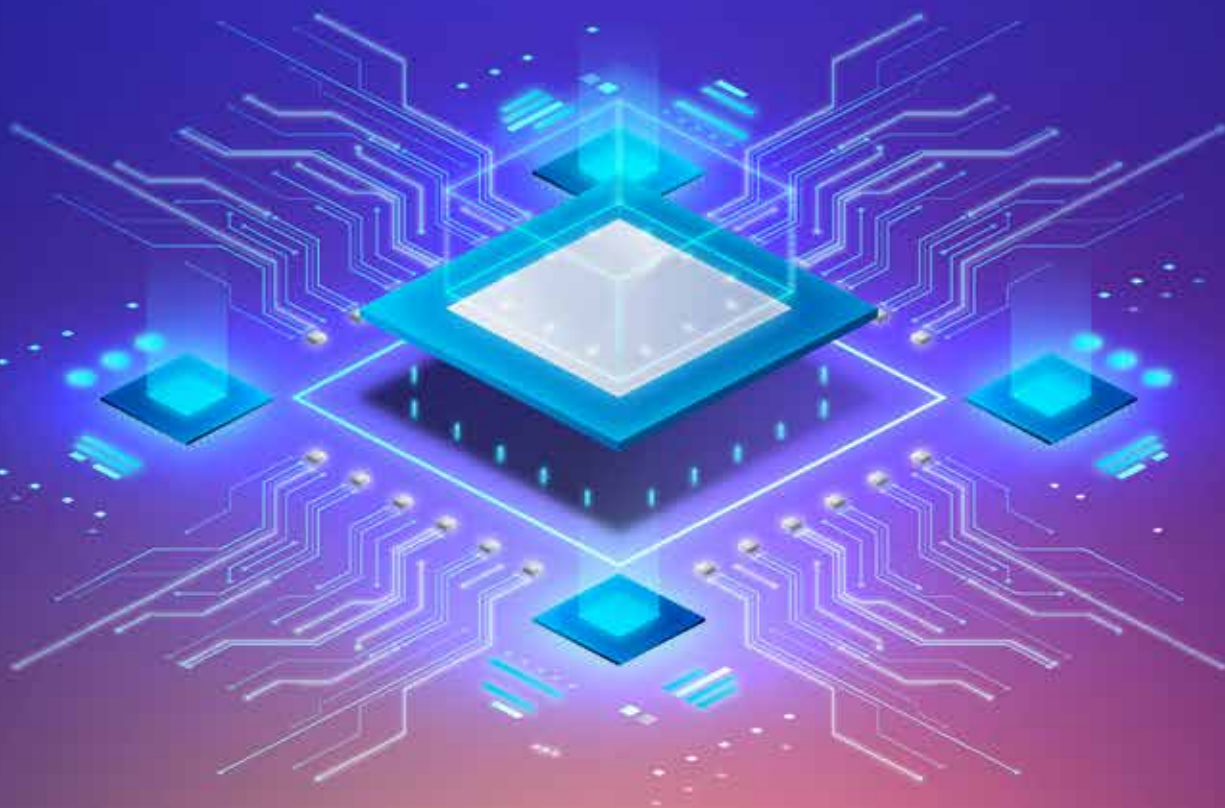**K.R. MANGALAM UNIVERSITY**

THE COMPLETE WORLD OF EDUCATION

SCHOOL OF ENGINEERING & TECHNOLOGY

NEWSLETTER APRIL - JUNE 2025

CONTENTS

FROM EDITORS DESK

From thought-provoking literary and technical articles to insights into emerging trends, technologies, and events, this newsletter encapsulates the spirit of innovation and intellectual growth that defines SOET

Dear Readers,

As we present this quarterly edition of PRISM, the newsletter of the School of Engineering and Technology (SOET) at K.R. Mangalam University, I am overwhelmed with pride in the outstanding achievements and advancements our school has accomplished. This edition encapsulates the dynamic academic and research endeavours that reflect our unwavering commitment to excellence and innovation.

At SOET, we are continually striving to push the boundaries of knowledge through groundbreaking research initiatives and the adoption of progressive teaching methodologies. Our philosophy emphasizes nurturing talents and fostering creativity among both students and faculty, encouraging them to explore avenues beyond the conventional curriculum and pedagogy.

PRISM serves as a vibrant platform that showcases the diverse contributions of our students, alumni, and faculty. From thought-provoking literary and technical articles to insights into emerging trends, technologies, and events, this newsletter encapsulates the spirit of innovation and intellectual growth that defines SOET. We firmly believe that every student at SOET possesses a unique set of skills and a novel thought process. This belief is consistently validated by the remarkable ideas and accomplishments they bring forth in their chosen domains. Their creativity and expertise shine through as they navigate the intersection of knowledge and innovation, contributing significantly to the ethos of our institution.

As you explore the pages of this edition, we invite you to celebrate the vibrant energy and ingenuity that propel SOET toward ever greater heights. Let this newsletter be a testament to our collective pursuit of excellence and a source of inspiration for the entire SOET community.

Happy Reading

Dr. Shweta Bansal
PRISM- Chief Editor
School of Engineering and Technology
K R Mangalam University

I extend my heartfelt gratitude to all contributors, writers, and the editorial team for their unwavering dedication to making PRISM a compelling read. To our readers, thank you for your continued support and enthusiasm

Dear Readers,

It is with immense pleasure that I welcome you to the second quarter edition of PRISM of year 2025, the School of Engineering and Technology newsletter that connects us to the vibrant and dynamic world of technological advancements, research, innovation and achievements of our faculty, students and alums.

This quarter has been marked by exciting developments across various domains of engineering, with a spotlight on new MoU, technical events, publications and faculty contributions in field of engineering. Our newsletter captures these advancements, presenting a curated collection of articles, success stories, and thought-provoking insights. These stories not only reflect our institution's commitment to excellence but also inspire the broader engineering community to dream, design, and deliver.

I extend my heartfelt gratitude to all contributors, writers, and the editorial team for their unwavering dedication to making PRISM a compelling read. To our readers, thank you for your continued support and enthusiasm.

Let's continue to celebrate the spirit of engineering and innovation!

Happy Reading!

Warm Regards

Kriti Sharma

PRISM - Editor

School of Engineering and Technology

K R Mangalam University

On behalf of the IQAC, I extend my best wishes to the editorial team and contributors for the continued success of PRISM. May it continue to inspire, inform, and celebrate the essence of SOET for years to come

It is with great pride and joy that I write for this edition of PRISM, the quarterly newsletter of the School of Engineering and Technology (SOET) at K.R. Mangalam University. As a cornerstone of intellectual and creative expression, PRISM has consistently showcased the vibrant academic and extracurricular endeavors of our school, reflecting the ethos of excellence we strive for.

The past editions of PRISM have been nothing short of remarkable, offering a platform for students, faculty, and alumni to share their insights, achievements, and innovative ideas. These editions have not only highlighted the accomplishments within SOET but have also inspired a culture of continuous learning, collaboration, and innovation. I extend my heartfelt appreciation to the editorial team for their dedication, creativity, and attention to detail, which have made each edition a resounding success.

At the IQAC (Internal Quality Assurance Cell), we believe that initiatives like PRISM play a vital role in enhancing the quality of education and fostering a dynamic learning environment. The newsletter acts as a bridge, connecting various stakeholders – students, faculty, alumni, and industry experts – and creating a cohesive community committed to growth and excellence.

As we look forward to future editions of PRISM, I am confident that the editorial team will continue to raise the bar with their innovative approach and unwavering commitment. I encourage all contributors to bring forth their best ideas, insights, and achievements, ensuring that PRISM remains a beacon of inspiration and a testament to the incredible talent within SOET.

On behalf of the IQAC, I extend my best wishes to the editorial team and contributors for the continued success of PRISM. May it continue to inspire, inform, and celebrate the essence of SOET for years to come.

Warm Regards,

Dr. Shikha Dutt Sharma

PRISM - Editor

Coordinator, IQAC

K.R. Mangalam University

WORDS FROM THE LEADERSHIP

FROM THE VICE CHANCELLOR'S DESK

As you embark on the next phase of your lives, I am confident that the education and experiences you have gained at KRMU will empower you to face future challenges with confidence and determination.

Dear Readers,

I extend my sincere gratitude and congratulations to the editorial team for the successful production of yet another edition of PRISM- School of Engineering and Technology Newsletter. This initiative has become a distinguished platform for faculty and students to exhibit their academic achievements, research contributions, and creative talents.

It is a matter of great pride to announce that PRISM has now reached its second issue of year 2025, firmly establishing itself as a significant tradition at K.R. Mangalam University. Beyond its role as a publication, PRISM serves as a testament to the academic rigor and creative expression that define the School of Engineering and Technology.

For our graduating students, this edition holds special significance as it captures the essence of your academic journey, the inspiration derived from your mentors, and the challenges you have successfully navigated. It stands as a tribute to your perseverance and dedication in the pursuit of knowledge and skills essential for personal and professional growth.

As you embark on the next phase of your lives, I am confident that the education and experiences you have gained at KRMU will empower you to face future challenges with confidence and determination. I extend my best wishes for success in all your endeavours and career aspirations.

The production of PRISM is a commendable achievement, reflecting the exceptional mentorship and guidance of our faculty and the remarkable creativity and enthusiasm of our students. This publication is a shining example of collaboration and excellence, and I am pleased to see it evolve as a cornerstone of our university's academic culture.

Let us continue to uphold the legacy of PRISM as a reflection of innovation, scholarship, and the vibrant spirit of KRMU. Congratulations to all contributors for this outstanding accomplishment.

Prof. (Dr.) Raghuvir Singh

Vice Chancellor

K.R. MANGALAM UNIVERSITY

FROM THE DEAN'S DESK

On behalf of the school, I extend my heartfelt congratulations to the dedicated editorial team of PRISM for their relentless efforts in curating this exceptional edition for the second quarter of 2025

Dear Readers,

It is an honor to share my thoughts for this edition of PRISM, the quarterly magazine of the School of Engineering and Technology (SOET) at K.R. Mangalam University. PRISM stands as a vibrant platform, enabling our students and faculty to showcase their technical expertise, literary creativity, achievements, and the diverse activities of our school.

The magazine serves as a conduit for our students to articulate their thoughts and unleash their creativity, fostering a thriving culture of innovation and intellectual growth. Additionally, PRISM plays a pivotal role in connecting our stakeholders, particularly our alumni, with the SOET community. Through their shared insights and accomplishments, our alumni enrich the magazine and provide invaluable inspiration to our current students by highlighting the diverse career trajectories and achievements they have attained.

On behalf of the school, I extend my heartfelt congratulations to the dedicated editorial team of PRISM for their relentless efforts in curating this exceptional edition for the second quarter of 2025. Your unwavering commitment and hard work are deeply appreciated, and I am confident that PRISM will continue to serve as a beacon of knowledge, creativity, and connectivity within our community.

Dr. Pankaj Agarwal
Dean, School of Engineering & Technology
K.R Mangalam University

ABOUT SCHOOL: VISION & MISSION

The School of Engineering & Technology at K.R. Mangalam University offers various undergraduate and postgraduate programs. The aim of these programs is to equip the students with knowledge, skills and provide a professional approach in the field of Engineering and Technology, to make their capable in successfully meeting the present requirements and future challenges in the Engineering Profession. SOET brings together outstanding academicians, industry professionals and experienced researchers to impart hands-on and multi-disciplinary learning experience.

Vision

To excel in scientific and technical education with integrated teaching-learning, research, and innovation.

Mission:

- Creating a unique and innovative learning experience to enhance quality in the domain of Engineering & Technology.
- Promoting Curricular, Co-curricular and Extracurricular activities that support overall personality development and lifelong learning, emphasizing character building and ethical behaviour.
- Focusing on Employability through research, innovation and entrepreneurial mindset development.
- Enhancing collaborations with National and International organizations and institutions to develop cross-cultural understanding to adapt and thrive in the 21st century.

ADVISORY BOARD MEMBERS

The School of Engineering & Technology has established an advisory board to guide its developmental strategies, enhance industry alignment, and foster innovative research and educational excellence.

Purpose of the Advisory Board

The Advisory Board plays a vital role in supporting the School of Engineering & Technology by:

- Providing strategic guidance on engineering education, training, research, professional development, and community service.
- Recommending initiatives to boost public awareness and engagement with the school's programs, services, and resources.
- Acting as a liaison to address industry needs and assess the school's ability to respond effectively to those demands.

Advisory Board: Driving Strategic Excellence at SOET

The Advisory Board is a cornerstone of our academic and developmental strategies, contributing expert guidance across key areas to advance the School of Engineering and Technology's (SOET) mission:

- Career Pathways: Assisting in defining clear, robust career trajectories for students.
- Industry Alignment: Advising on policies and practices to ensure alignment with industry standards and educational goals.
- Curriculum Relevance: Keeping our curriculum responsive to industry demands and workforce expectations.
- Community Engagement: Promoting SOET programs and services across the community and the state.
- Collaborative Agreements: Facilitating articulation agreements with educational and training institutions.
- Knowledge Sharing: Enhancing student and faculty expertise through technology training, project mentoring, workshops, invited talks, and seminars.
- Industry Connections: Building relationships for internships, recruitment, and scholarships.
- Research & Innovation: Identifying opportunities for innovative research and fostering impactful partnerships for KRMU.

- Outreach & Entrepreneurship: Highlighting outreach needs and strengthening ties with entrepreneurial ventures.
- Strategic Collaborations: Establishing links with industries for Memorandums of Understanding, consultancy projects, and more.

The board's insights and efforts ensure that SOET remains a hub for academic excellence and innovation, fostering success for both students and the broader community.

The distinguished members of the SOET Advisory Board are listed below:

- Prof. (Dr.) P. S. Grover- Former-Professor, Dean, Director, and HoD, Delhi University. Former-Director General at GGS Indraprastha University.
- Prof (Dr.) B. Chandra- Adjunct Professor, Indian Institute of Technology, Delhi.
- Dr Sanjeev Kumar Varshney- Former-Head, International Scientific Cooperation. Department of Science & Technology, Government of India
- Prof. (Dr.) Brij B. Gupta. Director, International Center for AI and Cyber Security Research and Innovations (CCRI) & Distinguished Professor. Department of Computer Science and Information Engineering (CSIE) Asia University, Taiwan
- Syed Afzal Murtaza Rizvi- Professor, Department of Computer Science, Jamia Millia Islamia, New Delhi.
- Dr. Sharat Kaushik- Director NGF Group of Colleges.
- Mr. Subhajit Bhattacharya- Associate Vice President, Accenture
- Usha Jagannathan- Director for AI Products, IEEE, USA
- Rajinder Chitoria- Data Scientist and Director at Froyo Technologies (P) Ltd.
- Mr. Siddhant Verma- Lead (AI, Data Science and BI team)
- Dr. Kamal Rawal- Head of Department & Professor. Center for Computational Biology and Bioinformatics, Amity University, Noida

COLLABORATIONS

K.R. Mangalam University's School of Engineering and Technology (SOET) continues to foster industry-academia partnerships that transform classroom learning into real-world experience. Under a Memorandum of Understanding (MoU) signed, on 13th May 2025, between the University and Lepton Projects Pvt. Ltd., students are being offered invaluable exposure through internships, live projects, and technical mentorship aligned with emerging industrial trends.

This collaboration aims to bridge the gap between theoretical knowledge and industrial practice. Through the MoU, students gain first-hand experience in software development, data management, and project coordination, while being guided by experienced professionals from the partner organization. The initiative reflects the University's vision of producing industry-ready graduates equipped with practical skills and innovative mindsets.

One of the notable success stories under this MoU is that of Ms. Shanvi Mathuria, a final-year student from the Department of Computer Science and Engineering. Shanvi successfully completed her internship with Lepton Projects Pvt. Ltd., where she actively contributed to developing modules for a Cloud-Based Document Management System. Her tasks involved analysing user requirements, optimizing workflow design, and enhancing document security features within a collaborative cloud framework.

Throughout her tenure, Shanvi demonstrated a strong command of software tools, problem-solving capabilities, and professional ethics. Her performance was lauded by both the industry mentors and faculty supervisors, reflecting the quality of education and mentorship imparted at K.R. Mangalam University.

Additionally, Ms. Namrata (Enrolment No. 2201730060) excelled during her internship engagement, contributing to technical documentation, data analytics, and interface testing. Her proactive learning approach and teamwork skills exemplified the University's emphasis on experiential learning and innovation-driven education.

Towards an Industry-Ready Future

The successful completion of these internships underlines the effectiveness of the MoU-driven initiatives. Such partnerships not only strengthen institutional-industry relations but also empower students to step confidently into professional environments. The School of Engineering and Technology remains committed to expanding such collaborations to ensure every student experiences hands-on exposure before graduation.

Through these endeavours, K.R. Mangalam University continues to reaffirm its motto — "A University Transforming Lives" — by nurturing technical expertise, ethical responsibility, and lifelong learning among its students.

OUR ACHIEVERS: FACULTY & STUDENTS

Dr. Preeti Rathi, Assistant Professor and Program Coordinator (MCA) at K.R. Mangalam University, Gurgaon, Haryana, has been honoured with the IMRF International Distinguished Public Service Medal by the International Multidisciplinary Research Foundation (IMRF), Vijayawada. This prestigious award recognizes her consistent superior performance in the field of Computer Science and her invaluable contributions to public service and academic excellence. The award was presented during the International Symposium on Advances in Educational Service held on the eve of United Nations Public Service Day, on June 23, 2025, at IMRF Headquarters, Andhra Pradesh.

Ms. Archna Goyal, Assistant Professor in the Department of Computer Science & Engineering at K.R. Mangalam University, Gurgaon, Haryana, was honoured with the IMRF International Distinguished Public Service Medal for her outstanding contributions in the field of Machine Learning. This prestigious award was presented by the International Multidisciplinary Research Foundation (IMRF) during the International Symposium on Advances in Educational Service, held on United Nations Public Service Day. The award acknowledges her consistent superior performance, innovation, and service in advancing machine learning education and research. The recognition reflects her commitment to academic excellence and impactful public service in technology.

Dr. Saneh Lata Yadav, Assistant Professor from SOET of K R Mangalam University was invited as a speaker in the International Conference on Advances in Science and Technology (ICAST-2025) organized by ITM Dehradun and MetaSciTech Sociery held at ITM Dehradun, Uttarakhand, India from 23rd- 25th June 2025

Team ROTORS won "Best IoT Team" at Galgotias International Hackathon (GIH), earning ₹10,000 for their innovation.

Members: Anuj (BCA AI&DS), Krish Agarwal & Somya Sharma (B.Tech CSE AI&ML).

RESEARCH & INNOVATION

Book Publication (April – June 2025)

1. Mr. Manish Kumar published a book titled as- ' Concept of Artificial Intelligence: Exploring the Foundations of Artificial Intelligence ' by Academic Enclave publication, E-ISBN number- ISBN- 9348642359 and P-ISBN 978-9348642356 on 6 April 2025

Book Chapter Publication (April – June 2025)

1. Prof. (Dr.) Aman Jatain published book chapter-Decentralized Digital Identity Solution Using Blockchain Technology and Encryption Algorithm in Sustainable Computing and Intelligent Systems (SCIS 2024) by Springer E-ISSN/ E-ISBN- 978-981-96-3311-1 on 7 May 2025

2. Dr. Preeti Rathi published book chapter-Unveiling the Future: An Introduction to AI-Powered Multimedia Data Processing in AI Techniques for Multimedia Data Processing by IGI Global E-ISSN/ E-ISBN- 9798369329368 on 11 June 2025

Journal Research Paper Publication (April – June 2025)

1. Dr. Imran Siraj-Empirical comparison of FDM additive manufacturing process parameters by application grey relational analysis and multi-linear regression in The International Journal of Advanced Manufacturing Technology, by Springer Nature with E-ISSN/ISBN1433-3015- published on 15 May 2025

2. Ms. Suman -Revolutionizing Healthcare Management with Artificial Intelligence: Addressing Challenges in Implementation and Scalability in Journal of Neonatal Surgery, by EL-MED-Pub Publisher with E-ISSN/ISBN2226-0439-2226-0439 published on 14 April 2025

3. Dr. Kaushal Kumar,Dr. Prawar-Analyse the performance characteristics of mild steel plates at varying weld parameters by using artificial intelligence approaches in Welding International, by Taylor and Francis with E-ISSN/ISBNISSN 1754-2138 -0950-7116 published on 7 May 2025

4. Dr. Kaushal Kumar,Dr. Prawar-Potential Utilization of Grounded Bottom Ash for Sustainable Stowing Applications in TRANSACTIONS on ENVIRONMENT and DEVELOPMENT, by WSEAS with E-ISSN/ISBNE-ISSN: 2224-3496 - published on 10 April 2025

5. Dr. Kaushal Kumar,Dr. Padmani Koul,Dr. Prawar-Efficient Eco-Design Integrating Green Materials in Concrete for Sustainability in WSEAS TRANSACTIONS on ENVIRONMENT and DEVELOPMENT , by WSEAS with E-ISSN/ISBNE-ISSN: 2224-3496- published on 5 may 2025

6. Dr. Pankaj Agarwal -Hybrid AI models for predicting heat distribution in complex tissue structures with bioheat transfer simulation in Journal of Thermal Biology, by elsevier with E-ISSN/ISBN-1879-0992 published on 23 April 2025

7. Mr. Rahul Singh-Hybrid encryption and Riesz-based biometric authentication: a novel approach for secure greyscale image transmission in JOURNAL OF MODERN OPTICS, by Taylor & Francis with E-ISSN/ISBN1362-3044-0950-0340 published on 15 April 2025

8. Dr. Rakhi Dua -Synergistic effect of Ge addition on optical ,Thermal and Mechanical Properties of Se-Te-Pb Chalcogenide Glasses in Journal of Electronic Materials, by Springer with E-ISSN/ISBNJEMS-D-25-00421- published on 30 May 2025

9. Dr. Rakhi Dua -Computational Biology and Chemistry Title: Pharmacophore Modeling and Development of Small Molecule Inhibitor for ERK1/2 Inhibition in MAPK Pathway-Related Diseases in Computational Biology and Chemistry, by Springer with E-ISSN/ISBN CBAC-D-25-01315- published on 30 May 2025

10. Dr. Anshu-A Secure Authentication Method Based on Digital Twins for Vehicle Cloud Networking in Metallurgical and Materials Engineering, by TechnoFit Academic Publishers LLC, United States with E-ISSN/ISBN-2812-9105 published on 23 May 2025

11. Ms. Yogita Yashveer Raghav, Mr. Rupesh Kumar Tipu, Dr. Sagar Paruthi-AI based predictive modelling for compressive strength of metakaolin-based geopolymer concrete incorporated with Nano Titanium in Journal of Structural Integrity and Maintenance, by Taylor & Francis with E-ISSN/ISBN2470-5314- published on 28 May 2025

12. Mr. Rupesh Kumar Tipu, Ms. Suman, Dr. Vandna Batra-An enhanced weighted ensemble approach for predicting concrete compressive strength in Multiscale and Multidisciplinary Modelling, Experiments and Design, by Springer Nature with E-ISSN/ISBN2520-8179-2520-8160 published on 28 May 2025

13. Mr. Rupesh Kumar Tipu -Physics-informed neural networks for predicting sediment transport in pressurized pipe flows in Environmental Earth Sciences, by Springer Nature with E-ISSN/ISBN1866-6299-1866-6280 published on 19 May 2025

14. Mr. Rupesh Kumar Tipu -Hybrid machine learning modelling and feature interpretation of load-carrying capacity of PVC tube-confined concrete columns in Asian Journal of Civil Engineering, by Springer Nature with E-ISSN/ISBN2522-011X-1563-0854 published on 8 May 2025

15. Mr. Rupesh Kumar Tipu ,Dr. Preeti Rathi -Optimizing sustainable blended concrete mixes using deep learning and multi-objective optimization in scientific reports, by

Springer Nature with E-ISSN/ISBN2045-2322- published on 10 May 2025

16. Mr. Rupesh Kumar Tipu -Advancing Water Quality Management: An Integrated Approach Using Ensemble Machine Learning and Real-Time Interactive Visualization in IEEE Access, by IEEE with E-ISSN/ISBN2169-3536-published on 26 May 2025

17. Mr. Rupesh Kumar Tipu -Predicting compressive and tensile strength of concrete with different sand types using machine learning in Ain Shams Engineering Journal, by Elsevier with E-ISSN/ISBN2090-4495-2090-4479 published on 14 May 2025

18. Dr. Aarti Sangwan-Comprehensive compression and attention-based reconstruction model for enhancing underwater images in International Journal of Information Technology , by Springer Nature with E-ISSN/ISBN2511-2112-2511-2104 published on 21 May 2025

19. Mr. Rupesh Kumar Tipu ,Dr. Yogita Raghav, Dr. Sagar Paruthi- AI based predictive modelling for compressive strength of metakaolin-based geopolymer concrete incorporated with Nano Titanium in Journal of Structural Integrity and Maintenance , by Taylor & Francis with E-ISSN/ISBN2470-5314-2470-5322 published on 28 May 2025

20. Dr. Prabhakar Bhandari ,Dr. Diwakar Padalia, Dr. Nitish Yadav -Thermo-physical properties evaluation of commercially available phase change material and engine oil in Case Studies in Thermal Engineering, by Elsevier with E-ISSN/ISBN2214-157X-2214-157X published on 20 May 2025

21. Dr. Kaushal Kumar,Dr. Padmani Koul,Dr. Prawar-Efficient Eco-Design Integrating Green Materials in Concrete for Sustainability in WSEAS TRANSACTIONS on ENVIRONMENT and DEVELOPMENT , by WSEAS TRANSACTIONS on ENVIRONMENT and DEVELOPMENT with E-ISSN/ISBN2224-3496- published on 5 May 2025

22. Dr. Imran Siraj-Empirical comparison of FDM additive manufacturing process parameters by application grey relational analysis and multi-linear regression in The International Journal of Advanced Manufacturing Technology, by Springer Nature with E-ISSN/ISBN1433-3015- published on 15 May 2025

23. Dr. Kaushal Kumar,Dr. Prawar-Analyse the performance characteristics of mild steel plates at varying weld parameters by using artificial intelligence approaches in Welding International, by Taylor and Francis with E-ISSN/ISBN1754-2138 -0950-7116 published on 7 May 2025

24. Dr. Kaushal Kumar,Dr. Padmani Koul,Dr. Prawar-Efficient Eco-Design Integrating Green Materials in Concrete for Sustainability in WSEAS transactions on environment and development , by WSEAS with E-ISSN/ISBNE-ISSN: 2224-3496- published on 5 May 2025

25. Dr. Rakhi Dua -Synergistic effect of Ge addition on optical, Thermal and Mechanical Properties of Se-Te-Pb Chalcogenide Glasses in Journal of Electronic Materials, by Springer with E-ISSN/ISBNJEMS-D-25-00421-published on 30 May 2025

26. Dr. Rakhi Dua -Computational Biology and Chemistry Title: Pharmacophore Modeling and Development of Small Molecule Inhibitor for ERK1/2 Inhibition in MAPK Pathway-Related Diseases in Computational Biology and Chemistry, by Springer with E-ISSN/ISBN CBAC-D-25-01315- published on 30 May 2025

27. Dr. Prabhakar Bhandari -Exploring potential of Paraffin Wax: A Phase Change Material for Improving yield of Solar Still in Archive of Thermodynamics, by The Committee of Thermodynamics and Combustion of the Polish Academy of Sciences and The Institute of Fluid-Flow Machinery Polish Academy of Sciences with E-ISSN/ISBN2083-6023-1231-0956 published on 25 June 2025

28. Dr. Pankaj Agarwal -Federated Learning-Integrated Autoencoder Model for Robust and Decentralized Pneumonia Detection in Chest X-Rays in Traitement du Signal, by International Information and Engineering Technology Association (IIETA), Edmonton, Canada with E-ISSN/ISBN1958-5608-0765-0019 published on 30 June 2025

29. Dr. Surendra Kumar Yadav-Experimental Assessment of Performance Characteristics and Emission Reduction Using Different Blended Biodiesel in Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, by SAGE with E-ISSN/ISBN0954-4062- published on 4 June 2025

30. Dr. Kaushal Kumar-Comprehensive analysis of structural, optical, morphological, and magnetic properties of Mn, Fe Doped BaTiO3 nanoparticles in Journal of Electroceramics, by springer with E-ISSN/ISBN Electronic ISSN 1573-8663 -Print ISSN 1385-3449 published on 9 June 2025

Patent Publication (April – June 2025)

1. Dr. Yogita Raghav published a patent: Adaptive Edge-AI and Cloud Framework for Real-Time Elderly Health Monitoring and Emergency Response. Patent, patent number: 202531042246 on 9 May 2025

2. Dr. Rakhi Dua published a patent: AI -Powered IOT Smart Delivery Robot patent. Patent number: 454851-001 on 1 June 2025

3. Prof. (Dr.) Aman Jatain published a patent: Comb Design Patent patent, patent number: 415531-001 on 9 April 2025

4. Mr. Rahul Singh, Dr. Yogita Raghav published a patent: IoT-Based Real-Time Accident Detection and Emergency Response System with Automated Injury Assessment and Ambulance Routing, India patent, patent number: 202531020710 on 4 April 2025

5. Dr. Surabhi Shanker ,Mr. Rahul Singh published a patent: AI-Integrated Intrusion Detection System for IoT-Enabled Smart Cities India patent, patent number: 202531021624 on 4 April 2025

6. Dr. Pankaj Agarwal awarded with Indian patent on Synergizing Vedic Mathematics And AI For The Optimization Of Renewable Energy Grids And Smart Infrastructure In Sustainable Urban Mobility with E-ISSN 202531045774 on 24 May 2025

7. Dr. Pankaj Agarwal awarded with Indian patent on Quantum-Resistant Cryptographic System And Method For Secure Data Transmission with E-ISSN 16 May 2025

8. Ms. Suman ,Dr. Vandna Batra, Dr. Preeti Rathi ,Mr. Manish Kumar awarded with Indian patent on Posture Recognition Software Using Real-Time Computer Vision and Wearable Sensor Fusion with E-ISSN 202511041066 A on 23 May 2025

9. Ms. Suman ,Dr. Vandna Batra, Dr. Preeti Rathi ,Mr. Manish Kumar awarded with Indian patent on A Real-Time AI-Powered Missing Person Detection and Alert System Using Facial Recognition and Crowd sourced Data with E-ISSN 202531045540 on 23 May 2025

10. Ms. Suman ,Dr. Vandna Batra ,Dr. Preeti Rathi ,Mr. Manish Kumar awarded with Indian patent on AI-Based Intelligent Blended Education Framework with Real-Time Learning Path Optimization and Feedback Analytics with E-ISSN 202531045504 on 23 May 20250

11. Ms. Suman ,Dr. Vandna Batra, Dr. Preeti Rathi ,Mr. Manish Kumar awarded with Indian patent on Digital Kitty: A Self-Hosted, Privacy-Centric Digital Asset Management System Using MinIO and Modern Full-Stack Architecture with E-ISSN 202531045774 on 23 May 20250

12. Dr. Reenu awarded with Indian patent on Smart Wearable Device for Real-Time Biomedical and Environmental Monitoring with E-ISSN 202531045595 on 9 May 2025

13. Dr. Deepak Kaushik awarded with Indian patent on Blockchain-Integrated Supply Chain System for Sustainable Manufacturing with E-ISSN 202541034446 on 9 May 2025

14. Dr. Yogita Raghav awarded with Indian patent on Adaptive Edge-AI and Cloud Framework for Real-Time Elderly Health Monitoring and Emergency Response. with E-ISSN 202511037037 on 9 May 2025

15. Dr. Reenu awarded with Indian patent on Advanced Biomechanical Exoskeleton for Sports and Industrial Rehabilitation Applications with E-ISSN 202531042246 on 13 June 2025

16. Dr. Shweta Bansal, Dr. Ritwik Ghosh awarded with Indian patent on Vadhyapak "AI Powered Virtual Professor with E-ISSN 202541054833 on 13 June 2025

17. Mr. Rahul Singh published a patent: Adaptive Multi-Verse Optimization-Based Secure Routing Algorithm for Vehicular Ad Hoc Networks India patent. Patent number: 202531022900 on 4 April 2025

ConConference Paper Publication (April- June 2025)

1. Mr. Rupesh Kumar Tipu published- Predictive Modelling of Shear Capacity for FRCM-Strengthened RC Beams using MLP Neural Networks and Global Sensitivity Analysis for Sustainable Construction in IEEE with 2024 International BIT Conference (BITCON) E-ISSN/ E_ISBN 979-8-3315-1839-4 on 7 May 2025

2. Dr. Rakhi Dua published- line following robot with obstacle detection in Scopus with PMEC - ORSI international conference-2025 on applications of mathematical and or models for Sustainable Viksit Bharat E-ISSN/ E_ISBN on 30 May 2025

COMMUNITY CONNECT

AWARENESS PROGRAM ON WOMEN'S HEALTH AND HYGIENE: ADDRESSING YOUNG AGE CHALLENGE

The School of Engineering & Technology (SOET), K.R. Mangalam University, organized an impactful awareness program titled "Women's Health and Hygiene – Young Age Challenges" as part of its social outreach initiative started in beginning of year 2025. The program was coordinated by Dr. Vandna Batra and Ms. Suman, Assistant Professors at SOET.

The initiative focused on empowering adolescent girls and women in Village Ghamroj and Bhondsi by addressing critical issues related to menstrual health, hygiene practices, and the social taboos surrounding them. Students and faculty actively engaged in door-to-door surveys, interactive group sessions, and awareness drives, gathering valuable insights into existing challenges while spreading knowledge about safe hygiene practices.

Highlights of the program included-

- Survey Phase: A detailed survey was conducted in Village Ghamroj and Bhondsi to evaluate the level of awareness regarding women's health and hygiene. The findings revealed significant challenges, including limited access to sanitary products, strong cultural taboos, and their impact on school attendance and self-esteem among young girls.

- Awareness Phase: Faculty members and student volunteers organized interactive talks, group discussions, and one-on-one sessions to address menstrual health and hygiene. Sanitary pads were distributed, and practical demonstrations were provided to encourage safe practices while fostering open dialogue to break taboos.

- Feedback & Impact: The initiative received overwhelming positive feedback from participants, with a majority

Faculty coordinator making female students aware about Women's Health and Hygiene

expressing improved confidence and clarity in managing their health and hygiene. Suggestions included making sessions more interactive and incorporating visual aids, paving the way for more engaging future programs.

This initiative directly contributes to the United Nations Sustainable Development Goals (SDG-3: Good Health and Well-Being, and SDG-5: Gender Equality) by ensuring that young women are informed, supported, and empowered.

The program stands as a testament to SOET's commitment toward community development and holistic education that extends beyond classrooms. Such endeavours not only improve health literacy but also foster inclusivity, resilience, and empowerment among young women, creating a sustainable impact on society.

Students and faculty coordinator making female students aware about Women's Health and Hygiene

2 DAYS WORKSHOP ON WOMEN'S SAFETY, CYBER SECURITY, AND CIVIC DUTIES UNDER ME FOR MY NATION PROGRAMME.

Gender Sensitisation and Safety Committee in collaboration with SOET organized a 2 Days' workshop on Women's Safety, Cyber Security, and Civic Duties under Me for My Nation programme. First day of workshop on 2nd April 2025 was a resounding success, fostering awareness and empowerment among participants. The event featured Ms. Priti Bagdi, Chairman of Sohna Municipal Council, as the esteemed chief guest, who emphasized the importance of proactive civic engagement and digital vigilance in ensuring women's security. Expert speakers shed light on critical aspects of cyber safety, legal rights, and responsible citizenship, equipping attendees with practical strategies to protect themselves in both physical and digital spaces. Interactive discussions and case studies enriched the learning experience, making the session highly impactful and informative. The second day of the workshop on 03.04.2025 featured insightful sessions on Cyber Security & Awareness and Civic Duties, with distinguished experts sharing their knowledge. The session on Cyber Security and Awareness was led by Mr. Rajeev Nayan Ojha, President of Spandan Foundation, who emphasized the importance of responsible online behaviour and cyber vigilance. Officials from Cyber Police Gurugram, presided over by SHO Mr. Naveen Kumar, discussed the types of cybercrimes prevalent today and urged students to stay vigilant. They introduced important cybersecurity tools such as Mobi Armour, Sanchar Saathi and Virus Total have Been pawned to help monitor data breaches, along with helpline numbers 112 and 1930 for reporting cybercrimes.

The second session on Civic Duties was led by Mr. Kuldeep Deswal, Mt. Everest conqueror 2023, who delivered an inspiring talk on personal responsibility and discipline, explaining the four ultimate goals of human life: Dharma, Artha, Kama, and Moksha. Chief Guest, Mr. Kamlesh Kamal, SSP of the Indo-Tibetan Border Police (ITBP), discussed the significance of legal awareness and active participation in fulfilling civic responsibilities.

The workshop successfully provided participants with valuable knowledge. A special thanks to all the esteemed guests, participants, and organizers for their efforts in making the event a success.

SHO Mr. Naveen Kumar, Cyber Police Gurugram taking the session on important cybersecurity tools

CLUBS & CENTERS

CENTRE OF EXCELLENCE-AI

Deep DataHack Data Science Hackathon

Deep Data Hack Data Science Hackathon" was organized on 16th April 2025 in C018, C Block, K R Mangalam University. The event brought together enthusiastic students, budding data scientists, and AI innovators to tackle real-world challenges through data-driven solutions. Participants engaged in intensive problem-solving sessions, applying advanced AI and deep learning techniques to analyze complex datasets. The hackathon not only fostered innovation and critical thinking but also provided a platform for students to showcase their technical skills, creativity, and teamwork. It was a remarkable initiative towards building a vibrant AI and data science community on campus. This prove to be an effective platform to encourage students to develop solutions using AI, deep learning, and data science, a strong foundation in data-driven problem-solving and to promote teamwork, creativity, and critical thinking among participants. The Deep Data Hackathon proved to be an enriching experience for all participants, helping them sharpen their technical skills and problem-solving abilities. The event reaffirmed the commitment of the Centre of Excellence in AI and SOET to nurture the next generation of AI and data science professionals. Participants left the event energized and motivated to continue exploring the dynamic field of artificial intelligence.

Winners rewarded by Dean SOET- Dr. Pankaj Agrawal

CENTRE OF EXCELLENCE- CYBERSECURITY

Cyber Security Challenge

In an era where digital transformation is reshaping every industry, cybersecurity has emerged as a critical pillar in safeguarding information systems and digital infrastructure. Recognizing the growing importance of this field, the Center of Excellence in Cybersecurity, in collaboration with the School of Engineering and Technology (SOET) at K.R. Mangalam University, organized a one-of-a-kind Cyber Security Challenge on 7th April 2025, held at C Block, Lab C015, starting from 9:30 AM onwards.

This competition was meticulously designed with the goal of fostering cybersecurity awareness, nurturing analytical thinking, and providing hands-on exposure to real-world cyber threats and define mechanisms. It served as a platform for students to explore practical applications of cybersecurity concepts through a series of engaging and intellectually stimulating activities.

The Cyber Security Challenge was organized with the aim of equipping students with the knowledge, skills, and mindset required to address the growing cybersecurity

Winner of Cyber Security Challenge

threats in today's digital world. The key objectives of the event focused to Promote Cybersecurity Awareness, to Bridge the Gap Between Theory and Practice, to Encourage Analytical and Critical Thinking, to Nurture Teamwork and Collaboration, to Prepare Students for Industry Challenges, to identify and Recognize Talent, and to Support the National Vision of Digital Security. The Cyber Security Challenge event followed a structured and phased methodology to assess students' cybersecurity knowledge and practical problem-solving skills. It was divided into two main stages: a Quiz Round (MCQ-based) and a CTF Round (hands-on problem-solving). Each phase was designed to evaluate specific competencies and promote competitive learning in a fair and transparent environment.

Students selected for final round at Cyber Security Challenge

TECH ODYSSEY 2K25

The Centre of Excellence- Cyber Security in collaboration with School of Engineering and Technology has organized IT Fest Tech Odyssey 2K25 on 24th April 2025 at KRMU Campus. This year's Tech Odyssey aimed to foster innovation, analytical thinking, and problem-solving abilities among students through a diverse set of competitions. The tech fest 'Tech-odyssey' consisted of various events such as Web Dev (On real time project), Tech Quiz, Treasure Hunt and E-Sports. The event was conducted under the supervision of faculty coordinators of Dr. Surabhi Shanker. The event was well-attended by KRMU students and students from all other departments and college/universities. It was too engaging electrifying celebration of innovation, creativity, gaming & event cum competition and the total numbers of participants are 149, which made the competition successful.

The Tech Odyssey 2K25 event directly contributes to the United Nations Sustainable Development Goals (SDGs). It supports SDG Target 4.4 by enhancing the technical and vocational skills of youth through hands-on competitions like Web Development and Tech Quiz. It fosters entrepreneurship and skill development, fulfilling SDG Target 8.3 by offering real-world problem-solving opportunities and internship pathways with industry partners like Suviksan Technologies. Additionally, the event encourages innovation and research-led practices in technology, aligning with SDG Target 9.5, by promoting student-led tech projects and showcasing creative digital solutions in a competitive academic environment. The winners were awarded cash prizes and certificates, while all participants received e-certificates of participation.

Topic allocation during Tech Odyssey 2K25

Winning Team with student and faculty coordinators during Tech Odyssey 2K25

CENTER OF EXCELLENCE: ROBOTICS & AUTOMATION

School of Engineering & Technology in collaboration of Centre of Excellence-Robotics & Automation visited Mathura Oil Refinery, Mathura, one of the leading refineries operated by Indian Oil Corporation (IOC) on 16th April 2025. The visit provided students of SOET, K.R. Mangalam University, with valuable insights into industrial operations, refinery processes, automation technologies, and safety protocols followed in large-scale energy production environments.

EVENTS CORNER

EXPERT TALK: MICROSERVICES ARCHITECTURE

On April 21, 2025, the School of Engineering and Technology (SOET) at K.R. Mangalam University organized an expert talk on the theme Microservices Architecture in B517. The expert talk was conducted by Mr. Nikhil Arora, a seasoned Software Architect and Technical Consultant at EIS Ltd. His industry expertise and insightful articulation on software design captivated students from B.Tech (CSE)

The session aimed to expose students to modern software architectural patterns and practices, enhancing their understanding of scalable application design in real-world industry environments. Mr. Arora began with the foundational concepts of Microservices Architecture, drawing comparisons with Monolithic systems. He explained how breaking applications into independent services improves scalability, fault isolation, and development agility. He discussed service decomposition strategies, RESTful and asynchronous communication techniques, and popular containerization tools like Docker. Further, he explained Kubernetes for orchestration, providing live scenarios of deployments and version control. Using real-world industry case studies, he showcased how leading organizations like Netflix, Amazon, and Uber have adopted microservices for business agility and resilience. A segment was dedicated to DevOps practices in microservices, covering CI/CD pipelines,

container registries, automated testing, and monitoring using Prometheus and Grafana. Mr. Arora offered guidance on career roles such as Cloud Engineer, DevOps Specialist, and Microservices Developer. A vibrant Q&A session followed, where students inquired about career roadmaps, necessary skill sets, and certifications to pursue. Students found the talk extremely valuable in understanding both the theory and practice of microservices. The interactive discussion, practical case studies, and tech tool demos enriched their learning experience and clarified key software development trends in the industry. The Expert Talk on "Microservices Architecture" proved to be a highly enriching experience for the students and faculty of SOET. It not only enhanced theoretical understanding but also provided meaningful practical exposure to real-world software engineering practices.

The session emphasized the importance of continuous learning, technological adaptability, and innovation, key to thriving in the evolving digital world. The SOET team extends sincere gratitude to Mr. Nikhil Arora for his impactful contribution and thanks all coordinators and student volunteers—Vikas and Ansh—for ensuring the smooth conduct of the event.

Faculty coordinator facilitating Mr. Nikhil Arora on successful completion of the expert talk on Microservices Architecture

EXPERT TALK ON ENGINEERING YOUR PATH: THE ENTREPRENEURIAL MINDSET

On April 25th, 2025, the School of Engineering and Technology (SOET) at K.R. Mangalam University organized an expert talk on the theme "Engineering Your Path: The Entrepreneurial Mindset" in B517. The expert talk was conducted by Mr. Sanjay Kumar Malik, Director at Lepton Projects Private Limited. The session aimed to expose students to modern software architectural patterns and practices, enhancing their understanding of scalable application design in real-world industry environments.

Mr. Malik delivered an inspiring and thought-provoking session, diving into the world of innovation and self-driven success. He emphasized the importance of cultivating an entrepreneurial mindset grounded in creativity, resilience, and vision. Attendees were guided through the process of identifying real-world problems, validating impactful ideas, and building scalable solutions. The session was filled with interactive questions, relatable examples, and practical insights. Mr. Malik encouraged students to think like founders—whether they aim to start their own ventures or become innovative professionals within organizations. The talk concluded with a call to action for students to explore their potential and take the first step toward realizing their ideas. Overall, the session provided a valuable learning experience and motivated students to adopt an entrepreneurial approach in both their academic and professional pursuits.

Mr. Malik's session left a lasting impression on all attendees, instilling a renewed sense of purpose and entrepreneurial curiosity. By blending inspiration with actionable strategies, the talk empowered students to view challenges as opportunities and to approach their careers with creativity,

Opening moments of an engaging talk where future innovators are encouraged to think beyond boundaries and build with purpose

resilience, and a problem-solving mindset. The enthusiastic participation from students, coupled with the dedicated efforts of faculty and student coordinators, made the event a resounding success. As a takeaway, students were encouraged not just to dream big, but to take meaningful steps toward transforming those dreams into reality—marking the beginning of their journey as innovators and change-makers. More than 80 students from BTech CSE and BTech CSE AI/ML participated with great enthusiasm, particularly during the engaging Q&A segment. The event was meticulously planned and smoothly executed under the guidance of faculty coordinators Dr. Preeti Rathi, Ms. Suman, and Dr. Vandna Batra. Student coordinators Namrata and Vikas Kumar also played an essential role in managing the event logistics.

Motivated faces, meaningful learning – students reflecting on the importance of vision and action

EXPERT TALK ON FUTURE OF E-COMMERCE AND ROLE OF AI

An expert session on the Future of ecommerce and role of AI was conducted on 1st May 2025 in Lab517, aimed at providing students with deep understanding of how artificial intelligence is shaping the future of online commerce. The talk was organized by a school of Engineering and Technology and the organizers were Miss Lucky Varma and Dr. Tanvi Chawla. The top includes 80 enthusiastic participants from various academic levels of Computer Science and Engineering department. The invited speaker, Mr. Manu Gupta, staff engineer, Nagarro is distinguished. professional with extensive experience in application of AI in digital business environment full stop the session aim to bridge the gap between academic knowledge and real-world industry trends in evolving e-commerce sector. This session covered a wide spectrum of topics, beginning with Evolution of ecommerce and moving towards the integration of AI in modern business model. The key themes incudes- AI powered customer personalization and recommendation engines chatbots and virtual assistant enhancing customer engagement predictive analytics for demand forecasting, intelligent logistics and inventory management and real time dynamic pricing mechanism full stop the speaker also emphasized ethical consideration and importance of data privacy and transparency in ai driven platforms first the top was followed by an interactive Q&A session where Students actively engaged with the expert on emerging technologies

Faculty coordinators felicitating The expert Mr. Manu (Staff Engineer, Nagarro)

and career prospects in A and e commerce the expert illustrated how leading global ecommerce platforms such as Amazon Flipkart and Alibaba are utilizing AI to optimize every touch point of the customer journey. Students responded positively to the session appreciating the real-world relevance and the clarity of the concept presented. Many expressed newly formed interest in pursuing projects, internship or research topics in the domain of AI powered ecommerce. The interactive nature of the session encourages curiosity and deeper engagement with the subject.

INDUSTRIAL VISIT TO NETWORK BULLS

The industrial visit to networks provides K. R. Mangalam University- School of Engineering and Technology students a valuable opportunity to give hands on exposure cutting edge network technology on 1 April 2025. Advancement. As a premier training Institute specialising in Cisco networking., Netbook Books offer a real-world learning environment at bridges the gap between theoretical knowledge and practical application. By engaging with industry export and exploring advancement in networking lab., students deepen their understanding of network infrastructure, cyber security and cloud computing. Experience emphasised the significance of stay updated with evolving technology trends and inspired students to integrate this into innovative IT solutions. Search Experiential learning fosters technical expertise and entrepreneurial thinking, equipping students with the skill needed to excel in dynamic field of networking and cyber security.

Students performing hands-on at Network Bulls office

Group photograph of faculty coordinators and students at Network Bulls

FIELD VISIT TO THOMSON PRESS INDIA PVT. LTD FARIDABAD

Students of School of Engineering and Technology at K. R. Mangalam University visited the Thomson via India Pvt. Ltd, Faridabad to explore engineering aspect in the printing industry on 9th May 2025. The Thomson Press India., established in 1967, is a leading printing and publication company. Renowned for high quality printing service, it offers a range of solution including offset and digital printing, catering so diverse sector like publishing, commercial printing and packaging. Visiting Thomson Press India benefits student by providing them first-hand insight into the modern printing technologies and process. It enhances their understanding of the industry's practical aspects such an offset and digital printing, production, workflow and quality control. Additionally, it offers exposure to real world applications of graphic design, publishing and production management. Overall, the visit provided A comprehensive overview of how advanced technology and efficient management practice drives success in the printing industry, inspiring students and broadening their career perspective.

Faculty coordinator and students during a Field Visit to Thomson Press India Pvt. Ltd Faridabad

ISKCON EVENT: SPIRITUAL AWAKENING: GUIDED MEDITATION

The School of Engineering and Technology conducted a spiritually enriching event titled "Spiritual Awakening: Guided Meditation" on 2nd May, 2025 in B-215. This insightful session was led by the revered Shriram Prabhu Ji, a senior spiritual guide and preacher from ISKCON, known for his profound understanding of Vedic wisdom and his engaging communication style. In his thought-provoking talk, Shriram Prabhu Ji addressed the challenges of the modern mind, particularly focusing on the impact of information overload. He explained that the constant influx of digital content and distractions weakens our ability to concentrate and distances us from inner peace. By offering a blend of practical techniques and timeless spiritual principles, he emphasized the need to regulate information intake and engage in meditative practices to regain control over the mind. Through guided meditation and reflective insights, Shriram Prabhu Ji highlighted that true spiritual awakening begins with silence, simplicity, and reconnecting with the Supreme. Participants left the session inspired to apply these teachings in daily life, finding clarity, calmness, and a deeper sense of purpose. The session served as a reminder that amidst the chaos of modern life, spiritual discipline and conscious living are key to mental well-being and lasting inner peace.

Shriram Prabhu Ji (ISKCON) discussing scenario with student to control anger and behave in stressed situations

*Shriram Prabhu Ji (ISKCON) making students understand the working of mind*

ORIENTATION PROGRAMME ON QUALITY ISSUES FOR TEACHERS AND STUDENTS IN COLLABORATION WITH IQAC

School of Engineering and Technology successfully organized "Orientation Programme on Quality Issues for Teachers and Students" in collaboration with IQAC on 30th April 2025 in LAB - 03, A-Block. The event aimed to raise awareness about the importance of maintaining and improving academic quality standards in educational practices. The programme was coordinated by Ms. Jyoti Kataria and Mr. Ashwani Kumar.

The session began with a warm welcome from the coordinators, who introduced the objectives of the programme. They emphasized the significance of quality teaching and the role it plays in enhancing student learning outcomes. Various aspects of academic quality, including effective teaching methodologies, student engagement, and assessment strategies, were discussed in detail. The event saw active participation from both faculty members and students, fostering a collaborative environment.

The objective of the event "Orientation Programme on Quality Issues for Teachers and Students" is to raise awareness and understanding of quality assurance and enhancement in education. The programme aims to equip teachers and students with the knowledge and skills needed to uphold academic standards, promote a culture of continuous improvement, and actively participate in institutional quality initiatives. By fostering a shared commitment to excellence, the orientation seeks to bridge gaps in awareness, encourage best practices in teaching and learning, and strengthen the overall educational experience. Key Highlights of the Programme were engaging discussion, interactive session, focus on collaboration, and comprehensive coverage. The "Orientation Programme on Quality Issues for Teachers and Students" proved to be a highly impactful and insightful event. It successfully raised awareness about the importance of maintaining high academic standards and provided both teachers and students with practical tools and strategies to enhance the quality of education. The active participation and engagement throughout the event reflected a shared commitment to improving educational practices.
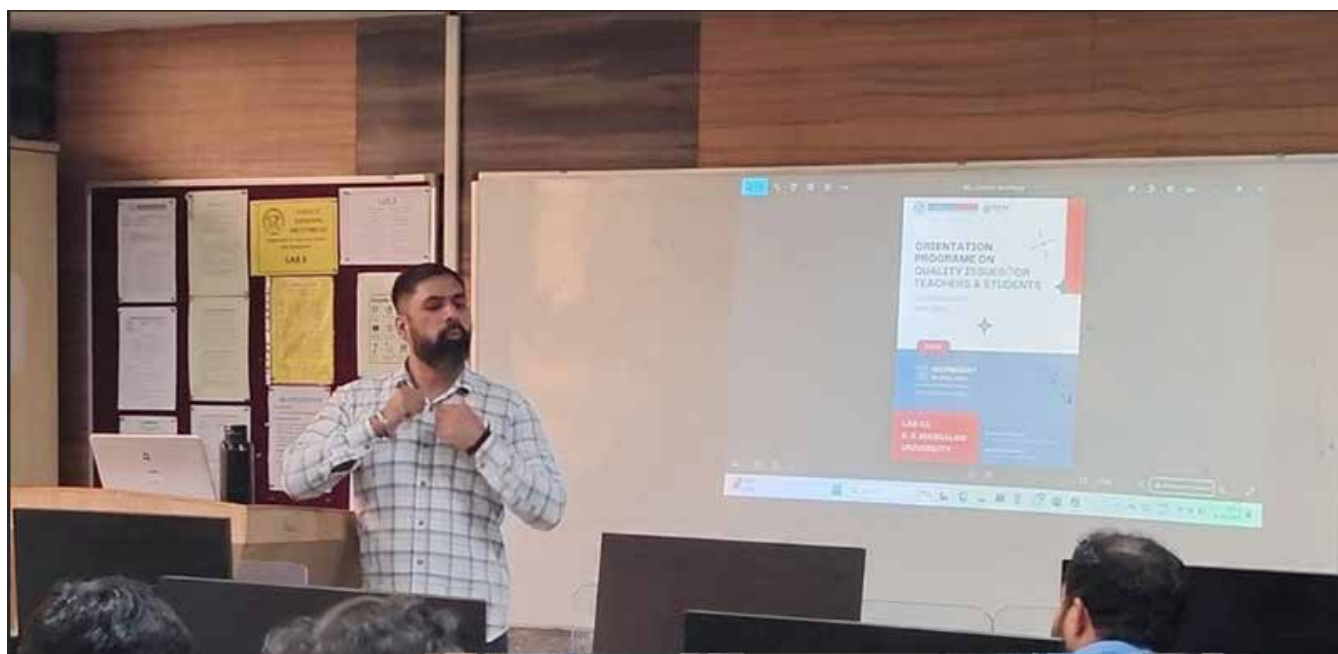
Orientation Programme on Quality Issues for Teachers and Students regarding significance of quality education

ALUMNI CONNECT

School of Engineering and Technology organized a Alumni Lecture series. Ms. Kriti Sharma invited Mr. Daksh Mehta (SOET ALUMNI) as a resource person in the fourth segment of the alumni lecture series on 17th April 2025 over online meet. The session motives to inform and guide students on the long-term evolution and real-world applications of Artificial Intelligence. The session also aimed to motivate students towards research, higher studies, and interdisciplinary exploration in AI. Mr. Daksh Mehta introduced the students to foundational and advanced concepts in AI such as machine learning, deep learning, reinforcement learning, and generative AI (e.g., ChatGPT, DALL-E). He discussed practical AI use cases in healthcare, finance, education, and autonomous systems. Ethical concerns, responsible AI practices, and career roles in academia versus industry were also discussed in detail. He provided links to free learning resources, MOOCs, and AI research journals. His discussion was focused on AI's emerging potential across industries, presenting both research-oriented and applied career paths in artificial intelligence. Students were exposed to both academic and industrial applications of AI, helping them identify areas of personal interest. The hybrid model of interaction facilitated real-time questions and increased participation. Students gained clarity on how to approach AI as a career and the difference between practitioner

Students engaged during online session with Alumni Mr. Daksh Mehta (SOET CSE- batch 2016)

and research paths. They also learned about AI-related job roles, internship opportunities, and the importance of foundational knowledge in mathematics, statistics, and algorithms.

Mr. Daksh Mehta sharing significance of inclination towards generative AI

TECHNICAL ARTICLES

DR. SURENDRA KUMAR YADAV: NUMERICAL ASSESSMENT ON THE PERFORMANCE OF VARIABLE AREA SINGLE- AND TWO-STAGE EJECTORS: A COMPARATIVE STUDY

The two-stage ejector has been suggested to replace the single-stage ejector geometrical configuration better to utilize the discharge flow's redundant momentum to induce secondary flow. In this study, the one-dimensional gas dynamic constant rate of momentum change theory has been utilized to model a two-stage ejector along with a single-stage ejector. The proposed theory has been utilized in the computation of geometry and flow parameters of both the ejectors. The commercial computational fluid dynamics tool ANSYS-Fluent 14.0 has been utilized to predict performance and visualize the flow. The performance in terms of entrainment ratio has been compared under on- design and off-design conditions. The result shows that the two-stage ejector configuration has improved (≈57%) entrainment capacity than the single-stage ejector under the on-design condition.

DR. ANSHU: AN ENCRYPTION AND DECRYPTION OF PHONETIC ALPHABETS USING SIGNED GRAPHS

Indeed, in signed graphs, the weights on the edges can be both positive and negative; this will provide a solid representation and manipulation framework for complicated relationships among phonetic symbols. Encryption and decryption of phonetic alphabets pose a number of special challenges and opportunities. This paper introduces a novel approach utilizing the eigenvalues and eigenvectors of signed graphs to develop more secure and efficient methods of encoding phonetic alphabets. Presented is a new cryptographic scheme; consider a mapping from phonetic alphabets onto a signed graph. Encryption should be carried out by means of structure-changing transformations of the latter, which leave intact the integrity of the information encoded. This approach allows for secure, invertible transformations to resist typical cryptographic attacks. Here, the decryption algorithm restores the encrypted graph back to the original phonetic symbols by systematically going through steps opposite to that taken during encryption. The proposal of signed graphs in the processes of phonetic alphabet encryption and decryption opens new frontiers of cryptographic practices, which have useful implications for secure communication systems and data protection.

PLACEMENTS & INTERNSHIPS

PLACEMENT (APRIL- JUNE 2025)

In continuation to previous quarter placement of our 69 students in duration of April- June 2025 in companies for their expertise.

ROLL NO.	STUDENT NAME	COURSE	Name of Company	JOB PROFILE
2401560027	Jaskaran Dhillon	MCA	Teach to Lead	Teaching
2201010131	Ayush Kumar	B.Tech CSE	Housy Point	Sales and Marketing

INTERNSHIP (APRIL- JUNE 2025)

In addition to 1150 students (selected in internship during period of January- March 2025), following students got internship in various reputed companies:

S. No	Student Name	Roll Number	Program	Name of the organization
1	Bharti Patel	2301560114	MCA	Wayspire Ed-Tech Private Ltd
2	Harshit	2101730024	B Tech CSE AI & ML	NDTV
3	Akash Kumar	2401560039	MCA	Learning Routes Pvt ltd
4	Pulkit Agrawal	2301560084	MCA	Synergie Software Limited

OUR ALUMNI

Ankit Luthra
B.Tech CSE,
Class of 2019–2023

Stepping into K.R. Mangalam University in 2019 marked the beginning of a journey that changed me in more ways than I could have imagined. My first year was filled with cultural activities that gave me confidence on stage and a chance to explore my creative side. When the pandemic disrupted everything, I asked myself an important question: as a computer science student, do you know how to build a modern website? That question became the spark that reshaped my entire path. From that point on, I started building my technical skills and exploring real-world projects. At the same time, I was fortunate to serve as a leading member of the Computer Society of India (CSI) throughout all four years. With my peers, I organized contests, hackathons, and technical events that helped me develop leadership, teamwork, and problem-solving skills beyond the classroom. My internships also played a key role in shaping my journey. From Yamaha Motor Solutions Pvt. Ltd. to ShapeAI and finally EY, every experience gave me valuable lessons in discipline and innovation. During my EY internship, I asked my Director how I could convert it into a full-time role. He gave me the chance to work on a live project with fifteen tasks. By completing thirteen and a half ahead of schedule, I helped close the project faster and earned something special: my EY offer letter before even finishing my last exam.

Today, I am proud to be working as an Associate Consultant at EY, focusing on full-stack development and Generative AI, and I was humbled to receive the EY Extraordinaires Award for my work within my probation period.

To my juniors, I would simply say these four years are more than a degree, they are the foundation of your journey ahead. Take chances, explore, and keep reinventing yourself. You never know which small step can open the door to your biggest opportunity.

K.R. MANGALAM UNIVERSITY
THE COMPLETE WORLD OF EDUCATION