEE | Axis Tracking | | |
| | | | System with Fuzzy | | |
| | | | Controller | | |
| 3 | 11 th – | Mohamed | Design and | ICRAI-2020 | Syed Ammal |
| | 12 th Sept | Riyasudeen D, | Development of | | Engineering College, |
| | 2020 | Karthikeyan M, | Automatic Change | | Ramanathapuram |
| | | Mohamed | Over Using PLC | | |
| | | Sayeed Anwar J | | | |
| | | IV-EEE | | | |
| 4 | 11 th – | Parthiban Vivek | Cyber Security | ICRAI-2020 | Syed Ammal |
| | 12 th Sept | M, Rajarajan A | Analysis of | | Engineering College, |
| | 2020 | IV-EEE | Substation | | Ramanathapuram |
| | | | Automation System | | |

Faculty Activities:

Training Conducted to Teaching Staff:

| Sl.No. | Duration of Program | Department | Name of the Program | Title of the Program | Sponsored Agency |
|--------|-------------------------|-----------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| 1. | 23 – 28, Nov 2020 | All departments | STTP | Six Days Short Term Training Programme on "Potential Benefits of RFID in Industrial, Medical and Domestic Sectors" through online mode | AICTE |
| 2. | 24 – 28, August 2020 | All departments | FDP | AICTE Training And Learning (ATAL) Academy Online FDP on "Energy Engineering" through online mode | AICTE |

Number of Collaborative activities for research, Faculty exchange during the year

| Sl. No. | Title of the collaborative activity | Name of the collaborating agency with contact details | Name of the participant | Duration | Nature of the activity |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------|----------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| 1 | Resource person for AICTE sponsered 2 weeks online FDP on Formal Modeling Control and Real Time Implementation of Cyber Physical Systems | VSB Engineering College, Karur | P.Nedumal Pugazhenthi | 1 day, 19.10.2020 | Delivering lecture on Introduction to Modeling and control of Cyber physical systemns and simulation using MATLAB part-1 |
| 2 | Resource person for AICTE sponsered 2 weeks online FDP on Formal Modeling Control and Real Time Implementation of Cyber Physical Systems | VSB Engineering College, Karur | P.Nedumal Pugazhenthi | 1 day, 20.10.2020 | Delivering lecture on Introduction to Modeling and control of Cyber physical systemns and simulation using MATLAB part-2 |

| 3 | Resource person for AICTE sponsered 2 weeks online FDP on Formal Modeling Control and Real Time Implementation of Cyber Physical Systems | VSB Engineering College, Karur | Dr S. Selvaperum al | 1 day, 20.10.2020 | An overview of challenges in smart grid in a cyber physical system perspective |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|---------------------------|----------------------|----------------------------------------------------------------------------------------------------------|
| 4 | Resource person for AICTE sponsered 2 weeks online FDP on Formal Modeling Control and Real Time Implementation of Cyber Physical Systems | VSB Engineering College, Karur | Dr R Nagarajan | 1 day, 23.10.2020 | Delivering lecture on Wireless Industrial Automation Network |
| 5 | Resource person for AICTE sponsered 2 weeks online FDP on Formal Modeling Control and Real Time Implementation of Cyber Physical Systems | VSB Engineering College, Karur | Dr G S Naganathan | 1 day, 30.10.2020 | Delivering lecture on Online Voltage Stability Assesment in Restructured Power system using CPS |
| 6 | Resource person for AICTE sponsered 1 week STTP on Modern Optimization Tools in Engineering Field -I | SRM Valliammai Engineering college, Kattankulathu r | Dr S. Selvaperum al | 1 day, 09.10.2020 | Fuzzy Optimization |
| 7 | Resource Person for AICTE sponsored online STTP on Renewable Energy Development in Deregulated Power Market Future Scenario | Jayamuki Insititute of Technological Sciences , Varangal | Dr S. Selvaperum al | 1 day, 26.08.2020 | Self-Healing Grid and integration of RES with Grid |

Journal publications of Faculty members

| SL NO | Title of the paper | Author | Name of the journal | ISSN Number | Comment as SCI, Scopus indexed |
|----------|---------------------------------------------------------------------------------------------------------------|----------------------|---------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------|
| 1 | Investigation of different MPPT techniques based on fuzzy logic controller for multilevel DC link | Dr S Selvaperumal | Soft Computing | https://doi.org/10.1007/ s00500- 020-05370-0 Electronic ISSN 1433-7479 Print ISSN 1432-7643 | SCI journal |

| | inverter to solve the partial shading | | | | |
|---|-----------------------------------------|--------------|--------------|-------------------------------------------------------------|----------------|
| 2 | EANFIS-based Maximum Power | Dr S | IETE Journal | https://doi.org/10.1080/ 03772063.2020.1788425 | SCI journal |
| | Point Tracking for Standalone PV System | Selvaperumal | of Research | ISSN (printed): 0377-2063, ISSN (electronic): 0974-780X. | Journal |

Conference Paper publications of Faculty members

| SL NO | Title of the Paper | Author | Date | Name of the Conference |
|-------|-------------------------------|----------------------|-----------|--------------------------|
| 1 | Design and | M. Paul Jeyaraj | 11 & 12, | INTERNATIONAL |
| | Implementation of | | Sept 2020 | CONFERENCE ON NANO |
| | Automatic Change Over | | | ROBOTICS AND ARTIFICIAL |
| | Using PLC | | | INTELLIGENCE FOR |
| | | | | ENGINEERING |
| | | | | APPLICATIONS (ICRAI2020) |
| 2 | Maximum power | G. Abinaya | 11 & 12, | INTERNATIONAL |
| | utilization of pv power | | Sept 2020 | CONFERENCE ON NANO |
| | using dual axis Tracking | | | ROBOTICS AND ARTIFICIAL |
| | system with fuzzy | | | INTELLIGENCE FOR |
| | controller | | | ENGINEERING |
| | | | | APPLICATIONS (ICRAI2020) |
| 3 | Development of Aqua | Dr. M. Senthil Kumar | 11 & 12, | INTERNATIONAL |
| | Battery Using Waterand | | Sept 2020 | CONFERENCE ON NANO |
| | Table Salt | | | ROBOTICS AND ARTIFICIAL |
| | | | | INTELLIGENCE FOR |
| | | | | ENGINEERING |
| | | | | APPLICATIONS (ICRAI2020) |
| 4 | Design and | Dr. S. Selvaperumal, | 11 & 12, | INTERNATIONAL |
| | implementation of smart | T.Arun Prasath*, | Sept 2020 | CONFERENCE ON NANO |
| | agriculture system using | M.Paul Jeyaraj* | | ROBOTICS AND ARTIFICIAL |
| | Solar power | | | INTELLIGENCE FOR |
| | | | | ENGINEERING |
| | | | | APPLICATIONS (ICRAI2020) |
| 5 | Adaptive aggregation | Dr. M. Senthilkumar, | 11 & 12, | INTERNATIONAL |
| | based a wireless network | M.Paul Jeyaraj* | Sept 2020 | CONFERENCE ON NANO |
| | solution for Industrial | | | ROBOTICS AND ARTIFICIAL |
| | automation | | | INTELLIGENCE FOR |
| | | | | ENGINEERING |
| | | | | APPLICATIONS (ICRAI2020) |
| 6 | Secure and scalable | Dr. S. Muthulakshmi, | 11 & 12, | INTERNATIONAL |
| | scheme watermarking to | Dr.S.Aiswariya* | Sept 2020 | CONFERENCE ON NANO |
| | medical images using | | | ROBOTICS AND ARTIFICIAL |
| | intelligent controller | | | INTELLIGENCE FOR |
| | | | | ENGINEERING |
| | | | | APPLICATIONS (ICRAI2020) |

| 7 | Privacy online ride | Dr. R. Nagarajan, M.Pau | 11 & 12, | INTERNATIONAL |
|----|---------------------------|-------------------------|-----------|--------------------------|
| | hailing services based on | Jeyaraj*, G. Abinaya* | Sept 2020 | CONFERENCE ON NANO |
| | transform Euclidean | | | ROBOTICS AND ARTIFICIAL |
| | distance | | | INTELLIGENCE FOR |
| | | | | ENGINEERING |
| | | | | APPLICATIONS (ICRAI2020) |
| 8 | Identification and | P. Nedumal Pugazhenthi | 11 & 12, | INTERNATIONAL |
| | classification of leaf | T.Arun Prasath* | Sept 2020 | CONFERENCE ON NANO |
| | diseases using | | | ROBOTICS AND ARTIFICIAL |
| | Inspired bio algorithm | | | INTELLIGENCE FOR |
| | | | | ENGINEERING |
| | | | | APPLICATIONS (ICRAI2020) |
| 9 | An effective method of | Dr. G. S. Naganathan, | 11 & 12, | INTERNATIONAL |
| | ground water supplies | P. Gnanaskanda | Sept 2020 | CONFERENCE ON NANO |
| | intelligent Controller | Parthiban* | | ROBOTICS AND ARTIFICIAL |
| | based real time | | | INTELLIGENCE FOR |
| | management | | | ENGINEERING |
| | | | | APPLICATIONS (ICRAI2020) |
| 10 | Smart parking system | Dr. S. Selvaperumal, | 11 & 12, | INTERNATIONAL |
| | with real time scheduling | T.Arun Prasath* | Sept 2020 | CONFERENCE ON NANO |
| | using Intelligent | | | ROBOTICS AND ARTIFICIAL |
| | controller | | | INTELLIGENCE FOR |
| | | | | ENGINEERING |
| | | | | APPLICATIONS (ICRAI2020) |

Patent Details:

| S.No | Date | Applicant Name | CBR.No/ | Patent Status | Title of Invention |
|------|------------|------------------------|--------------------|---------------|--------------------|
| | | | Application No. | with Date | |
| 1 | 03.03.2017 | 1 .Dr.S.Selvaperumal | 8317/201741007514 | Published on | Harmonic |
| | | 2 .M.S.SivagamaSundari | | 16/08/2019 | Elimination In |
| | | | | Page | Cascaded H- |
| | | | | No.37098 | Bridge Multilevel |
| | | | | | Inverter Using |
| | | | | | SHE PWM |
| 2. | 06.09.2019 | 1 .Dr. S. Selvaperumal | 28863/201941035891 | Filed on | A Novel PSO |
| | | 2 .Dr. S. Saravana | | 06.09.2019 | based automated |
| | | Sundaram | | Published on | optimally |
| | | | | 18/10/2019 | controlled |
| | | | | 42/2019 | watering system |
| | | | | Page | for a Coriander |
| | | | | No.48773 | plant field using |
| | | | | | Wireless Sensor |
| | | | | | Network |
| 3. | 06.09.2019 | 1 .Dr. S. Selvaperumal | 28863/201941035892 | Filed on | Wireless sensor |
| | | 2 .Dr. S. Saravana | | 06.09.2019 | network based data |

| 4. | 15.11.2019 | 1 .Dr. S. Selvaperumal 2 .Dr. M.S. Sivagama 3 .Dr. G. Prabhakar | 37527/201941046537 | Published on 18/10/2019 42/2019 Page No.48774 Filed on 15.11.2019 Published on 6/12/2019 | logging and ANN based Maximum Power Point Tracking for a large Photo voltaic farm Performance Improvement of Induction Generator in Grid |
|----|------------|------------------------------------------------------------------------------------------------|--------------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | 49/2019 Page No.57289 | Integrated Wind Energy Conversion System |
| 5. | 15.11.2019 | 1 .Dr.G.Prabhakar2 .Dr.S.Selvaperumal3 .Dr.V.Nirmal Kannan | 37530/201941046540 | Filed on 15.11.2019 Published on 6/12/2019 49/2019 Page No.57291 | G-Glass Smart Manufacturing Unit |
| 6. | 15.11.2019 | 1 .Dr. S. Selvaperumal 2 .Dr. M.S. Sivagama 3 .Dr. C. Christober Asir Rajan | 37528/201941046538 | Filed on 15.11.2019 Published on 6/12/2019 49/2019 Page No.57290 | Coal Flow Regulation Using Model Based Controllers in Thermal Power Plant |
| 7. | 15.11.2019 | 1 .Dr.G.Prabhakar 2 .Dr.S.Selvaperumal 3 .Dr.V.Nirmal Kannan | 37535/201941046543 | Filed on 15.11.2019 Published on 6/12/2019 49/2019 Page No.57293 | G Glass for Electrical Power Generation and Electrical Energy Storage |
| 8. | 06/03/2020 | 1 .Dr.S.Selvaperumal 2 .Dr. B. Ramasubramanian | 202041009634 | Filed on 06/03/2020 Published on 24/04/2020 17/2020 Page No. 17528 | Smart Approach For The Detection Of Diabetic Retinopathy And Retinopathy Of Prematurity Using The Retinal Images |
| 9. | 06/03/2020 | 1 .Dr.S.Ganesh 2 .Dr. R. Kanimozhi 3 .Dr.B.Ramasubramanian | 202041009636 | Filed on 06/03/2020 Published on | Power Scheduling Of Micro-Grid In Radial Distribution |

| | | 4 . Ms. T. Mathumathi | | 24/04/2020 | System |
|-----|------------|-------------------------|--------------|--------------|-------------------|
| | | 5 .Dr.S.Selvaperumal | | 17/2020 | - |
| | | | | Page | |
| | | | | No.17529 | |
| 10. | 06/03/2020 | 1 .Dr.S.Selvaperumal | 202041009638 | Filed on | Steady State |
| | | 2 | | 06/03/2020 | Performance |
| | | .Dr.M.S.SivagamaSundari | | Published on | Analysis Of Self |
| | | 3 .Dr.M.Germin Nisha | | 24/04/2020 | Excited Slip Ring |
| | | | | 17/2020 | Induction |
| | | | | Page No. | Generator |
| | | | | 17531 | |
| 11. | 06/03/2020 | 1 .Dr.S.Selvaperumal | 202041009641 | Filed on | IT For Relay |
| | | 2 | | 06/03/2020 | Protection |
| | | .Dr.M.S.SivagamaSundari | | Published on | (Internet Based) |
| | | _ | | 24/04/2020 | |
| | | | | 17/2020 | |
| | | | | Page No. | |
| | | | | 17532 | |
| 12. | 29/05/2020 | 1 .Dr.C.Christober Asir | 202041022679 | Filed on | Thirty-One Levels |
| | | Rajan | | 29/05/2020 | Asymmetric |
| | | 2 .A.Manoranjan | | Published on | Cascaded H- |
| | | 3 .Dr.S.Selvaperumal | | 12/06/2020 | Bridge Multilevel |
| | | | | 24/2020 | Inverter With |
| | | | | Page | Reduced Number |
| | | | | No.21949 | of Switches |
| | | | | | |

Number of Teachers Recognized as Research Guides at Present

| Sr. No | Number of Full time Teachers with PhD | Year of Obtaining PhD | Is the teacher still serving the institution / If not last year of the Faculty Service to the Institution | Whether Recognised as research Guide for PhD | Year of Recognition as research Guide |
|-----------|------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------|
| 1 | Dr.R.Nagarajan | 2016 | YES | YES | 2018 |
| 2 | Dr.M.Senthil Kumar | 2017 | YES | YES | 2017 |
| 3 | Dr.S.Selvaperumal | 2013 | YES | YES | 2013 |

Minutes of the Advisory Committee Meeting with the HOD and Faculty Members and the Invited Experts

The meeting of HOD, Faculty members of EEE Department, Academic Experts, alumni, Parents and invitees from industries was held on 23.07.2020 at 10.00 A.M through Google Meet to draft the forthcoming academic activities of the Department.

The following members were present.

Chair: Dr. S. Selvaperumal, HOD/EEE, Syed Ammal Engineering College

| S.No | Name of the Expert Member | Designation and Address | Role |
|------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------------------|
| 1. | Dr. P. Raja | Associate Professor, National Institute of Technology, Tiruchirappalli | Senior Academician |
| 2. | Dr. M. Periyasamy | Principal, Syed Ammal Engineering College | Senior Faculty Member of the College |
| 3. | Dr. G. Mahendran | Professor & Head ECE, Syed Ammal Engineering College | Research Oriented Person |
| 4. | Mr. R.Muthukumar | Director, VRM Energy Consultancy Service Pvt. Ltd. Chennai | Alumni cum Employer |
| 5. | Mr. M. John Prabu | Assistant Engineer, Municipal Administration, Udumalpet | Alumni |
| 6. | Mrs. K. Revathi (Working as a Teacher in Govt. Hr.Sec School, Erumeni) | M/o Ms. M. Kavitha Shree III EEE, 7/338, Bharathi Nagar, 3 rd Cross Street, Ramanathapuram. | Parent |