



AUTONOMOUS

# St. Thomas College of Engineering & Technology

Kozhuvalloor, Chengannur, Alappuzha, Kerala

Accredited by NAAC

NBA

ISO 9001:2015

KTU Code: STC

## STCET Fortnightly e-Bulletin

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### MESSAGE FROM PRINCIPAL

#### Dr. Ajit Prabhu.V.



The Royal Swedish Academy of Sciences has decided to award the Nobel Prize in Chemistry 2025 to (1) Susumu Kitagawa, Kyoto University, Japan, (2) Richard Robson, University of Melbourne, Australia, and (3) Omar M. Yaghi, University of California, Berkeley, USA, “for the development of metal–organic frameworks (MOF).”

Metal–organic frameworks (MOFs) are porous materials comprised of metal ion or cluster nodes coordinated to organic linkers. The seemingly endless combinations of nodes and linkers enable the design of MOFs with an extraordinarily diverse range of structures and properties. Their large surface area, adjustable pore size, structural flexibility, and ability for functionalisation at either the metal nodes or organic linkers have shown potential in applications such as gas storage and separation, chemical sensors, water harvesting and purification, heterogeneous catalysis, energy storage, and drug delivery. The modular nature of MOFs has also stimulated extensive fundamental studies on synthetic methodologies, thermal expansion behaviour, magnetic structures, and structural disorder.

Metal–organic frameworks have enormous potential, bringing previously unforeseen opportunities for custom-made materials with new functions. In 1989, Richard Robson carried out an experiment utilising the inherent properties of atoms in a new way. He combined positively charged copper ions with a four-armed molecule; this had a chemical group that was attracted to copper ions at the end of each arm. When they were combined, they bonded to form a well-ordered, spacious crystal. It was like a diamond filled with innumerable cavities. Robson immediately recognised the potential of his molecular construction, but it was unstable and collapsed easily.

However, between 1992 and 2003, Susumu Kitagawa and Omar Yaghi provided this building method with a firm foundation; they made, separately, a series of revolutionary discoveries. Kitagawa showed that gases can flow in and out of the constructions and predicted that MOFs could be made flexible. Yaghi created a very stable MOF and showed that it can be modified using rational design, giving it new and desirable properties. Following the laureates’ ground-breaking discoveries, chemists have built tens of thousands of different MOFs.

Some of these may contribute to solving some of humankind’s greatest challenges, with applications that include separating PFAS (per- and poly fluoro alkyl substances) from water, breaking down traces of pharmaceuticals in the environment, capturing carbon dioxide, or harvesting water from desert air. Researchers have developed a molecular kit with a wide range of different pieces that can be used to create new MOFs. These have different shapes and characters, providing incredible potential for the rational — or AI-based — design of MOFs for different purposes.

The Nobel Prizes are conferred for breakthroughs in science and for future technology. We, being engineers, it is our responsibility to conceive the latest trends and developments in science and think how to translate the scientific knowledge into useful technology.

-Chief Editor

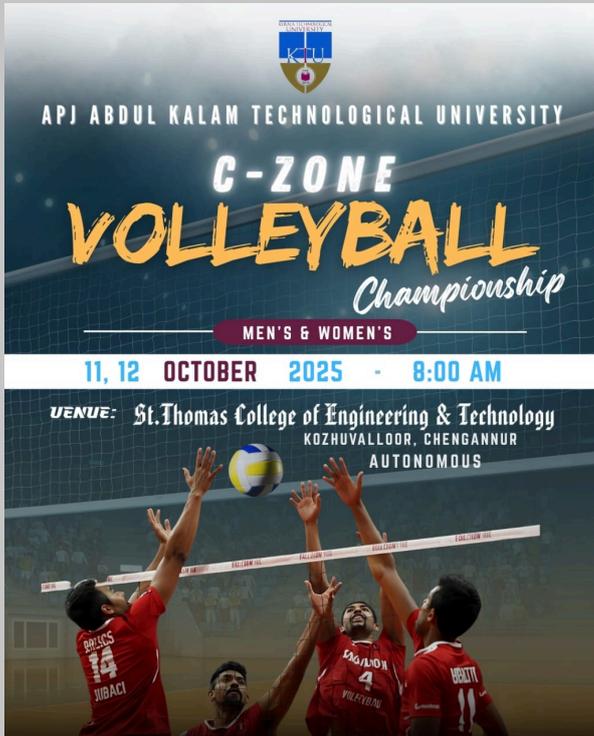
### VISION

To be an Institute of repute recognised for excellence in education, innovation and social contribution.

### MISSION

- M1 : Develop, maintain and manage our campus for our stakeholders.
- M2 :Encourage our stakeholders to participate in lifelong learning through industry and academic interactions.
- M3 :Organize socially relevant outreach programs for the benefit of humanity.

## STC Hosts APJAKTU C-Zone Volleyball Championship



St. Thomas College of Engineering & Technology proudly hosted the APJ Abdul Kalam Technological University C-Zone Volleyball Championship on October 11-12, 2025. The two-day event saw enthusiastic participation from men's and women's teams across the zone, with matches starting at 8:00 AM daily at our Kozhuvallur campus.

As an autonomous institution, we were honored to provide excellent facilities for this university-level sports event. The championship showcased outstanding athletic talent and sportsmanship, reflecting our commitment to holistic student development. The event successfully promoted healthy competition and camaraderie among engineering colleges in the C-Zone.



## College Partners with CSRbox to Empower Students with IBM Skills



St. Thomas College of Engineering & Technology (STC) is thrilled to announce a landmark strategic partnership with **CSRbox**, a leading name in corporate social responsibility and skill development initiatives. This collaboration was formally cemented through a Memorandum of Understanding (MoU) signed on **17th October 2025** at our campus in Parachanta, Kerala, marking a significant leap forward in our commitment to industry-aligned education.

This pioneering partnership is strategically designed to integrate globally recognized **IBM certification programs** directly into STC's academic framework. Students will now have direct access to cutting-edge curricula and training in high-demand domains such as **Artificial Intelligence, Data Science, Cloud Computing, and Cybersecurity**. These certifications are meticulously crafted to equip learners with the practical, hands-on skills that today's technology employers actively seek.

The initiative goes beyond traditional learning, offering students a distinct competitive edge. By aligning our academic ecosystem with the dynamic requirements of the global tech industry, we are not only boosting the employability of our graduates but also actively nurturing a future-ready workforce capable of driving innovation. This MoU represents a pivotal commitment from STC to bridge the gap between theoretical knowledge and real-world application, ensuring our students are not just participants but pioneers in the technological landscape.

This partnership with CSRbox opens a new chapter of opportunity, empowering every STC student to build a robust and future-proof career.

## Student Excels in Inter-Collegiate Quiz on Welding Technology

We are proud to announce that **Rohith R. Nar** of St. Thomas College of Engineering & Technology demonstrated outstanding expertise at the Quiz Competition on Welding Technology, held on 14th October 2025. The event, organized by the prestigious Indian Institute of Welding (Cochin Branch) in association with Adi Shankara Institute of Engineering & Technology, brought together students from various institutions.

Rohith's participation and performance were recognized with a **Certificate of Participation**, which commended his knowledge, skill, and commitment in the field. This achievement highlights the caliber of our students and their ability to compete on a larger academic stage. The college community extends its heartiest congratulations to him.



## Civil Engineering Department Equips Students with Advanced Surveying Skills



Bridging the gap between theory and practice, the Department of Civil Engineering successfully organized a two-day workshop on **Total Station Surveying** on 13th and 20th October 2025. This intensive hands-on session was designed to provide students with direct experience in using one of the most essential tools in modern construction and civil engineering projects.

Over the two weekends, participants learned the operational principles, setup procedures, and data collection techniques of the Total Station. The workshop emphasized the practical application of surveying, preparing students for the technical demands of their future careers. This initiative underscores the department's commitment to delivering industry-relevant, skill-based learning.

## Civil Engineering Department and BAI Host Insightful Seminar on Career Innovation

The Department of Civil Engineering, in association with the Builders Association of India (BAI), Thiruvalla Centre, successfully conducted a seminar titled "Hoping, Opting & Innovating for Opportunities" on 15th October 2025.

The resource person, **Ar. Aswin Ipe Philip**, Principal Architect of IPE Design Workshop LLP, Kottayam, shared his valuable insights and professional journey with the students. Held at the CSE Seminar Hall, the session motivated attendees to proactively shape their careers by identifying opportunities and embracing innovation in the architecture and construction industry.



## Exploring the Future of Transit: STC Tech Talk Delves into GIS for Transportation



The Department of Civil Engineering successfully organized an STC Tech Talk on "GIS in Transportation Research" on 8th October 2025. The session was led by Dr. Harikrishna M, Associate Professor from the Department of Civil Engineering at NIT Calicut.

Dr. Harikrishna provided an insightful overview of the application of Geographic Information Systems (GIS) in modern transportation planning and research. The virtual event, held via Google Meet, was highly engaging and provided students and faculty with valuable exposure to cutting-edge tools and methodologies in the field. The talk was a significant step in bridging academic knowledge with practical industry applications.

## WORKSHOP ON CLOUD DATA ENGINEERING

The Department of Computer Science and Engineering successfully conducted a Tech Talk on "Cloud Data Engineering" on October 22, 2025. The session was handled by Sudhesh Udayakumar, Data Engineer from TCS. The talk provided participants with valuable insights into the fundamentals of cloud data engineering, its architecture, and its applications in modern data systems. Students had the opportunity to engage in interactive discussions and interact with the expert, gaining practical knowledge on how cloud technologies are transforming data processing and management. The event received an enthusiastic response from students, enriching their understanding of cloud data platforms and motivating them to explore career opportunities in the field of data engineering and cloud computing.

The poster features a dark blue background with a cloud icon and a person's portrait. Text includes: 'STC - TECH TALK', 'CLOUD DATA ENGINEERING', 'ORGANIZED BY DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING', 'RESOURCE PERSON' (with a portrait of Sudhesh Udayakumar), 'Register Now', '22 OCT 2025 07:00 PM - 08:00 PM', and 'SUDHEESH UDAYAKUMAR DATA ENGINEER, TCS'. At the bottom, it displays the St. Thomas College of Engineering & Technology logo and accreditation details: 'KOZHIVALOOK POST - CHENGANNUR, ALAPPUZHA DIST, 689 511', 'Approved by AICTE, Government of Kerala & Affiliated to APJ Abdul Kalam Technological University', and logos for NAAC, ISO, and NBA.

## BREAKING: STC SOARS WITH PRESTIGIOUS NBA RE-ACCREDITATION

The announcement features the St. Thomas College of Engineering & Technology logo and contact information: 'Chengannur, Alappuzha | Email : info@stcet.net | Approved by AICTE, Government of India', 'Affiliated to APJ Abdul Kalam Technological University, Government of Kerala', 'ACCREDITED BY NAAC | NBA | ISO 9001 : 2015', 'AUTONOMOUS', and 'www.stthomascollege.ac.in'. The main text reads: 'Happy to announce St. Thomas College of Engineering and Technology (Autonomous) Re-Accredited by NBA NATIONAL BOARD OF ACCREDITATION for CSE and Civil Engineering Till 31<sup>st</sup> December 2028'.

St. Thomas College of Engineering and Technology (Autonomous) is proud to announce that our Computer Science and Engineering and Civil Engineering programs have been re-accredited by the National Board of Accreditation (NBA) until December 31, 2028. This achievement reflects our institution's continued commitment to academic excellence, quality education, and adherence to the highest standards in technical education. The NBA re-accreditation validates our rigorous curriculum, experienced faculty, and state-of-the-art infrastructure that provide students with comprehensive learning experiences. This recognition will further strengthen our position as a premier engineering institution and enhance the value of our degrees in the global marketplace, opening up greater opportunities for our students and graduates.

## YOUTH SPEAKS SEASON 3: WHERE IDEAS TAKE THE MIC

Asianet News's Youth Speaks Season 3 brought vibrant discussions and youthful energy to St. Thomas College of Engineering & Technology, Chengannur, where students confidently voiced their opinions on current issues and social change. Supported by Global Educational Consultants, the event encouraged open dialogue, critical thinking, and leadership among students. Airing on October 22, 2025, at 3:30 PM, the program showcased how today's youth are not just learners but active changemakers shaping a better tomorrow. This season, the vibrant campus of St. Thomas College of Engineering & Technology, Chengannur, became the stage for passionate dialogue.



## RECOGNITION OF RESEARCH SUPERVISOR



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KTU/RESEARCH/2025/00602

23.10.2025

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Dr RAM MOHAN N R(KTU-F46904), Professor, COMPUTER SCIENCE & ENGINEERING, ST.THOMAS COLLEGE OF ENGINEERING & TECHNOLOGY CHENGANNUR is an approved Research Supervisor of this University from 23/10/2025. The Supervisorship is approved vide University Order No.1788/2025/KTU Dated 02/09/2025

Dean Research

APJ Abdul Kalam Technological University has officially approved Dr. Ram Mohan N R, Professor of Computer Science and Engineering at St. Thomas College of Engineering & Technology, Chengannur, as a Research Supervisor under the University. The approval, effective from October 23, 2025, acknowledges his academic excellence and contribution to research and innovation. This recognition marks a proud moment for the institution and inspires faculty and students alike to pursue higher research endeavors.

## CAREER PLACEMENTS INFO

141 students of STC were successfully placed in renowned companies with the help of our dedicated placement cell. The placement drive is still ongoing, with more opportunities ahead.



### Our Recruiters



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