

# P.S.R. ENGINEERING COLLEGE

An Autonomous Institution, Approved by AICTE, New Delhi & Affiliated to Anna University (Accredited by NBA, NAAC & Listed under 12 (B) of the UGC Act 1956) Sivakasi - 626 140, Virudhunagar (Dt), Tamil Nadu. Phone : 04562 - 239092 / 600 website : www.psr.edu.in Email : contact@psr.edu.in



# NEWS LETTER

### June - December 2019

PATRONS Thiru: R:Solaisamy Correspondent Dr:B:G:Vishnuram Principal

CHIEF EDITOR Dr·K·Valarmathi HOD/ECE

*EDITORS Ms·B·Dhanam AP/ECE Ms·M·Rajkumari AP/ECE* 

### **Department of Electonics and Communication Engineering**



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#### Dr.K Valarmathi,Ph.D,

"A Winner is a dreamer who never gives up"-Nelson Mandela.

#### HOD's Message

#### Greetíngs!

The newsletter is presenting a glimpse of the growth of our department on many fronts. The highly qualified and dedicated members of staff have always stood shoulder with the management and have carried out their duties with a level of commítment. This newsletter has recorded achievements such as conferences attended members and students. by staff competitions won by the hugely talented students, innovative projects carried out by students with the guidance of staff, I congratulate all the contributors and the editorial board for bringing out such a beautíful newsletter.

### DEPARTMENT OF ELECTRONICS AND

### COMMUNICATION ENGINEERING

#### **INSTITUTION VISION**

To contribute to the society through excellence in technical education with societal values and thus a valuable resource for industry and the humanity.

#### **INSTITUTION MISSION**

- To create an ambience for quality learning experience by providing sustained care and facilities.
- To offer higher level training encompassing both theory and practices with human and social values.
- To provide knowledge based services and professional skills to adapt tomorrow's technology and embedded global changes.

#### **DEPARTMENT VISION**

The vision of the Electronics and Communication Engineering Department is to produce graduates with sound knowledge for the betterment of society and to meet the dynamic demands of industry and research.

#### **DEPARTMENT MISSION**

- Offering under graduate and post graduate programs by providing effective and balanced curriculum and equip themselves to gear up to the ethical challenges awaiting them.
- Providing the technical, research and intellectual resources that will enable the students to have a successful career in the field of electronics and communication engineering.
- Providing need based training and professional skills to satisfy the needs of society and industry.

#### **PROGRAMME OUTCOMES(POs)**

- Apply knowledge of mathematics, physical sciences and Electronics and Communication Engineering fundamentals.
- Able to identify, formulate, analyze and solve Electronics and Communication Engineering Problems.
- Able to design and realize Electronics and Communication systems to meet desired needs within practical constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability and sustainability.
- Able to investigate and conduct experiments, as well as to analyze and interpret data.
- Use of techniques, skills, and modern engineering tools necessary for engineering practice.
- Contextual knowledge to assess societal, health, safety, legal and cultural issues related to Engineering.
- Realize the impact of Electronics and Communication engineering solutions in a global, economic and environmental context.
- Apply ethical principles and commitment to professional ethics and responsibility.
- Function as an individual and as a member or leader in multidisciplinary teams.
- Communicate effectively with the engineering community and society at large.
- Knowledge and understanding of management and business practices and their limitations.
- Recognize the need for, and have the ability to engage in life-long learning.

### **PROGRAMME SPECIFIC OUTCOMES (PSOs)**

- Design, simulate and analyse diverse problems in the field of telecommunication.
- Able to design and analyse varied electronic circuits for applications.
- Apply signal and image processing techniques to analyse a system for applications.
- Construct, test and evaluate an embedded system and control systems with real time constraints.





#### Workshops/Seminars/STTP/FDP Conducted:

A Three Days workshop on "**Robotics and IoT** "was held from 27.11.2019 to 29.11. 2019.**Mr. JeevaPrasath** from Edgate was the resource person, provided an overview of recent trends and challenges in IoT. It was highly informative session for faculties and Research scholars.





#### Workshops/Seminars/STTP/FDP Conducted:

AICTE Sponsored STTP was conducted on "Emerging Trends in Data Migration and Wearable Computing Aspects of IoE" from 09.12.2019 to 14.12.2019.More than 40 faculties from various colleges have attended the programme





#### **Resource Persons:**



#### Dr.S.ArumugaPerumal, Associate Professor, S.T. Hindu College, Nagercoil delivering the Lecture on 09.12.2019 FN

Dr. SabeethaRamakrishnan,Professor, Madras Institute of Technology(MIT), Chennai





Prof.TDevakumar,Professor, NEC Kovilpatti presented the innovations in IOT Based Projects.

Dr.R.Mohan, National Institute of Technology, Trichy, delivering the Lecture on 11.12.2019 FN





Mr.Rajesh Kumar Jeyapaul, Senior AI Architect, IBM, Bangalore, delivering the Lecture with Practical on 12.12.2019 FN

Dr.V.Devarajan, Associate Professor, Sri Sai Institute of Technology & Science, Andhra Pradesh





Dr. K.Jeyanthi, Professor, Pondicherry Engineering College, Puducherr



Dr.D.Sriram Kumar, Professor, National Institute of Technology (NIT), Tiruchirappalli

Dr.P.Marichamy, Professor & Dean, P.S.R Engineering College, Sivakasi,

Dr.K.Valarmathi, Prof&Head, PSR Engineering College,

Dr. R.Vinoth / Dr.R.Senthil Ganesh, Associate Professor, P.S.R. Engineering College, Sivakasi







## **Faculty Achievements**

#### **Research Grant Received:**

Number of proposals have submitted by our faculties which have received AICTE funding - research grant.

| Dr.K.Valarmathi    | RPS - A Novel approach for the design and implementation of Wearable antennas by detecting the stages of Brain tumor | F.No. 8-<br>220/RIFD/RPS(POLICY-<br>1)/2018-19<br>22 <sup>nd</sup> November 2019 | 7,52,745 |
|--------------------|--|--|----------|
| Dr.P.Ranjith Kumar | GOC - International Conferenceon<br>Challenges and Opportunities for<br>Development of Smart Cities<br>(CODS)        | F.No. 67-<br>41/RIFD/GOC/POL-<br>1/2017-18<br>6 <sup>th</sup> July 2019          | 5,00,000 |
| Dr.P.Marichamy     | STTP - Wearable Computing using Internet of Things   | F.No. 34-<br>56/86/RIFD/STTP/Policy-<br>1/2017-18<br>10 <sup>th</sup> May 2019   | 5,00,000 |
| Dr.P.Marichamy     | FDP - Technical Trends in IoE,<br>Data science and Artificial<br>Intelligence  | F.No. 34-<br>67/23/FDC/FDP/P-<br>1/2019-20                                       | 5,50,900 |
| Dr.P.Ranjith Kumar | STTP - Supporting Open<br>Technologies for deployed Al   | F.No. 34-<br>66/191/FDC/STTP/Policy-<br>1/2019-20                                | 3,36,667 |

#### **Patents Published:**

Faculties filed patents for various projects under IPR patent and publications, published on November 2019.

| S.No. | Name of the Faculty  | Title of the Patent Applied                    |
|-------|----------------------|--|
| 1.    | Dr. P.Marichamy      |  |
| 2.    | Dr.K.Valarmathi      | Smart Cart with Automated Billing using Aadhar |
| 3.    | Dr.P.Karuppasamy     |  |
| 4.    | Dr.P.Ranjith Kumar   |  |
| 5.    | Dr.R.Vinoth          | Bore well Rescue Robot                         |
| 6.    | Dr.R.Senthil Ganesh  |  |
| 7.    | Mrs.K.Ramalakshmi    |  |
| 8.    | Mr.S.Balasubramanian | Underwater Surveillance Robot                  |
| 9.    | Mr.G.Lingasamy       |  |
| 10.   | Mr.R.Arunkumar       |  |
| 11.   | Mr.N.S.YogaAnanth    |  |
| 12.   | Mrs.P.Lingeswari     | Automatic Adjustment of Position of Microphone |
| 13.   | Mrs.P.A.Mathina      | using Ultrasonic Sensor and RF module          |
| 14.   | Mrs.M.Vimala         | using offrasonic Sensor and Kr module          |

### **Promotion of Research and Facilities:**

The following faculties were awarded seed funding for research

| Name of the teacher getting seed money | The amount<br>of seed<br>money | Year of<br>receiving<br>grant | Duration of the grant |
|--|--------------------------------|-------------------------------|-----------------------|
| Mr.S.Balasubramanian                   | 55,000                         | 2019-2020                     | 1 Year                |
| Mrs.K.Ramalakshmi                      | 51,000                         | 2019-2020                     | 1 Year                |
| Mrs.M.Vimala                           | 27,000                         | 2019-2020                     | 1 Year                |
| Mrs.B.Dhanam                           | 33,000                         | 2019-2020                     | 1 Year                |

#### Awards:

| Name of the faculty | Awarded for  | Name of the awarding agency       | Month and Year   |
|---------------------|--|-----------------------------------|------------------|
| Dr.P.Marichamy      | Member of "Confederation of<br>Elite Academicians of IICDC"  | Texas Instruments                 | 07-December-2019 |
| Dr.K.Valarmathi     | One of the TOP 50 Most<br>Powerful Women in Higher<br>Education Across India                             | ULektz<br>WALLFAME                | 2019             |
|                     | Appreciation for the DrishTI<br>Online Contest   | Texas Instruments                 | 08-August-2019   |
| Ms.P.Mathina        | Demonstrating Competence in<br>the completion of<br>Fundamentals of Deep<br>Learning for Computer Vision | nVIDIA Deep<br>learning Institute | 20-11-2019       |



#### **STTP/FDP /Workshop Attended:**

| Ms.S.Mahalakshmi<br>Ms.M.C.Kalaiselvi | Workshop at Mepco<br>Schlenk Engineering<br>College, Sivakasi | Research Issues And Innovation<br>In Medical Imaging Modalities &<br>Processing System For<br>Healthcare Applications | 14.11.2019-<br>16.11.2019 |
|---------------------------------------|---|---|---------------------------|
| Mrs.P.A.Mathina                       | AICTE Sponsored FDP at  | Machine Learning And Deep   | 11.11.2019-               |
|                                       | Mepco Schlenk Engineering                                     | Learning For Real Time Stream   | 21-11-2019(2              |
|                                       | College,Sivakasi  | Analytics   | Weeks)                    |

| S.No     | Name of the Faculty               | Name of the<br>workshop/FDP/STTP    | FDP/S<br>TTP | Name of the<br>Institute/Industr<br>y      | Duration                      |
|----------|-----------------------------------|-------------------------------------|--------------|--|-------------------------------|
| 1.<br>2. | Mr.N.S.Yoga Ananth<br>Ms.M.Vimala | Cyber Security<br>Sponsored by ATAL | FDP          | Visveswaraya<br>College of<br>Engineering, | 9.12.2019<br>to<br>13.12.2019 |
| 3.       | Ms.P. Lingeshwari                 |                                     |              | Bangalore<br>University                    |                               |

 Around 50 Faculties were attended Faculty development programme on "Instructional Design and Delivery System (IDDS) conducted by NITTTR &IQAC from 4/11/2019 to 9/11/2019.





#### **The Resource Persons**

Dr.S.Renugadevi, Professor Head. & Department Engineering of Education, NITTTR. Chennai Dr.P.Malliga, Associate Professor, NITTTR, CEMT, Chennai Dr.Sudhindranath panda delivered a lecture about how to design a question paper and motivated the faculties how to enhance the teaching skills with various teaching aids. The Following ECE faculty members

were attended the programme

- 1. Ms.M.Rajkumari
- 2. Ms.B.Dhanam
- 3. MS.Pssumpon Phailkili
- 4. Ms.C.Selvamari
- 5. Mr.S.Balasubramanian
- 6. Mr.S.Athimoolam



### **Book Chapter:**



Kamaraj, **P. Marichamy,** J. Senthil Kumar, S. Selva Nidhyananthan, C. Kalyana Sundaram, 2019," Designof Space-Efficient Nano Router in Reversible Logic with Multilayer Architecture", Lecture Notes Electrical in Engineering Springer Verlag, pp.233-250.

### **JOURNAL PUBLICATIONS:**



- 1. P.Marichamy, C.Balamurugan, and R.Harichandran ,"Effect of h-BN nanoceramicsubstrate on the performance of microstrip patch antenna inS-band applications", International Journal of RF and Microwave Computer-Aided Engineering ,Dec 2019,ISSN.No.1096-4290.
- 2. P.Marichamy and A.Kamaraj, "Design of fault-tolerant reversible vedic multiplier in quantum cellular automata", Journal of the National Science Foundation of Sri Lanka Dec 2019, ISSN.No.1391-4588
- 3. Kamaraj, A., Marichamy, P., Senthil Kumar, J., Selva Nidhyananthan, S., Kalyana Sundaram, "Design of Space-Efficient Nano Router in Reversible Logic with Multilayer Architecture", Lecture Notes in Electrical Engineering, Aug 2019.
- 4. Dr.P.Marichamy and A.KAmaraj "Design of integrated reversible fault-tolerant arithmetic and logic unit" Microprocessors and Microsystems, Volume 69, September 2019,pp.16-23,May 2019.
- 5. Karthikeyan S, Vimala Devi K Valarmathi K, "Design and implementation of CfoTS networks for industrial fault detection and correction mechanism" Journal of Supercomputing, Sep 2019,
- 6. Gobi K, Kannapiran B, Devaraj D, Valarmathi, K, Design, performance evaluation and analysis of the inlet tube of pressure sensor for chamber pressure measurement, Sensor Review, June 2019.



### Awards:

**S Kiruthika**, III year ECE student participated in YOUTH TALK'19 Conducted by ICT Academy on 21/09/2019 and achieved Second Prize for her enthusiastic presentation.





#### **Workshops Attended:**

 Our III ECE students have attended various courses conducted by Technical faculties at different training academies.

| NAME OF THE<br>STUDENT                 | COURSE TITLE        | ORGANISER                        | DURATION                   | DAYS |
|--|---------------------|----------------------------------|----------------------------|------|
| P.Priyanka                             | Embedded<br>systems | Spiro Solutions<br>(Tirunelveli) | 21.11.2019                 | 1    |
| S.Narmadha<br>R.Suguna                 | Cloud<br>Computing  | Codebind                         | 21.11.2019                 | 1    |
| S.Selva nandhini<br>G.veni<br>M.suguna | Embedded<br>System  | Spiro Solutions<br>(Tirunelveli) | 21.11.19<br>to<br>23.11.19 | 3    |

### **In Plant Training:**

| S.NO. | TITLE           | PLACE                           | DURATION                  | NAME OF THE STUDENTS  |
|-------|-----------------|---------------------------------|---------------------------|---|
| 1.    | Web Development | Codebind                        | 19.11.2019-<br>23.11.2019 | 1. S.Narmadha<br>2. R.Suguna  |
| 2.    | Embedded system | Spiro solution<br>(Tirunelveli) | 21.11.2019-<br>23.11.2019 | <ol> <li>M.R.Suvetha</li> <li>S.Selvanandhini</li> <li>G.veni</li> <li>M.suguna</li> <li>M.Yuvashree</li> </ol> |

### Internship Attended:

IV Year :

| Name of the Industry  | Duration<br>(From-To)          | Participant   |
|---|--------------------------------|---|
| <b>Techvolt Software Pvt.Ltd</b><br>28, Thacil Centre,2nd Floor,<br>Raja Annamalai Road, Saibaba Colony,<br>Coimbatore-641011 | 19.11.2019<br>to<br>01.02.2020 | M. Dhanalakshmi<br>B. Ganesh Kumar<br>R. Hariharan<br>C. Murugan<br>M. Nagaraj<br>R.K. Suriyapriya<br>A. Chitra<br>N. Pushpapriya<br>R. Monika                      |
| Worksbot Applications Pvt.Ltd ,<br>Chennai  | 19.11.2019<br>to<br>01.02.2020 | C. Gowtham Kumar<br>M. ManojSrithar<br>A. Ponraj<br>P. Muthukumar<br>S. Muthumani<br>M. Prabakar<br>V. Suresh Kannan<br>K. Thirumalaimurugan<br>T. Yatheendirarajan |

## Workshop Attended

| NAME OF THE<br>STUDENT  | COURSE TITLE               | ORGANISER  | DURATION                  | DAYS |
|---|----------------------------|--|---------------------------|------|
| N.Premkumar<br>S.Satheeskumar<br>P.Senthurpandi<br>P.Srinivas | IOT and Cloud<br>Computing | MepcoSchlenk<br>Engineering<br>College(Sivakasi) | 09.12.2019-<br>10.12.2019 | 2    |

### HACKATHON '19:

| NAME OF THE<br>STUDENT  | TITLE   | PLACE                     | DURATION                  |
|---|---|---------------------------|---------------------------|
| S.Anuprathaa<br>P.Dhanapriya<br>R.Brindha<br>S.KarthigaiLakshmi | Educational Application<br>Home and industry safety<br>using fire and gas deduction<br>system |                           |                           |
| V.Lavanya<br>J.chitra   | Blood banking using Android   | P.S.R Engineering college | 13.12.2019&<br>14.12.2019 |
| A.Kavithalakshmi<br>K.Gowsalya                                  | Android application for health care monitoring  |                           |                           |
| P.Srinivas<br>R.Vijayprakash<br>S.Vairamuthu<br>S.M.Srikanth    | Student Information System<br>using Android application                                       |                           |                           |

- The Following Students attended one-day Social Awareness Programme on "Integrated Child Development Services" organized by Government of Tamilnadu Departments of Social Welfare and Nutritious Meal Programme on 25-09-2019.
  - K.Bhuvaneshwari
  - K.Vidhya
  - S.Sathya
  - K.UmaMaheshwari
  - R.Monika
  - M.PriyaDharshini

R.A.Nivethithaa

- J.Aarthy
- S.Mamimegalai
- K.Pavithra Darwin
- M.SundrarLakshmi
- V.Santhiya
- M.Mathimithra



94 Third Year students went to Wonderla Holidays LIMITED, Kochi on 5.9.19 as industrial visit

#### **Industrial Visits:**

57 Second Year students went to BPL Telecom Private Limited, Central Test and Repair Canter, No. II/2386, BPL Works, Second Gate, Kootupatha, Palakkad-678007 on 31.8.2019 as industrial visit





94 Third Year students went to Kerala Electrical & Allied Engineering Co. Ltd, Mamala P.O., Kochi-682305 on 5.9.19 as industrial Visit

### **KNOW YOUR ALUMNI**



**Ms.A.Krishnaveni (2002 – 2006)** Senior Software Engineer, JP Morgan Chase Bank, USA

The teachings and life experiences I learnt at PSR has helped me achieve greater heights. I am thankful for every Lecturer / Professor at PSR. Currently I am working as Senior Software Engineer at JP Morgan Chase.

K.VijayaSankar (2012-2016) Develop Engineer IVTL Infoview Technologies Pvt Ltd JAPAN

It was a great journey at PSR, gave me a lot of exposure and opportunities to discover my hidden talents and excel in them. I am proud to be a part of this institution.





**S.Madhu Suthanan (2007-2011)** Software Engineer Polaris, Chennai

Hi, I am Madhu, Currently working as a Diligent software engineer in a renowned IT Firm. Our college is a place which transformed me from a naughty school boy to where i am now. This place gave me the courage to face the world, the Knowledge to reveal the hidden mysteries of life and the power to realize my dream.

On the lighter part, It gave me my lasting friendships and memories which I would cherish across my life. I urge to all my budding engineers to make the most out this campus and I wish them good luck for all your endeavors.

### **NEWS CORNER**

#### 14.11.2019 தினமலர்



#### ஆசிரியர் மேம்பாட்டு திறன் பயிற்சி

கவனாகி, நல. 24-இவகாகி பி.எஸ். ஆர். இன்குக். கல்லாரி மற் றும் சென்னை என்.ஐ.மு. நடத்தது. பி.எஸ்.அறியர் மேம்பாட்டு இறன் பவிற்றி மேம்பாட்டு இறன் பவிற்றி மேல்லி குழும் தானாளர் சோலைச்சாமி தலைமை வகித்தார். கல்லூரி இயல் வித்தனர். கல்லூரி இ வித்தனர். கல்லூரி

வரவேற்றார். கல்லூரர் மேன் மாரிச்சாமி வாழ்த்தி பேன்னார். 19 எஸ். ஆர். மகனிர் இன்ஜி., கல்லூரர் முதல்வர் பாலசுப்ரிமனரி மன், சென்னை என்.ஐ. டி. டி. ல.ஆர்., இயக்குநர் சுத்ந் திறநாத் பாண்டா பேதி தார்க்கி, மல்லிலா, குரிய தாராயனா பபிற்சியளித் தனர். நவீன தொழிச்லதுட் பங்களை பயன்படுத்தி தற்

பிக்கும் முறை, மைக்ரோ மச்சிங், வெபினார், தேசிய அளவிலான மதிட்டல் நாலகம், டெக்னாலதி எனோமனடு மசிங், ஆன் வைன் கோர்சஸ் பற்றி பயிற்சியனிக்கப்பட்டது. ச0 க்கும் மேறபட்ட பேரா சிரியர்கள் கயந்தி கொண் பேராசிரியர்கள் பாலகப்பி முறைகியன், ஆதெலம் சரத பாடுகளை செய்திருந்தனர்.



பி.எஸ்.ஆர். பொறியியல் கல்லூரியில் ஆசிரியர் மேம்பாட்டு கருத்தரங்கு

குத்தர்கள் சிவகாகி பி.எஸ். பூர். பொற்றியல் கல்லூரியின் மின்னணுவியல் மற்றும் தகவல் தொலைத் தொடர்பு துறை சார்பாக ஒருதாள் ஆகிரியர் மேய்பாட்டு கருத்தரங்க நிகழ்ச்சி நடை பெற்றது. தாளாளர்

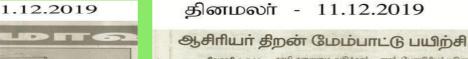
மாலைமலர்

பி.எஸ். ஆர். பொறியியல் கல்லூரியில்

-

சேர்கலசாமி தலைமை தாங்களார். இயக்குதர் விக்னேஷ்வரி அருண்குமார் துறைத்தலைவர் வளர்மதி வரவேற்றார். கல்லூரியின் என் மாரிச் சாமி தொடக்க உரை யாற்றீனார். சிறப்பு விருந்தினராக நேர்வாக ஆரண் ராஜா கலந்து கொண்டு பேச கையில், எல்லா அறை களிலும் இன்டர்தெட் ஆப் திங்ஸ் (ஐ.ஒ.டி) வினோத் நன்ற கூறினார்





க பி.எஸ். ஆர்., கல்லூரி மின்ன மற்றும் தொலை மற் ல் துறை டி.இ., சா சிரியர் தி பயிற்சி

சாமி கஎ தன்லமை ( கல்லூரி இயக்டு னேஷ்வரி மு வகித்தார். கல்லு வரிவிஷ்ணார் apa ராரி முதல் பேரினை டினுரா. ரி டீன்

றை தலைவர் வளர் வரவேற்றார். துறை சிரியர் ரஞ்சித்குமார் சி பற்றி விளக்கி துன மதி எ பேராச் பயிற்ச

னார். பேராசிரியர் மதி சிறப்பு விருந்தினரை . முகம் செய்தார். எஸ். வறிந்து கல்ஓ ரியர் ஆறுபு பேசினார். வாகம், ஒரு ளர்கள் வினே PLDIUP கணேஷ், ச ஏற்பாடுகள் தனர். Gun செய்த



ஆசிரியர் மேம்பாட்டுத்திறன் பயிற்சி களின் தாளாளர் களின் தாளாளர் லசாமி தனைமை பெ லசாமி தலைமை பெ லார். இயக்குதர் பி

முன்னிலை வகித்தா பொறியியல் கல்லூரியி முதல்வர் விஷ்ணுரா தொடக்க கையாக்கி றார். துறைத்தல சிறப்பு அறிமுகம் சிறப்பு பெங்களு