R.M.K COLLEGE OF ENGINEERING &TECHNOLOGY
Bi-Annual Newsletter,Volume(3) Issue(2)MARCH(2K16)

T W Y S T R A

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DEPARTMENT OF
ELECTRONICS & COMMUNICATION
ENGINEERING

Vision:

The vision of the Electronics and Communication Engineering (ECE) Department is to make the department entities a nationally and internationally leading department of higher learning and to render services to meet the challenges of industry/organization by educating students to become estimable professional engineers of high ethics and great values.

Mission:

➢ To develop innovative instructional material to drive the concepts in the minds of students so that they become enlightened individuals, improving the living standards of their families, industry and society.
➢ To grow a committed group of competent teachers striving for excellence in teaching and   research.
➢ To develop collaborative research linkages with leading industries/organizations in India and abroad.

Program Educational Objectives (PEOs):

Graduates of Electronics and Communication Engineering Program will be able

PEO 1: To develop strong background in basic science, basic mathematics and be able to use these tools in engineering field to benefit the society at large

PEO 2: To identify and define engineering problems of industry in the field of electronics and   communication engineering

PEO 3: To employ necessary techniques, hardware and communication tools for modern engineering application

PEO 4: To solve problems in their work or related work through analytical thinking in multi-disciplinary and research environment

PEO 5: To possess high ethics, great values, self-motivation and life-long learning skills

Program Outcomes (POs):

At the end of the Program, a successful student would be empowered to

PO1:Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2:Problem analysis: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3:Design development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4:Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5:Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6:The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7:Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8:Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9:Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10:Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11:Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcomes (PSOs):

At the end of the program, a successful student would be empowered to

- Demonstrate the principles of Semiconductor Devices, Digital Systems, Microprocessor and Signal Processing in the fields of Consumer Electronics, Medical, Defense and Spacecraft Electronics industry.

- Design a variety of Computer-based components and systems for applications including Communications, Networking and Control Systems.

- Identify indigenous components and methods for producing high quality, compact, energy efficient and eco-friendly consumer goods at an affordable price.

M K COLLEGE OF ENGINEERING AND TECHNOLOGY

R S M NAGAR, PUDUVOYAL.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

JULY-DECEMBER 2015
ECE ASSOCIATION:

- The Department **Students' Association** was organized on 11.07.2015. It was inaugurated by the Chief Guest **Shri.I.Thirunavukkarasu,**Senior General Manager, BSNL Telecom ,Chennai.

NATIONAL SYMPOSIUM :

- The Department Conducted the **National Level Technical Symposium** **"TWYSTRA 2k15"** on 31.08.2015. It was inaugurated by the Chief Guest **Dr.T.S. Rangan** , Founder and Managing Director, RupaJan Management Consulting Private Limited,

Chennai.

OTHER ACTIVITIES :

The Department conducted:

- **One Day Workshop on "ARDUINO and IoTs'** by EPR Labs, Pvt. Ltd., Chennai**,** on 31.08.2015.

- **IET Sponsored One Day Workshop on "Awareness on Terahertz Technology" and "Brain Computer Interface Development and Simulation"** on 19.09.2015.It was inaugurated by the Chief guest **Dr.S.S.KARTHIKEYAN ,** AP, Electronics Engineering, IIITD

& M, Kancheepuram.

INDUSTRIAL VISITS:

- IV Year A Section students visited   All India Radio, Chennai, on 01.07.2015.
- IV Year B Section students visited   All India Radio, Chennai, on 02.07.2015.
- IV Year C Section students visited   All India Radio, Chennai, on 03.07.2015.

- II Year A,B,C &D Section students visited BSNL, Meenambakkamon 06.07.2015 and 07.07.2015.
- III Year A,B & C Section students visited SHAR(ISRO), Sriharikotta, on 24.07.2015.
- II Year A,B,C & D Section students visited Periyar Science and Technology Park, Chennai, on 13.08.2015 and 14.08.2015.
- IV Year A Section students visited Carborundam Universal Limited, Chennai, on 18.08.2015.

- III Year B Section students visited Carborundam Universal Limited, Chennai, on 19.08.2015.
- III Year A & C Section students visited CSIR, Chennai, on 25.09.2015.

GUEST LECTURES:

Guest Lectures were delivered by:

- **Mr.R.Tamilchelvan,** Project Leader R&D, Siemens, Chennai, on **"Transmission Lines and Waveguides"** for III year Students, on 04.07.2015.

- **Ms.S.Jothi**, AE, TNEB , on **"Electrical Engineering"** for II year Students, on 11.07.2015.

- **Mr.Prakash Naveen** , Alumni, on **"Data structures and OOPs"** for II year Students on 11.07.2015.

- **Ms.S.Nancy Blessie**, Alumni, on **"Placement"** for IV year Students, on 05.09.2015.

- **Dr. M.D.Selvaraj**, IIITDM, on **"Digital Communication"** for III year Students, on 19.09.2015.

- **Dr.J.Klutto Milleth**, on **"Wireless Communication"** for IV year Students on 26.09.2015.

STUDENT ACTIVITIES:

AWARDS/HONOURS RECEIVED BY STUDENTS :

- **Ms. H.Saranya** , of III Year, ECE C received the **"ISTE CHAPTER - BEST STUDENT AWARD"** for the year 2015 on 13.02.2016.

- **Ms. G.S.Reshma,** of III Year, ECE C received the **"MICHAEL FARADAY ACADEMIC PERFORMANCE AWARD"** by IET, Chennai.
- **Ms.D.Raveena Reddy,** of IV Year, ECE C received the **"AVM KRISHNASWAMY LEADERSHIP AWARD"** by IET, Chennai.

- **Ms.E.Lekshmi ,** of IV Year, ECE B received the **"IET YP TRENDSETTER OF THE YEAR AWARD"** by IET, Chennai.
- **Mr.Y.Girish ,** of IV Year, ECE A received the **"SIR C.V.RAMAN RESEARCH AWARD"** by IET, Chennai.
- **Mr.D.Karthik ,** of IV Year, ECE B received the **"ER.S. GOVINDARAJAN ACTIVITY AWARD"** by IET, Chennai.

PAPER PUBLISHED IN JOURNAL:

- **M.Preethi , J.Sivasankari and K.Swathi, "Improvement of the Reliability of Multipliers using Adaptive Hold Logic"**, International Journal of Applied Engineering Research, Volume 10, Issue 68 ,July 2015.
- **V.Santhosh Kumar, Steffin Franklin and M.Vignesh, "Real-Time Health Monitoring System For Military Soldiers Using Zigbee With Wearable Sensors",** International Journal of Applied Engineering Research, Volume 10,Issue 68,July 2015,pp.361-364.

- **T.V.Arun Prakash, G.Aakash, and Arun Ravi, "Low power - High Efficient Video Encoding For Image Quality Improvement in Battery-operated Surveillance camera",** International journal of Electrical And Electronics Engineers Vol.7, Issue 2 July-December 2015.

CONFERENCE PROCEEDINGS :

- **T.V.Arun Prakash., G.Aakash ., and Arun Ravi**, **"Low power - High Efficient Video Encoding For Image Quality Improvement in Battery-operated Surveillance camera"**, International Conference on Science, Technology and Management on 27.09.2015, Delhi University.

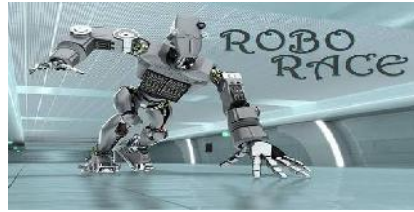## STUDENTSACTIVITY

(ACADEMIC- Participation and Laurels Won) :

- **G.S.Reshma,** of III year attended "Autonomous Robot Training", at SP Robotic works Pvt. Ltd., Chennai, on 19.07.2015.

- **K.Ranjith and S.Gopalakrishnan,** of III year Participated in the Event Technical Quiz and won **III PRIZE** and also Participated in the Event Debugging, in the National Level Symposium ,at Velammal Institute of Technology, Chennai, on 11.07.2015.

- **S.Kaarthikeyan V.Gokul Raj and P.Gowtham,** of II year Participated in the Event ROBO RUSH, Technical Quiz in the National Level Symposium, at Velammal Engineering College, Chennai, on 25.07.2015.

- **S.Gopalakrishnan,** of III year attended Course on "How to organize a college fest", at Twenty19, Chennai, on 07.08.2015.

- **S.Gopalakrishnan,** of III year attended Workshop on "Android App Development", at Phonix Systems, Chennai, on 12.08.2015.

- **P.S.Hariprasad,** of III year attended One day workshop on "Embedded Systems", at Phonix systems, Chennai, on 20.08.2015.

- **K.Sriram and D.Thangaselavam** of IV year attended Workshop on "Recent Research Techniques for Development of Reconfigurable Applications", at KCG College of Technology, Chennai, on 21.08.2015 & 22.08.2015.

- **L.Sripriya and Sakshi Jain,** of III year Participated in the Event Project Expo, in the National Level Symposium, at Velammal Engineering College, Chennai, on 29.08.2015.

- **P.S.Hariprasad,** of III year Participated in the Event Myriad Chase, in the National Level Symposium, at Velammal Engineering College, Chennai, on 29.08.2015.

- **J.Gowrisankar,S.Karthikeyan, V.Gokul Raj and P.Gowtham,** of II year Participated in the Event Robo Race, in the National Level Symposium, at Velammal Engineering College, Chennai, on 29.08.2015.

- **T.J.KeerthanaPriya, J.Jotheshwari, C.Micheal Swetha, B.Harini lakshmi, S.Karthikeyan, V.Gokul Raj, P.Gowtham , C.P.Reshma and R.Indira Devi** ,of II year Participated in the Event Project Expo, in the National Level Symposium, at Velammal Engineering College, Chennai,on 29.08.2015.

- **S.Gopalakrishnan,** of III year presented paper in the National Level Symposium, at RMKCET, on 31.08.2015.

- **J. Gowrisankar ,S.Karthikeyan and V.Gokul Raj,** of II year Participated in Technical Symposium, at SSN College of Engineering ,Chennai, on 31.08.2015.

- **J.Jayashree, S.Sanjana, Sakshi Jain and P.S.Hariprasad,** of III year attended Workshop on "Advanced Networking Ethical Hacking",at SSN College of Engineering , Chennai, on 31.08.2015.

- **S.Gopalakrishnan,** of III year Participated in Mini project Contest, at RMKCET, on 31.08.2015.

- **H.Saranya and G.S.Reshma,** of III year Participated in Mini project Contest and **won , III place**, at RMKCET, 31.08.2015.

- **B.R.Aarthi pooja , Dakshitha D Jain,S. Abirami ,V.N.K.Barakath nisha and N.Apoorva,** of II year attended Workshop on "Ethical Hacking", at Sri Venkateshwra College of Engineering, Sriperumpudur, on 03.09.2015.

- **P.Priyadharshini and R.Mythili Priya,** of II year attended Workshop on "Automation & Robotics", at SSN College of Engineering, Chennai, on 03.09.2015.

- **S.Gopalakrishnan** of III year attended Workshop on "LTE Multi-Antenna Techniques using MATLAB", at VIT University, Vellore, on 05.09.2015.

- **S,Harini , P.Banupriya , Dharshna Srikanth , S.Jayashree, M. Jayashree,S.K.Nandhini, K.M. Jayapriya and C.G.Aparna,** of III year attended Workshop on "Research Perspectives on Embedded system design using ARM cortex", at Velammal Engineering College,Chennai, on 12.09.2015.

- **P.S.Hariprasad,** of III year Participated in the Event Robo Rivalary and won **II prize**, in event Project Demo and **won III Prize** and also participated in the event Circuit Debugging, in the National Level Symposium, at PERI Institute of Technology, Chennai, on 16.09.2015.

- **N.Apoorva,** of II year Participated in International Knowledge Carnival-graVITas'15, in the event **Junkyard Genius** and secured **III position,** at VIT University, Vellore, on 27.09.2015.

- **N.Apoorva,** of II year attended Workshop on "Code to Create, Merchantry, Futurepreneurs, TAGI (Talk-a-thon), OP-ERA, House of Brands and Aerodominator" during international Knowledge carnival 2015,at VIT Chennai, on 27.09.2015.

- **J.Nandhini,B.B.Deepa, P.Priyadarshini and R.Mythili Priya,** of II year attented Workshop on "ANDROID", at Uniq Technologies, on 16.12.2015.

- **M.Yugesh, B.Vignesh ,Venkatesh Perumal Pranay Chandragiri and K.Vigneshwaran,** of II year attented Workshop on "ANDROID", at Uniq Technologies, on 25.12.2015.

STAFF ACTIVITIES:

PATENT FILED:

- **Dr.E.B.Perumal Pillai and Dr.T.V.Padmavathy,** Published a Patent titled, **"Development of a Long-Term Monitoring System Based on Fiber Optic Sensors in Concrete Structures"** Application Number - 4999/Che/2015, filed on 18.09.2015 and published under International Classification (U/S 11a) on 09.10.2015.

CHIEF GUEST:

- **Dr.N.Gangatharan**, Professor, served as an Academic Auditor at Francis Xavier Engineering College, Tiruvelveli. Auditing done on 24.09.2015 and 25.09.2015.

GUEST LECTURE:

- **Dr.N.Gangatharan**, Professor, delivered Guest Lecture on the topic **"Challenges in Multimedia Communication over IP Networks"** at VIT University, Chennai on 30.09. 2015.

BOOKS AUTHORED:

- **Dr.K.G.Shanthi** ,Asso.Prof. has published a book titled **"Transmission Lines and Waveguides"** as per Anna University R-2013 for V Semester students in the year 2015.

- **Mr. R.Ramachandran,** Asst. Prof**.** and **Mr.T.S.Arulanandh ,** Asst. Prof. has published a book titled **"Microprocessor and Microcontroller"** as per Anna University R-2013 for V Semester ECE students, IV Semester CSE, IT and Biomedical in the year 2015.

AWARDS/HONOURS RECEIVED BY STAFF:

- **Dr.C.Arun** has received **"Young Faculty Award"** from Venus International Foundation,Centre for Advanced Research and Design, VIFFA 2015,Chennai, on 05.07.2015.

ATTENDED SEMINAR, WORKSHOP & FDP:

- **Mr.P.Sathyaraj**, Asst. Prof., attended the 3rd National Summit on **"Sustainable Institute Industry Partnership"** by SEED, at IIT Madras, Chennai, on 03.07.2015 & 04.07.2015.

- **Mr.S.Jai Ganesh ,**Asst. Prof., attended a FDP on **"Knowledge Management",** at TCS, Siruseri, Chennai, on 06.07.2015.

- **Mr.M.Babu ,**Asst. Prof., attended a FDP on **"Industry Ready Programming Skills",** at Cognizant, Chennai, on 25.07.2015.

- **Dr.N.Gangatharan,**Prof.,   **Mr.P.Sathyaraj,** Asst.Prof., **and Ms.R.Kavitha**, Asst. Prof., Participated in the First Indian Engineering Dean's Council Global Summit on **"Engineering Education –Current Scenario & Future Prospects"** by ISTE ,at GRT Grand-Convention Centre, Chennai, from 31.07.2015 to 01.08.2015.

- **Mr.R.Ramachandran**,Asst.Prof**.,** attended a Short Term Training Programme on **"Recent trends and research issues in wireless communication"** by ISTE, at Sri Sairam Engineering College, Chennai, from 03.08.2015 to 08.08.2015.

- **Mr.S.Muthumanickam**,Asso.Prof., attended a TEQIP Sponsored FDP on **"Partial reconfiguration flow using Xilinx vivado design suite and ZED board",** at PES Institute of Technology, Bangaluru, on 06.08.2015 & 07.08.2015.

- **Mr.R.Vijayanadh,** Asst.Prof., attended a **"Two day Workshop on Real Time Video Analytics",**at Anna University, Chennai, on 11.09.2015 and 12.09.2015.

- **Ms.M.C.Ragasudha,** Asst.Prof., attended One day Workshop on **"Research Perspectives on Embedded system design using ARM Cortex-M4 Developmental tools",** at Velammal Engineering College, Chennai, on 12.09.2015.

- **All Faculty** members attended IET Sponsored One Day Workshop on **"Awareness on Terahertz Technology"** and **"Brain Computer Interface Development and Simulation",** at RMKCET, on 19.09.2015.

- **Mr.R.Ramachandran,**Asst.Prof., attended a Workshop on **"Simulation and Emulation of self Organized Networks",** at Kongu Engineering College, Erode, from 08.10.2015 to 10.10.2015.

- **Ms.N.Nimitha**,Asst.Prof.,**Mr.M.Babu ,**Asst.Prof.,**and Mr.G.Sathish kumar ,**Asst.Prof., attended a CSI Sponsored Workshop on **"High Dimensional Big data analysis with AWS",** at RMKCET, on 10.10.2015.

- **Ms.S.Ciyamalakushbu,**Asst.Prof., attended a Two days Workshop on **"Advancement in Biomedical signal and Image Processing"**, at MIT, Chennai, on 29.10.2015& 30.10.2015.

- **Mr.P.Sathyaraj ,**Asst.Prof.,**and Mr.R.Vijayanadh,**Asst.Prof., attended a Seminar on **"Tamil Computing"** at Anna University, Chennai, on 30.10.2015.

- **Mr.P.Sathyaraj ,**Asst.Prof.,attended a Workshop in **"ARM Technology and INTEL IoT by Centre of Excellence in ARM Technology",** at RMKEC, from 29.10.2015 to 31.10.2015.

- **Ms.M.C.Ragasudha,**Asst.Prof., attended **"Author Workshop",** at Anna University, Chennai, on 02.11.2015.

- **Dr.K.G.Shanthi,** Asso.Prof., attended Training on **"Fundamentals of Computer Networking",** at Sansbound Solution Pvt. Ltd., Chennai, from 13.11.2015 to 18.11.2015.

- **Mr.P.Sathyaraj,**Asst.Prof., attended Two days workshop on **"Internet of Things (IoT)-Technology of Tomorrow",**at Anna University, Chennai, on 26.11.2015 & 27.11.2015.

PUBLICATIONS:
CONFERENCE PROCEEDINGS:

- **P.Sathyaraj ,**Asst.Prof., **"A Novel Based Analysis of Baffled Traffic Patterns in MANETS",** Proceedings of the Second International Conference on Sensing Signal Processing and Security-ICSSS-15, pp.38-41, July 2015.

- **G.Sandhiya,**Asst.Prof., **"Low power - High Efficient Video Encoding For Image Quality Improvement in Battery-operated Surveillance camera",** International Conference on Science, Technology and Management, Delhi University, on 27.09. 2015.

- **T.V.Padmavathy, E.B.PerumalPillai, "State of The Art on the Use of Nanotechnology and Nanosensors in The Field of Civil Engineering"** , Proceedings

of the International Conference on Nanomaterials and Nanotechnology, KSR College of Technology, Tiruchengode, December 2015.

PAPER PUBLISHED IN JOURNAL:

- **Arun C., "Universal Keyword Classifier on Public Key Based Encrypted Multi-keyword Fuzzy Search in Public Cloud",** Hindawi Publishing Corporation, Scientific World Journal, Vol. 20(15), pp.1-17,   July 2015.

- **Sathyaraj P., "A Novel Based Analysis of Baffled Traffic Patterns in MANETS",** Middle East Journal of Scientific Research , Vol.23(23), pp.334-341, July2015.

- **Aarthi K.J. Veronica., "Improvement of the Reliability of Multipliers using Adaptive Hold Logic",** International Journal of Applied Engineering Research, Vol.10(68), pp.1-5,July 2015.

- **Nimitha N., "Real-Time Health Monitoring System For Military Soldiers Using Zigbee With Wearable Sensors",** International Journal of Applied Engineering Research, Vol. 10(68), pp.361-364, July2015.

- **Ciyamala Kushbu S., "Segmentation of Immune cells based on toggle operator and counting",** International journal of Applied Engineering Research, ISSN 0973-4562, Vol. 10(55), pp 2487-2491,July 2015.

- **Shanthi K.G., "Area-Efficient and Low Latency Architecture for High Speed FIR Filter using Distributed Arithmetic",** ICIC Express Letters Part B: Applications, Vol.6(8), August 2015,pp.2053-2058.

- **Kavitha R., Poovizhi S. and Akila M.R., "Solar Power Optimization",** International Research Journal of Emerging Trends in Multidisciplinary (IRJETM), Vol. 1(6), August 2015, pp. 37-43.

- **Sandhiya G., "Low power - High Efficient Video Encoding For Image Quality Improvement in Battery-operated Surveillance camera"**, International journal of Electrical And Electronics Engineers Vol.7(2), pp 83-89, July-December 2015.

- **Praveena N .G. and Indumathy T., "Early Detection of Skin Cancer Using Thermal Images With Hough Transformation",** Middle East Journal of Scientific Research (Sensing, Signal Processing And Security), Vol. 23(23), pp.352-356, September 2015.

- **Padmavathy T.V., "Design of Reconfigurable Microstrip Patch Antenna for Intelligent Vehicular Ad hoc Network Applications",** International Journal of Applied Engineering Research, Vol. 10(37), December 2015, pp 109-112.

- **Arulananth T.S. and Gangatharan N., "Smartphone based face and voice authentication in mobile devices by using MFCC algorithm",** International Journal of Engineering Sciences & Management Research, Vol. 2(12), pp. 7-13,   December 2015.

- **Sathyaraj P., "Efficient Routing protocol for maintaining better Energy Management in Sensor Networks",** International Journal of Electronics and Communication Engineering,   Vol. 5(1), pp.1-18, December2

ANNA UNIVERSITY RANK HOLDERS LIST OF 2011 – 2015 BATCH

NAME : UMA B	MYTHILEE V	ARUN KUMAR G	DEEPIKA K
AU Rank: 38	39	42	42

"TODAY YOU LEAD THE COLLEGE.....

...TOMORROW THE STUDENTS WILL LEAD THE WORLD"

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Mrs. S. Sesha Vidhya
Associate Professor

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M. LOKESH BABU
3rd year

B. AKASH
3rd year

P. ARJUNA MENON
3rd year

K. ANTO GLADWIN DAYANANDAN
3rd year

AKSHAY
3rd year

**"IF YOU SALUTE YOUR DUTY YOU NEED NOT TO SALUTE ANYBODY
BUT
IF YOU POLLUTE YOUR DUTY YOU HAVE TO SALUTE EVERYBODY"**

~DR. A.P.J ABDUL KALAM