

e-Wizard

Departmental News Letter

Vol-2

2021-2022

Issue-I



DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



St. Johns college of Engineering & Technology

Approved By AICTE, New Delhi, Recognized by UGC under 2(f) & 12(B),
An ISO 9001:2015 Certified Institution and Affiliated to JNTUA, Antapuramu.

Yerrakota, Yemmiganur-518360, Kurnool Dt., AP

About the Department:

ECE is the engineering course to learn about electronics and communications. Its implementation is wide spread, and it is almost found in all streams. Sporty presents this course backed up with stellar teaching performance and high end labs.

The beauty of electronics is it is used everywhere. From electronic goods manufacturer to hospitals, it is implemented in many devices. So, the future for this stream is highly positive.

The microprocessors, mother boards, picture tubes, LED, LCD, etc. are various electronic items, and you know about the impact they have created on billions of people and world’s economy. You can be a part of this huge niche by getting into ECE at the engineering level.

Apart from the electronics, you also have communications in this engineering. It is important in industries like telecommunications, posts & telegraph, defense, etc. The communications department is very crucial for important aspects, like country protection, etc.

The Department of ECE was established in 2001 with an intake of 60 students in the UG program. The ECE department offers Undergraduate programs. Electronics & Communication Engineering is one of the rapidly advancing fields in technological development arena with emerging ideas. The department aims at training students advanced cutting edge technologies and imparts values so that they are equipped to deal successfully any challenges in life, by exploring and creating new avenues. Students are taught to recognize their potential & use it for their best advantage. Our students are performing well in academics and they are encouraged in R&D activities and publishing papers in journals. They are participating in symposiums and seminars in various colleges and universities. They won the prizes in these events.

Department Vision:

To impart Technical education to the rural students and making them employable in the respective domain

Department Mission:

- 1. Up gradation of laboratories with state of the art equipment as the right tools of pedagogy for better lesson delivery
- 2. Providing bridge classes for average and slow learners.
- 3. Arranging interactive sessions with industries and thereby enhance the practical knowledge and technical skills of the student.

Program Outcomes(POs):

- 1. **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- 2. **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.
- 3. **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
- 4. **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.
- 5. **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.
- 6. **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.
- 7. **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.
- 8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- 9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- 10. **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.
- 11. **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.
- 12. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.

Program Specific Outcomes(PSOs):

1. Should be able to understand the concepts of Electronics & Communication engineering and their applications in the field of semiconductor technology, consumer electronics, embedded system, communication/ networking and other relevant areas.
2. Should have an ability to apply technical knowledge and usage of modern hardware and software tools related to Electronics & Communication engineering for solving real world problems.

Program Educational Objectives (PEOs):

1. Graduates will be able to stimulate continuing education with their existing knowledge in the field of Electronics and Communication Engineering.
2. Prepare graduates to practice their profession with ethics, integrity, and social responsibility in a global context.
3. Participate in lifelong learning activities to continue their professional development.

Faculty Development Programs:

- Dr Komera Sudhakar has actively participated and successfully completed APSSDC online FDP on “Embedded Systems” from 16.08.2021 to 04.09.2021.
- Dr Komera Sudhakar has successfully completed 12 Week NPTEL-AICTE Faculty Development Programme on ‘Advanced Microwave Guided Structures and Analysis’ during July to October 2021.
- Mr T Chakrapani, has participated in one week Faculty Development Program on ‘Deep Learning: Perspectives, Trends and Research Prospects’ held during 25th to 30th October 2021 Organized by Department of EEE and NI LabVIEW Academy in association with Mathworks and Capricot Technologies, Pvt Ltd, Hyderabad.
- Mr Syed Ahmed Basha, participated & completed successfully AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "Natural Language Processing" from 08/11/2021 to 12/11/2021 at G.Pulla Reddy Engineering College Kurnool.
- Mr Syed Mahaboob Basha, has participated in one week Faculty Development Program on ‘Deep Learning: Perspectives, Trends and Research Prospects’ held during 25th to 30th October 2021 Organized by Department of EEE and NI LabVIEW Academy in association with Mathworks and Capricot Technologies, Pvt Ltd, Hyderabad.
- Mr Patan Imran Khan, participated & completed successfully AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "Effective Leadership and Excellence in Technical Education" from 15/11/2021 to 19/11/2021 at Women Engineering College Ajmer.
- Ms P Rama Thulasi has actively participated and successfully completed APSSDC online FDP on “Internet –of-Things “from 16.08.2021 to 04.09.2021.
- Ms K Vanitha, has participated in one week Faculty Development Program on ‘Deep Learning: Perspectives, Trends and Research Prospects’ held during 25th to 30th October 2021 Organized by Department of EEE and NI LabVIEW Academy in association with Mathworks and Capricot Technologies, Pvt Ltd, Hyderabad.
- Mr K Veeresh, has participated in the Online Faculty Development Programme on “Research Methodology and Classroom Management Skills” organized by E&ICT Academy IIT Guwahati held from 20 – 26 December, 2021 in association with Internal Quality Assurance Cell (IQAC), Nalbari College, Assam and support from Mantra Associates.
- Mr B Venkatesh, participated & completed successfully AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "Artificial Intelligence and Machine Learning" from 22/11/2021 to 26/11/2021 at Veer Surendra Sai University of Technology (VSSUT) Odisha.
- Mr C Bhargav, Assistant Professor of St John's college of Engineering and Technology participated & completed successfully AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "Recent Trends and Challenges in Image Processing and Computer Vision" from 29/11/2021 to 03/12/2021 at University School of Information and Communication Technology, Guru Gobind Singh IP University.

Faculty Publications:

- Mr T Chakrapani and Mr M Chennaiah” A Broadband Asymmetrical Doherty Power Amplifier With Optimized Continuous Mode Harmonic Impedances”, ResMilitary, vol.12, ISSN: 2265-6294 Spring (2022).
- Mr S Ahmed Basha and Ms T Mallika, “A Comparative Study on the effect of Technology nodes and Logic Styles for Low Power High Speed VLSI Applications”, NeuroQuantology, November 2021, Volume 19, Issue 11, Page 963-970 Doi:10.48047/nq.2021.19.11.NQ21312.
- Ms P RamaThulasi and Mr M cheenaiah,”SOC Compatible 1T1C FERAM Memory Array Based on FerroElectric HF0.5ZR0.5O2”, International Journal of Early Childhood Special Education (INT-JECSE) DOI:10.48047/intjecse/v13i2.21237 ISSN: 1308-5581 Vol 13, Issue 02 2021

Events:

- Students have participated in various extra and cocurricular activities within the college and outside the college also.

Editorial Members

Chairman: Sri A V Ramana Reddy

Secretary: Sri A V Parvath Reddy

Director: Sri K Ramapulla Reddy & Smt K Anasuya

Principal: Dr V Veeranna

HOD: Dr K Sudhakar

Faculty Editors: Mr T Chakrapani, Associate Professor
Ms P Rama Thulasi, Assistant Professor

Student Editors: Ms K Sai Pranavi, & Mr D Ahmed Aswag
Ms K Lavanya & Mr K Sai Balaji



About the College

St. Johns College of Engineering Technology, the pride of Yemmiganur town, was established in the year 2001. Seven kilometers away from the Yemmiganur town, the college campus nestles amidst lush and luxuriant greenery in a sprawling 27 acres land. The College has spacious, well ventilated, well equipped, and well furnished Laboratories, Workshops, Class Rooms, Drawing Halls, Hostels and a well stocked Central Library in addition to departmental libraries.

The college is affiliated to JNTUA, Anantapur and it is approved by AICTE, New Delhi and the Government of Andhra Pradesh. Beginning with a modest intake of 180 students in 4 branches in 2001, the college has grown in size and infrastructure to admit 540 students in 6 branches of B.Tech. Responding to the demand for Post Graduate courses in engineering, Management and Computer Applications, the college has started M.Tech Courses in 9 Specializations, and offer MBA course.

College Vision:

1. To be a preferred technical institution by the first generation learners from rural background.
2. The institute in turn will holistically elevate the students into technically strong and ethically sound individuals thereby moulding characters and career.
3. Partnering with them to contribute towards the advancement of community, region and nation as a whole.

College Mission:

Engage all the stake holders and utilize the infrastructure to develop technically sound employable human resources to translate our vision into a reality.

e-Wizard

Departmental News Letter

Vol-2

2021-2022

Issue-II



DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



St. Johns college of Engineering & Technology

Approved By AICTE, New Delhi, Recognized by UGC under 2(f) & 12(B),
An ISO 9001:2015 Certified Institution and Affiliated to JNTUA, Antapuramu.

Yerrakota, Yemmiganur-518360, Kurnool Dt., AP

About the Department:

ECE is the engineering course to learn about electronics and communications. Its implementation is wide spread, and it is almost found in all streams. Sporty presents this course backed up with stellar teaching performance and high end labs.

The beauty of electronics is it is used everywhere. From electronic goods manufacturer to hospitals, it is implemented in many devices. So, the future for this stream is highly positive.

The microprocessors, mother boards, picture tubes, LED, LCD, etc. are various electronic items, and you know about the impact they have created on billions of people and world's economy. You can be a part of this huge niche by getting into ECE at the engineering level.

Apart from the electronics, you also have communications in this engineering. It is important in industries like telecommunications, posts & telegraph, defense, etc. The communications department is very crucial for important aspects, like country protection, etc.

The Department of ECE was established in 2001 with an intake of 60 students in the UG program.

The ECE department offers Undergraduate programs. Electronics & Communication Engineering is one of the rapidly advancing fields in technological development arena with emerging ideas. The department aims at training students advanced cutting edge technologies and imparts values so that they are equipped to deal successfully any challenges in life, by exploring and creating new avenues. Students are taught to recognize their potential & use it for their best advantage. Our students are performing well in academics and they are encouraged in R&D activities and publishing papers in journals. They are participating in symposiums and seminars in various colleges and universities. They won the prizes in these events.

Department Vision:

To impart Technical education to the rural students and making them employable in the respective domain

Department Mission:

1. Up gradation of laboratories with state of the art equipment as the right tools of pedagogy for better lesson delivery
2. Providing bridge classes for average and slow learners.
3. Arranging interactive sessions with industries and thereby enhance the practical knowledge and technical skills of the student.

Program Outcomes(POs):

1. **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **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.
3. **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
4. **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.
5. **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.
6. **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.
7. **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.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. **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.
11. **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.
12. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.

Program Specific Outcomes(PSOs):

1. Should be able to understand the concepts of Electronics & Communication engineering and their applications in the field of semiconductor technology, consumer electronics, embedded system, communication/ networking and other relevant areas.
2. Should have an ability to apply technical knowledge and usage of modern hardware and software tools related to Electronics & Communication engineering for solving real world problems.

Program Educational Objectives(PEOs):

1. Graduates will be able to stimulate continuing education with their existing knowledge in the field of Electronics and Communication Engineering.
2. Prepare graduates to practice their profession with ethics, integrity, and social responsibility in a global context.
3. Participate in lifelong learning activities to continue their professional development.

Faculty Development Programs:

- Dr.J. Kallappan has participated in Five day online Faculty Development Program on “Advances in Signal Processing” , organized by Department of Electronics & Communication Engineering, Lakireddy Bali Reddy College of Engineering, Mylavaram, Krishna District held during 04.04.2022 to 08.04.2022.
- Syed Ahmed Basha, has participated in one week Faculty Development Program on ‘Research Ideas in Image Processing & Communications’ from 27.12.2021 to 01.01.2022 at Siddhartha Institute of Science and Technology, Puttur..
- Ms K Suvama has participated in Five Day online faculty development program on “Advances in Signal Processing”,
- Organized by Department of Electronics and Communication Engineering, Lakireddy Bali Reddy College of Engineering, Mylavaram, Krishna District held 04.04.2022 to 08.04.2022.
- Mr C Bhargav, Assistant Professor, Department of Electronics and Communication Engineering from St Johns College of Engineering & Technology has participated in One Week Faculty Development Program on RESEARCH IDEAS IN IMAGE PROCESSING & COMMUNICATIONS organized by Siddhartha Institute of Science and Technology, Puttur from 27.12.2021 to 01.01.2022.
- Mr/Ms. T CHAKRAPANI from VELTECHUNIVERSITY, CHENNAI has participated in Five day online Faculty Development Program on “Advances in Signal Processing” , organized by Department of Electronics & Communication Engineering, Lakireddy Bali Reddy College of Engineering, Mylavaram, Krishna District held during 04.04.2022 to 08.04.2022.
- M. Chennaiah From St. Johns College of Engineering & Technology, Yemmiganur has participated in Five day online Faculty Development Program on “Advances in Signal Processing” , organized by Department of Electronics & Communication Engineering, Lakireddy Bali Reddy College of Engineering, Mylavaram, Krishna District held during 04.04.2022 to 08.04.2022.
- Ms. T. MALLIKA from St. Johns College of Engineering & Technology, Yemmiganur has participated in Five day online Faculty Development Program on “Advances in Signal Processing” , organized by Department of Electronics & Communication Engineering, Lakireddy Bali Reddy College of Engineering, Mylavaram, Krishna District held during 04.04.2022 to 08.04.2022.

Faculty Publications:

- Mr T Chakrapani and Mr B NandaKishore” The Deep Learning Revolution And Its Implications for Computer Architecture And Chip Design”, ResMilitaris,vol.12,ISSN: 2265-6294 Spring (2022)..
- Mr C Bhargav and Dr T Rama Krishna,” A Fractional Model For Propagation Of Classical Optical Solitons By Using Nonsingular Derivative”, Vol.21 No.01 Feb,2022, ISSN: 1005-0299
- Dr K Sudhakar and Mr S Mahaboob Basha, “Integrating Sensing and Communications for Ubiquitous IOT: Applications, Trends and Challenges”, International Journal of Early Childhood Special Education (INT-JECSE) DOI:10.48047/intjecse/v13i2.21236 ISSN: 1308-5581 Vol 13, Issue 02 2021

Events:

- Expert Ms U M Sailaja, Bangalore has given guest lecture on Digital Design on 19.03.2022 which helps students not to become ease at subject but confident of building their career .
- Students have participated in various extra and cocurricular activities with in the college and outside the college also.

Editorial Members	
Chairman:	Sri A V Ramana Reddy
Secretary:	Sri A V Parvath Reddy
Director:	Sri K Ramapulla Reddy & Smt K Anasuya
Principal:	Dr V Veeranna
HOD:	Dr K Sudhakar
Faculty Editors:	Mr T Chakrapani Associate Professor Ms P Rama Thulasi Assistant Professor
Student Editors:	Ms K Sai Pranavi Mr D Ahmed Aswaq Ms K Lavanya Mr K Sai Balaji



About the College

St. Johns College of Engineering Technology, the pride of Yemmiganur town, was established in the year 2001. Seven kilometers away from the Yemmiganur town, the college campus nestles amidst lush and luxuriant greenery in a sprawling 27 acres land. The College has spacious, well ventilated, well equipped, and well furnished Laboratories, Workshops, Class Rooms, Drawing Halls, Hostels and a well stocked Central Library in addition to departmental libraries.

The college is affiliated to JNTUA, Anantapur and it is approved by AICTE, New Delhi and the Government of Andhra Pradesh. Beginning with a modest intake of 180 students in 4 branches in 2001, the college has grown in size and infrastructure to admit 540 students in 6 branches of B.Tech. Responding to the demand for Post Graduate courses in engineering, Management and Computer Applications, the college has started M.Tech Courses in 9 Specializations, and offer MBA course.

College Vision:

1. To be a preferred technical institution by the first generation learners from rural background.
2. The institute in turn will holistically elevate the students into technically strong and ethically sound individuals thereby moulding characters and career.
3. Partnering with them to contribute towards the advancement of community, region and nation as a whole.

College Mission:

Engage all the stake holders and utilize the infrastructure to develop technically sound employable human resources to translate our vision into a reality.