



K.S.R. COLLEGE OF ENGINEERING, TIRUCHENGODE

An Autonomous Institution
(Affiliated to Anna University, Accredited by NAAC with A++ grade)

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DEPARTMENT OF MECHANICAL ENGINEERING

MECH CHRONICLES NEWS LETTER



ACADEMIC YEAR 2024-2025

Chairman Message

Mr. R. Srinivasan,
Chairman,
KSR Educational Institutions.



As we stand on the brink of new beginnings and boundless possibilities, I am filled with an immense sense of pride and optimism about what we can achieve together at KSR Educational Institutions. Our founder, Dr. K S Rangasamy, laid a strong foundation rooted in the belief that education is the most powerful tool to transform lives. Carrying forward his legacy, we remain committed to not just educating but empowering young minds to make a meaningful impact in the world.

In today's fast-paced, technology-driven society, the challenges are as dynamic as the opportunities are great. It is imperative for education to transcend traditional learning and encompass the development of holistic, innovative, and critical thinking skills. At KSR, we strive to equip you, our students, with the capabilities to not only adapt to changes but to drive them. We are dedicated to nurturing a generation of leaders, innovators, and thinkers who are ready to take on global challenges with local sensibilities.

Making an Impact is not just a phrase—it's our mission. It's about inspiring each one of you to pursue your passions with determination and a sense of responsibility towards the betterment of society. We encourage you to dream big, push boundaries, and question the status quo. Our campus is a melting pot of ideas where your creativity and ambitions are nurtured, allowing you to flourish in ways you never imagined.

Warm regards,
Mr. R. Srinivasan,
Chairman,
KSR Educational Institutions.

Vice Chairman Message

Mr. K. S. Sachin,
Vice Chairman,
KSR Educational Institutions.



At KSREI, we stand at the intersection of tradition and transformation, committed to shaping a future driven by knowledge, innovation, and values. While our roots are firmly grounded in a legacy of academic excellence, our vision extends beyond boundaries, preparing students to excel in an ever-evolving global landscape.

Our goal is to create a dynamic learning ecosystem that fosters critical thinking, technological prowess, and ethical leadership. We envision KSREI as a hub of intellectual growth, where students are empowered with 21st-century skills while embracing the timeless virtues of integrity, perseverance, and service.

Looking ahead, we aim to integrate cutting-edge advancements in education, strengthen industry collaborations, and expand global opportunities for our students. With a deep commitment to holistic development, we continue to nurture future leaders who will shape society with wisdom and purpose. Together, we build the future—rooted in values, driven by vision.

Warm regards,
Mr. K. S. Sachin,
Vice Chairman,
KSR Educational Institutions.

Principal Message

Dr. M. Venkatesan
Principal
K.S.R College of Engineering



My heartiest welcome to all the young budding Engineers who have joined in "K.S.R. College of Engineering". With the help of highly qualified and dedicated staff members, we will be moulding the students to the required shape which will make them employable. The composite unit of Students, Parents, and Society is our customer. The K.S.R. College of Engineering will strive hard to provide customer satisfaction. In our college, we give top priority to discipline. A series of tests and examinations will be conducted to achieve good performance in the university examinations. An effective Training and Placement (T&P) cell is formed to provide placement to all our students. Importance will be given to extra-curricular and co-curricular activities also.

Excellent infrastructure facilities and good learning atmosphere is an added advantage of this great Institute. I hope all the students admitted here will enjoy the four years of study. Let us all work hard to produce the most competent scientists, engineers, Entrepreneurs, Managers and researchers through Quality Education.

With Regards,
Dr. M. Venkatesan,
Principal,
K.S.R. College of Engineering.

HoD Message

Dr. A. V. BALAN,
HoD – Mechanical Engineering,
KSRCE.



My heartiest welcome to all the young budding Engineers, I'm excited to witness your growth and achievements. This is a time for discovery, learning, and building skills that will shape your future. Our department is committed to providing you with a supportive, innovative, and enriching environment that will challenge and inspire you. We encourage you to take full advantage of the resources, faculty expertise, and peer collaborations available. Don't hesitate to explore new ideas, ask questions, and engage actively in both academic and extracurricular activities. Remember, success isn't just about grades it's about the knowledge you gain, the challenges you overcome, and the networks you build. We are here to guide and support you in your journey.

With Regards,
Dr. A. V. BALAN,
HoD / Mech,
KSRCE.

K.S.R. COLLEGE OF ENGINEERING

DEPARTMENT OF MECHANICAL ENGINEERING

The Department of Mechanical Engineering is one among the 13 departments functioning in K.S.R. College of Engineering. The department was started in the year 2005 with an approved intake of 60 students. The department has state-of-the-art infrastructure facilities, well qualified faculty and staff members. It is a recognized Research Centre of Anna University, Chennai. Post graduate degree courses in Industrial Safety Engineering and CAD/CAM are being offered. The Mechanical department is accredited by National Board of Accreditation (NBA), Tier – I. The department has achieved 3 Gold Medals and 22 University Ranks in the examination conducted by ANNA University. Research articles are being published by faculty members regularly in the form of patents (Granted -10, Filed – 40), Copy Rights (Received -3), International & National journals, International & National conferences. Outreach program, Industrial Guest Lectures, National Level Technical Symposium (THROTTLE), National/International Conferences, Value Added Courses, Training related to Placement, Higher Education, Entrepreneurship and Start-Ups are regularly being organized by the department.

Vision:

To be a centre of excellence in the field of mechanical engineering for providing its students and faculty with opportunities to excel in education and targeted research themes in emerging areas.

Mission:

1. To excel in academic and research activities that meet the industrial and social needs
2. To develop competent, innovative and ethical mechanical engineers.

Program Educational Objectives (PEOs)

PEO1 Identify, design and apply the technical skills to solve mechanical engineering problems for enhancing the quality of life.

PEO2 Apply the modern tools and techniques to face the challenges in mechanical and related engineering areas.

PEO3 Understand the responsibility, communicate and implement innovative ideas in multidisciplinary teams ethically for uplifting the society.

Program Outcomes

- PO1** Ability to apply the knowledge of mathematics, science and engineering to the solution of complex mechanical engineering problems.
- PO 2** Capacity of identifying, formulating, research literature and solving mechanical engineering problems.
- PO 3** Ability to design a system, process to meet the desired needs by considering cultural, environmental, social, health and safety issues.
- PO 4** Ability to identify, formulate, research literature to analyze, interpret data and report results.
- PO 5** Ability to use the techniques, skills, and modern mechanical engineering tools necessary to design and fabricate mechanical systems.
- PO 6** Ability in analyzing the impact of modern technologies in social and contemporary issues.
- PO 7** Ability to understand and sustain the impact of mechanical engineering solutions in the global, economic, environmental and social context.
- PO 8** Ability to exhibit professional and ethical responsibilities.
- PO 9** Ability to function on multidisciplinary teams.
- PO 10** Capacity to communicate effectively in both verbal and written forms.
- PO 11** Ability to apply mechanical engineering and management principles to work in multidisciplinary teams.
- PO 12** Ability to enhance self-education and life-long learning.

EDITORIAL BOARD

CHIEF PATRON

Thiru. R. SRINIVASAN
Chairman

PATRONS

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Dr. M. VENKATESAN, Principal

CHIEF EDITOR

Prof. Dr. A.V. BALAN, HoD/ MECH

ASSOCIATE EDITOR

Mr. C. M. DINESH, AP/ MECH

STUDENT CO-ORDINATORS

Mr. BHOOSHIT N S, IV MECHANICAL ENGINEERING
Mr. CHIRANJIBI SUBEDI Y, III MECHANICAL ENGINEERING
Mr. LAGAN V, II YEAR MECHANICAL ENGINEERING

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1. MoU's SIGNED



On 19-07-2024 MoU with Birds India Corporation, Salem established collaborative projects in advanced manufacturing and industrial automation for hands-on learning.



12-09-2024 MoU's signed with Sri Hari Machinery (Heavy Equipment R&D) to enhance technical innovation.



10-12-2024 MoU's signed with Auto mind Infotech (AI/ML applications in Mechanical Engineering) to enhance methodological modernization.



05-07-2024 Industry Connect with KONE Elevators India Pvt. Ltd. provided specialized training in elevator technology and internship opportunities for Mechanical Engineering Students.



01-10-2024 Partnership with Mitsuba India Private Limited to strengthened automotive component research, joint development initiatives in vehicle technologies and Placement offer.

2. FACULTY ACHIEVEMENTS

2.1 Faculty Publications:

- Future of computing using IoT in oil and gas industry for safety**
International Journal of Creative Research Thoughts
 A.V. Balan
- Index-based searchable encryption on cloud data using asymmetric encryption algorithm**
International Journal of Creative Research Thoughts
 P. Jagadeesh



3. **Dynamic Toll Collection System**
International Journal of Creative Research Thoughts
P. Jagadeesh



4. **Study and control of matrix converter-based PMSG systems in wind power generation**
Journal of Xidian University
P. Dhiravidamani



5. **Investigation and Development of a Smart Tread Mill Bike**
International Journal of Creative Research Thoughts
P. Dhiravidamani



6. **Advancing fire safety, electromagnetic shielding, and mechanical strength of polylactic acid with bio-based nanosheets**
Journal of Emerging Technologies and Innovative Research
K. Venkateshwaran



7. **Optimizing fire retardant device using foam Hydrant/CO₂ for exhaust duct in paint shop**
Journal of Emerging Technologies and Innovative Research
P. Rajendran



8. **Hazard identification and risk assessment in commercial vehicle manufacturing industry**
Journal of Emerging Technologies and Innovative Research
K. Perumal



9. **Safety Analysis and Performance Assessment of Banana Fiber Reinforced Polymer Composites**
Journal of Emerging Technologies and Innovative Research
C.M. Dinesh



Risks and Safety Challenges of Working at Heights in Construction

10. **Construction**
Journal of Emerging Technologies and Innovative Research
C.M. Dinesh



Protecting workers from dust exposure in cement manufacturing (India Cements Limited case study)

11. (India Cements Limited case study)
Journal of Emerging Technologies and Innovative Research
 S.P. Sankar



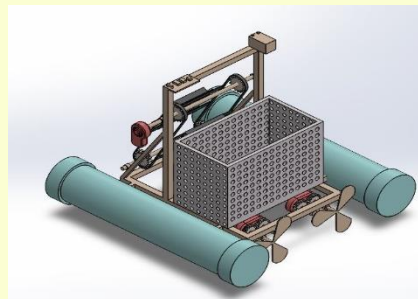
Enhancing Safety in Tower Crane Installation/Dismantling at Construction Sites

12. **Construction Sites**
Journal of Emerging Technologies and Innovative Research
C. Senthilkumar



2.3 Faculty Patent Publications

IOT- Enabled automate driver cleaning machine for efficient Waste removal Andreal-Time remote monitoring

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3. NPTEL Achievers



KSR College of
Engineering

NAAC
ACCREDITED **A++**

NBA
ACCREDITED
PROGRAMMES

AN AUTONOMOUS INSTITUTION

Congratulations
NPTEL ACHIEVERS

DEPARTMENT OF MECHANICAL ENGINEERING

 Dr. A.V. BALAN 83 Elite+Silver Laser Based Manufacturing	 Mr. C.M. DINESH 77 Elite+Silver Metal Additive Manufacturing	 Mr. S. BALAMURUGAN 75 Elite+Silver Laser Based Manufacturing	 Mr. P. CHAKRAVARTHI 75 Elite+Silver Design Thinking - A Primer
 Mr. P. RAJENDRAN 70 Elite Metal Additive Manufacturing	 Mr. J. VENKATESH 69 Elite Laser Based Manufacturing	 Mr. K. VENKATESHWARAN 68 Elite Automation in manufacturing	 Mr. R. SURENDRAN 68 Elite Developing Soft Skills and Personality
 Mr. R. VASANTHAKUMAR 65 Elite (TOP5%) Advanced Machining Processes	 Dr. M. SIVAKUMAR 62 Elite Design Thinking - A Primer	 Dr. M. SIVAKUMAR 63 Elite Advanced Machining Processes	 Dr. K. CHANDRASEKARAN 57 Completed Introduction to Composite
 Mr. T. KEERTHI VASAN 65 Elite (TOP5%) Advanced Machining Processes	 Dr. P. DHIRAVIDAMANI 54 Completed Advanced Machining Processes	 Mr. K. GOPALAKRISHNAN 53 Completed Advanced Machining Processes	 MR. C. SENTHILKUMAR 53 Completed Advanced Machining Processes
 Dr. P. KANAKARAJAN 65 Elite (TOP5%) Advanced Machining Processes			

With great pleasure, we congratulate the faculty members for their great achievements in NPTEL JULY to SEPTEMBER 2024 examinations.

3.1 NPTEL Discipline Star



3.2 Faculty Award /Prize details

Faculties as participants in various programmes:

- 1) **Dr. P. Senthilkumar**
 - a. Two Week National Level Virtual Workshop: Advanced Research Methodology – SRM Institute of Science & Technology, Chennai
 - b. Intellectual Property Right & Patent Drafting – AMET University, Chennai
- 2) **Dr. A.V. Balan**
 - a. Two Week National Level Virtual Workshop: Advanced Research Methodology – SRM Institute of Science & Technology, Chennai
 - b. Application of IoT in Mechanical & Agricultural Engineering – Sri Ramakrishna College of Engineering, Perambalur
- 3) **Dr. P. Dhiravidamani**
 - a. One Week FDP: Additive Manufacturing – KSR College of Engineering, Tiruchengode
 - b. Application of IoT in Mechanical & Agricultural Engineering – Sri Ramakrishna College of Engineering, Perambalur
- 4) **Dr. T. Sureshkumar**
 - a. Two Week National Level Virtual Workshop: Advanced Research Methodology – SRM Institute of Science & Technology, Chennai
 - b. Five-Day STTP: Scientific Writing & Publishing – Sarala Birla University, Ranchi
- 5) **Dr. K. Chandrasekaran**
 - a. Five-Day STTP: Scientific Writing & Publishing – Sarala Birla University, Ranchi
 - b. Generative AI and Cyber Security – REVA University, Bengaluru
- 6) **Dr. P. Rasagopal**
 - a. Exploring Research in Mechanical Engineering for Sustainable Growth – KLN College of

Engineering, Chennai

b. Intellectual Property Right & Patent Drafting – AMET University, Chennai

7) **Mr. P. Rajendran**

a. Intellectual Property Right & Patent Drafting – AMET University, Chennai

b. Product Design Engineering Using Fusion 360 – ICT Academy, KSR College of Engineering

8) **Mr. K. Venkateshwaran**

a. Two Week National Level Virtual Workshop: Advanced Research Methodology – SRM Institute of Science & Technology, Chennai

b. Product Design Engineering Using Fusion 360 – ICT Academy, KSR College of Engineering

9) **Mr. C. Senthilkumar**

a. Five-Day STTP: Scientific Writing & Publishing – Sarala Birla University, Ranchi

b. Intellectual Property Right & Patent Drafting – AMET University, Chennai

10) **Mr. C.M. Dinesh**

a. Five-Day STTP: Scientific Writing & Publishing – Sarala Birla University, Ranchi

b. Intellectual Property Right & Patent Drafting – AMET University, Chennai

11) **Mr. J. Venkatesh**

a. Intellectual Property Right & Patent Drafting – AMET University, Chennai

b. Two Week National Level Virtual Workshop: Advanced Research Methodology – SRM Institute of Science & Technology, Chennai

12) **Mr. P. Jagadeesh**

a. Five-Day STTP: Scientific Writing & Publishing – Sarala Birla University, Ranchi

b. Intellectual Property Right & Patent Drafting – AMET University, Chennai

13) **Mr. K. Perumal**

a. Intellectual Property Right & Patent Drafting – AMET University, Chennai

b. Five-Day STTP: Scientific Writing & Publishing – Sarala Birla University, Ranchi

14) **Mr. T. Kandasamy**

a. One-Week Workshop: Internet of Things (IoT) – KSR College of Engineering, Tiruchengode

b. Two Week National Level Virtual Workshop: Advanced Research Methodology – SRM Institute of Science & Technology, Chennai

15) **Mr. S. Durai**

a. One-Week Workshop: Internet of Things (IoT) – KSR College of Engineering, Tiruchengode

b. Two Week National Level Virtual Workshop: Advanced Research Methodology – SRM Institute of Science & Technology, Chennai

16) **Mr. S.P. Sankar**

- a. Intellectual Property Right & Patent Drafting – AMET University, Chennai
- b. Two Week National Level Virtual Workshop: Advanced Research Methodology – SRM Institute of Science & Technology, Chennai

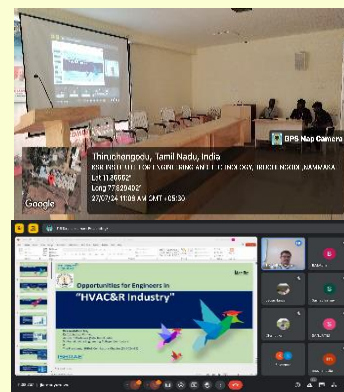
17) **Mr. S.P. Gowtham**

- a. Intellectual Property Right & Patent Drafting – AMET University, Chennai
- b. Two Week National Level Virtual Workshop: Advanced Research Methodology – SRM Institute of Science & Technology, Chennai

4. DEPARTMENT ACTIVITIES

4.1 Events Organized by the faculty:

Scope for Students in the field of HVAC&R and Benefits of joining ISHRAE



Dr. T. R. Sathish Kumar, President of the Indian Society of Heating, Refrigerating, and Air Conditioning Engineers (ISHRAE), Coimbatore Chapter, he shared the insights and benefits of ISHRAE.

Non- Technical Event Quiz





On August 10, 2024, the department organized an aptitude quiz testing numerical, logical, and verbal skills. Final-year student Premkumar V and third-year student Dhanish P emerged as winners, demonstrating exceptional problem-solving abilities and earning top honors for their outstanding performance in the competition.

Technical Event Quiz



On August 24, 2024, the department conducted a technical quiz covering core in Mechanical Engineering concepts including thermodynamics, material science, and manufacturing processes. The competitive event successfully reinforced fundamental knowledge while motivating all participants to strengthen their technical expertise.

Non- Technical Event



Mechanical Engineering students pitched innovative ideas in sustainability and manufacturing during this creativity-focused event. Judged on originality and practicality, the competition successfully sparked entrepreneurial thinking and problem-solving approaches.

5. STUDENTS ACHIEVEMENTS



Our student Mr. Cheyon K. V., received the Start-up TN Smart Card from our Principal, marking a proud and significant moment.



Our 1st year student Mr. Cheyon K. V. (CEO- NAVGAL AEROSPACE COMPANY) explained the services offered by their start-up and shared the future goals and vision of the company with the audience.



Our 1st year student Mr. Cheyon K. V. also had the privilege of meeting Dr. Mayilsamy Annadurai Sir. A moment of great inspiration and encouragement in his entrepreneurial journey.

5.1 Placement Details



KSR
Institute for
Engineering and
Technology



KSR
College of
Engineering



NAAC
ACCREDITED
A++

CAREER DEVELOPMENT CENTER
&
INDUSTRY – INSTITUTE INTERACTION CELL


AKASH K.
MECH


SEDHURNATH R.
MECH


K. MUTHUKUMAR
MECH


T. GOWTHAM
ECE


S. VIRAJRAJ
ECE


N. LOGANATHAN
ECE

Congratulations
on your placement



Trans Energy
TRANSENERGY PRIVATE LIMITED
CHENNAI


P. KOVVIK
MECH


VIJAY S.
ECE


GOPALAKRISHNAN S.
ECE


DINESH KUMAR G.
ECE


DHIVAKAR S.
ECE


DEVAVIGNESH S.
ECE



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CHENNAI


MATHURATHANAN
EEE


SHANTHOSH KIRANLI
EEE


RAJ KUMAR. R.
EEE


PRASANTH. P.
EEE


KUBENDRAN S.
EEE


GUNASEKARAN. P.
EEE



Trans Energy
TRANSENERGY PRIVATE LIMITED
CHENNAI


K. RITHIK
MECH


DHIVANESH. M.
MECH


YOKESHWARA. D.
EEE


HARIHARAN. D.
EEE


AGLAN. A.
EEE

May this beginning lead you towards your desired destination
All the Best!



www.ksrce.ac.in

5.2 STUDENT ACTIVITIES

3D Printing

Our III Year Students R. Srinivasan, R Manikandan, G Madhan & S Sakthitharan have created 3D Models of Mobile Phone Stand and L Clamp for the CAD Lab Tables by using 3D Printing Machines.



Awards Received by Students in the Events Organized by other Institutes:



International society for Krishna consciousness: Mr. M.Ravindran & Team won Certificates & cash prizes of ₹ 1000 in Dance competition on 26.08.24



Cricket Zone Match Winners are Mr. Srikanth Final Mech & Team on 08-08-2024



Mr. Salai Mathi Arasu & Team Namakkal District Tiruchengodu State Level Kabaddi Tournament Winner on 18-10-2024



Our 1st year student Mr. Cheyon K. V. secured 3rd place in paper presentation at Nandha College of Technology on 12-10-2024



Our Nandha Engineering College Alumni Kabaddi Match Runner on 12-12-2024



Mr. Salai Mathi Arasu Best Player Tournament on 12-12-2024



Salai Mathi Arasu of Final Year Mechanical Engineering student got State Level Tournament 1st price in Erode District Gobichettipalayam on 01-09-2024



**Received start up Smart Card
Mr. K V Cheyon First Year Mechanical Engineering**



Erode district Gobichettipalayam state level kabaddi tournament runner on on 01-09-2024



Our 3rd year Mechanical student Anna University Athletic Zone Long Jump Bronze in KSREI on 30-08-2024



Mr. Karthikeyan of ME (CAD/CAM) has Wow Cricket Tournament Winners at JPR College Chennai with his team on 17-09-2025



III Year team win 2nd Prize SAE-INDIA Bi-Cycle Design Challenge on 28-09-2024



Mr. V. Aburar Ahamed 1st Prize Technical Quiz at Annapoorna Engineering College on 04-10-2024



Mr. M. Ravindran had secured 4th Place in Mr. Erode Men Physic Competition in Erode District on 27-07-2024

6. CELEBRATION GLIMPSES

6.1 Spring Fest (THROTTLE - 2K24)

The Department of Mechanical Engineering successfully organized a National Level Technical Symposium – Spring Fest 2K'24 on the 26th and 27th of September 2024. The event served as a platform for students from various institutions across the country to exhibit their technical skills, creativity, and innovative thinking.

