

ASTHRA

(October, November, December 2025)



The Newsletter of
Department of Civil Engineering



Learn Beyond

KPR Institute of
Engineering and
Technology

(Autonomous, NAAC "A")

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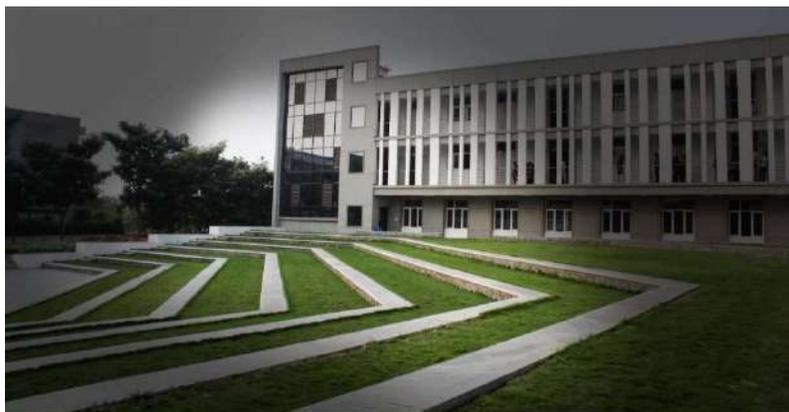
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About KPRIET

KPR Institute of Engineering and Technology, established in 2009, is a private autonomous Institution affiliated to Anna University. It is a 150- acre campus located in Coimbatore, Tamil Nadu. It offers 14 undergraduate, 6 postgraduate, and 13 research programs. The institution advances over 5000 students from 15 countries, 300+ faculty members, 62% of whom hold PhDs. KPRIET excels in engineering and ranks between 101-150 in NIRF Engineering category. For its excellence in teaching, employability, social responsibility, research, internationalization, and governance, KPRIET earned the diamond rating in the QS I-GAUGE. KPRIET prepares students for the future by mentoring them in innovative solutions and adapting to the rapidly changing world.

Vision of the Institute

To become a premier institute of academic excellence by imparting technical, intellectual and professional skills to students for meeting the diverse needs of industry, society, the nation and the world at large

Mission of the Institute

- Commitment to offer value-based education and enhancement of practical skills
- Continuous assessment of teaching and learning processes through scholarly activities
- Enriching research and innovation activities in collaboration with industry and institutes of repute
- Ensuring the academic processes to uphold culture, ethics, and social responsibilities

About the Department

The Department of Civil Engineering at KPR Institute of Engineering and Technology, Coimbatore, was established in 2009 with a Bachelor's Degree programme in Civil Engineering and an annual intake of 60 students. The department later expanded its academic offerings by introducing a postgraduate programme in Structural Engineering with an annual intake of 18 students. It is also recognized as a Research Centre of Anna University for pursuing Ph.D. programmes. The department focuses on developing skilled professionals in infrastructure planning, design, and sustainable construction through strong academic foundations. Well-equipped laboratories, modern software tools, industry-oriented training, and consultancy activities support research and innovation in solving real-world engineering challenges. The department emphasizes emerging technologies such as BIM, Artificial Intelligence, and smart construction practices to produce competent civil engineers who contribute to society and nation-building.

Vision of the Department

To be recognised in Civil Engineering through quality education, research and innovation for the sustainable developments of the society

Mission of the Department

- Provide holistic education to students on emerging technologies in Civil Engineering
- Instil in individuals a sense of ethical values and lifelong learning
- Promote research and consultancy activities

Programme Organised

Fluid Hackathon 2025 – Innovating for a Sustainable Future

Date: 10.10.2025

The Department of Electrical and Electronics Engineering (EE), in association with the Civil Engineering (CE) Department, successfully organized Fluid Hackathon 2025 (Event No: EE/2025/020) on 10th October 2025 at the EEE Block, KPR Institute of Engineering and Technology.

Conducted by the EKKI KPRIET International Water Technology Centre, the hackathon aimed to inspire innovative solutions in water technology aligned with SDGs 4 (Quality Education), 7 (Affordable and Clean Energy), and 9 (Industry, Innovation and Infrastructure).

A total of 204 external participants from various institutions enthusiastically took part in this on-campus, department-level hackathon. Students presented creative ideas and working prototype models addressing real-world challenges such as:

- Sustainable water recycling systems
- IoT-based groundwater monitoring systems
- Smart apps for water management
- Automation in irrigation systems
- Water conservation in wells

The event was convened by Dr. R. Dharmaraj, with Ms. B. Lalitha as Co-Convenor and Mr. N. Mathan Kumar as Coordinator. Fluid Hackathon 2025 concluded successfully, encouraging young innovators to contribute towards sustainable water management and smart resource utilization for a better future.

Event Photos:



Importance of SFD and BMD in Structural Design and Introduction of Trusses

Date: 13.10.2025

The Department of Civil Engineering at KPR Institute of Engineering and Technology successfully organized an Expert Talk for II Year Civil Engineering students. The session was delivered by Er. Abdul Rahman, Managing Director, Up N Above Steel Structures, Coimbatore.

The expert provided an in-depth explanation of Shear Force Diagrams (SFD) and Bending Moment Diagrams (BMD), emphasizing their vital role in ensuring safe and economical structural design. He clearly illustrated the practical applications of SFD and BMD in real-time projects, helping students bridge the gap between theoretical knowledge and industry practices.

The session also included an introduction to trusses, where students gained insights into various truss configurations, load transfer mechanisms, and key design considerations in steel structures. Real-world examples shared by the speaker enriched the learning experience and enhanced conceptual clarity in structural analysis fundamentals.

Event Photos:



Faculty Publications

- **Anusha Gururajan** & jeba jenkin jebamony, Krishna prakash arunachalam published a paper titled “improving the mechanical properties of high strength concrete using industrial waste alccofine” in Revista Romana de Materiale / Romanian Journal of Materials.
- **Elavarasan S** and Vignesh M, Gunaseelan K, Balamurugesan T, Santhosh Kumar P, Dinesh S. published the paper “Development and Characterization of Bottom Ash–Fly Ash–GGBS-Based Geopolymer Composites for Sustainable Applications” in STM Journal.
- **Elavarasan Saminathan**, Priya Arunkumar, Yogeshwaran Venkatraman, published a paper “Mechanical and durability properties of compressed stabilized earth blocks incorporating sugarcane bagasse ash as fine aggregate replacement” in Revista Materia.
- **Kavinkumar V**, J Kaleeswaran, Dr.S.M. Deepa, Dr. M. Maheswaran publishes the book chapter “Energy systems: Design optimization and sustainability” in Scientific International Publishing House.

Consultancy Activities

S.No	Name of the laboratory	Name of the faculty involved	Title of the work	Name of the industry / organization	Amount Received
1	BIM	Mrs.R.Kavitha	2D interior Plan for a residential Building	Ply Tree interiors	2021.34
2	Soil Lab	Dr.S.Yuvaraj Mr.S.Elavarasan	Soil Density Determination Using the Core Cutter Method	Dr.J.Robinson, Proprietor, Trinita Structures	3540
3	SOM Lab	Dr.S.Yuvaraj	Material Characterization of concrete specimens with steam curing	Mrs.S.Rajalakshmi, AP, SREC	5900
4	Soil Lab	Dr.S.Yuvaraj Dr.V.Rajeshkumar	Soil Properties determination for a hospital building at sathyamangalam	Er.Shanshul Hudha	3894
5	Concrete Lab	Dr.R.Saravanakumar	Concrete Characterization	Prisma garments	1770
6	-	Dr.S.Yuavaraj, Mr.S.Elavarasan Dr.N.Karthi	FDP on Revit and Fusion	USAM Cadsoft Private Limited	31784
7	NDT COE	Dr.S.Kanmani	Investigation on Structural Stability of residential building using rebound hammer	Arrow Structures	5900
8	NDT COE	Dr.R.Saravanakumar Mrs.R.Kavitha	Structural Stability Certificate	Tata Coffee Limited	150358
9	Soil Lab	Dr.S.Yuvaraj	Pile Capacity and settlement calculation for railway bridge	Er.Pragadesh kumar	3540
10	Concrete Lab	Dr.Saravanakumar.R	Concrete Characterization	M/S Pugazh Varakkanadu Kulala Samuthaaya Areakattalai	6785
11	NDT COE	Dr.Saravanakumar.R Mrs.R.Kavitha	Structural Stability Certificate	Tata Coffee Limited	86595
12	Concrete Lab	Dr.S.Kanmani	Cube testing	Mr.G.Elangesvaran	1475

13	Environmental Lab	Dr.S.Kanmani	Water quality Analysis	Dr.S.Kanmani	4720
14	NDT COE	Dr.Saravanakumar.R	NDT and Structural Stability	M/S Pugazh Varakkanadu Kulala Samuthaaya Areakattalai	28615
15	Soil Lab	Dr.S.Yuvaraj	Pile Capacity and settlement calculation for a railway bridge	Er.Pragadesh kumar	1770
16	SOM Lab	Dr.S.Yuvaraj	Tensile strength of reinforcements	GMS Elegant Builders India Private Limited	3540
17	NDT COE	Dr.S.Yuvaraj Dr.S.Anandraj	NDT	Er.Thilak Ranjith	11800
18	SOM Lab	Dr.Anandraj.S Dr.S.Yuvaraj	Material Characterization of composite	Mrs.R.Mani Nivedhitha	8024
19	Survey Lab	Dr.S.Yuvaraj Dr.V.Rajeshkumar	Collection of precise coordinates for area calculation using DGPS	Er.Pragadesh kumar	3000
Total Amount (Rs.)					365031