K.R. MANGALAM UNIVERSITY

THE COMPLETE WORLD OF EDUCATION

SCHOOL OF ENGINEERING & TECHNOLOGY

School Handbook

2025-26

Table of Contents

1. About the School

Since its establishment in 2013, the School of Engineering and Technology at K.R. Mangalam University has rapidly developed into a hub of innovation, quality education, and skill development. Our focus is on delivering a transformative educational experience that equips students with advanced technical knowledge while fostering creativity and critical thinking. With state-of-the-art infrastructure, modern laboratories, and a distinguished faculty, we provide an environment that nurtures both academic and professional excellence.

Our school offers a comprehensive range of programs, including undergraduate (B.Tech, BCA, B.Sc), postgraduate (M.Tech, MCA), and doctoral studies across key engineering disciplines. We are proud to offer specialized B.Tech programs in high-demand fields such as Artificial Intelligence & Machine Learning, Data Science, Cyber Security, Full Stack Development, and UI/UX Development. These programs are designed to meet the evolving needs of the industry, ensuring that students are equipped with the skills and knowledge required to succeed in the modern workforce.

Our curriculum is grounded in best practices from leading global institutions and incorporates insights from the Open-Source Society University. It emphasizes interdisciplinary learning, problem-solving, and innovative teaching methodologies. This approach not only enhances students' technical competencies but also develops their ability to think critically and work collaboratively across diverse domains.

Industry integration is a key component of our educational model. We collaborate with renowned organizations such as IBM, Samatrix, Xebia, EC Council, and ImaginXP to provide students with practical, real-world experience through internships, projects, and workshops. These partnerships ensure that our students are well-prepared to meet industry demands. Additionally, we offer elective courses in areas such as AI, Cloud Computing, Cyber Security, and Full Stack Development, allowing students to tailor their learning experience to align with their career goals.

We are also committed to fostering innovation and entrepreneurship. Our Entrepreneurship and Incubation Center and initiatives like 'MindBenders,' 'Hack-KRMU,' and participation in the Smart India Hackathon inspire students to develop forward-thinking solutions and entrepreneurial ventures.

With cutting-edge computing facilities, advanced research opportunities, and a focus on practical application, the School of Engineering and Technology ensures that its graduates are well-prepared to excel in their careers. Our alumni have made significant contributions across various sectors, reflecting the high standards of education they receive.

2. Vision and Mission

2.1 University

Vision

K.R. Mangalam University aspires to become an internationally recognized institution of higher learning through excellence in inter-disciplinary education, research, and innovation, preparing socially responsible life-long learners contributing to nation building.

Mission

- Foster employability and entrepreneurship through futuristic curriculum and progressive pedagogy with cutting-edge technology
- Instil notion of lifelong learning through stimulating research, Outcomes-based education, and innovative thinking
- Integrate global needs and expectations through collaborative programmes with premier universities, research centres, industries, and professional bodies.
- Enhance leadership qualities among the youth having understanding of ethical values and environmental realities

2.2 School

Vision

To excel in scientific and technical education through 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.

3. Messages

3.1 Vice Chancellor- Prof. Raghuvir Singh

Congratulations on your admission to K.R. Mangalam University!

Dear Student,

I welcome you for joining K R Mangalam University.

You have taken the first step toward one of the most exciting times in your life, and everyone on the campus is committed to making your experience at KRMU worth remembering.

Established in 2013 KRMU has been implementing and adapting the ever-changing industry trends to be germane. At KRMU, we provide its students with the opportunity to excel in academics and in activities that make them global leaders altogether.

We have developed on a mission mode a system of preparing highly talented faculty in large numbers with specializations in diverse areas (interdisciplinary and trans disciplinary areas) with more autonomy and awards for productivity in terms of pedagogy, skill enhancement, research and mentor for creativity and innovations

Our commitment to fostering employability and entrepreneurship is reflected in our innovative teaching methodologies and initiatives such as the Entrepreneurship and Incubation Center and 'Hack-KRMU.' By integrating global needs through collaborative programs, we prepare students for the dynamic technological landscape while instilling ethical values and lifelong learning.

Looking ahead, we envision pioneering new realms of research and innovation, expanding global partnerships, and nurturing an inclusive, forward-thinking academic community. Our goal is to equip students with the skills necessary to thrive in an increasingly digital world and to develop leaders who embody ethical behavior and environmental awareness. Together, we will continue to inspire and empower our students to be visionary leaders in the ever-evolving technological landscape.

We are pleased to offer you provisional admission to KRMU. Your admission to the university will be confirmed and you will be registered as our student when we have scrutinized your documents and eligibility as per the university policies.

Wishing you all the very best for a great academic journey at KRMU!

3.2 Dean

The School of Engineering and Technology at K.R. Mangalam University, established in 2013, is committed to delivering excellence in education, fostering innovation, and nurturing entrepreneurial mindsets. With a comprehensive portfolio of undergraduate, postgraduate, and Ph.D. programs, the school emphasizes advanced teaching methodologies, impactful research, and hands-on industry exposure through strategic collaborations with renowned companies such as IBM, EC Council, Samatrix, ImaginXP, and Xebia.

Our curriculum is thoughtfully designed to address real-world challenges through a blend of problem-solving, interdisciplinary learning, and industry-driven skill development. We foster a culture of innovation and entrepreneurship by providing students with state-of-the-art facilities and a dynamic learning environment, preparing them to become leaders in the ever-

evolving technological landscape. Integrity, ethical conduct, and a commitment to lifelong learning are integral to our philosophy, ensuring our graduates are not only technically proficient but also responsible global citizens.

Looking ahead, the Dean envisions the School as a hub of technological advancement and groundbreaking research. By continuously evolving our curriculum and integrating emerging technologies, we aim to equip our students with future-ready skills essential for success in an increasingly digital and interconnected world.

Our strategic vision includes expanding global partnerships and cultivating a diverse, inclusive, and forward-thinking academic community that anticipates and shapes the future of engineering and technology.

Our faculty, with extensive teaching experience and deep research expertise, are dedicated to addressing real-world problems.

Join us on this transformative journey of lifelong learning and become part of our vibrant, innovative community.

4. School Boards and Committees

4.1 School Advisory Board

The Advisory Board is integral to our strategic academic and developmental objectives, offering guidance on a variety of crucial areas, including:

- Helping identify and establish clear career pathways for our students.
- Advising on policies and practices to maintain alignment with industry standards and educational goals.
- Ensuring our curriculum remains aligned with industry needs and workforce standards.
- Promotion of the programs and services throughout the community and the state.
- Articulation of agreements with other education and training institutions.

- Policies and practices as they relate to industry standards and educational aims.
- Extend their domain expertise to our students/faculty through technology training, project mentoring, invited talks, workshops, seminars etc.
- Provide linkage & connect with industry for student's internships, student recruitment and scholarships.
- advising on opportunities that lead to innovative research directions and partnerships most appropriate for KRMU.
- identifying outreach needs in which engineering has a significant role and fostering connections with entrepreneurial entities.
- Establishing connections with relevant industries for Memorandums of Understanding, consultancy projects, and more.

Following are the members of Board of Advisors:

1. Prof. (Dr.) P. S. Grover, Former-Professor, Dean, Director, and HoD, Delhi University/Former-Director General at GGS Indraprastha University
2. Prof (Dr.) B. Chandra, Adjunct Professor, Indian Institute of Technology, Delhi
3. Dr Sanjeev Kumar Varshney, Former-Head, International Scientific Cooperation, Ministry / Department of Science & Technology, Government of India
4. 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
5. Syed Afzal Murtaza Rizvi, Professor, Department of Computer Science, Jamia Millia Islamia, New Delhi
6. Dr. Kamal Rawal, Head of Department & Professor, Center for Computational Biology and Bioinformatics, Amity University, Noida

7. Usha Jagannathan, Director for AI Products, IEEE, USA
8. Mr. Subhajit Bhattacharya, Associate Vice President, Accenture
9. Rajinder Chitoria, Data Scientist and Director at Froyo Technologies (P) Ltd
10. Mr. Siddhant Verma, Lead (AI, Data Science and BI team)

4.2 Board of Studies

The purpose of the Board of Studies (BoS) is to ensure the quality, relevance, and coherence of academic programs and curricula offered by an educational institution. It plays a key role in shaping and overseeing the development, revision, and implementation of the curriculum for various academic programs.

Following are the members of board of studies

External members

- Prof. (Dr.) Syed Afzal Murtaza Rizvi, Professor, Department of Computer Science, Jamia Millia Islamia, New Delhi
- Prof. (Dr.) Nasib Singh Gill, Professor, Department of Computer Applications, Maharshi Dayanand University, Rohtak

Industry Experts

- Mr. Rajinder Chitoria, Director, Froyo Technologies, Delhi
- Mr. Vishal Jain, Samatrix Consulting Pvt Ltd.

Internal Members

- Dr. Pankaj Agarwal, Dean, SOET (Chairperson)
- Dr. Aman Jatain, Professor, SOET (Member)
- Dr. Shweta Bansal, Associate Professor, SOET (Member)
- Dr. Meenu, Associate Professor, SOET (Member)
- Dr. Swati Gupta, Associate Professor, SOET (Member)
- Dr. Anshu, Associate Professor, SOET (Member)
- Dr. Preeti Rathi, Assistant Professor, SOET (Member)
- Dr. Mr. Ashwin Kumar, Assistant Professor, SOET (Member)

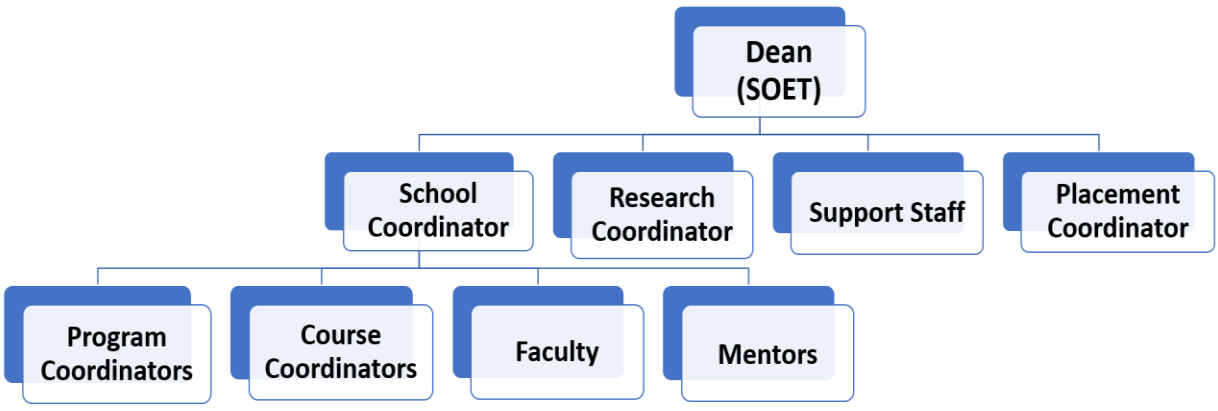
- Vandna Batra, Assistant Professor, SOET (Member)

4.3 School Research Committee

The main purpose of the School Research Committee is to facilitate the progress of PhD scholars by overseeing the allocation of supervisors and ensuring that scholars receive the necessary guidance throughout their research journey. The committee reviews the progress of PhD candidates, providing feedback and support to help them meet their academic goals.

Prof. (Dr.) Pankaj Agarwal	Chairperson
Prof. (Dr.) Aman Jatain	Coordinator, SRC
Dr. Shweta Bansal	Member
Dr. Swati Gupta	Member
Dr. Meenu	Member
Dr. Vandana Batra	Member
Dr. Prabhakar Bhandari	Member
Dr. Surabhi Shankar	Member
Dr. Rakhi Dua	Member
Prof. (Dr.) Hema Chaudhary (SMAS)	External Member
Dr. Kaushal Kumar	Member

4.4 Academic Coordination: Roles and Responsibilities



Dean: Dr. Pankaj Agarwal, Professor

- Provides overall leadership and strategic direction for the School of Engineering and Technology.
- Ensures the implementation of the school's vision and mission, focusing on quality education, innovation, and entrepreneurship.
- Oversees academic programs, faculty development, and resource allocation.
- Enhances collaborations with national and international organizations and institutions.
- Promotes a culture of ethical behavior, lifelong learning, and student success.

School Coordinator: Dr. Shweta Bansal, Associate Professor

- Assists the Dean in coordinating administrative and academic activities within the school.
- Acts as a liaison between faculty, students, and the administration.
- Organizes school events, meetings, and faculty development programs.
- Ensures effective communication and implementation of school policies and procedures.

Program Coordinator:

- Manages specific academic programs (e.g., B.Tech, M.Tech) within the school.
- Oversees curriculum development and ensures alignment with industry standards.
- Monitors program quality and student performance.
- Coordinates with faculty to enhance teaching and learning methodologies.

List of Program Coordinators:

B.Tech CSE	Dr. Manish Kumar, Assistant Professor
B.Tech CSE (AI & ML)	Dr. Meenu, Associate Professor
B.Tech CSE (Data Science)	Dr. Swati Gupta, Associate Professor
B.Tech CSE (FSD)	Dr. Yogita Raghav, Assistant Professor
B.Tech CSE (UI & UX)	Dr. Vandna Batra, Assistant Professor
B.Tech CSE (Cyber Security)	Dr. Aman Jatain, Professor
BCA (AI & Data Science)	Dr. Surabhi Shankar, Assistant Professor
B.Sc (DS/CS/Cyber)	Dr. Saneh Lata, Assistant Professor
MCA	Dr. Preeti Rathi, Assistant Professor

Course Coordinators:

- Responsible for the planning, delivery, and evaluation of specific courses within a program.
- Ensures course content is up-to-date and relevant to current industry trends.
- Provides support to faculty and students in course-related matters.
- Facilitates assessment and feedback processes to improve course effectiveness.

Research Coordinator: Dr. Aman Jaitan

- Promotes and oversees research activities within the school.
- Assists faculty and students in identifying research opportunities and securing funding.
- Coordinates research seminars, workshops, and conferences.
- Ensures compliance with ethical guidelines and research standards.

School Timetable Coordinator: Dr. Preeti Rathi

- Develops and manages the school timetable for classes, labs, and exams.
- Ensures efficient use of resources and facilities.

- Coordinates with faculty to accommodate their availability and teaching preferences.
- Addresses scheduling conflicts and adjusts the timetable as needed.

School Placement Coordinator: Dr. Monika Khatkar

- Leads the school's efforts to enhance student employability and career development.
- Establishes and maintains relationships with industry partners for internships and placements.
- Organizes campus recruitment drives, career fairs, and skill development workshops.
- Provides career counseling and support to students preparing for job interviews and further studies.

5.Faculty and Staff

Faculty Name	Gender	Designation	Domain	Specialization
Dr. Pankaj Agarwal	Male	Professor & Dean	CSE	Data Science, Algorithms
Dr. Shweta Bansal	Female	Associate Professor	CSE	Natural language Processing (NLP)
Dr. Aman Jatain	Female	Professor	CSE	Machine Learning, Data Mining, Software Engineering
Dr. Surendra Kumar Yadav	Male	Associate Professor	ME	Thermal Engg.
Dr. Kaushal Kumar	Male	Associate Professor	ME	Tribology & Materials
Dr. Amar Saraswat	Male	Assistant Professor	CSE	AI
Dr. Prabhakar Bhandari	Male	Assistant Professor	ME	Thermal Engg.
Dr. Meenu	Female	Associate Professor	CSE	Computer Network, Adobe Network, Big Data

Dr. Swati Gupta	Female	Associate Professor	CSE	Big Data, Database
Ms. Jyoti Kataria	Female	Assistant Professor	CSE	Machine Learning, Deep Learning
Ms.Suman	Female	Assistant Professor	CSE	Machine Learning, IOT
Dr.Rupesh Kumar Tipu	Male	Assistant Professor	CE	Structural Engg.
Dr. Vandna Batra	Female	Assistant Professor	CSE	Machine Learning
Ms. Ruchika Bhakhar	Female	Assistant Professor	CSE	Python, Machine learning , data science
Dr. Saneh Lata Yadav	Female	Assistant Professor	CSE	WSN, IoT, Machine Learning
Dr. Surabhi Shanker	Female	Assistant Professor	CSE	Semantic Web, DBMS, E-Commerce
Dr. Preeti Rathi	Female	Assistant Professor	CSE	DBMS, WUM, OS, TOC
Dr. Rakhi Dua	Female	Assistant Professor	ECE	Antenna Designing, Optical Communication
Dr. Appurva Jain	Male	Assistant Professor	ME	NumerIcal Modeling & Simulation, Design Engineering, Robtoics-AI/ML
Ms. Neetu Chauhan	Female	Teaching Associate	CSE	DBMS, AI & ML, Algorithms, Python
Dr. Imran Siraj	Male	Assistant Professor	ME	Manufacturing technology,Robotics,Automation,Automobile Engg
Ms. Lucky Verma	Female	Assistant Professor	CSE	theory of computation, operating system, oops withJava, C++
Dr. Yogita Yashveer Raghav	Female	Assistant Professor	CSE	Cloud Computing ,Programming Languages ,Database Management,Data Structures
Ms. Rishika Mehta	Female	Assistant Professor	CSE	Java, Discrete Mathematics, Database Management Systems,

				Data Structures, Cloud Computing,
Ms. Radhika Gupta	Female	Assistant Professor	CSE	C, JAVA, SQL
Ms. Mansi kajal	Female	Assistant Professor	CSE	ML, DL, CSE, Python
Dr. Reenu	Female	Assistant Professor	CSE	Java, Data Structure, Operating Systems, Artificial Intelligence, machine Learnin
Ms.Megha Sharma	Female	Assistant Professor	CSE	DBMS, Operating Systems,
Dr. Aarti	Female	Assistant Professor	CSE	Data Structures, C Programming, C++, Cyber Security,
Dr. Anshu	Female	Associate Professor	CSE	Discrete Maths,Data Structures,Image Processing,Statistical analysis,
Dr.Ayyala kishore ajay kumar	Male	Assistant Professor	ECE	electronic Devices Cirucits, Digital System,Antennas and wave progpagation, Signals and system, Digital Signal Processing
Ms. Kriti Sharma	Female	Assistant Professor	CSE	Blockcahin, Compute Networks, Cryptography, Data Structures and Algorithms
Dr. Manish Kumar	Male	Assistant Professor	CSE	Python,R, Java, Machine learning , data science
Dr. Ravinder Beniwal	Male	Assistant Professor	CSE	C,C++,Data Structure,Operating System,Computer Network,Cloud Computing,DBMS
Dr.Digvijay Singh	Male	Assistant Professor	EEE	BIPV, Solar PV & Thermal, Renewable Energy technologies
Dr. Monika Khatkar	Female	Assistant Professor	CSE	Deep Neural network, Data Science, IOT Security
Dr. Shahjad	Male	Assistant Professor	CSE	Data structure & algorithms , OS, TOC , Python , Compiler

Mr. Vishwanil Suman	Male	Assistant Professor	CSE	Programming Languages , DBMS , CN
Mr. Mohammad Aijaz	Male	Assistant Professor	CSE	Data Structure & Algorithm , DBMS , Python and NLP
Mr. Deepak Kaushik	Male	Assistant Professor	CSE	Data Structure & Algorithm , DBMS , Python and NLP
Dr. Amit Kumar Sah	Male	Assistant Professor	CSE	AI&ML
Ms. Jyoti Kaurav	Female	Assistant Professor	CSE	AI&ML, IOT, Computer Networks
Ms. Ritu Devi	Female	Assistant Professor	CSE	Computer Vision, Machine Deep Learning
Ms. Jyoti Yadav	Female	Assistant Professor	CSE	Cybersecurity
Mr. Gaurav	Male	Assistant Professor	ME	Industry 4.0
Mr. Rajesh Kumar	Male	Assistant Professor	CSE	Computer network,Cyber security,Blockchain,IOT, Machine Learning
Ms. Iflah Aijaz	Female	Assistant Professor	CSE	Cyber security,Blockchain,IOT
Dr. Sameer Farooq	Male	Assistant Professor	CSE	ML,Cyber Security,Cloud Computing
Dr. Feroz Ahmed	Male	Assistant Professor	CSE	CSE
Mr. Saurabh Sachan	Male	Assistant Professor	ME	Robotics and AI
Dr. Rupendra Pratap Singh	Male	Assistant Professor	CSE	Wireless Sensor Networks (WSN), Machine Learning, IoT, and Edge Computing
Ms. Swati Jain Kansal	Female	Assistant Professor	CSE	NLP(Natural Language processing)
Ms. Neha kaushik	Female	Assistant Professor	CSE	Software Architecture,Microservice
MS. Alina Banerjee	Female	Assistant Professor	CSE	Machine Learning
Mr. Aryan Sharma	Male	Assistant Professor	CSE	Programming in Python/C++,Data structure,Deep learning
Ms. Megha	Female	Assistant Professor	CSE	Data Structure, Algorithm design,

				Operating System, Compiler design

Technical Trainer

Abhishek Kumar Singh	Male	DSA
Suman Kumar Das	Male	DSA, Java Programming
Rajesh Kumar Gupta	Male	DSA
Pratik Raj Verma	Male	MERN Stack Trainer
Mr. Nandan Kumar Mishra	Male	MERN Stack Trainer
Mr. Bhavesh Badani	Male	DSA
Mr. Ashutosh Dubey	Male	DSA
Mr. Devendra Kumar Gupta	Male	DSA

6. School Infrastructure (Physical and learning):

The School of Engineering and Technology (SOET) at K.R. Mangalam University offers a comprehensive range of teaching and learning resources, meticulously designed to enhance the academic experience and prepare students for professional success in the evolving technological landscape.

The school boasts state-of-the-art infrastructure, including 19 advanced computer labs equipped with 866 cutting-edge computing systems, all supported by screen panels or projectors and running on the latest Windows 10/11 operating systems. With a student-to-computer ratio of 1:3.3 and seamless connectivity provided by Airtel, students benefit from an individualized and efficient learning environment. Specialized labs, such as the iOS Lab, Robotics Labs, Electrical & Electronics Labs, AI Lab, Phoenix Drone Flying Centre (an industry-sponsored lab), and Centers of Excellence for Robotics, Automation, and Artificial Intelligence, provide hands-on,

experiential learning opportunities. Additionally, a fully equipped workshop facility complements the practical training offerings.

SOET also prioritizes comprehensive library resources, featuring 6,229 books in the central library and an additional 324 in the school library. The school provides access to 7 print journals, IEEE (EBSCO) e-journals, and cutting-edge plagiarism detection tools like Turnitin and Drill Bit, ensuring academic rigor and integrity. The school further supports student learning with a repository of 63 recorded video lectures by faculty members and 49 classrooms equipped with modern teaching aids to foster an engaging educational environment.

To further enhance professional preparedness, SOET is a Certiport Authorized Testing Center, enabling students to achieve globally recognized certifications from industry leaders like Microsoft, CISCO, Pearson, and Meta. The Learning Management System (LMS), powered by Moodle, streamlines coursework and assignment management, while the integration of virtual labs and Massive Open Online Courses (MOOCs) enables flexible and technology-driven learning. Industry-sponsored labs and Centers of Excellence provide students with practical exposure and opportunities to hone their technical skills.

The curriculum at SOET is thoughtfully aligned with Bloom’s Taxonomy, ensuring a holistic approach to cognitive, social, and ethical development. Continuous feedback from industry experts, alumni, faculty, and students ensures that the curriculum remains relevant, forward-thinking, and aligned with contemporary academic and industry standards.

With its commitment to innovation, academic excellence, and professional readiness, the School of Engineering and Technology empowers students to excel in academics and thrive in their careers, equipping them with the knowledge, skills, and ethical values required to lead in the dynamic world of engineering and technology.

7.Best Practices

Best Practice 1: Holistic Sustainable Learning through Social Connect

The School of Engineering and Technology (SOET) at K.R. Mangalam University is dedicated to fostering holistic and sustainable learning by aligning its initiatives with the United Nations' Sustainable Development Goals (SDGs).

Through innovative approaches and a strong emphasis on social connect, SOET exemplifies best practices in engineering education. Key achievements include 30 impactful school activities, 21 published journals, 10 scholarly books, 40 patents, 34 published book chapters, and 21 conference presentations, all contributing to sustainable development. The curriculum integrates SDG principles, offering 8 courses on Quality Education (SDG 4), 16 courses on Industry, Innovation, and Infrastructure (SDG 9), 3 courses on Decent Work and Economic Growth (SDG 8), 9 courses on Peace, Justice, and Strong Institutions (SDG 16), 1 course each on Climate Action (SDG 13), Sustainable Cities and Communities (SDG 11), No Poverty (SDG 1), and Reduced Inequalities (SDG 10). These initiatives showcase the school's commitment to addressing global challenges and preparing students to contribute effectively to a sustainable future. By integrating experiential learning, research, and community engagement, SOET fosters innovation and equips students to be socially responsible global citizens, ready to shape a sustainable and equitable world.

Best Practice 2: Nurturing Eco-Conscious Behavior: Taking steps towards Environment Sustainability

The School of Engineering and Technology (SOET) at K.R. Mangalam University is committed to fostering eco-conscious behavior and taking decisive steps toward environmental sustainability. As part of its academic initiatives, the school offers a two-credit course on Environmental Studies and Disaster Management, ensuring students are equipped with the knowledge and skills to address critical environmental challenges. The school's dedication to sustainability is further reflected in its scholarly output, with 17 journal publications, 9 conference papers, and 7 patents focused on environmental sustainability.

To enhance practical learning, SOET offers two-credit Value-Added Courses (VACs) on topics such as Renewable Energy Systems, Automation and Industry 4.0, Sustainable Development, Practical Robotics and UAV Applications, and Applied Automotive Engineering with hands-on practices. Notable projects include an E-Waste Management initiative led by Dr. Rishabh Arora, which underscores the school's commitment to addressing global environmental concerns.

Environmental sustainability is also an integral part of the school's activity calendar, with various initiatives and events designed to engage students and

faculty in sustainable practices. By embedding environmental consciousness into its curriculum, research, and extracurricular activities, SOET prepares students to be proactive and responsible contributors to a sustainable future.

8. School Education Philosophy

The School of Engineering and Technology at K.R. Mangalam University embraces a holistic education philosophy that integrates cognitive, affective, and psychomotor domains to prepare students for professional success and personal growth. Rooted in the purpose of education, the school focuses on enabling students to "learn to earn a living" by equipping them with the necessary knowledge and skills, and "learn to live" by fostering emotional, ethical, social, and personal dimensions. The cognitive domain emphasizes conceptual understanding, critical thinking, problem-solving, and the application of theoretical concepts. The affective domain prioritizes attitude development, values, ethics, emotional intelligence, teamwork, leadership, and lifelong learning. The psychomotor domain ensures students gain practical skills, hands-on experience, and proficiency in tool usage, prototyping, and building hardware-software integrated systems. Employing an outcome-based education (OBE) approach, the school focuses on employability, project-enabled learning, and industry-relevant skill development, both within and beyond the classroom, ensuring students are well-prepared for the dynamic challenges of the engineering and technology sectors.

9. Educational Pedagogy (Inside and outside classroom)

The School of Engineering and Technology at K.R. Mangalam University is committed to fostering a student-centric learning environment that integrates dynamic classroom experiences with enriching outside-classroom activities. This approach ensures holistic development, empowering students with the skills and knowledge needed to excel in the modern technological landscape.

Inside Classroom Learning

Inside Classroom Learning focuses on interactive and collaborative strategies to maximize engagement and understanding. Standard teaching materials like PPTs and PDFs, combined with lab assignments, problem-based class activities, and tutorial sessions, provide a robust foundation for conceptual

clarity. Hands-on activities, project-based learning, and collaborative learning foster critical thinking and teamwork. Additionally, skill development workshops and value-added sessions equip students with industry-relevant expertise, while student presentations nurture communication and leadership abilities.

Outside Classroom Learning

Outside Classroom Learning extends the educational experience beyond traditional boundaries, offering opportunities for real-world exposure and personal growth. Internships, industrial training, and project contests like hackathons allow students to apply their skills in practical scenarios. Workshops, seminars, and extension activities keep students abreast of emerging trends, while entrepreneurship and start-up programs encourage innovation. Peer teaching, tutoring, and community engagement initiatives build interpersonal skills and a sense of social responsibility. The integration of career mentoring, co-curricular activities, and self-enabled learning platforms like MOOCs ensures that students are prepared for both academic and professional success.

Through its student-centric learning approach, the school seamlessly combines theoretical knowledge, practical application, and personal development, preparing students to become adaptive, innovative, and socially responsible leaders in the ever-evolving fields of engineering and technology.

10. Assessment and Evaluation

The grading and evaluation policies for theory courses, practical courses, projects, internships, and dissertations are detailed for each course individually.

- **Feedback and Continuous Improvement Mechanisms**: Continuous feedback is an integral part of the learning process. Faculty members actively monitor student learning during every class session to identify areas for improvement and provide timely support.
- **Academic Integrity and Ethics**: Upholding academic integrity is a fundamental principle of the learning process. All student submissions are rigorously checked for plagiarism using Turnitin and Drill Bit

software. Submissions are required to have a similarity index below 10% to ensure originality and adherence to ethical standards.

Evaluation Scheme (Theory):

Evaluation Components	Weightage
Internal Marks (Theory & Lab) Continuous Assessment (40 Marks) Project/ Quizzes/ Assignments and Essays/ Presentations/ Participation/ Case Studies/ Reflective Journals (minimum of five components to be evaluated)	40 Marks
Internal Marks (Theory) – Mid Term Exam	20 Marks
External Marks (Theory): -	40 Marks
Total	100 Marks

*Note: (It is compulsory for a student to secure 40% marks in Internal and End Term Examination separately to secure minimum passing grade).

Evaluation Scheme (Laboratory):

Evaluation Components	Weightage
Internal Marks (Practical) –	
1. Conduct of Experiment	10 Marks
2. Lab Records	10 Marks
3. Lab Participation	10 Marks
4. Lab Project	20 Marks
External Marks (Practical): - End term Practical Exam and Viva Voce	50 Marks
Total	100 Marks

*Note: (It is compulsory for a student to secure 40% marks in Internal and End Term Practical Exam and Viva Voce separately to secure minimum passing grade).

11. Collaborations

The School of Engineering & Technology places a strong emphasis on forging robust partnerships with leading industry organizations to bridge the gap between academia and real-world applications. These collaborations are pivotal in aligning academic curricula with the dynamic needs of the industry, ensuring that students gain practical knowledge, hands-on experience, and exposure to cutting-edge technologies.

Through partnerships with renowned organizations such as IBM, Imagin XP, EC Council, Bitxyl Pvt Limited, NASSCOM, Certiport, CDAC, and Froyo Technologies, the school integrates industry expertise into its programs. These collaborations bring industry professionals to classrooms, offering students insights into real-world challenges, mentorship, and opportunities to earn globally recognized certifications. Additionally, students benefit from skill development programs, internships, and specialized training, making them industry-ready.

By fostering these alliances, the School of Engineering & Technology not only enhances the learning experience but also equips students with the competencies and credentials necessary to excel in competitive job markets. This synergy between academia and industry drives innovation, cultivates talent, and prepares future-ready professionals who can contribute meaningfully to the evolving technological landscape.

12. Program Educational Objectives, Program Outcomes

Undergraduate programs

PEOs

PEO1: Successful professionals in industry, government, academia, research, entrepreneurial pursuits and consulting firms.

PEO2: Able to apply their knowledge of computer science & engineering principles to solve societal problems by exhibiting a strong foundation in both theoretical and practical aspects of the field.

PEO3: Dedicated to upholding professional ethics and social responsibilities, with a strong commitment to advancing sustainability goals.

PEO4: Demonstrating strong leadership skills and a proven ability to collaborate effectively in diverse, multidisciplinary teams to successfully achieve project objectives.

Program outcomes (POs) for B.Tech (All Specializations)

Engineering Graduates will be able to:

PO1. Core Competencies in Engineering:

Graduates will possess a strong foundation in engineering knowledge, critical problem analysis, and solution design, equipped with skills for conducting thorough investigations to solve complex challenges.

PO2. Modern tool usage:

Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO3. Societal and Environmental Responsibility

Apply contextual knowledge to evaluate societal, health, safety, legal, and cultural issues, while understanding the impact of engineering solutions on the environment and advocating for sustainable development.

PO4. Ethics:

Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO5. Effective Communication and Team Collaboration

Excel in both individual and team roles within diverse and multidisciplinary settings, while communicating complex engineering concepts clearly through effective reports, presentations, and interactions.

PO6. Project management

Apply engineering and management principles to lead and manage projects effectively in computer science and engineering contexts.

PO7. Life-long learning:

Embrace and actively pursue continuous learning to stay current with technological advancements and evolving practices in computer science and engineering.

Program Outcomes (POs) for BCA/B.SC Programs

Graduates will be able to:

PO1. Core Competencies: Graduates will possess a strong foundation in computer science principles, critical problem analysis, and solution design, equipped with skills for conducting thorough investigations to solve complex challenges.

PO2. **Modern tool usage**: Create, select, and apply appropriate techniques, resources, and modern IT tools including prediction and modeling to complex computer science activities with an understanding of the limitations.

PO3. Societal and Environmental Responsibility

Apply contextual knowledge to evaluate societal, health, safety, legal, and cultural issues, while understanding the impact of engineering solutions on the environment and advocating for sustainable development.

PO4. **Ethics**: Apply ethical principles and commit to professional ethics and responsibilities and norms of the computer science practice.

PO5. **Effective Communication and Team Collaboration**

Excel in both individual and team roles within diverse and multidisciplinary settings, while communicating complex computer science concepts clearly through effective reports, presentations, and interactions.

PO6. Project management

Apply engineering and management principles to lead and manage projects effectively in computer science contexts.

PO7. Life-long learning: Embrace and actively pursue continuous learning to stay current with technological advancements and evolving practices in computer science.

Program Educational Objectives for Master's in Computer Application (MCA)

PEO1: Achieve success in industry, government, academia, research, entrepreneurship, or consulting roles related to computer applications.

PEO2: Apply advanced computer application principles and methodologies to solve real-world problems, integrating theoretical knowledge with practical skills.

PEO3: Uphold professional ethics and social responsibilities, contributing to societal well-being and sustainability through the effective use of technology.

PEO4: Exhibit leadership and teamwork skills to effectively manage and collaborate in diverse, multidisciplinary projects within the field of computer applications.

POs (Program Outcomes) for MCA

1. PO1. Core Competencies in Computer Applications: Demonstrate a solid foundation in computer application principles, critical problem analysis, and solution design, with the ability to conduct thorough investigations and address complex technical challenges.
2. PO2. Modern Tool Usage: Create, select, and apply advanced techniques, resources, and IT tools for complex computer application tasks, with an understanding of their limitations and applications.

3. PO3. Societal and Environmental Responsibility: Evaluate and address societal, health, safety, legal, and cultural issues related to computing, considering the environmental impact of solutions and advocating for sustainable practices.
4. PO4. Ethics: Apply ethical principles and adhere to professional ethics and norms in the practice of computer applications.
5. PO5. Effective Communication and Team Collaboration: Excel in both individual and team roles in diverse and multidisciplinary environments, effectively communicating complex computer application concepts through reports, presentations, and interactions.
6. PO6. Project Management: Utilize management principles to lead and manage projects effectively within computer applications contexts.
7. PO7. Life-Long Learning: Engage in continuous learning to stay updated with technological advancements and evolving practices in computer applications.

12. Programmes Offered by the School

Category	Program Name
Under Graduate	Bachelor of Technology - Computer Science & Engineering
Under Graduate	Bachelor of Technology - Computer Science & Engineering (**Artificial Intelligence & Machine Learning**)
Under Graduate	Bachelor of Technology - Computer Science & Engineering (**Cyber Security**)
Under Graduate	Bachelor of Technology - Computer Science & Engineering (**Data Science**)
Under Graduate	Bachelor of Technology - Computer Science & Engineering (**UX OR UI**)
Under Graduate	Bachelor of Technology - Computer Science & Engineering (**Full Stack Development**)
Under Graduate	Bachelor of Technology - Computer Science & Engineering (**AI & Robotics**)
Under Graduate	Bachelor of Computer Applications - (Artificial Intelligence & Data Science)

Under Graduate	Bachelor of Computer Applications - (Cyber Security)
Under Graduate	Bachelor of Science (Hons) - **Computer Science/Cyber Security/Data Science**
Post Graduate	Master of Computer Applications(Core)
Post Graduate	Master of Computer Applications (AI & ML)
Doctoral	Ph.D in Engineering

12.1 Bachelor of Technology - Computer Science & Engineering

Program Overview

The Bachelor of Technology (B.Tech) in Computer Science and Engineering (CSE) is a comprehensive four-year undergraduate program that provides students with a strong foundation in computer science, engineering principles, and emerging technologies. The curriculum balances core subjects such as programming, algorithms, data structures, and software engineering with hands-on labs, industry-oriented projects, and internships to ensure practical exposure and real-world readiness. With a focus on cutting-edge technologies like artificial intelligence, machine learning, blockchain, and cybersecurity, the program equips students to meet the evolving demands of the tech industry while fostering research, innovation, and problem-solving skills for diverse career opportunities.

Duration

4 Years Full Time (8 Semesters)

Career Options

The B.Tech in Computer Science and Engineering (CSE) program opens doors to diverse and rewarding career paths in the ever-evolving tech industry. Graduates are equipped to excel in core technology roles like software development, web development, and system analysis, as well as in emerging fields such as artificial intelligence, data science, blockchain, and cloud computing. Opportunities also extend to specialized areas like cybersecurity,

network engineering, and robotics, alongside managerial and consultancy positions. With the skills and knowledge acquired, graduates are well-prepared to pursue advanced studies, launch entrepreneurial ventures, or contribute to cutting-edge research and innovation.

Specific Job Roles:

- Core Technology Roles: Software Developer, System Analyst, Web Developer, Database Administrator.
- Emerging Technology Roles: Data Scientist, AI/ML Engineer, Blockchain Developer, Cloud Computing Specialist.
- Network and Security Roles: Cybersecurity Analyst, Network Engineer.
- Research and Development: Research Scientist, Robotics Engineer.
- Managerial and Consultancy: IT Consultant, Project Manager.
- Entrepreneurship: Startup Founder, Tech Entrepreneur.
- Higher Education: Academic/Teaching Roles, Specialized Certifications in areas like Ethical Hacking or IoT.

Program Specific Outcomes (PSO)

On completion of the program, students will be:

PSO1: Understanding the concepts, theories, tools, techniques, and methodologies of Computer Science & Engineering.

PSO2: Applying the concepts, theories, tools, techniques, and methodologies to solve real-world Computer Science & Engineering challenges.

PSO3: Analyzing the methodologies context, problems, situations and issues related to Computer Science & Engineering.

PSO4: Evaluating the possible alternative solutions and making choices/decisions to solve problems in Computer Science & Engineering.

PSO5: Designing and developing innovative solutions to address complex problems in Computer Science & Engineering.

12.2 Bachelor of Technology (B.Tech) in Computer Science and Engineering with a specialization in Artificial Intelligence and Machine Learning (AI & ML)

Program Overview

The Bachelor of Technology (B.Tech) in Computer Science and Engineering with a specialization in Artificial Intelligence and Machine Learning (AI & ML) is a cutting-edge four-year undergraduate program designed to meet the growing demand for AI-driven technologies. This program offers a deep focus on AI and ML concepts, tools, and applications while providing a solid foundation in computer science and engineering principles. The curriculum includes key topics such as deep learning, natural language processing, computer vision, reinforcement learning, and data analytics, alongside core subjects like programming, algorithms, and software engineering.

Students gain hands-on experience through labs, industry projects, and internships that emphasize real-world applications of AI and ML. The program fosters innovation, problem-solving skills, and research acumen, preparing graduates to address complex challenges in industries ranging from healthcare and finance to robotics and autonomous systems.

Duration

4 Years Full Time (8 Semesters)

Career Options

The B.Tech in CSE with a specialization in AI & ML opens a plethora of career opportunities in AI-powered industries. Graduates are equipped with skills to excel in advanced AI/ML roles, core technology positions, and research-driven domains. They are also well-positioned to contribute to innovation, entrepreneurship, or further academic pursuits in AI-related fields.

Specific Job Roles:

- **AI & ML Specialization Roles**: AI/ML Engineer, Data Scientist, NLP Specialist, Computer Vision Engineer, Reinforcement Learning Expert.
- **Core Technology Roles**: Software Developer, System Analyst, Database Administrator.
- **Emerging Technology Roles**: Cloud AI Specialist, Edge Computing Developer.
- **Research and Development**: AI Research Scientist, Robotics Engineer (AI-Driven), Autonomous Systems Developer.

- **Managerial and Consultancy**: AI Consultant, AI Product Manager.
- **Entrepreneurship**: AI Startup Founder, Machine Learning Solutions Architect.
- **Higher Education**: Academic/Teaching Roles, Advanced Certifications in AI & ML, Data Science, or related fields.

Program Specific Outcomes (PSO)

On completion of the program, students will be:

PSO1: Understanding the foundational concepts, theories, tools, techniques, and methodologies specific to Artificial Intelligence and Machine Learning within the broader field of Computer Science & Engineering.

PSO2: Applying AI and ML principles, tools, and techniques to design, develop, and implement intelligent systems that address real-world challenges.

PSO3: Analysing complex datasets, models, and algorithms to identify patterns, trends, and insights pertinent to AI and ML applications in various domains.

PSO4: Evaluating the performance, accuracy, and efficiency of AI and ML models, and making informed decisions to optimize and improve these models for practical applications.

PSO5: Designing and developing innovative AI and ML-based solutions that leverage cutting-edge technologies to solve complex problems.

12.3 Bachelor of Technology - Computer Science & Engineering (Cyber Security)

Program Overview

The Bachelor of Technology (B.Tech) in Computer Science and Engineering with a specialization in Cyber Security is a four-year undergraduate program designed to address the growing need for skilled professionals in safeguarding digital assets. This program provides a robust foundation in computer science and engineering principles, with a specialized focus on cybersecurity concepts, tools, and practices.

The curriculum encompasses key topics such as ethical hacking, cryptography, network security, malware analysis, digital forensics, and secure software development. Core computer science subjects like programming, algorithms, and data structures complement the specialized courses. Students gain practical experience through state-of-the-art labs, real-world projects, and industry-aligned internships, equipping them to identify, prevent, and mitigate cyber threats effectively.

Duration

4 Years Full Time (8 Semesters)

Career Options

The B.Tech in CSE with a specialization in Cyber Security prepares graduates for a range of in-demand roles in cybersecurity and related domains. With expertise in securing digital environments, graduates are well-equipped to excel in government, private, and multinational organizations, as well as pursue research or entrepreneurial ventures in the cybersecurity domain**.**

Specific Job Roles:

- Cyber Security Roles: Cybersecurity Analyst, Ethical Hacker, Penetration Tester, Incident Responder, Cyber Forensic Expert, Security Operations Center (SOC) Analyst.
- Core Technology Roles: Software Developer, System Analyst, Network Administrator.
- Advanced Security Roles: Cryptographer, Malware Analyst, Threat Intelligence Specialist, Cloud Security Engineer.
- Research and Development: Cybersecurity Researcher, Secure Systems Architect, AI in Cybersecurity Specialist.
- Managerial and Consultancy: Security Consultant, Information Security Manager, Compliance Analyst.

- Entrepreneurship: Cybersecurity Startup Founder, Security Solutions Architect.
- Higher Education: Academic/Teaching Roles, Advanced Certifications in Cybersecurity (e.g., CISSP, CEH, CISM).

Program-Specific Outcomes (PSOs) for B.Tech CSE with Specialization in Cyber Security

On completion of the program, students will be:

- **PSO1**: Understanding the fundamental concepts, principles, tools, and techniques in Cyber Security, including cryptography, ethical hacking, and secure software development.
- **PSO2**: Applying Cyber Security methodologies to identify, assess, and mitigate security vulnerabilities and threats in real-world systems.
- **PSO3**: Analyzing cybersecurity challenges, such as malware threats, network intrusions, and data breaches, to propose effective countermeasures.
- **PSO4**: Evaluating alternative security frameworks, tools, and practices to optimize system security and compliance with global standards.
- **PSO5**: Designing and implementing robust and innovative cybersecurity solutions to address complex security problems in diverse environments.

12.4 Bachelor of Technology - Computer Science & Engineering (Data Science Specialization)

Program Overview

The Bachelor of Technology (B.Tech) in Computer Science and Engineering with a specialization in Data Science is a four-year undergraduate program designed to cater to the growing need for skilled professionals in data-driven decision-making and analytics. This program focuses on key areas such as data mining, statistical modeling, big data technologies, machine learning, and data visualization while providing a strong foundation in computer science and engineering principles.

The curriculum integrates essential topics like algorithms, programming, and database management with advanced data science subjects, including predictive analytics, natural language processing, and deep learning. Students gain practical exposure through hands-on labs, industry projects, and internships, enabling them to solve real-world problems in various domains such as finance, healthcare, e-commerce, and marketing. The program emphasizes research, problem-solving, and innovation, preparing graduates for dynamic and evolving careers in data science.

Duration

4 Years Full Time (8 Semesters)

Career Options

The B.Tech in CSE with a specialization in Data Science offers a wide range of career opportunities in data-driven industries. Graduates are equipped with the skills and knowledge to excel in advanced data science roles, core technology positions, and research-oriented careers.

Specific Job Roles:

- **Data Science Specialization Roles**: Data Scientist, Data Analyst, Big Data Engineer, Machine Learning Engineer, Business Intelligence Analyst.
- **Core Technology Roles**: Software Developer, System Analyst, Database Administrator.
- **Emerging Technology Roles**: Cloud Data Engineer, IoT Data Analyst.
- **Research and Development**: Data Research Scientist, AI in Data Analytics Specialist.
- **Managerial and Consultancy**: Data Consultant, Data Product Manager.
- **Entrepreneurship**: Data Solutions Startup Founder, Analytics Solutions Architect.
- **Higher Education**: Academic/Teaching Roles, Advanced Certifications in Data Science, Machine Learning, or Big Data Technologies.

PSO's for B. Tech. CSE with Specialization in Data Science

PSO1: Understanding the concepts, theories, tools, techniques, and methodologies of Data Science.

PSO2: Applying Data Science principles to analyse and solve real-world data-driven challenges.

PSO3: Analysing data sets, methodologies, and algorithms to extract meaningful insights.

PSO4: Evaluating data models and analytical methods to optimize performance.

PSO5: Designing and developing innovative data-driven solutions to address complex problems.

12.5 Bachelor of Technology - Computer Science & Engineering with specialization in UX / UI

Program Overview

The Bachelor of Technology (B.Tech) in Computer Science and Engineering with a specialization in User Experience (UX) and User Interface (UI) Design is a four-year undergraduate program designed to address the increasing demand for professionals skilled in creating intuitive and user-centric digital experiences. This program combines the principles of computer science, design thinking, and human-computer interaction to equip students with the expertise needed to design, develop, and optimize user interfaces and experiences across platforms.

The curriculum includes core computer science topics such as programming, algorithms, and software engineering, alongside specialized subjects like interaction design, usability testing, design psychology, prototyping, and front-end development. Students gain hands-on experience through design studios, labs, industry-oriented projects, and internships, fostering innovation and problem-solving skills. Graduates of this program are well-prepared to design impactful and accessible digital products that enhance user satisfaction and engagement.

Duration

4 Years Full Time (8 Semesters)

Career Options

The B.Tech in CSE with a specialization in UX/UI offers diverse career opportunities in tech-driven industries. Graduates are equipped to excel in roles that focus on crafting user-friendly digital products and interfaces, contributing to innovation and business success.

Specific Job Roles:

- UX/UI Design Roles: UX Designer, UI Designer, Interaction Designer, Visual Designer, Information Architect.
- Development Roles: Front-End Developer, UX Engineer, Web Designer.
- Research and Analysis Roles: UX Researcher, Usability Analyst, Design Strategist.
- Emerging Technology Roles: AR/VR Experience Designer, Product Designer (UI/UX for IoT).
- Managerial and Consultancy: UX/UI Consultant, Design Product Manager.
- Entrepreneurship: Digital Product Startup Founder, Design Solutions Architect.
- Higher Education: Academic/Teaching Roles, Advanced Certifications in UX/UI Design, Interaction Design, or Human-Computer Interaction.

12.6 Bachelor of Technology - Computer Science & Engineering (Full Stack Development Specialization)

Program Overview

The Bachelor of Technology (B.Tech) in Computer Science and Engineering with a specialization in Full Stack Development is a four-year undergraduate program tailored to meet the demand for skilled professionals proficient in end-to-end application development. This program emphasizes the integration

of front-end and back-end development skills, equipping students to design, develop, and deploy scalable and efficient web and mobile applications.

The curriculum combines foundational computer science topics such as programming, algorithms, and database management with specialized courses in front-end technologies (HTML, CSS, JavaScript frameworks), back-end frameworks (Node.js, Django, Spring), APIs, cloud integration, and DevOps. Students gain practical experience through coding labs, industry projects, and internships, fostering a strong understanding of the entire development lifecycle. The program prepares graduates to address real-world challenges and deliver robust, user-friendly solutions in diverse industries.

Duration

4 Years Full Time (8 Semesters)

Career Options

The B.Tech in CSE with a specialization in Full Stack Development offers a wide range of career opportunities in the software development industry. Graduates are well-equipped to take on roles requiring comprehensive knowledge of full-stack technologies and modern development practices.

Specific Job Roles:

- **Full Stack Development Roles**: Full Stack Developer, Front-End Developer, Back-End Developer, Web Application Developer.
- **Core Technology Roles**: Software Engineer, System Analyst, Database Administrator.
- **Emerging Technology Roles**: Cloud Application Developer, DevOps Engineer.
- **Research and Development**: Software Solutions Architect, Automation Engineer.
- **Managerial and Consultancy**: Technical Project Manager, IT Consultant.
- **Entrepreneurship**: Application Development Startup Founder, SaaS Solutions Architect.
- **Higher Education**: Academic/Teaching Roles, Advanced Certifications in Full Stack Development, Cloud Computing, or DevOps.

12.7 Bachelor of Technology - Computer Science & Engineering (AI & Robotics Specialization)

Program Overview

The **B.Tech CSE (Artificial Intelligence & Robotics)** program is designed to equip students with cutting-edge skills in intelligent systems, autonomous machines, and next-generation computing. This specialization blends the core foundations of **computer science, machine learning, deep learning, and embedded systems** with practical expertise in **robotics, computer vision, and natural language processing**.

Students gain hands-on experience through **industry-driven projects, robotics labs, and AI simulation platforms**, preparing them to design, program, and deploy autonomous systems for real-world applications such as **smart manufacturing, healthcare robotics, drones, and autonomous vehicles**. The curriculum is closely aligned with industry needs and global certifications, ensuring students are **future-ready for careers in AI engineering, robotics development, research, and automation industries**.

Duration

4 Years Full Time (8 Semesters)

Career Options and Avenues in AI & Robotics

Graduates of B.Tech in Computer Science & Engineering (AI & Robotics Specialization) have a wide spectrum of career opportunities across industries that are rapidly adopting automation and intelligent technologies. The demand for professionals skilled in AI algorithms, robotics engineering, machine learning, and intelligent automation is growing across the globe.

Key Career Roles:

- AI Engineer / Machine Learning Engineer – Designing and deploying AI solutions for predictive analytics, decision-making, and automation.
- Robotics Engineer – Developing autonomous robots for manufacturing, healthcare, defense, and service industries.

- Computer Vision Engineer – Building intelligent vision systems for drones, autonomous vehicles, and surveillance.
- Data Scientist / AI Researcher – Applying deep learning and data-driven methods to solve complex problems.
- Automation Specialist / IoT Engineer – Integrating robotics with IoT and smart devices for industrial applications.
- Human-Robot Interaction Designer – Enhancing usability and communication between humans and intelligent machines.

Industry Avenues:

- Manufacturing & Industry 4.0 – Robotics for assembly lines, predictive maintenance, and smart factories.
- Healthcare & Medical Robotics – AI-powered diagnostics, robotic surgery, and assistive devices.
- Autonomous Systems – Drones, self-driving cars, and intelligent transport systems.
- Defense & Aerospace – Robotics for surveillance, unmanned vehicles, and mission-critical operations.
- Service & Consumer Robotics – Domestic robots, AI assistants, and customer service automation.
- Research & Innovation – Opportunities in global research labs, R&D centers, and higher studies in AI, Robotics, and Automation.

12.8 Bachelor of Computer Applications (BCA) - Artificial Intelligence & Data Science Specialization

Program Overview

The Bachelor of Computer Applications (BCA) with a specialization in Artificial Intelligence (AI) and Data Science is a three-year undergraduate program designed to equip students with the knowledge and skills required to thrive in AI and data-driven industries. The program focuses on foundational computer applications concepts while integrating specialized topics in AI and Data

Science, such as machine learning, data analytics, natural language processing, predictive modeling, and big data technologies.

The curriculum emphasizes practical learning through coding, AI model development, data visualization, and hands-on labs. Industry-oriented projects and internships provide students with exposure to real-world applications, fostering innovation, problem-solving skills, and critical thinking. Graduates are well-prepared to tackle challenges in diverse domains, from healthcare and finance to e-commerce and technology startups.

Duration

3 Years Full Time (6 Semesters)

Career Options

The BCA in AI & Data Science offers exciting career opportunities in cutting-edge industries where data and AI play a transformative role. Graduates are equipped to take on roles that require expertise in AI technologies and data-driven decision-making.

Specific Job Roles:

- **AI & Data Science Roles**: Data Scientist, AI/ML Developer, Data Analyst, Business Intelligence Analyst, NLP Specialist.
- **Core Technology Roles**: Software Developer, System Analyst, Database Administrator.
- **Emerging Technology Roles**: Big Data Engineer, Cloud Data Analyst.
- **Research and Development**: AI Research Assistant, Data-Driven Application Developer.
- **Managerial and Consultancy**: Data Consultant, AI Solutions Analyst.
- **Entrepreneurship**: AI Startup Founder, Analytics Solutions Architect.
- **Higher Education**: Academic/Teaching Roles, Advanced Certifications in AI, Data Science, or Big Data Technologies.

12.8 Bachelor of Science (Hons) - Computer Science / Cyber Security / Data Science

Program Overview

The Bachelor of Science (Hons) program in Computer Science, Cyber Security, and Data Science is a three-year undergraduate degree designed to equip students with a comprehensive understanding of foundational and advanced concepts across these dynamic domains. The program offers an interdisciplinary curriculum that integrates core computer science principles with specialized knowledge in cybersecurity and data science, preparing students for diverse and in-demand career paths.

The curriculum includes essential topics like programming, algorithms, and software engineering alongside specialized subjects such as ethical hacking, network security, cryptography, data analytics, machine learning, and big data technologies. Hands-on labs, industry projects, and internships enable students to apply their learning in real-world scenarios, fostering critical thinking, problem-solving, and innovation. The program's holistic approach ensures students are well-prepared to address the challenges of rapidly evolving technology landscapes in a variety of industries.

Duration

3 Years Full Time (6 Semesters)

Career Options

Graduates of the B.Sc. (Hons) program in Computer Science, Cyber Security, and Data Science have a wide range of career opportunities in cutting-edge industries. They can pursue roles in core computer science, secure IT systems, data analytics, and research-driven areas.

Specific Job Roles:

- Core Computer Science Roles: Software Developer, System Analyst, IT Support Specialist, Database Administrator.
- Cyber Security Roles: Cybersecurity Analyst, Ethical Hacker, Security Operations Analyst, Network Security Specialist.
- Data Science Roles: Data Scientist, Data Analyst, Business Intelligence Analyst, Machine Learning Engineer.

- Emerging Technology Roles: Big Data Engineer, Cloud Security Analyst, AI/ML Developer.
- Research and Development: Research Assistant, Technology Innovator, Secure Systems Architect.
- Managerial and Consultancy: IT Consultant, Data Consultant, Cybersecurity Consultant.
- Entrepreneurship: Startup Founder (Technology, Security, or Data Solutions), Solutions Architect.
- Higher Education: Advanced studies in Computer Science, Cyber Security, Data Science, or specialized certifications in areas such as AI, Big Data, and Ethical Hacking.

These programs enable students to master skills that meet the demands of multiple industries, ensuring flexibility and a competitive edge in the ever-evolving technological world.

PSO's for B.Sc. (Hons.) in Data Science

PSO1: Understanding the core concepts, theories, tools, techniques, and methodologies of Data Science.

PSO2: Applying Data Science principles to solve real-world data challenges.

PSO3: Analysing data contexts, problems, and issues using appropriate methodologies.

PSO4: Evaluating alternative data solutions and making informed decisions to optimize results.

PSO5: Designing and developing innovative data-driven solutions to address complex problems.

PSO's for B.Sc. (Hons.) in Computer Science

PSO1: Understanding the core concepts, theories, tools, techniques, and methodologies of Computer Science.

PSO2: Applying Computer Science principles to solve real-world challenges.

PSO3: Analysing methodologies, problems, and issues related to Computer Science.

PSO4: Evaluating alternative solutions and making informed decisions to solve problems in Computer Science.

PSO5: Designing and developing innovative solutions to address complex problems in Computer Science.

PSO's for B.Sc. (Hons.) with Specialization in Cyber Security

PSO1: Understanding the core concepts, theories, tools, techniques, and methodologies of Cyber Security.

PSO2: Applying Cyber Security principles to solve real-world security challenges.

PSO3: Analysing security threats, vulnerabilities, and issues related to Cyber Security.

PSO4: Evaluating alternative security solutions and making informed decisions to mitigate risks.

PSO5: Designing and developing innovative solutions to address complex Cyber Security problems.

12.9 Master of Computer Applications (MCA)

Program Overview

The Master of Computer Applications (MCA) is a two-year postgraduate program designed to provide students with advanced knowledge and skills in the field of computer applications and modern technological practices. The program focuses on a comprehensive understanding of software development, system management, data analytics, cybersecurity, and emerging technologies such as artificial intelligence, cloud computing, and machine learning.

The curriculum is designed to bridge the gap between theoretical concepts and practical application through hands-on programming, live projects, and industry collaborations. Students develop expertise in areas like software

engineering, database management, web technologies, network security, and data science. With an emphasis on innovation, problem-solving, and professional ethics, the program prepares graduates for leadership roles in IT and related industries.

Duration

2 Years Full Time (4 Semesters)

Career Options

The MCA program offers a wide range of career opportunities across diverse domains of technology. Graduates are well-equipped to take on specialized roles in software development, data analysis, cybersecurity, and more, or to pursue entrepreneurial ventures and advanced research.

Specific Job Roles:

- **Software Development Roles**: Software Developer, Web Developer, Mobile App Developer, Software Architect.
- **Cyber Security Roles**: Cybersecurity Analyst, Ethical Hacker, Network Security Specialist.
- **Data Science Roles**: Data Scientist, Data Analyst, Business Intelligence Developer.
- **Core IT Roles**: System Analyst, IT Consultant, Database Administrator.
- **Emerging Technology Roles**: Cloud Computing Engineer, Machine Learning Engineer, IoT Developer.
- **Research and Development**: Research Scientist, Technology Innovator, R&D Specialist.
- **Managerial and Consultancy**: IT Project Manager, Cybersecurity Consultant, Data Consultant.
- **Entrepreneurship**: Technology Startup Founder, SaaS Solutions Developer.
- **Higher Education**: Advanced certifications in Cloud Computing, Data Science, AI, and Cybersecurity or further academic research (Ph.D.).

This program is tailored to nurture industry-ready professionals with the skills and knowledge to tackle the complex challenges of modern IT environments, ensuring a successful and fulfilling career

PSOs (Program Specific Outcomes)

1. **PSO1:** Understanding advanced concepts, theories, tools, techniques, and methodologies in computer applications.
2. **PSO2:** Applying advanced knowledge and techniques to address and solve real-world challenges in computer applications.
3. **PSO3:** Analysing and evaluating methodologies, problems, and issues within various contexts of computer applications.
4. **PSO4:** Assessing alternative solutions and making informed decisions to address complex problems in computer applications.
5. **PSO5:** Designing and developing innovative solutions to tackle sophisticated challenges in computer applications.

12.10 Master of Technology (M.Tech) - Computer Science and Engineering (CSE)

Program Overview

The Master of Technology (M.Tech) in Computer Science and Engineering (CSE) is a two-year postgraduate program that offers advanced knowledge and specialized expertise in the field of computer science and its applications. The program is designed to provide a strong theoretical foundation while emphasizing practical problem-solving skills and research-oriented learning.

The curriculum covers core areas such as advanced algorithms, software systems, database technologies, and operating systems, along with emerging fields like artificial intelligence, machine learning, big data analytics, cloud computing, and cybersecurity. With an emphasis on research and innovation, the program enables students to work on state-of-the-art projects, publish in reputed journals, and contribute to solving real-world problems through technology.

Duration

2 Years Full Time (4 Semesters)

Career Options

Graduates of the M.Tech CSE program have access to diverse and high-impact career opportunities in academia, research, and the technology industry. The program equips students with advanced skills for leadership roles and specialized positions in cutting-edge domains.

Specific Job Roles:

Core Computer Science Roles: Software Architect, System Analyst, Database Administrator, Advanced Software Developer.

Emerging Technology Roles: AI/ML Specialist, Data Scientist, Cloud Computing Engineer, Blockchain Developer.

Cyber Security Roles: Security Analyst, Cybersecurity Specialist, Cryptography Expert.

Research and Development: Research Scientist, R&D Specialist, Technology Innovator.

Academic Roles: Lecturer, Assistant Professor, Research Scholar.

Managerial and Consultancy: IT Consultant, Technical Project Manager, Technology Strategist.

Entrepreneurship: Tech Startup Founder, Advanced Solutions Architect.

Higher Education: Advanced research opportunities leading to a Ph.D. in Computer Science or related fields.

The M.Tech CSE program is designed to foster innovation, technical excellence, and research capability, preparing graduates to contribute to transformative advancements in technology and address the complexities of a rapidly evolving digital landscape.

12.11 Doctor of Philosophy (Ph.D.) in Engineering

Program Overview

The Doctor of Philosophy (Ph.D.) in Engineering is a prestigious and rigorous research-focused program aimed at advancing knowledge and fostering innovation in various disciplines of engineering. Designed for highly motivated scholars, this program provides an opportunity to undertake in-depth research on cutting-edge topics, addressing complex challenges in academia, industry, and society.

The program emphasizes originality and creativity in research, enabling candidates to contribute significant advancements to their chosen field. It encompasses a wide range of engineering domains, including computer science, electronics, mechanical, civil, and interdisciplinary areas such as artificial intelligence, data science, robotics, renewable energy, and cybersecurity. Through a combination of advanced coursework, seminars, and independent research, scholars are guided by distinguished faculty to produce impactful contributions that meet global standards of excellence.

Duration

Typically 3 to 5 Years (Full Time or Part Time)

Key Features

- Opportunity to pursue advanced, independent research in specialized areas of engineering.
- Access to state-of-the-art laboratories and resources for cutting-edge experimentation and analysis.
- Collaboration with industry leaders, research organizations, and global academic institutions.
- Emphasis on publishing in high-impact journals and presenting at international conferences.
- Structured framework including coursework, comprehensive exams, and a dissertation to ensure academic rigor and research quality.

Career Prospects

Graduates of the Ph.D. in Engineering program are recognized as experts and innovators in their respective fields, opening doors to leadership roles in academia, research, and industry.

Potential Career Paths:

- **Academia**: Professor, Researcher, or Academic Leader in universities and educational institutions.
- **Research and Development**: Lead Scientist, Principal Investigator, or R&D Specialist in research organizations and laboratories.
- **Industry Leadership**: Technical Director, Chief Technology Officer (CTO), or Innovation Strategist in technology-driven companies.
- **Consultancy**: Independent Consultant or Advisor for engineering projects, policy development, or technological solutions.
- **Entrepreneurship**: Founder of technology startups or Research and Development enterprises.
- **Policy and Advocacy**: Roles in governmental and non-governmental organizations focusing on technological innovation and policy formulation.

The Ph.D. in Engineering program is not merely an academic milestone but a platform for visionary individuals to lead transformative changes in science, technology, and engineering, contributing to global progress and sustainability.

13. Curriculum Highlights

- **Hands-On Learning with Real-World Exposure:**

  Over 15% of the total curriculum credits are dedicated to internships and project-based learning, ensuring that students graduate with at least six months of industry-relevant experience and a robust portfolio of real-world projects—tangible evidence of their technical proficiency and problem-solving capabilities.

Students actively engage with real-world challenges from industry and society, often under the mentorship of experienced industry professionals, bridging the gap between academic learning and practical implementation.

Importantly, the focus on hands-on learning is not limited to designated project courses. Laboratory assignments across subjects are designed as mini-projects, enabling students to apply classroom concepts in practical, scenario-based tasks, fostering deeper understanding, innovation, and independent thinking from the very beginning of the program.

- **Project-Based Learning (PBL)**

The implementation of Project-Based Learning (PBL) has led to a remarkable transformation in student outcomes and engagement. This semester alone, our students have secured top positions in over eight national-level hackathons, demonstrating their ability to apply theoretical knowledge to innovative, real-world solutions.

- **Career-Focused Programming Languages:** We've moved away from legacy languages like C and C++, and now train students in Python, Java, and JavaScript—the top programming languages aligned with global job demand.
- Web Development Training from Day One: Students begin working with the MERN Stack (MongoDB, Express, React, Node.js) in their first year—a modern, widely-used tech stack that prepares them to build real-world applications early in their journey.
- MakerSpace: Build from Day One: Instead of outdated workshop classes, students now engage in a "MakerSpace" course with access to 3D printers, laser cutters, Arduino kits, and more. Their projects may also be taken forward by the KR Mangalam Entrepreneurship and Incubation Cell (KEIC) for startup development.
- Design Thinking and Digital Prototyping: First-year students are trained in user research, design thinking, and tools like Figma—skills essential for building products that people actually want.
- Build a Computer from Scratch – *Nand to Tetris:* In a unique two-semester course, students build a computer from the ground up—no exams, just

deep, hands-on learning. It's one of the most foundational and immersive courses in the country.

- Specializations with Industry Partners: Starting in the second year, students can choose specializations such as AI & ML, Robotics, Data Science, and Cybersecurity—co-designed with industry leaders like IBM, Microsoft, EC-Council, and ImaginXP. These are supported by dedicated labs and research centers.
- AI-Powered Learning Experience: Our assignments and labs are fully digital, with instant feedback powered by our AI-first Learning Management System. This is a major upgrade over the outdated pen-and-paper methods still used elsewhere.
- Placement Readiness Labs (PRL 1–4) : We have a dedicated sequence of soft skills and professional development courses focused on communication, teamwork, presentation, and interview preparation—ensuring students are truly job-ready.
- Competitive Programming Track : A structured series of courses prepares students for high-stakes technical interviews at top companies like Google, Microsoft, and Amazon. This track focuses on algorithmic problem-solving and advanced programming techniques

14. Internships and Projects

Internship Courses:

The summer internship courses are designed to provide students of B.Tech CSE, including all specializations, with practical exposure to real-world applications of their academic learning. These internships bridge the gap between theoretical knowledge and industry practices, fostering professional skills, innovation, and problem-solving abilities in a structured work environment.

Objectives

III Semester

- Introduce students to basic industry workflows and processes.

- Familiarize students with practical applications of foundational computer science concepts.
- Develop teamwork, communication, and observational skills in a professional setting.

V Semester

- Enable students to apply intermediate technical skills in live projects or industrial environments.
- Encourage innovation and problem-solving through exposure to industry-specific challenges.
- Build an understanding of advanced tools, technologies, and frameworks related to their specialization.

VII Semester

- Provide hands-on experience in solving complex real-world problems relevant to the student's specialization.
- Facilitate the development of leadership, project management, and decision-making skills.
- Prepare students for industry readiness by integrating technical expertise with professional ethics and practices.

Project Based Courses

Purpose

The minor project courses are designed to provide hands-on experience in applying theoretical knowledge to real-world problems. These projects aim to develop critical thinking, creativity, and practical problem-solving skills while fostering teamwork and project management abilities.

Objectives

Minor Project-I

- Apply foundational concepts of programming, algorithms, and system design to small-scale projects.

- Foster collaboration and communication skills through team-based problem-solving.
- Introduce students to the project lifecycle, from ideation to implementation.

Minor Project-II

- Develop intermediate technical skills by working on moderately complex projects.
- Enhance students' ability to design, develop, and test functional prototypes.
- Strengthen analytical and troubleshooting skills for identifying and solving project-specific challenges.

Minor Project-III

- Integrate advanced concepts and tools from core and specialization courses into project development.
- Address real-world problems using innovative solutions aligned with industry practices.
- Prepare students for large-scale project execution and industry readiness.

Purpose and Objectives of Major Project in Final Semester

Purpose

The Major Project in the final semester provide students with an immersive, full-semester opportunity to work on professional projects directly from the industry. This capstone experience bridges the academic journey and professional career, enabling students to apply their specialized knowledge to solve real-world challenges, contribute to innovative solutions, and gain practical insights into industry workflows.

Objectives

The Industry Project in the final semester aim to provide students with a platform to apply their academic knowledge to real-world challenges in a professional environment. The key objectives include enhancing problem-

solving skills, gaining hands-on experience with industry tools and methodologies, and developing innovative solutions to complex problems. Students also refine their project management, teamwork, and communication skills while working collaboratively with industry mentors and peers. For research-oriented projects, the focus is on contributing to knowledge advancement in specialized domains. This experience prepares students for seamless integration into the workforce and fosters professional growth and career readiness.

15. School Event Calendar

The purpose of the event calendar is to provide a structured framework for diverse academic, professional, and extracurricular activities that enhance the overall development of students and faculty. By incorporating industrial visits, workshops, expert talks, conferences, and interactive sessions, the calendar aims to bridge the gap between theoretical knowledge and real-world applications. It fosters innovation, leadership, and technical skills while promoting awareness of current trends, ethical values, and societal responsibilities. These events encourage active learning, professional networking, and hands-on experiences, empowering participants to excel in their academic and professional pursuits**.**

The carefully curated event calendar offers students a diverse range of opportunities to enhance their technical, professional, and interpersonal skills through various activities such as industrial visits, workshops, expert sessions, and conferences. These events, including visits to leading companies like Hero Honda Group and Unibic Foods Pvt. Ltd., provide firsthand exposure to real-world manufacturing processes, innovation, and technology. Sessions such as leadership talks, professional ethics training, and alumni interactions focus on developing essential skills for corporate success, networking, and professional conduct. Initiatives like the IDEAthon encourage students to ideate and innovate for sustainable community solutions, while continuous case studies raise awareness of critical social and environmental issues.

Furthermore, collaborative activities with prestigious institutions like IIT Guwahati ensure students stay updated on the latest industry trends and research advancements. National conferences and internship opportunities emphasize the importance of practical knowledge and research, equipping students for dynamic career challenges. Overall, these events are strategically

designed to foster holistic development, bridging the gap between academic learning and professional excellence.

Event Calander for ODD Semester 2025-26

S. N	Name of the event	Date	SDG Outcomes	Categorization Event	Faculty In charge
1	Deep Data Science Hackathon 2.0	10/14/2025	Enhanced data science skills and innovation in students	hackathon	Dr Swati, Dr. Meenu
2	FDP in collaboration with E&ICT and IIT Guwahati	18-29 Aug 2025	Faculty upskilled with new ICT and AI knowledge	FDp	COE-CS -Dr Surabhi Shanker and COE-AI -Dr Shweta Bansal
3	AI summit	11/4/2025	Exposure to cutting-edge AI technologies	Symposium	COE-AI , Dr Shweta Bansal and Dr Monika Khatkar
4	CodeCanvas: Visual AI Tool Design	11/5/2025	Foster design thinking and AI tool-building skills	Competition	Dr Meenu and Dr Swati
5	Robotics Challenge - Robo Rush 2.0	10/22/2025	Improved hands-on robotics and problem-solving skills	Competition	Dr. Rakhi Dua, Dr. Gaurav
6	National Conference- "Synergy of Minds: Integrating Disciplines for a Sustainable and Smart Future"	11/6/2025	Knowledge exchange and research dissemination	Conference	Dr. Kishore Ayyla, Dr. Digvijai, Dr. Appurva Jain

7	Industrial Visit	9/15/2025	Industry exposure and practical learning	Industrial Visit	Dr. Kaushal Kumar, Dr. Reenu
8	Industrial Visit for BTech(FSD/CYber/Bsc All) Students	9/18/2025	Understanding of career applications in respective domains	Centre of Excellence - Cloud Computing - Industrial Visit	COE- CC, Dr. Aman Jatain ,Dr. Yogita Yashveer Raghav ,Dr. Saneh lata Yadav
9	MOU (Shodh)	9/15/2025	Strengthened academic collaboration	MOU	COE- CC, ,Dr. Yogita Yashveer Raghav
10	MOU (Polytechnic NUH)	7/28/2025	Strengthened academic collaboration	MOU	Prof. Pankaj Agarwal ,Dr. Yogita Yashveer Raghav
11	MOU (Lakshay)	9/15/2025	Industry-academia linkage for student benefit	MOU	Prof. Pankaj Agarwal ,Dr. Yogita Yashveer Raghav
12	Pitch & Polish	Continous Activity (Monthly)	Improved communication and job-readiness	Workshop	Dr. Vandana, Jyoti Yadav, Jyoti Kaurav
13	Awareness of Computing Specialization	25th-29th August 2025	Informed career choices among students	Seminar	Dr. Monika, Dr. Aman
14	Know-Your-Rights	8-Oct-25	Legal and civic awareness among students	Seminar	Dr. Saneh Lata Yadav,Ms. Suman

15	Coding Challenge	Continous Activity (Monthly)	Enhanced coding and problem-solving competency	Competition	Mr. Abishek, Mr. Rajesh Gupta, Mr Prateek
16	Professional ethics for Teaching & Non Teaching Staff	15-Sep-25	Ethical awareness and institutional integrity	Seminar	Dr. Shweta Bansal
17	Code of Conducts for Students	25th-29th August 2025	Disciplined and respectful academic environment	Seminar	Dr. Yogita Yashveer Raghav
18	Professional Ethics for Students	25th-29th August 2025	Ethical decision-making and responsible behavior	Seminar	Dr. Yogita Yashveer Raghav
19	Awareness Program on recent trends & Technologies in Computer Science in nearby Village	6-Oct-25	Cyber safety awareness and digital literacy	Extension Activity	Dr. Yogita Yashveer Raghav ,Dr. Aman Jatain
20	Industrial Visit for BTech(CSE/MCA /UI/UX) Students	4-Nov-25	Insight into industry standards and practices	Industrial Visit	Dr. Preeti Rathi,Dr. Vandna,Ms. Archna Goyal
21	Industrial Visit for BTech(AI &ML/DS) Students	5-Nov-25	Practical exposure to AI/DS implementation	Industrial Visit	Dr. Meenu & Dr. Swati Gupta
22	Industrial Visit for (BCA & PhD) Students	6-Nov-25	Knowledge of software and IT industry applications	Industrial Visit	COE-CS -Dr. Surabhi Shankar & Ms. Suman

23	Shaping Minds: Gender Sensitization and Hygiene Education Camp	7-Nov-25	Ethical awareness and institutional integrity	Extension Activity	Dr. Yogita Yashveer Raghav ,Dr. Aman Jatain
24	One Day Hackathon	10-Oct-25	Industry-academia linkage for student benefit	hackathon	Dr. Shweta Bansal ,Dr. Anshu
25	2 Day Hackathon	17-Nov-25	Industry-academia linkage for student benefit	hackathon	Dr. Shweta Bansal ,Dr. Monika Khatkar
26	Student Industry Emersion Program	Aug-Nov	Industry-academia linkage for student benefit	Emersion Program	SOET, Faculty
27	AI For Industry 4.0	4/8/2025	Faculty upskilled with new ICT and AI knowledge	FDP	SOET, Faculty

Center of Excellence in Robotics and Automation @ KRMU

The Center of Excellence in Robotics and Automation at K.R. Mangalam University (KRMU) is a hub for innovation, skill development, and research in cutting-edge technologies. In collaboration with IIT Bombay's eYantra program, the center empowers students and faculty with hands-on training and opportunities to excel in robotics and automation. Below is an overview of the diverse activities and accomplishments:

- eYantra Approved Lab: The lab provides state-of-the-art resources for students to experiment and innovate in the field of robotics and automation, fostering a culture of technological excellence.

- Drone Workshops and Training Sessions: Regular workshops and hands-on training sessions equip students with drone technology skills, from assembly and operation to practical applications in various industries.
- Quine Hackathon with Microsoft Azure: Collaborative hackathons such as the KRMU Open-Source Expo-Z3 encourage students to design and pitch innovative solutions, with a focus on using cutting-edge technologies like Microsoft Azure.
- DIY Challenge Competitions: These competitions ignite creativity and problem-solving skills, enabling students to build practical, functional prototypes.
- DST Grant for National Technology Day 2023: Securing a prestigious grant from the Department of Science and Technology (DST) underscores the center's commitment to impactful research and innovation.
- Drone Pilot Certification: Through structured training programs, students gain government-certified drone pilot licenses, enhancing their professional qualifications.
- Innovative Project Competitions (Mindbenders 1.0 & 2.0): These competitions provide a platform for students to showcase groundbreaking projects and foster a spirit of innovation.
- Expert Interactions: Visits and mentoring sessions from eminent personalities like Prof. Kavi Arya of IIT Bombay enrich the learning experience and inspire students to pursue excellence.
- Regional Finale North India Hosted at KRMU: The university's hosting of prestigious events like regional finales highlights its leadership in promoting robotics and automation.

Through these diverse activities, the center not only advances technical knowledge but also prepares students to tackle real-world challenges, aligning them with global industry standards and emerging technological trends

Centre of Excellence – Artificial Intelligence (AI) @ KRMU

The Centre of Excellence in Artificial Intelligence (AI) at K.R. Mangalam University is a hub of innovation, cutting-edge research, and advanced

learning in AI technologies. The center is dedicated to fostering expertise in artificial intelligence and its multidisciplinary applications, guided by a team of accomplished faculty members, including Dr. Shweta Bansal, Dr. Meenu, Dr. Swati Gupta, Dr. Monika, and Dr. Amar Saraswat.

Key Activities and Achievements

- Edited Book Series: The publication of *AI Horizons* highlights the center's commitment to advancing academic research and interdisciplinary learning.
- **Ongoing Projects:**
    - Voice-Enabled Biometric System for KRMU: Innovating campus security through AI-based biometric identification.
    - WinKeat – A Cafeteria App: Successfully completed in April 2023, this app enhances the campus dining experience.
    - E-Voting System Using Blockchain Technology: Addressing secure and transparent voting mechanisms.
    - Spoken Language Identification for Vernacular Languages: Promoting inclusivity in AI through language recognition.
    - Hand Gesture Recognition: Developing advanced human-machine interaction tools.
    - Optimizing Agricultural Production Engine: Leveraging AI for enhanced agricultural efficiency.
    - Big Data Analytics in Healthcare: Empowering healthcare through data-driven insights.
    - Internet of Everything and Blockchain Convergence: Exploring synergies between IoT and blockchain for futuristic applications.
    - Global Cost of Living Analysis Using NLP: Providing economic insights through AI-driven natural language processing.

The Centre of Excellence in Artificial Intelligence fosters a research-driven and industry-aligned ecosystem, enabling students and faculty to stay ahead in the rapidly evolving AI landscape. By working on innovative projects and participating in skill-enhancing workshops, the center empowers its members to contribute meaningfully to academia, industry, and society

16. Testimonials

Daksh Mehta, B.Tech CSE, UNIAS (36 LPA)

"My four years at K.R. Mangalam University were a period of continuous learning and growth, equipping me with valuable skills and knowledge that I carry with me to this day. I am immensely grateful to the faculty members for their unwavering support, clear guidance, and encouragement in resolving my doubts and shaping my career. The excellent facilities provided by the university enriched my overall experience, making my journey both fulfilling and enjoyable."

Abhinav Anand, B.Tech CSE, Cargoflash (Network Engineer, 24 LPA)

"I extend my heartfelt gratitude to the Training and Placement Cell at K.R. Mangalam University for their dedicated efforts in providing countless opportunities for students to succeed. The mentorship I received helped me hone my academic and interpersonal skills, shaping me into a well-rounded professional. Choosing K.R. Mangalam University was one of the best decisions I made, as it gave me the platform to achieve my career aspirations."

Abhinav Sinha, B.Tech CSE, Nirmata Technologies India Private Ltd (20 LPA)

"My time at K.R. Mangalam University was transformative and instrumental in shaping my professional journey. The high-quality education and practical exposure I gained during my Computer Science Engineering program provided a strong foundation for my career. Currently, I am thriving at Nirmata Technologies India Private Ltd with a package of 20 LPA, a milestone made possible by the exceptional guidance and opportunities offered by the university."

Ujjwal Singh, B.Tech Mechanical Engineering, Anglo-Eastern Ltd (18 LPA)

"Joining K.R. Mangalam University was a life-changing experience. The rigorous curriculum and hands-on projects prepared me to tackle real-world challenges with confidence. I am proud to share that I have secured a position with Anglo-Eastern Ltd at an impressive package of 18 LPA. Beyond academic excellence, the university paved the way for me to achieve my dream career."

Shashank Gupta, B.Tech in Mechanical Engineering, Anglo-Eastern Ltd (18 LPA)

"My journey at K.R. Mangalam University was nothing short of extraordinary. The comprehensive B.Tech program in Mechanical Engineering equipped me with the skills and knowledge to excel in the professional world. Today, I am proud to serve as an Engineer IV with Anglo-Eastern Ltd, earning a rewarding package of 18 LPA. The university's emphasis on innovation and cutting-edge technology was instrumental in shaping my career trajectory."

Darshit Raghav, B.Tech in CSE, Debcor Engineering Pvt. Ltd. (17.4 LPA)

"Choosing K.R. Mangalam University for my B.Tech in Computer Science Engineering was one of the best decisions of my life. The university's rigorous curriculum and industry-focused training provided me with the tools to excel in my field. I am thrilled to work at Debcor Engineering Pvt. Ltd., earning a competitive package of 17.4 LPA. The strong foundation built at K.R. Mangalam has been key to my professional success."

Samarpan Upadhyaya, B.Tech in Mechanical Engineering, Upgrad (13 LPA)

"K.R. Mangalam University has been a cornerstone in shaping my career. The B.Tech program in Mechanical Engineering is meticulously designed to align with industry standards and demands. Securing a position as a Senior Business Development Analyst with a package of 13 LPA is a testament to the quality education and hands-on training I received. I am deeply thankful for the enriching journey at K.R. Mangalam University."

17. Contact Details

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