



# Jyothi Engineering College

Approved by AICTE & Affiliated to APJ Abdul Kalam Technological University  
 A CENTRE OF EXCELLENCE IN SCIENCE & TECHNOLOGY BY THE CATHOLIC ARCHDIOCESE OF TRICHUR  
 JYOTHI HILLS, VETTIKATTIRI P.O., CHERUTHURUTHY, THRISSUR. PIN-679531. PH: +91-4884-259000, 274423 FAX : 04884-274777  
 NBA Accredited B. Tech Programmes in Computer Science & Engineering, Electronics & Communication Engineering,  
 Electrical & Electronics Engineering and Mechanical Engineering valid for Academic Years 2016-2017 to 2018-2019  
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## CIVIL NEWS

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CIVIL  
ENGINEERING  
DEPARTMENT

### RIVERS AND SUSTAINABILITY

A relevant discussion on 'Rivers and Sustainability' was organised in association with IE(I) on 4<sup>th</sup> July 2018. The participants were fortunate to have Ms. Jordan P Woodward, Fullbright Nehru Research Scholar, University of Oklahoma, USA as the speaker for the session.



### COLLEGE VISION

Creating eminent and ethical leaders through quality professional education with emphasis on holistic excellence.

### COLLEGE MISSION

- To emerge as an institution par excellence of global standards by imparting quality engineering and other professional programmes with state-of-the-art facilities.
- To equip the students with appropriate skills for a meaningful career in the global scenario.
- To inculcate ethical values among students and ignite their passion for holistic excellence through social initiatives.
- To participate in the development of society through technology incubation, entrepreneurship and industry interaction.

### DEPARTMENT VISION

To emerge as a Centre of Excellence in Civil Engineering through quality professional education and to create eminent engineers and leaders with values committed to the profession and society.

### DEPARTMENT MISSION

- To impart state of the art education and to provide industry exposure to students
- To create civil engineers who successfully adapt and innovate solutions for the built environment
- To inspire and transform the students to hard core professionals and academicians with ethical values.



### NIT CALICUT VISIT

The aspiring students of our second year M.Tech programme on Transportation Engineering visited the transportation engineering labs of the prestigious NIT Calicut. The actively interacted with Dr. M V L R Anjaneyulu, Dean of Academics, NIT Calicut and his research team during their visit on October 16<sup>th</sup>, 2018.

### TILE COMPANY VISIT

Dr. Nidhi M accompanied her team of project students of S7 CE to a pavement tile manufacturing company on 10<sup>th</sup> November 2018 to instill in them the skills and facilities required for the industry. The presence of Prof. M. Kumaran, a senior practicing engineer rendered the visit fruitful.



### TALK ON ENTREPRENEURSHIP

The final year students of S7 CE attended a talk on "Entrepreneurship" delivered by Mr. Pranap G, Asst. District Industries officer, DIC, Thrissur on November 4<sup>th</sup> 2017. The career shaping up talk was organised by Innovation and Entrepreneurship Development Cell and District Industries Centre, Thrissur in partnership with Kerala Start-Up mission.

## PROGRAMME

### EDUCATIONAL OBJECTIVES

The program educational objectives of B.Tech in Civil Engineering are:

1. Graduates will have concrete knowledge in the application of necessary mathematical tools, scientific theories and modern developments in civil engineering.
2. Graduates will understand the societal needs and will be committed in developing optimal solutions.
3. Graduates will be able to pursue higher education, research or entrepreneurship apart from being employable.
4. Graduates will be competent to face challenges in civil engineering through lifelong learning process and will have high ethical values, honesty and a sense of responsibility.

## DEPARTMENT ACTIVITIES

Our students were proactive in joining hands with CWRE in carrying out various tests to determine the quality of drinking water available in the flood affected houses in Thrissur district by testing 1000 such samples.



Our students were enthusiastic in taking part in various activities related to the national mission "Swachh Bharat". They assisted in cleaning the public areas of various panchayat, spreading awareness to school students by interacting with them and distributing leaf letters to different houses for successful accomplishment of the mission.



A training program was organized for our laboratory staff to reinforce their expertise in managing and conducting the different laboratories in our department.

Our department has been very keen in facilitating 'Internal Seminar' on various topics for the staff and students. Our faculty, Ms. Vincy Verghese had delivered a very informative seminar on "Mathematical Model – A Recap" on 28th July 2018.

The vibrant faculties of our department Dr. Nidhi M, Ms. Jisha Akkara, Ms. Archana S, Ms. Vincy Verghese received hands on training in Latex software on 6th October 2018. The program was organised by the B. Tech and M. Tech project coordination committee along with R&D, JECC, Thrissur.

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The prestigious project entitled "Driver Centric safety Evaluation of Two-Lane rural highway" of 12.7 lakh funded by KSCSTE with Dr. Anitha Jacob as the Principal Investigator has been submitted on 06-12-2018 after its successful completion.

Our vivacious and experienced faculty Dr. Anitha Jacob has bid good bye to our institution on 7th December 2018. She had a very eventful journey spanning about 16 years with the ME and CE departments of our institute. She evolved herself academically as a B. Tech holder to a doctorate holder

## PROGRAMME OUTCOMES

Engineering Graduates will be able to:

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.

and professionally as a lecturer to Dean during her tenure in the institute. Her calm, optimistic and determined nature has helped our department and institute soar heights of achievement.



## STUDENT ACHIEVEMENTS University Result



Our students Ms. Ambili P, Ms. Aiswarya JayaPrasad, Ms. Maria Rose Vincent and Ms. Neethu Vincent of 2013-17 batch secured 7th, 21st, 53rd and 58th ranks, respectively in the Calicut University B.Tech Civil Engineering Examinations bringing glory to the department.



The never ceasing efforts of the students Ms. Haleema Lameez Thajudden (SGPS 8.43), Ms. Dania Manavalan (SGPA 8.41) and Ms. Bhavya George (SGPA 8.39) of S7 Civil helped them secure the first, second and third position, respectively, in their class in the sixth semester results published by APJ Abdul Kalam Technological University.



Our students Ms. Salini M S (SGPA 9.61), Ms. Dona Thomas (SGPA 9.41) and Ms. Sreya Murali (SGPA 9.28) of S5 Civil emerged victorious by securing the first, second and third

position in their class in the fourth semester results published by APJ Abdul Kalam Technological University.



Our students relentless efforts bought pride to the department as Ms. Arathi A R (SGPA 8.87), Ms. Nivea John (SGPA 8.26) and Ms. Aswathy K R (SGPA 8.16) of S3 M.Tech Transportation Engineering secured the first, second and third position, respectively, in their class in the second semester results published by APJ Abdul Kalam Technological University.

## Publications / Presentations / Participations



Ms. Jeena Johny A of S3 M.ech Transportation engineering had bagged first prize in paper presentation held as a part of the technical fest conducted by Royal College of Engineering and Technology, Akkikkavu on October 5 to 6, 2018.

Our students have always been keen in actively participating in technical events conducted in other institute. In this context, Ms. Bhavya George and Ms. Megha T S presented a paper on "Construction of pavements using plastic" in a technical fest conducted by Royal college of Engineering and Technology, Akkikkavu on October 5 to 6, 2018.

The exuberant students of our department Ms. Jasna Joseph P, Ms. Nida Naina K, Ms. Bhavya George,

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 life-long learning in the broadest context of technological change

**PROGRAMME SPECIFIC OUTCOMES**

1. Acquire applied knowledge in Environmental Engineering, Geotechnical Engineering Structural Engineering and Transportation Engineering.
2. Utilise theoretical concepts and technical skills in developing appropriate solutions for water quality management, sanitation, pavement design, traffic engineering and transportation planning.

Ms. Megha T S and Ms. Irin Pius of S7 CE participated in Konstruado (Bridge construction) held as a part of technical fest, conducted by Royal college of Engineering and Technology, Akkikkavu on October 5 to 6, 2018.

Ms. Anila Benny, Ms. Arppitha K, Mr. Jerin P Jose and Mr. Jithin Joy K of S7 CE participated in Rompilapo (Survey hunt) held as a part of technical fest, conducted by Royal college of Engineering and Technology, Akkikkavu on October 5 to 6, 2018.

Our carrier oriented students Ms. Fredin Joy K and Ms. Anirudh C H enthusiastically participated in the "Foundation skills Entrepreneurship" program of Kerala form 13-14<sup>th</sup> September 2018.

Our students have proved themselves in the field of athletics as Ms. Yacy Joshy of S3CE participated in the final rounds of 100m race and 4x100m relay in APJ Abdul Kalam Technological University first intercollegiate Athletics 2019-19 held during 2<sup>nd</sup> to 4<sup>th</sup> November 2018.

The students of S7CE relentlessly contributed to the various activities associated with Swachh Bharath Abhiyan at institute and panchayat level.



Our students were resourceful in extending their technical know-how to state government projects. In this context, Ms. Bhavya George, Mr. Gokul G, Ms. Arppitha K, Mr. Mahesh T M of S7CE and Mr. Midhun T of S3M.Tech conducted a detailed survey and prepared a site plan and contour

map for the existing yard and building of TMR store and transformer workshop housed in the premises of TMR Division office, KSEB Ltd, Kulappully on 20th October 2018.



**FACULTY ACHIEVEMENT**



Our steering head, Prof. S. Rathish received a token of appreciation for flood relief related activities from Honorable Minister A. C. Moideen, Minister of Local administration Kerala at Town Planning hall, Thrissur on November 18, 2018.



Our faculties have always exhibited interest in sharpening their technical knowledge on emerging trends in the subject. Ms. Shiny Shajan attended a five day faculty development programme on "Design of steel structures" from 16-07-2108 to 20-07-2018 conducted by Civil Engineering Department, FISAT.



Ms. Neeraja P G, Ms. Rachana R, Ms. Vincy Verghese actively participated in a training programme on "Recent advances in construction

management” from 16-07-2108 to 20-07-2018 held at GEC, Thrissur organized by Government College of Engineering, Thrissur.



Our faculties have always appreciated the relevance of research in academics, as a part of this Ms. Anju M J, Ms. Jisha Akkara, Ms. Neeraja P G and Ms. Rachana R, participated a Faculty Development programme on “Introduction to Research through Research Methodology and Mathematics” during 05-07-2018 to 07-07-2018 organised by R & D Cell of Jyothi Engineering College.



The contribution to research by our faculties have resulted in the publication of a technical paper entitled “Effect of Rural Highway Geometry on Driver Workload – A Step Towards Safety” authored by Dr. Anitha Jacob, Mr. Jinesh K.J., Ms. Jisha Akkara and Dr. Jose P Therattil in the conference proceedings of Taylor and Francis-Emerging trends in engineering science and technology for society, energy and environment.



Ms. Archana S has actively participated in a three day workshop on “Real time applications of intelligent transportation systems” sponsored by Transportation Engineering Research Center, organised by Department of Civil Engineering, College Of Engineering, Trivandrum during December 12-14, 2018.



Another achievement by our faculty in the area of research has been by Mr. Jestine J, by presenting a technical paper entitled “finite element analysis of a military vehicle door under impact loading” in ICONS 2018, Second international conference on Structural integrity, jointly organised by IGCAR, Kalpakkam and SFA Chennai Chapter at IIT Madras during December 14-17, 2018.



As a step to upgrade one’s technical expertise Ms. Jisha Akkara participated in a faculty development programme on Multivariate data analysis sponsored by the Directorate of technical education, Government of Kerala and organised by Economics department of Govt. Engineering College, Thrissur on December 17-21, 2018.



Our faculties have been instrumental in sharing their expertise in the field of research, as a part of this Dr. Nidhi M of our department moderated a session on “Experimentation and basic instrumentation” in the Faculty Development programme on “Introduction to Research Through Research Methodology And Mathematics” during 05-07-2018 to 07-07-2018 organised by R & D Cell of Jyothi Engineering College.



As a part of bridging the gap between research and real life application, Dr. Nidhi M submitted a project proposal titled “Strength and behaviour of needle fibre reinforced concrete” to Jubilee centre for Medical research during an interaction held with JCMR representatives on November 8<sup>th</sup>, 2018 at JECC.



Mr. Aswin P Vijayan successfully completed a 8 week course offered by NPTEL, a popular educative platform facilitated by the IITs, on Remote Sensing and digital image processing. He also achieved a consolidated score of 89% in the programme.



Our faculties have always welcomed opportunities to kindle the minds of aspiring students with thought provoking sessions, as a part of this Prof M G Cyriac had an interaction on “Relation between nature and people” with the students of Government Polytechnic College, Chelakkara during their NSS camp at NMLP School, Venganellur on 25<sup>th</sup> December 2018.



Our attempts in being recognized in the field of research has resulted in acceptance of the technical paper entitled “Effect of Geometry on Driver Heart Rate” authored by Dr. Anitha Jacob, Ms. Jisha Akkara and Ms. Vineetha N for being presented in the 15<sup>th</sup> World Conference on Transport Research which is to be held on 26-31 May 2019 at IIT Bombay.