





RMK COLLEGE OF ENGINEERING AND TECHNOLOGY R.S.M Nagar, Puduvoyal-601206.



Department of Electronics and Communication Engineering

Vision:

To excel in the field of Electronics and Communication Engineering to contribute to the knowledge economy and betterment of human life.

Mission:

- To develop the state-of-the-art infrastructure for quality education.
- To build up a team striving for excellence in teaching and research.
- To ensure greater research collaborations with industries and organizations.
- To strengthen social responsibilities and values.

Program Outcomes (POs):

Engineering Graduates will be able 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, review 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 independent and life-long learning in the broadest context of technological change.

Program Educational Objectives (PEOs):

Graduates of Electronics and Communication Engineering program will

PEO1: Excel in their professional and technical career and pursue higher education to be Globally competent

PEO2: Evaluate the real world problems and provide with technically feasible and economically viable solutions

PEO3: Continuously update technologies through lifelong learning

PEO4: Exhibit effective communication skills and professionalism in diverse environments

Program Specific Outcomes (PSOs):

After successful completion of the B.E degree program, the graduates will be able to

PSO1: Develop and test electronic systems for given specifications

PSO2:Design and analyze the signal processing systems as per the requirements

PSO3:Apply appropriate technology for the implementation of modern communication systems

JULY- DECEMBER 2019

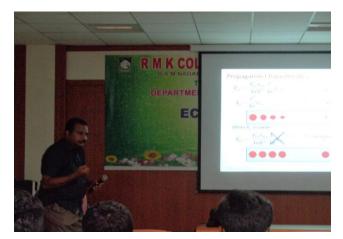
ECE STUDENTS' ASSOCIATION

The Department Organized ECE Students' Association on 03.08.2019. It was inaugurated by the Chief Guest Mr.Srinivasan Thanukrishnan, Founder & CEO of Glosys Technology Solution Pvt. Ltd, Chennai.



<u>GUEST LECTURE</u>

The Department organized Guest Lecture by Dr. Klutto Milleth J, Chief Technologist, CEWiT, IIT Research Park, on "Massive MIMO systems in 5 G and Challenges in Implementation of 5G", for Final year students on 03.08.2019.



NATIONAL LEVEL SYMPOSIUM

The Department conducted National Level Technical Symposium, TWYSTRA 2K19, on 03.09.2019.It was inaugurated by the Chief Guest Mr. Nandakumar V, C.E.O., Star Boxes India (Pvt) Ltd., Chennai, various technical activities were conducted on the same day.









Events Participation by Students MINI PROJECT CONTEST

The Department organized a "One day Intra \succ Mini **Project** Contest'', Department on 29.08.2019.



NATIONAL LEVEL WORKSHOP

The Department organized the two days workshop \succ "Machine learning using **Python** on **Programming**" on 31.07.2019 and 01.08.2019. The resource person was Mr. Govindaraj V.,

Analyst, Enrich Financial services. Data Trainer and Development Head, Focusing minds. Chennai.



INDUSTRIAL VISITS

- II Year C and D section students visited BSNL. on 01.07.2019.
- > II Year A and B section students visited **BSNL**. on 02.07.2019.
- III Year A section students visited Sansbound **Networking** Kodabakkam, on School, 02.07.2019
- > III Year C section students visited Sansbound **Networking** School, Kodabakkam, on 03.07.2019.
- > III Year B section students visited Sansbound **Networking** Kodabakkam .on School. 31.07.2019.
- > IV Year A,C section students visited Ennore **Port** .on 07.08.2019.
- > IV Year B section students visited Ennore **Port** ,on 08.08.2019.

- III Year A , C section students visited SHAR, Sriharikotta, on 20.08.2019.
- II Year A and B section students visited ICF, on 27.08.2019.
- II Year C and D section students visited ICF, on 30.08.2019.

INPLANT TRAINING

Gilfta Prarthana B G., of II year underwent inplant training at Kaashiv Infotech, Chennai, from 02.12.2019 to 06.12.2019.

Divyaa M U and Manikanta Sai Venkatesh P., of II year underwent in-plant training at BSNL, Chennai, from 09.12.2019 to 13.12.2019.

Lavena S., Madhumitha D., Mubeen Begum
Saleem., Harini K., Iswariya V and Kaviya Shree
B., of II year underwent in-plant training at Kaashiv
Infotech, Chennai, from 10.12.2019 to 14.12.2019.

➤ Jaikarthick S., of II year underwent in-plant training at BSNL, Chennai, from 23.12.2019 to 27.12.2019.

STUDENT ACTIVITIES

PAPER PUBLISHED IN

CONFERENCE

Vishnu C., Kiran R., Perezhil N M., Saranya R and Muthumanickam S., "Image Encryption Algorithm to Enhance Key Encryption techniques using Mixed Wavelet Transform in a Fused Image", 4th International Conference -2019,SAC,Ahmedabad,26-27 September,2019.

STUDENT ACTIVITY (ACADEMIC- In Symposium, Workshop & Training-Participated)

- Dinesh Raj N., of III year attended SSC Non -Technical Staff Examination, on 05.08.2019.
- Yashwin Kumar H., of IV year attended Symposium in Wild Marketing, at Sathyabama Institute of Engineering and Technology, Chennai, on 08.08.2019 and 09.08.2019.
- Preetham S., Punuru Bhanu Prakash Reddy., Maram Praveen., of II year attended Intra Department "Mini Project Contest" and won I Prize, at RMKCET, on 28.08.2019.
- Keerthana S., Nisha P and Nandhini Devi G .,of III year attended Intra Department "Mini Project Contest" and won I Prize, at RMKCET, on 28.08.2019.
- Shanmuga PriyaV., Sathvika P G and Sankara Eshwari S ., of III year attended Intra Department "Mini Project Contest" and won II Prize, at RMKCET, on 28.08.2019.
- Loganathan., Kristen., Karthick and Joshua., of II year attended Intra Department "Mini Project Contest" and won II Prize, at RMKCET, on 28.08.2019.
- Dinesh Raj N.,Gnana Sekhar Yadav C and Jagadeesh.B., of III year attended Intra Department "Mini Project Contest" and won III Prize, at RMKCET, on 28.08.2019.

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- Jaghan Vishwanathan A., Amir Abbas S., Gowtham S., Deepak Kumar K and Ajeeth K., of II year attended Intra Department "Mini Project Contest" and won III Prize, at RMKCET, on 28.08.2019.
- Sai Kumar Reddy., Logith E., Manojkumar R and Surya Prakash Reddy O., of IV year attended Intra Department "Mini Project Contest" and won Consolation Prize, at RMKCET, on 28.08.2019.
- Rahul R., Raghav Anirud R and Pramod J., of III year attended Intra Department "Miniproject contest" and won Consolation Prize, at RMKCET, on 28.08.2019.
- Manikanta Sai Venkatesh P., Santosh Kumar S and Sanjay Kumar S., of II year attended Intra Department "Mini Project Contest" and won Consolation Prize, at RMKCET, on 28.08.2019.
- Abhishek Vakada., of III year attended INVENTE, National Level Techfest at SSN College of Engineering, Chennai, from 13.09.2019 and 14.09.2019.
- Prajwal S., Mohammed Imran Z., Nikhil ShivanandK., Yashwin Kumar H., of IV year attended INVENTE, National Level Techfest, at SSN College of Engineering ,Chennai, from 13.09.2019 and 14.09.2019.

- Yashwin Kumar H., of IV year attended District level of Speak for India Tamilnadu Edition Debate Competition, on 17.09.2019.
- Nikhil Shivanand K., of III year attended District level of Speak for India Tamilnadu Edition Debate Competition, on 17.09.2019.
- Jai Karthick S., of II year attended State level Oratorial Competition at Mohammed Sathak College of Arts and Science, Sholinganallur, Chennai, on 18.09.2019.
- Dinesh Raj N., of III year attended Symposium(Karigaala 2K19) at Chennai Institute of technology, Chennai, on 20.09.2019.
- Arunmozhiselvan T., Abilash V M., of III year attended workshop in Machine Learning at SRM Institute of Science and Technology, Chennai, on 20.09.2019 and 21.09.2019.
- Jai Karthick S., of II year presented paper in Symposium (Upagraha 2019) and won III Prize, at Sri Venkateswara College of Engineering and Technology, Chennai, on 26.09.2019.
- Vishakha K., Subhiksha S.,Varsha Irene P and Madhumitha S., of III year attended Technical Symposium at SRM University, Kattankualthur, Chennai, on 27.09.2019.

- Kamali K., Kalaivani M R and Pavithra P., of III year presented Project Demonstration in the event Aptitude for Engineering at World Youth Federation Head Office, Pammal, Chennai ,on 30.09.2019.
- Suba Sree J., Sri Geetha A., Jashwanth T., Jashwanth Reddy Padala., Srija ReddyD., Bhava Tharani V and Elakiya Chuder S S., of II year attended Workshop on "Digital Marketing", at Kaashiv Infotech, on 06.12.2019.
- Vaishnavi V., Neeta G., Reshmika D., Priyadharshini P and Vishmitha D., of II year attended Workshop on "Corporate Training Test/Android ", at Code bind Technologies, on 13.12.2019.
- Madhan R and Loganathan G., of II year attended Workshop on "Digital Marketing", at Kaashiv Infotech, on 14.12.2019.
- Vijaya Shankar T V., of II year attended Workshop on "Artificial Intelligence", at Infogro Technologies, on 21.12.2019.

S.No	Reg.Number	Student Name	Rank	CGPA
1.	111615106026	CATHERINE RATHI DEVA PRIYA	13	9.12
2.	111615106138	SHANMUGA PRIYA S	15	9.1

Anna University Rank Holders 2015-2019 Batch

HEARTY TONGRATULATIONS !!!

STAFF ACTIVITIES

STAFF AWARDS

- Dr.Gangatharan N., Prof., received "Teaching Awards in Engineering to Department of ECE", at Staffordshire University, UK & Education Matters, on 23.07.2019.
- Dr.Arun C., Prof., received "Best Researcher", from ESN AWARDS on 28.09.2019.
- Ms. SeshaVidhya S., Assoc. Prof., participated in Project Demonstration in the event "Dr.Kalam Young Achiever Award", at World Youth Federation Head office, Pammal, Chennai, on 30.09.2019.

ATTENDED SEMINAR,

WORKSHOP, TRAINING & FDP

- Dr.Inbamalar T M., Prof., and Mr. Babu M., Asst.Prof., attended FDP on "Change in learning Approach", at CTS, on 05.07.2019.
- Dr. Gangatharan N., Prof and Dr. Arun C., Prof., attended FDP on "Stress Management", Organized by NPTEL-AICTE, from July 2019 to August 2019.
- Dr. Shanthi K G., Prof., Dr. Praveena N G Assoc. Prof., Ms. Kannagi V., Assoc. Prof., Ms. Dhivya K., Asst Prof., Ms. Manju M, Asst Prof., Ms. Nimitha N., Asst.Prof., Mr. Shaik HedayathBasha., Asst.Prof., Ms..CiyamalaKush bu S., Asst Prof., Ms. Aishwarya N., Asst Prof., Dr.Deepa D., Asst.Prof.,

Ms. BharathaSreeja G., Asst Prof., and Ms. Rajalakshmi S., Asst Prof., attended FDP on "Patent Drafting for Beginners", Organized by NPTEL-AICTE, from July 2019 to August 2019.

- Mr. Jaiganesh S., Asst Prof., attended FDP on "Demystifying Networks", Organized by NPTEL-AICTE, from July 2019 to August 2019.
- Dr. Inbamalar T M., Prof., attended NPTEL-AICTE FDP on "Accreditation and Outcome based learning", from August 2019 to October 2019.
- Ms. Ciyamalakushbu S., Asst. Prof., attended NPTEL-AICTE FDP on "Practical machine learning with tensor flow ", from August 2019 to October 2019.
- Dr. Shanthi K G., Prof., attended training on "Regional Mentoring Session for PoCs and orientation session for IIC and ARIIA", at Vel Tech Rangarajan Dr. Sagunthala R and D Institute of Science and Technology, on 31.07.2019.
- Dr.Inbamalar T M., Prof., Ms.Kannagi V., Assoc. Prof., Ms. Chettiyar Vani Vivekanand., Asst.Prof., attended a workshop on "Telemedicine", at KCG college of Technology, on 24.08.2019.

- Ms. Seshavidhya S., Assoc. Prof., attended training on "Design of Parabolic Antenna using HFSS", Organized by Udemy.com, on 30.08.2019.
- Dr. Muthumanikam S., Asst Prof., attended a workshop on "E-Learning and MOOCs in Higher Education", at Anna University, Chennai, on 14.09.2019.
- Dr. Arun C., Prof., attended three days national workshop on "Cryptology 2019", at Presidency University, Bengaluru, from 26.09.2019 to 28.09.2019.
- Dr. Gangatharan N., Prof., Dr. Shanthi K G., N Prof., **Dr.Praveena** G Assoc. Prof., Ms. Kannagi V., Assoc. Prof., Ms. Seshavidhya S., Assoc. Prof., Mr. Vijay Anandh R.,Assoc. Prof.,Mr.Kannan K., Asst.Prof., Ms. Chettiyar Vani Vivekanand., Asst.Prof.,Ms.Nimitha N., Asst.Prof.,Mr. Jaiganesh S., Asst Prof., Mr. Babu M., Asst Prof., Mr.Shaik HedayathBasha., Asst.Prof., Ms.CiyamalaKushbu **S.**. Asst Prof., Ms.Aishwarya N., Asst Prof., Dr.Deepa D., Asst.Prof., Ms. BharathaSreeja G., Asst Prof., and Ms. Rajalakshmi S., Asst Prof., attended a workshop on "Intellectual Property Rights", Organized by RMKCET, on 04.10.2019.
- Ms. Seshavidhya S., Assoc. Prof., attended a workshop on "Art of Thesis Writing", at Loyola College by Rehoboth Academic Services, Chennai ,on 12.10.2019.

- Ms. Chettiyar Vani Vivekanand., Asst.Prof., attended a workshop on "Inspired Teaching on Electromagnetics", at SSN College of Engineering, on 18.10.2019.
- Dr. Praveena N G Assoc. Prof.,Ms. Kannagi V., Assoc. Prof., Ms. Seshavidhya S., Assoc. Prof.,Mr.VijayAnandh R.,Assoc. Prof.,Ms. Dhivya K., Asst Prof., Mr. Jaiganesh S, Asst Prof., Mr. Shaik HedayathBasha., Asst.Prof., Ms.CiyamalaKushbu S., Asst Prof., Ms. Aishwarya N., Asst Prof. and Dr.Deepa D., Asst.Prof., attended training on "Information Exchange for new upgraded version of IEEE Xplore", Organized by RMKCET on 23.10.2019.
- Ms. Chettiyar Vani Vivekanand., Asst.Prof., Ms. Dhivya K., Asst.Prof., Mr. Jaiganesh S., Asst. Prof., and Ms. Ciyamalakushbu S., Asst. Prof., attended NPTEL-AICTE FDP on "National level STTP on Applied Mathematics & Scientific Computation for Engineering Research", from 04.11.2019 to 09.11.2019.
- Ms. Kannagi V., Assoc. Prof., Ms. Sesha Vidhya S., Assoc. Prof., and Dr. Kannan K., Assoc. Prof., attended two days FDP on "Analytics and Machine Learning", at RM Institute of Science and Technology, from 11.11.2019 to 13.11.2019.

- Mr. Jaiganesh S., Asst. prof., attended a workshop on "DRDO Sponsored Workshop and Mini-Project Course on Physical Layer Security Theory to Practice", at Amrita University, from 13.11.2019 to 15.11.2019.
- Mr. Sathyaraj P., Asst.Prof., Ms. Nimitha N., Asst. Prof., Dr. Deepa D., Asst. prof., Ms. Rajalakshmi S., Asst.Prof., and Ms. Bharatha Sreeja G., Asst Prof., attended five days FDP on "Green communication networks and simulation of wireless networks using NS-3", at S.A Engineering College, from 02.12.2019 to 07.12.2019.
- Mr. Babu M., Asst.Prof., and Mr. HedayathBasha S., Asst. Prof., attended FDP on "ISEA Faculty Training Programme on state-of-the-art Technologies in Information Security", at Anna University, Chennai, from 02.12.2019 to 07.12.2019.
- Dr. Kannan K., Assoc. Prof., Mr.Vijay Anandh R., Assoc. Prof., Ms. Manju M., Asst. Prof., Mr. Sudharsanam V., Asst. Prof., Mr. Jaiganesh S., Asst. Prof., Dr. Aishwarya N., Asst. Prof., Mr. Karthikeyan C., Asst. Prof., and Ms. Jasmine Vijithra A., Asst. Prof., attended FDP on "Enhancing Pedagogical skills in Technical Education", from 05.12.2019 to 07.12.2019.
- Dr. Muthumanikam S., Assoc. Prof., attended TEQIP sponsored Five days FDP on "Deep Learning and Machine Learning Approaches

and its Applications", at NITC, Calicut, from 09.12.2019 to 13.12.2019.

- Ms. Manju M., Asst. Prof., attended a workshop on "2-Day Conclave on Engineering Education for Digital Transformation and Industry 4.0", at R.M.K Engineering College, from 06.12.2019 to 07.12.2019.
- Mr. Karthikeyan C., Asst. Prof., attended a workshop on "VLSI design", at SSN College of Engineering, from 12.12.2019 to 14.12.2019.
- Dr. Muthumanikam S., Assoc. Prof., and Ms. Chettiyar Vani Vivekanand., Asst. Prof., attended a workshop on "Communication System Design using SDR approach", at Loyala-ICAM College of Engineering and Technology from 18.12.2019 to 19.12.2019.

GUEST OF HONOUR

- Dr. Gangatharan N., Prof., acted as an External Assessor for "Promotion Exercise for the post of Lecturer", in University of Rwanda, Kigali, on 29.08.2019.
- Ms. SeshaVidhya S., Assoc. Prof., acted as Session Judge for the event Paper Presentation in "National Level Technical Symposium (GRT Texpo'19)", at GRT Institute of Engineering and Technology, Tirutani, on 14.09.2019.
- Dr. Shanthi K G., Prof., acted as Mentor, in "Introduction to Programming in C", for NPTEL, from July 2019 to December 2019.

GUEST LECTURE BY STAFF

Dr. Praveena N G Assoc. Prof., presented a session on " CMOS Logic Design", at Sai Ram Engineering College, on 25.11.2019.

<u>PATENTS</u>

- Dr. Gangatharan N., Prof., Dr.Arun C., Prof., **Dr.Inbamalar** Т **M.**. Prof., Dr. Muthumanickam S., Assoc Prof., Mr.Saravanan Ms.Apoorva N., Ms.Jayashree S.. D and published Ms.Jayashree Т., а patent "VIBRATO-LARYNX", on 08.11.2019.
- Dr. Gangatharan N., Prof., Dr. Shanthi KG., Assoc Prof., Ms. Sesha Vidhya., Assoc Prof., Dr.Manikandan A., Mr.Babu M., Asst. prof., Ms.Abirami S., Ms.Dakshita Jain., Mr.Thasbir S K., Mr. Suryah V., Mr. Sudharsan G P., Published a patent "Animal Impediment using Intelligent Automated System", on 08.11.2019.

PAPERS PUBLISHED IN JOURNAL

Shanthi K G, Manikandan A., "An Improved Adaptive Modulation and Coding for Cross Layer Design in Wireless Networks", Wireless Personal Communications, Vol. 108, No.2, September 2019, pp. 1009–1020, DOI 10.1007/s11277-019-06448-1. (SCIE, WEB OF SCIENCE, IF= 1.20).

- Bharatha Sreeja G., Inbamalar T M and Ciyamala Kushbu S., Lasipa A., Aileen Jocy A S., "Detection of Signature Based Forgeries Using Artificial Neural Network", International Journal of Innovative Technology and Exploring Engineering, Vol. 9, Issue -1s, November 2019, pp. 400-403. (Scopus Indexed).
- Sesha Vidhya S., Rukmani Devi and Shanthi K.G., "Performance Enhancement of Microstrip UWB Patch Antenna with SRR for Wireless Body Area Networks", International Journal of Innovative Technology and Exploring Engineering ISSN: 2278-3075, Vol. 9 Issue-1S, November 2019, pp. 112-115.(Scopus Indexed).
- Kannagi V and Jawahar A, "Epidermal **Antenna In Palmar Arch Region For Anaemia Detection To Avoid Peripheral Perfusion** Artifact In **Optical** Sensor During Measurement''. Hemoglobin Microsystems November 2019, Technologies, pp. 1-9, https://doi.org/10.1007/s00542-019-04675-x (SCIE, WEB OF SCIENCE, IF= 1.513).

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PAPERS PUBLISHED IN

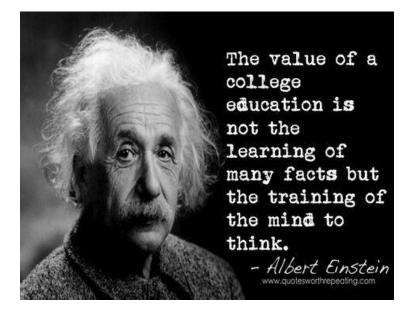
CONFERENCE

Vishnu C., Muthumanikam S., Kiran R., Perezhil N M and Saranya R., "Image Encryption Algorithm to Enhance Key Encryption technique using Mixed Wavelet Transform in a Fused Image", 4th ISSE National Conference, at SAC-ISRO, Ahmedabad, 26th to 27thSeptember, 2019.

Ciyamalakushbu S., Inbamalar TM and Bharatha Sreeja G., "Signature based Forgeries using Artificial Neural Network", AICTE sponsored International Conference on Emerging Intelligent Technologies and Applications (EITA'19), at RMD Engineering College, Kavaraipettai, from 23rdto 25thOctober, 2019.

SeshaVidhya S., Rukmani Devi D and Shanthi KG., "Performance Enhancement of Microstrip UWB Patch Antenna with SRR for Wireless Body Area Networks", AICTE sponsored International Conference on Emerging Intelligent Technologies and Applications (EITA'19), at RMD Engineering College, Kavaraipettai, from 23rd to 25thOctober,2019.





EDITORIAL BOARD

Dr. N. Gangatharan Professor & HOD Dr. C. Arun Professor

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Mrs. S. Sesha Vidhya

Asso. Professor

STUDENT MEMBERS

Vikraman R Third Year Harsha V N S Third Year

