



# K.S.R. COLLEGE OF ENGINEERING

(APPROVED BY AICTE & AFFILIATED TO ANNA UNIVERSITY)

K.S.R. KALVI NAGAR, TIRUCHENGODE - 637 215

**VOL 16**

**ISSUE 01**

*DEPARTMENT  
OF  
AUTOMOBILE ENGINEERING*

# **AUTOMAG NEWSLETTER**

**JULY 2024 - DECEMBER 2024**

NAAC  
GRADE **A++**  
Accredited College

NBA  
ACCREDITED  
COURSES

**AN AUTONOMOUS INSTITUTION**



## VISION OF THE INSTITUTE

We envision to achieve status as an excellent educational institution in the global knowledge hub, making self-learners, experts, ethical and responsible engineers, technologies, scientists, managers, administrators, and entrepreneurs who will significantly contribute to research and environment-friendly sustainable growth of the nation and the world.

## MISSION OF THE INSTITUTE

To inculcate in the students' self-learning abilities that enable them to become competitive and considerate engineers, technologists, scientists, managers, entrepreneurs, and administrators by diligently imparting the best of education, nurturing environmental and social needs.

To foster and maintain a mutually beneficial partnership with global industries and Institutions through knowledge sharing, collaborative research, and innovation.

## VISION OF THE DEPARTMENT

Education and research to meet the need of global automotive industry and society.

## MISSION OF THE DEPARTMENT

- Quality education through flexible curriculum, research and self-learning.
- Training via automotive industry for a sustainable society and social development.





## CHAIRMAN'S MESSAGE



**SHRI.R.SRINIVASAN, B.B.M., MISTE.,**

**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'S MESSAGE



**SHRI K. S. SACHIN**

**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,  
KSREI Educational Institutions**



## PRINCIPAL'S MESSAGE



**DR. M. VENKATESAN**  
**PRINCIPAL**

**As a Principal of KSRCE, I actively play my role to facilitate students to become best academicians, researchers and policy makers. I provide a diverse and inclusive work environment to my colleagues and drive them wherever necessary to play a role in getting utmost national and international agencies support Institution. A collaborative and integrated approach towards teaching, learning and research will be emphasized. I strongly believe that the KSRCE team will overcome the constraints facing to deliver the best Engineering services to the society and reach the desired goals.**

Chief Guest

**Udhayanidhi Stalin**

Minister, Higher Education, Government of Tamil Nadu

24

With Regards,

**Dr. M. Venkatesan**

**Principal - K.S.R College of Engineering**



## HOD'S MESSAGE



**DR. R. VENKATACHALAM, M.TECH., PH.D.**  
**HOD**

**As a Head of the Department of Automobile Engineering, I am happy to associate with our faculty and Students to bring out this newsletter to display the activities and achievements of our department team in a systematic fashion. In which, our recent activities including seminars, workshops, publications, student projects, and collaborations are highlighted. I also take this opportunity to express my gratitude to our alumni and industry partners, whose support and engagement continue to enrich our journey.**

**Best Wishes,  
Dr. R. Venkatachalam  
Professor & Head  
Automobile Engineering**



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# MoU / CENTRE OF EXCELLENCE



The Principal signed a Memorandum of Understanding (MoU) with Sakthi Auto Components on 18.07.2024. As a result of this MoU, students will benefit through internship and placement opportunities at the company.



*The Principal signed an MoU with AEROSPARKE INDUSTRIES PRIVATE LIMITED on 02.09.2024, opening new avenues for student internships and placements.*



# ACHIEVEMENTS / AWARDS OF FACULTY & STUDENTS

S. No	Name of the Faculty	Achievement	Awarded by
1.	<u>Dr Venkatachalam R</u>	Best Inspiring Professor Award	Knowledge Research Academy
2.		IGEN SDG7 Icon of the year 2024	IGEN
3.	<u>Mr Soundararajan S</u>	Best Industry Institute Coordinator Award	Knowledge Research Academy
4.	<u>Mr Syed Thasthagir M</u>	Outstanding Contribution in Teaching Award	<u>Swami Vivekanand Adarsh Ratna Samman</u>
5.	<u>Mr Kalidas A P</u>	Outstanding Contribution in Teaching Award	<u>Swami Vivekanand Adarsh Ratna Samman</u>
6.	<u>Mr Soundararajan S</u>	Outstanding Contribution in Teaching Award	<u>Swami Vivekanand Adarsh Ratna Samman</u>
7.	<u>Mr Gogulan C</u>	IGEN <u>EnsavClub</u> Organizer Award 2024	ENSAV Club

## **CERTIFICATE OF PARTICIPATION**

VIKSIT BHARAT @ 2047  
TECHNOLOGY DRIVEN TRANSFORMATION

This is to certify that SANJEEVI S from III YEAR,  
AUTOMOBILE ENGINEERING department of  
K. S. R. COLLEGE OF ENGINEERING,  
a Partner institute of PALS 2024-25,  
participated in the innoWAH! – Pitch Your Plan Competition  
2024-25. SANJEEVI S is a member of the team - DYNAMIC SQUAD.

Anuradha S  
Anuradha S Ramanujam  
PALS Champion

S Bharanidharan  
Bharanidharan Swaminathan  
PALS Champion

Chandrasekaran  
C N Chandrasekaran  
PALS Chairman

PALS an initiative of volunteers from alumni fraternity of IIT's, focused on augmenting engineering education. Details in [www.palsign.com](http://www.palsign.com)

innoWAH!PPF\_Part\_112

S. No	Name of the Student	Achievement	Awarded by
1.	<u>Theerej Kumar T</u>	Certification on UI/UX for Beginners	Green Learning - Online
2.	<u>Sanjeevi S</u>	Attended PALS-IITM - Residential Workshop	PALS-IITM
3.	<u>Yogith S</u>	IGEN <u>EnsavClub</u> Organizer Award 2024	ENSAV Club

# FACULTY AWARDS

 **Knowledge Research Academy**  
Coimbatore, Tamil Nadu  
(An MSME Registered Organization)  
UDYAM-TN-03-0021905

**National Award Ceremony on  
National Education Day Awards [NED - 2024]**

**BEST INSPIRING PROFESSOR AWARD**

This Certificate of Excellence is awarded to



**Dr.R.Venkatachalam**  
Professor,  
Automobile Engineering,  
K.S.R. College of Engineering, Tamil Nadu.

in recognition of his outstanding Inspiration in  
Academics and Research

11th November 2024

Certificate No: NED/2024/C26

   
Director

 **Knowledge Research Academy**  
Coimbatore, Tamil Nadu  
(An MSME Registered Organization)  
UDYAM-TN-03-0021905

**National Award Ceremony on  
National Education Day Awards [NED - 2024]**

**BEST INDUSTRY - INSTITUTE COORDINATOR AWARD**

This Certificate of Excellence is awarded to



**Mr. S.SOUNDARARAJAN**  
Assistant Professor,  
Department of Automobile Engineering  
K.S.R.College of Engineering  
Tiruchengode

in recognition of his outstanding contribution in  
Industry - Institute Interaction activities

11th November 2024

Certificate No: NED/2024/C29

   
Director

 **Swami Vivekanand**  
आदर्श रत्न सम्मान  
WORTHY WELLNESS

**Swami Vivekanand  
आदर्श रत्न सम्मान**  
(AN EXCLUSIVE GLOBAL HONOUR 2024)

**Certificate Of Honour**  
THIS CERTIFICATE IS PROUDLY PRESENTED TO


**SYED THASTHAGIR M**  
This certificate is proudly presented to Syed Thasthagir M, in  
recognition of his outstanding contributions As an Assistant  
Professor. Your dedication and unwavering commitment are the  
source of inspiration for all of us.

**Swami Vivekanand Adarsh Ratna Samman**  
CERTIFICATE NO. - 080WV02N/258

 25TH NOVEMBER, 2024



   
AUTHORIZED SIGNATORY **Somya Bajpai** **Shaurya Tiwari**  
FOUNDER AND DIRECTOR (CO-FOUNDER & CHIEF TRUST)  
WORTHY WELLNESS FOUNDATION TRUST



 **Swami Vivekanand**  
आदर्श रत्न सम्मान  
WORTHY WELLNESS


**Swami Vivekanand  
आदर्श रत्न सम्मान**  
(AN EXCLUSIVE GLOBAL HONOUR 2024)

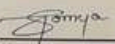
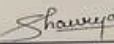
**Certificate Of Honour**  
THIS CERTIFICATE IS PROUDLY PRESENTED TO


 

**KALIDAS A P**  
This certificate is proudly presented to Kalidas A P,  
in recognition of his outstanding contributions as an Assistant  
Professor, Department of Automobile Engineering, K.S.R. College of  
Engineering. Your dedication and unwavering commitment are the  
source of inspiration for all of us.

**Swami Vivekanand Adarsh Ratna Samman**  
CERTIFICATE NO. - 080WV02N/255

 26TH NOVEMBER, 2024

   
AUTHORIZED SIGNATORY **Somya Bajpai** **Shaurya Tiwari**  
FOUNDER AND CHIEF TRUST  
WORTHY WELLNESS FOUNDATION TRUST





## 15 DAYS INTERNSHIP COMPLETED AT INDUSTRY



A group of Automobile Engineering students successfully completed a 15-day internship in the Design domain at Santechno vision Solution –Perundurai, from 10th July 2024 to 25th July 2024, gaining valuable hands-on experience and industry-relevant skills.



As part of the curriculum enrichment and industry exposure initiative, a group of Automobile Engineering students undertook a internship at Aerosparks Industries Pvt. Ltd., Hosur from 10<sup>th</sup> July 2024 to 25<sup>th</sup> July 2024. The internship focused on the emerging and advanced domains of 3D Printing and Drone Automation.

## FACULTY TRAINING AT INDUSTRY



A faculty team comprising four members from the Department of Automobile Engineering visited Aerosparks Industries Pvt. Ltd., Hosur, on 27.07.2024. The objective was to explore recent innovations in 3D Printing and Drone Automation.

The visit significantly contributed to enhancing their understanding of how modern manufacturing and automation technologies are being incorporated into present-day engineering applications.



# RESEARCH PUBLICATIONS

## (JOURNAL/CONFERENCE/ PATENTS /BOOKS/BOOK CHAPTER)

1.	<b>S. Soundararajan</b> , R. Ramesh Kumar, Mathanbabu Mariappan & R. Ashok Raj “Effects of mechanical and fatigue properties of vinyl silane–treated and ageing-processed areca fibre and bronze nanoparticle–reinforced polyester composite”, <b>Biomass conversion and Biorefinery</b> , Springer Link, <a href="https://link.springer.com/article/10.1007/s13399-024-05923-5">https://link.springer.com/article/10.1007/s13399-024-05923-5</a>	Scopus	
2.	<b>Syed Thasthagir</b> M, Ramesh Kumar R, Mathanbabu Mariappan, P.Senthamarai Kannan, “Cryogenically treated goat and human hair reinforced hybrid polymer composites”, <b>Polimery</b> , Published on 04 July 2024, VOL. 69 NO. 5 (2024) page no. 312-317.	Scopus	
3.	Palanisamy, Manuneethi Arasu; Sengodan, <b>Neelamegan</b> “Tribological properties of dry sliding wear behaviour for GFRP composite made by hand layup, VARTM and RTM techniques using taguchi and ANOVA approach Articles”, Published on , <b>Revista Matéria</b> , vol..29, no.3, 2024 ISSN 1517- 7076 articles e20240276, 2024	Web of Science	
4.	Neelamegan Sengodan, Sureshkumar Theivasigamani, Saravanan Kanthasamy Ganesan, and P. Rajesh “Optimizing Spark Ignition Engine Performance and Emission Control with Spike Neural Networks Using Gasoline–Ethanol Blends” 2550004(2025) SPIN ISSN (print): 2010-3247   ISSN (online): 2010-3255 <a href="https://doi.org/10.1142/S2010324725500043">https://doi.org/10.1142/S2010324725500043</a>	SCI	
5.	<b>M. Syed Thasthagir</b> , A. Sajitha Banu, A. Muthu kumaran, Melvin Victor De Pours, D. Yogaraj, A. Surenderpaul, L. Suresh Raj, Nafeez Ahmed Liyakat Comparison of V groove design on mechanical performance and fracture behaviour in TIG welding of 5754-H111 aluminium alloy <b>Materials today</b> , Elsevier Publisher, available online 19 march 2024, <a href="https://doi.org/10.1016/j.matpr.2024.03.031">https://doi.org/10.1016/j.matpr.2024.03.031</a>	SCI	
6.	J DineshKumar, Kathiravan Thangaraj, Gopal Kaliyaperumal, <b>C. Gogulan</b> , A.P. Kalidas, K. Yokesvaran, Nafeez Ahmed Liyakat, L. Suresh Raj “Mechanical properties and fracture behaviour of varying filler rod composition in TIG welding of 5083 alloys”, <b>Materials today</b> , Elsevier Publisher, available online 7 march 2024, ISSN 2214-7853,	SCI	
7.	J DineshKumar, Kathiravan Thangaraj, Gopal Kaliyaperumal, C. Gogulan, <b>A.P. Kalidas</b> , K. Yokesvaran, Nafeez Ahmed Liyakat, L. Suresh Raj “Mechanical properties and fracture behaviour of varying filler rod composition in TIG welding of 5083 alloys”, <b>Materials today</b> , Elsevier Publisher, available online 7 march 2024, ISSN 2214-7853,	SCI	

# RESEARCH PUBLICATIONS

## (JOURNAL/CONFERENCE/ PATENTS /BOOKS/BOOK CHAPTER)

1.	<b>Dr.Kumar, Mr. M.Syed thasthagir</b> , Mr.A.P.Kalidas, Mr.S. ManojKumar and Dr.Bh.VaraPrasad published a book “Composite Materials: Design and Applications”: 2024, Cosmas Scientific Publications <b>ISBN 978-93-6096-005-6,</b>	
2.	<b>Dr.Kumar, Mr. M.Syed thasthagir, Mr.A.P.Kalidas</b> , Mr.S. ManojKumar and Dr.Bh.VaraPrasad published a book “Composite Materials: Design and Applications”: 2024, Cosmas Scientific Publications <b>ISBN 978-93-6096-005-6,</b>	
3.	<b>Mr.S.SOUNDARARAJAN</b> ,Mr.C.GOGULAN, Mr.K.GOBINATH and Dr. G.NALLAKUMARASAMY published a book “Advanced Non-Traditional Machining Techniques”: 2024, Cosmas Scientific Publications <b>ISBN 978-93-6096-358-3,</b>	
4.	<b>Mr.S.SOUNDARARAJAN,Mr.C.GOGULAN</b> , Mr.K.GOBINATH and Dr. G.NALLAKUMARASAMY published a book “Advanced Non-Traditional Machining Techniques”: 2024, Cosmas Scientific Publications <b>ISBN 978-93-6096-358-3,</b>	
5.	<b>Mr.S.SOUNDARARAJAN,Mr.C.GOGULAN, Mr.K.GOBINATH</b> and Dr. G.NALLAKUMARASAMY published a book “Advanced Non-Traditional Machining Techniques”: 2024, Cosmas Scientific Publications <b>ISBN 978-93-6096-358-3,</b>	
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**India  
Publisher**



## RESEARCH PUBLICATIONS

### (JOURNAL/CONFERENCE/ PATENTS /BOOKS/BOOK CHAPTER)

1	<b>Mr.S.SOUNDARARAJAN</b> published a Design Patent 415376-001 “ Three wheeled Agricultural vehicle” 14/06/2024	
2	<b>Dr.S.NEELAMEGAN</b> published a Design Patent 415376-001 “ Three wheeled Agricultural vehicle” 14/06/2024	
3	<b>Mr.SOUNDARARAJAN SELVARAJ</b> published a Design Patent 405906-001 “ NUT DEHUSKING MACHINE” 28/03/2024	
4	<b>Mr. M.SYED THASTHAGIR MOHAMED HUSSAIN</b> , published a Design Patent 405906-001 “ NUT DEHUSKING MACHINE” 28/03/2024	
5	<b>Mr. KALIDAS AVANAIYAN PERUMALSAMY</b> , published a Design Patent 405906-001 “ NUT DEHUSKING MACHINE” 28/03/2024	
6	<b>Dr .Neelamegan Sengodan</b> “HYBRID WIND AND SOLAR ELECTRIC SYSTEM”, Design Patent Granted 428596-001 &24/10/2024	

**India  
Publisher**

## LIST OF SEMINAR/ WORKSHOP / PROGRAM/ EVENTS ORGANIZED

S. No	Nature of the Program	Title of the Program	Name of the resource person	Date	No of people attended
1.	Industry Visit	3D Printing	Mr. A. Hariprakash Founder and CEO Aerosparke Industries Pvt Ltd- Hosur	27.07.2024	42
2.	Seminar	Essential skills for core Industry	Mr. B. JAFAR SADIK, Centre Head C Cube –Erode	07.08.2024	50
3.	Guest Lecture	Unlocking Opportunities A Comprehensive guide to gate	Dr. S. Rajasekar Head CCE, KSRCE	10.08.2024	63
4.	workshop	Digital Manufacturing	Mr. N.R. Karthik Co-Founder Artispec Technologies Pvt Ltd. Coimbatore.	27-09-2024	60



## CERTIFICATION COURSES BY FACULTY ( NPTEL, COURSERA , OTHERS )

<u>S.No</u>	<u>Name of the faculty /</u>	<u>Title of the Program</u>	<u>Duration From - to</u>	<u>Organized by</u>
1.	<u>Dr.R.Venkatachalam</u>	Electric Vehicle (Mech)	1 month	AICTE-SkillDzire
2.	<u>Mr.S.Soundararajan</u>	Electric Vehicle (Mech)	1 month	AICTE-SkillDzire
3.	<u>Mr.M.Syed thasthagir</u>	Electric Vehicle (Mech)	1 month	AICTE-SkillDzire
4.	<u>Mr.A.P.Kalidas</u>	Electric Vehicle (Mech)	1 month	AICTE-SkillDzire

<u>S.No</u>	<u>Name of the faculty</u>	<u>Name of the course certified/ completed</u>	<u>Awards, if any</u>
1.	<u>Dr.R.VENKATACHALAM</u>	Introduction to Electric and Hybrid Vehicle	Elite
2.	Mr. A.P. KALIDAS	Introduction to Electric and Hybrid Electric Vehicles	Successfully Completed

## CERTIFICATION COURSES BY STUDENTS ( NPTEL, COURSERA , OTHERS )

<u>S.No</u>	Name of the student	<u>Year/ Sem</u>	Name of the course certified/ completed	Awards, if Any
1.	<u>Theeraj Kumar. T</u>	IV/VII	UI/UX for Beginners	Successfully Completed

## EXTENSION & OUTREACH PROGRAM ORGANIZED



A total of 110 students from the Automobile Engineering department participated in a Helmet Awareness Rally coordinated by Tamilnadu Police Department and Dr. G. Nallakumarasamy. Held on 24.08.2024, the rally promoted the importance of helmet use and road safety among the public.