



KUMARAGURU
COLLEGE OF TECHNOLOGY
Character is life

**CIVIL
ENGINEERING
ASSOCIATION**



BUILDERS EXPRESS

September – October 2022



ABOUT KCT:



Kumaraguru College of Technology is an autonomous, self-financing engineering college, affiliated to Anna University. It was started in 1984, with the mission of providing aspiring students of technical education, a challenging learning environment. Over the last three decades, several new programs have been introduced and the institution has emerged as a trusted destination for quality technical education and as a hub for research and innovation. The college is ISO certified and is accredited by NAAC. Several programs offered by KCT are accredited by NBA. In addition to a host of engineering and allied engineering courses, KCT has also gained recognition for its uniquely tailored management education programs.

KCT prides itself as an institution that is quick to adapt its learning delivery platform to rapidly evolving learning environments. This has resulted in creating a vibrant ambience on campus that engages students in a variety of ways.



Vision of Institution

The vision of the college is to become a technical university of International Standards through continuous improvement.

Mission of Institution

Kumaraguru College of Technology (KCT) is committed to providing quality Education and Training in Engineering and Technology to prepare students for life and work equipping them to contribute to the technological, economic and social development of India. The College pursues excellence in providing training to develop a sense of professional responsibility, social and cultural awareness and set students on the path to leadership.

Vision of Department

Department of Civil Engineering is striving to become as a world class Academic Centre for quality education and research in diverse areas of Civil Engineering, with a strong social commitment.

Missions of Department

1. Producing highly competent and technologically capable professionals and motivated young Academicians
2. Providing quality education in undergraduate and post graduate levels, with strong emphasis on professional ethics and social commitment.
3. Developing a scholastic environment for the state – of –art research, resulting in practical applications.
4. Undertaking professional consultancy services in diverse areas of Civil Engineering.



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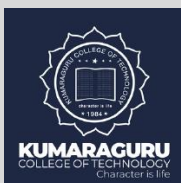
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Message from the Head of the Department:

"The months of September and October have been inspiring for our department. From hosting impactful programs to achieving remarkable milestones in research and consultancy, our faculty and students continue to set high standards of excellence. Let us remain committed to innovation and sustainable development in civil engineering."

— Dr. Selvan V

Programs Organized:

1. **Guest Lecture on Innovations in Urban Planning**, Date: 12th September 2022. A thought-provoking session led by Mr. Rajesh K., Senior Urban Planner, brought 150 UG and PG students together to explore the latest trends in smart cities and sustainable urban development. The lecture provided actionable insights into integrating urban planning techniques with modern engineering solutions, fostering a forward-thinking mindset among participants.
2. **Hands-On Workshop on Advanced Structural Design Tools**, Date: 26th September 2022. This intensive six-hour workshop introduced 60 UG and PG students to industry-leading tools such as ETABS and STAAD Pro. Participants received practical training on structural analysis, enhancing their technical capabilities to address real-world engineering challenges. Feedback from students highlighted the hands-on nature of the session as its biggest strength.
3. **International Webinar on Water Management Practices**, Date: 10th October 2022. With participation from 85 attendees, including 10 international delegates from three countries, this webinar focused on sustainable water resource allocation. Dr. Andrew Holmes, a renowned expert from the University of Melbourne, delivered a compelling presentation that emphasized global best practices and innovations in water management.



4. **Site Visit to Coimbatore Metro Project**, *Date: 22nd October 2022*. Forty UG students gained a first-hand understanding of large-scale infrastructure development through a guided tour of the Coimbatore Metro Project. The visit focused on tunneling techniques, project management strategies, and sustainable urban transport solutions, leaving students with a deeper appreciation for applied civil engineering practices.

Programs Attended

1. **FDP on Sustainable Construction Materials**: *Date: 18th September 2022*. Four faculty members attended this program at NIT Trichy, which explored sustainable alternatives to traditional construction materials. The program emphasized the importance of incorporating eco-friendly practices into modern construction, aligning with global sustainability goals.
2. **National Conference on Geotechnical Innovations**, *Date: 1st October 2022*. Two faculty members participated in this conference, which showcased groundbreaking research on reinforced earth design and geotechnical advancements. The event provided a platform to network with experts and gain exposure to cutting-edge geotechnical solutions.
3. **Seminar on AI in Civil Engineering**, *Date: 15th October 2022*. Held at IIT Madras, this seminar featured insights into artificial intelligence applications in project management and structural optimization. Three faculty members attended, gaining exposure to AI-driven innovations reshaping the civil engineering landscape.



Student Achievements:

1. **Cube Strength Challenge 2022**, A team of 15 students participated in this national-level competition, with three students receiving accolades for their innovative approaches to concrete strength design. This achievement demonstrates the department's focus on nurturing practical skills and innovative thinking.
2. **National Symposium on Green Buildings**, Five students presented posters on eco-friendly construction materials, earning widespread recognition for their innovative research. The symposium highlighted the importance of green initiatives in infrastructure development.
3. **Internship Achievements**, Eight students successfully completed internships with industry giants such as L&T and AECOM, contributing to projects in urban infrastructure and sustainable construction. Their experiences enriched their practical understanding and prepared them for industry challenges.

Faculty Contributions:

1. **Resource Person Engagements:** Dr. Vennila served as a resource person for a workshop on "Writing High-Impact Research Papers" at PSG College of Technology. Her session provided aspiring researchers with strategies to improve their academic writing and publishing skills.
2. **Research Presentation:** Dr. Ramadevi presented a paper on "Optimizing Concrete Durability Using Nanotechnology" at an international conference, showcasing innovative solutions for enhancing material performance in construction.

Publications and Research Highlights:

1. **Optimizing RCC Structures Using Machine Learning Models**, *Authors:* Dr. Manju R, Dr. Ramadevi K. *Journal of Advanced Civil Engineering Research*, Impact Factor: 3.2. This paper highlighted the use of machine learning in improving structural integrity and cost efficiency in RCC projects.

2. Environmental Impact of Concrete Mix Using Recycled Aggregates, *Authors:* Dr. Gayathri V. *Conference:* ICSE 2022, This study emphasized the role of recycled aggregates in promoting sustainable construction practices.

Industry Collaborations and Consultancy:

1. Material Testing for Southern Railway: The department conducted 30 material tests, generating ₹1.5 Lakhs in revenue. These tests supported quality assurance in infrastructure projects.
2. Soil Analysis for TANTRANSCO Substation: Twelve tests were performed to assess soil bearing capacity, providing critical data for improved foundation design.
3. Structural Design Consultancy for Sai Keerthi Homes: A structural design consultancy project was completed for a 5,000 sq.ft residential building. The project, delivered in three weeks, showcased the department's expertise in practical engineering solutions.

Did You Know?

- The Burj Khalifa uses a "buttressed core" structural system for stability against wind and seismic forces.
- Civil engineers account for 40% of all infrastructure projects worldwide, driving economic and social growth.

Upcoming Events:

- Workshop on Earthquake-Resistant Design: November 2022.
- National Conference on Civil Innovations: December 2022.

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