



REGENT EDUCATION AND RESEARCH FOUNDATION
GROUP OF INSTITUTIONS

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

THE VISION

E-NEWSLETTER

ACADEMIC YEAR 2026–2027



RESEARCH • INNOVATION • TECHNOLOGY • ACHIEVEMENT

A celebration of ideas, people, learning experiences and achievements that shape the Department of Computer Science & Engineering.

Where classroom knowledge becomes practical skill, curiosity becomes research and ideas become possibilities.

MESSAGE

Message from the Principal

A Message of Inspiration

PRINCIPAL'S MESSAGE

Dear Students, Faculty Members and Readers,

It gives me immense pleasure to present this edition of *THE VISION*, the departmental e-newsletter of the Department of Computer Science & Engineering.

Computer science is no longer limited to programming or the development of software applications. It has become one of the most powerful foundations for innovation across healthcare, education, finance, communication, cybersecurity, scientific research and industry.

In such a rapidly changing environment, education must do more than transfer information. It must develop curiosity, analytical thinking, creativity and the confidence to approach problems whose solutions may not be immediately visible.

Our students are therefore encouraged to move beyond textbook knowledge and actively participate in projects, technical competitions, workshops, research activities, industry interactions and collaborative learning. These experiences help students transform theoretical concepts into practical capabilities.

The role of faculty members is equally significant. Meaningful teaching is not simply about completing a syllabus. It is about creating an environment where students feel encouraged to ask questions, challenge assumptions, experiment with ideas and learn from unsuccessful attempts.

The pages of *THE VISION* capture this spirit of learning. They present not merely a collection of events, but a reflection of a community that values knowledge, innovation, teamwork and continuous improvement.

I congratulate the Department of Computer Science & Engineering for bringing together these academic and extracurricular experiences. I encourage every student to use the opportunities available, discover their strengths and develop the confidence to create something meaningful.

May curiosity remain the starting point of every student's journey and may knowledge become the foundation for responsible innovation.

LEARNING BEYOND CLASSROOMS

Hackathons, workshops, technical clubs, projects, seminars and industry interactions provide opportunities to transform concepts into practical experience.

A CULTURE OF EXCELLENCE

Academic excellence becomes meaningful when it is accompanied by creativity, ethical awareness, collaboration and a desire to keep learning.

"Let curiosity become the beginning of every innovation."

MESSAGE

Message from the Dean

Building Future-Ready Graduates

DEAN'S MESSAGE

The defining characteristic of modern education is its ability to prepare learners for a future that cannot always be predicted.

Technology changes rapidly. Programming languages evolve, new computational paradigms emerge and professional roles continue to transform. In such an environment, students require more than familiarity with current tools. They require strong fundamentals and the ability to learn continuously.

The Department of Computer Science & Engineering is committed to developing graduates who possess sound technical foundations while also understanding the importance of creativity, communication, collaboration, ethics and lifelong learning.

A successful computer science graduate must be comfortable with both fundamentals and change. The ability to understand a new problem, search for relevant knowledge, evaluate possible solutions and implement an appropriate approach is a capability that remains valuable even when technologies change.

Our academic environment therefore encourages students to participate actively in projects, technical events, workshops, research initiatives, competitions and industry-oriented activities. Such experiences allow students to discover their interests and gradually transform them into areas of expertise.

Faculty members have an equally important role in this journey. Teaching becomes more meaningful when it encourages curiosity rather than merely delivering information. Mentorship becomes more effective when students are encouraged to think independently and develop their own solutions.

Through *THE VISION*, we celebrate this culture of learning and remind ourselves that education is not simply preparation for employment. It is preparation for responsible contribution to technology, industry and society.

Let us continue to learn, question, experiment, collaborate and build with purpose.

ACADEMIC EXCELLENCE

Strong fundamentals, project-based learning and continuous engagement help students develop confidence in solving complex problems.

RESEARCH MINDSET

Students are encouraged to ask meaningful questions, investigate problems and explore alternative approaches.

“LEARN • EXPLORE • CREATE • CONTRIBUTE”

MESSAGE

Message from the Registrar

Education, Innovation and Institutional Excellence

REGISTRAR'S MESSAGE

Dear Students, Faculty Members and Readers,

It gives me immense pleasure to be associated with this edition of *THE VISION*, the departmental e-newsletter of the Department of Computer Science & Engineering.

Education finds its true purpose when knowledge extends beyond the classroom and becomes a force for innovation, professional growth and social progress. In a world shaped by rapid technological transformation, our responsibility is not simply to prepare students for the opportunities of today, but to equip them with the knowledge, adaptability and vision to address the challenges of tomorrow.

Computer Science & Engineering stands at the forefront of this transformation. From artificial intelligence and cybersecurity to cloud computing and emerging computational technologies, the discipline continues to redefine how we understand problems and develop solutions. Strong fundamentals, practical experience and responsible technological thinking are essential for students to navigate this evolving landscape with confidence.

An institution grows through the collective commitment of its academic, administrative and student communities. Effective teaching, meaningful research, collaborative learning and sound institutional practices together create an environment in which individuals can discover their potential and pursue excellence. Every initiative that encourages curiosity, discipline, creativity and integrity strengthens this shared academic vision.

The pages of *THE VISION* reflect this spirit of collective progress. They bring together the department's academic activities, research interests, technological explorations and student engagement, demonstrating that education is a continuous journey of learning, questioning and discovery.

I congratulate the Department of Computer Science & Engineering and everyone who has contributed to this publication. I encourage our students to approach every challenge as an opportunity to learn, every idea as a possibility to explore and every achievement as a foundation for further growth.

EDUCATION FOR IMPACT

Strong fundamentals, hands-on learning and mentorship help students convert knowledge into solutions that matter.

INTEGRITY & EXCELLENCE

Innovation must be guided by ethics, discipline and responsibility to build trust and long-term success.

"Let knowledge inspire innovation, let integrity guide progress, and let excellence shape the future."

MESSAGE

Message from the Head of Department

A Department Driven by Ideas

HOD'S MESSAGE

Dear Readers,

It is my pleasure to introduce another edition of *THE VISION*. This newsletter brings together the academic, technical and co-curricular activities of our department and reflects the enthusiasm of our students and faculty members.

A department is not defined only by its classrooms and laboratories. It is defined by the questions students ask, the ideas they develop, the projects they build, the research they pursue and the relationships they create with teachers and peers.

We believe that meaningful learning happens when students are given opportunities to apply knowledge. A concept learned in a classroom becomes significantly more valuable when a student can use it to design a system, solve a problem, analyse data, develop an application, participate in a competition or investigate a research question.

Our faculty members contribute to this learning environment through teaching, mentoring, project supervision, professional development and academic engagement. Our students, in turn, bring curiosity, energy, creativity and determination.

The journey from a learner to a confident professional is built through many small experiences: the first successful program, the first project presentation, the first technical competition, the first research question and even the first failure that teaches a better way forward.

The pages of this newsletter capture only a part of that journey.

As we move forward, our objective remains clear: to create an environment where students develop strong fundamentals, explore emerging technologies, discover their individual strengths and become confident problem solvers.

STUDENT DEVELOPMENT

Technical competitions, coding activities, project exhibitions and student clubs strengthen practical skills and confidence.

INDUSTRY ORIENTATION

Interaction with professionals helps students understand changing technology practices and workplace expectations.

"Ideas become powerful when knowledge, teamwork and action come together."

FACULTY

Faculty Profile

Teaching, mentorship and academic excellence

The strength of an academic department is reflected not only in its infrastructure, but also in the people who teach, mentor, support and inspire its students.

Faculty members create the academic environment in which students develop their foundations, explore new ideas and gradually gain the confidence to work independently.

The following profiles represent the academic community that contributes to teaching, mentoring, laboratory activities, project development and student growth.

**Dr. Subhankar Ghosh****Associate Professor • Dean**

Ph.D.

**Indrani Roy****Assistant Professor**

M.Tech., B.Tech.

**Mr. Bipul Dhali****Assistant Professor • HOD**

M.Tech., B.E.

**Mitali Shaw****Assistant Professor**

M.Tech., B.E.

**Aditi Protiher****Assistant Professor**

M.Tech., MCA, BCA

**Pritish Das****Assistant Professor**

M.Tech., B.Tech.

**Biraj Singha****Assistant Professor**

M.Tech., B.Tech.

**Bhaskar Paul****Technical Assistant**

B.Tech.

FACULTY

Faculty Profile

Academic community and student support

Academic growth is a collective process supported by both faculty and technical staff.



Sayan Dey
Assistant Professor
M.Tech.



Bikram Biswas
Technical Assistant
Diploma



Kausik Dash
Assistant Professor
M.Tech., MCA



Prasun Dutta
Technical Assistant
Diploma



Pritam Mitra
Assistant Professor
M.Tech., M.Sc., B.Sc. (H)



Sayan Biswas
Technical Assistant
B.Tech.

"Great teaching begins with a willingness to keep learning."

FACULTY

Faculty Achievements

Research, development and mentorship

RESEARCH

Faculty members continue to contribute through research publications, projects, conferences and collaborative academic activities. Research within the department is viewed not merely as an academic requirement, but as a process of asking meaningful questions, investigating possibilities and developing solutions that can create value.

The changing landscape of computing requires educators to remain continuous learners. By engaging with emerging technologies, scholarly discussions and contemporary computational challenges, faculty members create an academic environment in which students are encouraged to look beyond textbook examples and develop a deeper understanding of technology.

Research also creates opportunities for students to observe how an idea evolves from a problem statement into a structured investigation, followed by experimentation, analysis and communication of results.

PUBLICATIONS

Research outputs demonstrate continued engagement with emerging areas of computing. Publications, technical presentations and scholarly activities encourage a culture of reading, investigation and knowledge sharing among faculty and students.

DEVELOPMENT

Faculty development programmes and professional learning initiatives strengthen teaching and research. Continuous development helps educators introduce contemporary concepts, tools and problem-solving approaches into the classroom.

MENTORSHIP

Faculty members guide students in projects, competitions, internships and research activities. Effective mentorship goes beyond providing instructions: it encourages students to ask better questions, analyse alternatives, learn from failure and develop confidence in their own ideas.

Through regular academic interaction, students receive opportunities to discuss technical problems, refine project ideas and understand how theoretical concepts can be converted into practical solutions.

“Continuous learning strengthens teaching and innovation.”

STUDENTS

Student Achievements

Celebrating student excellence

Our students continue to demonstrate creativity, technical competence and teamwork through academic and co-curricular activities.

Achievement is not limited to winning a competition. It also includes the confidence gained while presenting an idea, the discipline developed while completing a project, the ability to work effectively within a team and the willingness to learn from challenges.

The department encourages students to participate actively in technical events, project development, coding activities, certification programmes and collaborative initiatives. Such experiences help students discover their strengths while developing the professional habits required in a rapidly changing technology environment.

TECHNICAL COMPETITIONS

Coding contests, hackathons, project exhibitions and innovation challenges provide valuable practical exposure. Students learn to analyse problems quickly, design solutions, test their approaches and communicate their ideas effectively.

PROJECTS

Student projects address real-world problems through software, data, artificial intelligence and automation. Projects encourage students to move from theoretical understanding towards implementation and experimentation.

CERTIFICATIONS

Professional certifications and online learning programmes complement classroom education. They provide students with additional opportunities to explore specialised technologies and develop a habit of continuous self-learning.

LEADERSHIP

Student clubs and technical teams provide opportunities to develop communication and leadership skills. Working with peers teaches students how to coordinate tasks, share responsibilities and contribute towards a common goal.

“Every achievement begins with the courage to try.”

EVENTS

Hackathon Highlights

Innovation under pressure



Hackathons bring students together to identify problems, design solutions, build prototypes and present their ideas.

More importantly, a hackathon creates an environment in which students experience the complete problem-solving cycle within a limited period of time. Teams must understand the problem, divide responsibilities, select appropriate technologies, develop a working solution and respond to feedback. This experience encourages students to think beyond predefined classroom exercises. It develops adaptability, communication, technical decision-making and the ability to remain focused when facing unexpected challenges.

WHAT STUDENTS EXPERIENCE

Problem identification, team formation, rapid prototyping, programming, testing, presentation and feedback. Each stage helps students understand how technical ideas evolve into working solutions.

FROM IDEA TO PROTOTYPE

Students move from an initial idea to a functional prototype within a limited period of time. This process strengthens creativity, collaboration, implementation skills and confidence in presenting technical work.

EVENTS

Technical Fest

Technology meets creativity

TECHNICAL EVENTS

Coding challenges, quizzes, project demonstrations, paper presentations and technology talks encourage active participation.

These activities provide students with an opportunity to demonstrate knowledge in a setting that is different from a traditional classroom. A technical event asks students not only to know a concept, but also to explain it, apply it and defend their approach.

Students gain confidence by explaining their ideas, defending technical decisions and working with peers. Such experiences also encourage healthy academic interaction, where students learn from different approaches to the same problem.

CREATIVE EVENTS

Technology is combined with creativity through poster design, UI challenges, digital media and problem-solving activities.

Such activities encourage students to look at technical problems from multiple perspectives. A good technological solution is not defined only by whether it works; it should also be understandable, usable, purposeful and responsive to the needs of its intended users.

By combining technical thinking with creativity, students learn that engineering and innovation are not separate from imagination. Instead, creativity often becomes the starting point for meaningful technological solutions.

“Technology becomes meaningful when creativity meets purpose.”

EVENTS

Workshops and Training

Learning from experts

Hands-on workshops expose students to tools, platforms and technologies used in contemporary academic and industrial environments.

A workshop provides a bridge between knowing a concept and experiencing how that concept is implemented. Students get the opportunity to observe demonstrations, experiment with tools, ask questions and understand how technologies are used to solve practical problems.

Such learning experiences are particularly valuable in computer science, where tools and development practices evolve rapidly. Workshops encourage students to remain curious, adaptable and willing to explore technologies beyond the standard curriculum.

ARTIFICIAL INTELLIGENCE

Machine learning concepts, data preparation, model development and practical applications. Students can strengthen their understanding by connecting theoretical models with practical experimentation and problem-solving.

CLOUD COMPUTING

Cloud services, deployment models, virtualization and modern infrastructure. Exposure to cloud concepts helps students understand how computational resources and applications can be delivered at scale.

CYBER SECURITY

Awareness of secure computing, common threats, security practices and responsible technology use. Students are encouraged to understand security as an essential part of responsible computing rather than an isolated technical topic.

WEB TECHNOLOGIES

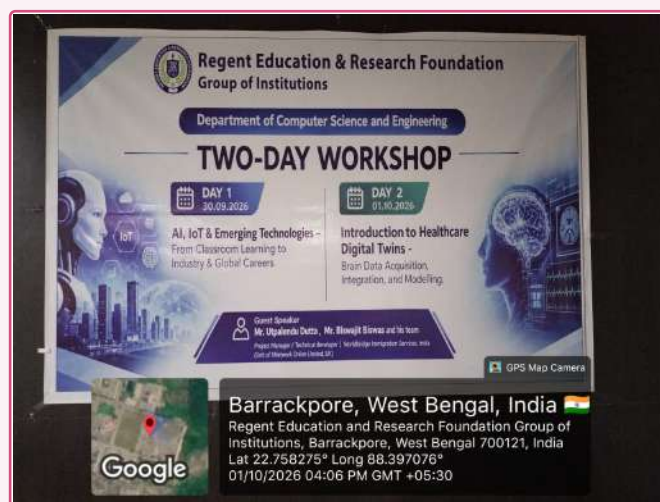
Modern frontend, backend, API and database development concepts through practical sessions. Such exposure helps students understand how different components work together to create complete digital applications.

“Learn the concept. Touch the technology. Build the solution.”

SPOTLIGHT

Workshop Spotlight

Learning by doing



A workshop becomes memorable when students are given the opportunity to move from listening to doing.

Practical sessions allow learners to observe a technology, experiment with its features, encounter errors and understand how those errors can be resolved. This form of experiential learning creates a stronger connection between theoretical knowledge and practical implementation.

For students, the value of a workshop often continues after the session itself. A concept introduced during a workshop may become the starting point for a project, a certification, independent experimentation or further research.

EXPERIENCE

Students gain practical exposure by interacting directly with technologies, tools and development environments.

CURIOSITY

Exposure to new technologies encourages students to ask questions and explore possibilities beyond the prescribed curriculum.

APPLICATION

Hands-on learning demonstrates how theoretical concepts can be applied to practical problems and real-world scenarios.

CONTINUOUS LEARNING

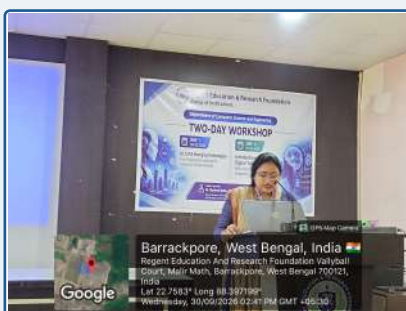
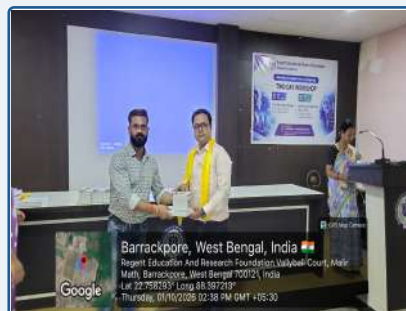
A successful workshop should inspire students to continue learning independently after the formal session ends.

"The best workshop does not end when the session ends; curiosity continues."

WORKSHOPS

Workshop Gallery

Highlights from our workshop activities



WORKSHOPS

Workshop Gallery (continued)

More moments from our workshop activities



INDUSTRY

Industry Interaction

Connecting academia with industry

Industry interaction helps students understand professional expectations and emerging technology trends.

Classroom learning provides the foundation, while interaction with professionals helps students understand how that foundation is applied in real working environments. Such exposure allows students to recognise the importance of technical competence, communication, teamwork, documentation, professional ethics and continuous learning.

Industry interaction also helps students understand that technology is constantly evolving. The skills required today may change with new platforms, tools and development practices. Therefore, the ability to learn, adapt and solve unfamiliar problems becomes as important as knowledge of a particular programming language or software tool.

INDUSTRY CONNECT

- Expert lectures
- Career guidance
- Industry visits
- Internship opportunities
- Project mentoring
- Professional networking

These interactions provide students with opportunities to understand different career pathways and observe how academic skills translate into professional responsibilities.

WHY IT MATTERS

Direct interaction with professionals allows students to connect classroom concepts with real-world engineering practices.

Students gain a clearer understanding of workplace expectations, professional communication, teamwork, technology adoption and problem-solving in practical situations.

FROM CLASSROOM TO CAREER

The purpose of industry interaction is not simply to introduce students to companies. Its deeper purpose is to develop awareness of how knowledge is applied, evaluated and improved outside the classroom.

When students understand this connection early, academic learning becomes more purposeful.

“Connect knowledge with practice, and learning gains direction.”

CONNECT

Alumni Connect

Learning beyond graduation

Alumni represent the long-term impact of the department and contribute through mentorship, industry interaction and professional engagement.

The relationship between an institution and its students does not end when a degree is completed. Alumni carry with them the experiences, knowledge and values developed during their academic journey.

Interaction with alumni allows students to understand different career pathways, workplace expectations, higher-study opportunities and the realities of professional life.

MENTORSHIP

Alumni can share practical experiences with students and help them understand how academic knowledge can be transformed into professional capability.

CAREER INSIGHTS

Professional experiences provide students with a broader view of career possibilities and professional environments.

NETWORKING

A strong alumni network creates opportunities for meaningful academic and professional connections.

SHARED EXPERIENCE

Alumni understand the transition from student life to professional life and can provide practical perspectives.

A CONTINUOUS ACADEMIC COMMUNITY

An effective alumni network creates a continuous exchange of knowledge between different generations of learners.

“Graduation marks a new beginning, not the end of connection.”

STUDENT LIFE

Technical Clubs

Learn, build, collaborate

Technical clubs provide students with a space where learning can become exploratory, collaborative and self-driven.

A classroom provides structured learning, while a technical club gives students the freedom to explore questions that interest them. Students can experiment with technologies, discuss ideas with peers, organise activities and learn from each other's strengths.

CODING CLUB

The Coding Club encourages programming practice, algorithmic thinking and problem-solving.

AI CLUB

The AI Club provides an environment for exploring artificial intelligence, machine learning and data-driven applications.

CYBER CLUB

The Cyber Club promotes awareness of cybersecurity, responsible computing and secure digital practices.

INNOVATION CLUB

The Innovation Club encourages students to transform ideas into prototypes and practical solutions.

BEYOND THE CLASSROOM

Technical clubs encourage students to become active participants in their own education. A student who begins by attending a club activity may gradually become a contributor, project developer, event organiser or mentor.

"Explore a technology. Build something. Teach someone else."

CAREER

Placement Highlights

Preparing students for professional success

Career preparation is an important part of a student's transition from academic life to professional life.

Technical knowledge provides the foundation, but professional readiness requires a broader set of capabilities. Students must be able to understand problems, communicate ideas, collaborate with teams, demonstrate their technical skills and respond confidently during professional interactions.

AREA	FOCUS
Technical Skills	Programming, databases, computer fundamentals, software development and contemporary technologies.
Aptitude	Logical reasoning, numerical ability, analytical thinking and structured problem-solving.
Communication	Clear technical explanation, professional communication, presentation skills and active listening.
Interviews	Technical discussion, problem-solving, confidence, professional behaviour and ability to explain one's work.
Projects	Practical implementation, teamwork, documentation, testing and presentation of technical solutions.
Professional Skills	Time management, collaboration, adaptability, responsibility and continuous learning.

THE PROFESSIONAL MINDSET

A successful career begins with the ability to learn continuously.

"Prepare not only for the first job, but for a lifetime of learning."

RESEARCH

Research and Innovation

Questions that become discoveries



Students and faculty explore questions and research through observation, experimentation, analysis and communication.

Research creates a different kind of learning environment. It does not always begin with a known answer. Instead, researchers must identify a meaningful question, study existing knowledge, formulate an approach, perform experiments and analyse the result.

ASK

Good research begins with meaningful questions.

EXPLORE

Literature study, experimentation and discussion help researchers understand existing approaches.

EXPERIMENT

Research requires systematic experimentation and analysis.

COMMUNICATE

A research idea becomes valuable when it can be clearly explained.

FROM STUDENT TO RESEARCHER

Research culture encourages students to move beyond asking “What is this technology?” towards asking “What can be improved, and why?”

“Innovation begins when curiosity becomes a question worth investigating.”

EMERGING TECHNOLOGY

Artificial Intelligence

From data to intelligent decisions

Artificial Intelligence is transforming the way modern computational systems analyse information, recognise patterns and support decision-making.

For students, learning AI is not simply about using a pre-trained model. A strong foundation requires understanding data, algorithms, model behaviour, evaluation and the limitations of intelligent systems.

MACHINE LEARNING

Students explore how computational models learn patterns from data.

DEEP LEARNING

Neural-network-based approaches provide opportunities to study representation learning and complex computational tasks.

GENERATIVE AI

Generative approaches demonstrate how computational systems can produce new content.

RESPONSIBLE AI

AI systems must be developed and used responsibly.

THE QUESTION BEHIND THE MODEL

- Is the data appropriate for the problem?
- Does the model generalise beyond the training data?
- Can the output be interpreted?
- What are the limitations of the approach?
- What happens when the system encounters an unfamiliar case?

“Do not only train the model. Understand the problem behind it.”

EMERGING TECHNOLOGY

Cyber Security

Building trust in the digital world



Cybersecurity has become an essential component of modern computing as organisations increasingly depend on connected digital systems.

Students need to understand that security is not a feature added at the end of software development. It must be considered throughout the lifecycle of a system.

SECURITY AWARENESS

Understanding common threats and unsafe practices helps students recognise the importance of secure behaviour.

NETWORK SECURITY

Networks require appropriate protection against unauthorised access, misuse and attacks.

DATA PROTECTION

Digital information must be handled responsibly.

ETHICAL COMPUTING

Cybersecurity skills must be applied legally and ethically.

SECURITY AS A MINDSET

The strongest security practice begins before an attack occurs. By learning to anticipate vulnerabilities, evaluate risks and follow responsible practices, students can develop a mindset that is useful across modern computing.

“Build systems that work — and build them so they can be trusted.”

EMERGING TECHNOLOGY

Cloud Computing

Computing without boundaries

Cloud computing has transformed the way computational resources, applications and digital services are delivered.

Instead of depending only on locally available hardware, organisations can access computing resources through scalable infrastructure and services.

For students, cloud computing provides an opportunity to understand the connection between software, networking, virtualisation, storage and distributed infrastructure.

SCALABILITY

Cloud environments allow computational resources to be adjusted according to requirements.

VIRTUALISATION

Virtualisation helps students understand modern computing infrastructure.

STORAGE

Modern applications depend heavily on reliable data storage and access.

DEPLOYMENT

Cloud platforms provide practical environments for deploying applications and services.

FROM APPLICATION TO INFRASTRUCTURE

A modern software system depends on computation, storage, networking, security, databases and monitoring. Cloud computing provides a useful framework for understanding how these components work together.

“Modern software is built not only with code, but also with infrastructure.”

STUDENT WORK

Student Project Showcase

Ideas transformed into working solutions

Projects provide students with one of the most important opportunities to convert classroom knowledge into practical experience.

A project requires more than writing code. Students must first understand the problem, identify requirements, select suitable technologies, design a solution, implement the system, test the outcome and communicate the final result.

AREA	PROJECT FOCUS
AI	Intelligent applications, prediction, classification, automation and data-driven decision support.
Web Applications	Interactive digital platforms combining frontend, backend, databases and application programming interfaces.
Mobile Applications	Application development focused on accessibility and usability.
IoT	Connected devices, sensing, data collection and communication.
Cyber Security	Secure systems, awareness applications, monitoring and protection-oriented solutions.
Data Science	Data analysis, visualisation, pattern discovery and predictive modelling.
Automation	Technology-assisted processes designed to reduce repetitive work and improve efficiency.

THE PROJECT MINDSET

A project becomes meaningful when students understand the reason behind every design decision.

“Build the project, understand the problem, defend the solution.”

DEPARTMENT

Department Events

Learning through participation



Department events create opportunities for students and faculty to interact beyond the conventional classroom.

Academic celebrations, technical activities, awareness programmes and student-centred events contribute to a vibrant departmental environment.

PARTICIPATION

Students become active contributors rather than passive audience members.

COLLABORATION

Events bring students, faculty and peers together around shared objectives.

"A department grows stronger when its students participate actively."

SPOTLIGHT

Achievement Spotlight

Recognising effort, growth and excellence

Every achievement has a story behind it.

Behind a successful presentation, project, competition or academic accomplishment are hours of preparation, practice, discussion and persistence.

Achievement should therefore be viewed broadly. Excellence can appear in academic performance, technical implementation, research exploration, leadership, teamwork, communication or the courage to attempt something unfamiliar.

ACADEMIC EXCELLENCE

Strong academic performance reflects discipline, understanding and sustained effort.

TECHNICAL GROWTH

Technical competence develops through practice and experimentation.

RESEARCH SPIRIT

Curiosity and the willingness to investigate unanswered questions are important qualities for innovation.

LEADERSHIP

Leadership develops through responsibility and teamwork.

CELEBRATING THE JOURNEY

An achievement is valuable not only because of the final result, but also because of what the learner becomes during the process.

“Celebrate the result. Remember the effort. Continue the journey.”

DEVELOPMENT

Skill Development Programmes

Building capabilities for tomorrow

Academic knowledge becomes more valuable when students can apply it confidently. Skill development programmes provide opportunities to strengthen technical abilities, professional communication and practical problem-solving.

AREA	SKILL DEVELOPMENT FOCUS
Programming	Problem-solving, algorithms, programming languages, debugging and software development practices.
Data Science	Data preparation, analysis, visualisation and interpretation.
AI/ML	Machine learning fundamentals, model development, experimentation and evaluation.
Cloud	Cloud concepts, deployment, infrastructure and modern computing environments.
Cyber Security	Security awareness, secure computing practices and risk understanding.
Soft Skills	Communication, presentation, teamwork, leadership, time management and professional confidence.

THE SKILL-BUILDING CYCLE

Students first understand a concept, then practise it, apply it to a problem, receive feedback and improve their approach.

“Learn it. Practise it. Apply it. Improve it.”

EXPOSURE

Industry Visit

Seeing professional practice beyond the classroom

An industry visit provides students with an opportunity to observe how technology, people and processes work together in a professional environment.

Classroom discussions often focus on individual concepts. Professional environments demonstrate how those concepts become part of larger systems involving teams, deadlines, communication, documentation, quality requirements and organisational processes.

KEY TAKEAWAYS

Professional communication, teamwork, technology adoption, organisational structure and workplace expectations.

WORKPLACE EXPERIENCE

Students gain insight into professional environments and real-world engineering practices.

FROM OBSERVATION TO UNDERSTANDING

How are teams organised? How are technical decisions made? How is quality maintained? How do professionals communicate?

These observations help students connect academic subjects with the professional ecosystem.

OBSERVE**UNDERSTAND****APPLY**

“Exposure creates awareness; reflection turns exposure into learning.”

STUDENT LIFE

Student Voices

Learning through the eyes of learners

Students are at the heart of the department.

Their experiences, questions, ideas and aspirations shape the academic environment. A vibrant department is one where students feel encouraged to ask questions, participate in activities, experiment with ideas and communicate their perspectives.

LEARNING EXPERIENCE

Students encounter different learning experiences through classes, laboratories, projects, workshops and collaborative activities.

STUDENT PERSPECTIVE

Students bring different interests, backgrounds and aspirations.

COLLABORATION

Working with classmates teaches students how to share ideas, resolve differences and divide responsibilities.

FUTURE ASPIRATIONS

Students pursue different pathways including higher studies, research, entrepreneurship and professional careers.

EVERY STUDENT HAS A STORY

Some students discover their interests early. Others find their direction through experimentation, projects, conversations and new experiences.

“Listen to students. Encourage their questions. Celebrate their growth.”

RESPONSIBILITY

Social Responsibility

Technology with purpose

Computing has an impact far beyond laboratories and classrooms. Digital technologies influence education, communication, healthcare, business, governance and everyday life. With this influence comes responsibility. Students must therefore understand that technical capability should be accompanied by ethical awareness.

DIGITAL AWARENESS

Promoting awareness about responsible use of digital platforms, information and communication technologies.

COMMUNITY ENGAGEMENT

Technology can support communities when solutions are designed with real needs in mind.

RESPONSIBLE INNOVATION

Innovation should consider usability, safety, accessibility, privacy and broader consequences.

ETHICAL COMPUTING

Students should understand ethical responsibilities associated with data, algorithms and digital systems.

THE RESPONSIBLE TECHNOLOGIST

A technically successful solution is not necessarily a responsible solution.

“Build technology that is useful, responsible and worthy of trust.”

CAMPUS

Campus Life

Where learning meets experience



Campus life is an important part of the student experience.

Education is shaped not only by lectures and examinations, but also by conversations with classmates, participation in activities, teamwork, informal discussions and shared experiences.

LEARN

Classrooms and laboratories provide the foundation for academic and technical development.

CONNECT

Peer interaction creates opportunities for collaboration, discussion and shared learning.

PARTICIPATE

Events and activities allow students to develop confidence, communication and leadership abilities.

GROW

Academic and personal experiences help students become more confident and independent.

"Some of the most memorable lessons happen outside the classroom."

MEMORIES

Moments to Remember

A year captured in moments



A departmental year is made up of many moments: a first presentation, a successful project demonstration, a workshop, a competition, a group activity, a new friendship or simply a memorable day spent learning together.

Photographs preserve these moments, but the real value lies in the experiences behind them.

MORE THAN A GALLERY

A photograph captures a moment, but a department's journey is defined by what happened before and after that moment.

"Moments become memories. Experiences become stories. Stories become identity."

ACADEMIC ENGAGEMENT

Seminars & Guest Lectures

Learning from knowledge beyond the classroom

Seminars and guest lectures provide students with opportunities to interact with ideas, experiences and perspectives that extend beyond conventional classroom teaching.

A seminar can introduce students to a new technology, an emerging research area, a professional practice or a problem currently being explored by the computing community.

Guest lectures provide opportunities for students to hear directly from experienced academics and professionals.

EXPERT KNOWLEDGE

Students receive exposure to perspectives from experienced academics, researchers and professionals.

NEW PERSPECTIVES

Seminars encourage students to understand alternative approaches to technical and research problems.

QUESTIONING

Students learn to clarify concepts, challenge assumptions and engage with speakers.

INSPIRATION

Exposure to real experiences can encourage students to explore research and professional careers.

FROM LISTENING TO LEARNING

The value of a seminar does not end when the presentation is over. Students can continue the learning process by reading further, discussing ideas and exploring new areas.

“Listen with curiosity. Question with confidence. Learn with purpose.”

FACULTY

Faculty Development Programmes

Continuous learning for better teaching

Teaching is itself a continuous learning process.

Faculty development programmes provide opportunities for educators to strengthen subject knowledge, explore contemporary teaching methods and become familiar with emerging technologies.

In computer science, continuous professional development is particularly important because technologies, tools and computational paradigms evolve rapidly.

KNOWLEDGE

Continuous learning helps faculty remain connected with developments in computing and technology.

PEDAGOGY

Teaching approaches can evolve through reflection and exchange of effective academic practices.

RESEARCH

Professional development can encourage collaboration and research discussion.

SHARING

Knowledge gained through professional activities becomes more valuable when shared with colleagues and students.

THE TEACHER AS A LIFELONG LEARNER

When faculty members continue learning, students see that education does not end with a degree.

“A better learning environment begins with educators who never stop learning.”

STUDENT DEVELOPMENT

Student Seminars & Presentations

Learning to communicate knowledge

A strong technical professional must be able to communicate ideas clearly. Student seminars and presentations provide an opportunity to develop this ability. Preparing a presentation requires students to understand a topic deeply enough to explain it to others, select relevant information and organise it into a meaningful sequence. Presenting also develops confidence and helps students respond to questions.

RESEARCH

Students learn to search for reliable information and organise technical material.

PRESENTATION

Preparing slides and explaining concepts develops structured technical communication.

CONFIDENCE

Repeated presentation experiences help students communicate more comfortably.

DISCUSSION

Questions encourage students to think beyond memorised information.

KNOWLEDGE BECOMES STRONGER WHEN IT IS SHARED

A presentation is an opportunity to organise knowledge, communicate it and learn from the questions of others.

“If you can explain an idea clearly, you understand it differently.”

TECHNICAL CULTURE

Coding & Programming Culture

Think logically. Build confidently.

Programming is one of the fundamental skills in computer science.

Learning to program is not simply about remembering syntax. It develops a structured way of thinking about problems. Students learn to divide complex tasks into smaller components, identify patterns, design algorithms and test their solutions.

A healthy programming culture encourages regular practice and helps students become comfortable with debugging, documentation and improving existing solutions.

ALGORITHMIC THINKING

Students learn to convert problems into structured steps.

DEBUGGING

Debugging teaches students how to analyse behaviour and improve solutions.

PROBLEM SOLVING

Regular practice develops systematic approaches to unfamiliar problems.

COLLABORATION

Programming projects teach students how to read, discuss and improve code developed by others.

FROM CODE TO COMPUTATIONAL THINKING

The ability to analyse a problem, select an appropriate algorithm, evaluate alternatives and understand limitations is valuable across software development, AI, data science and research.

“Good programmers write code. Great problem solvers understand why.”

EMERGING TECHNOLOGY

AI & Data Science Activities

Finding patterns in information

Artificial intelligence and data science provide students with powerful ways to understand information and develop data-driven solutions.

Practical activities encourage students to work with datasets, identify patterns, develop computational models and interpret results.

The process teaches an important lesson: technology alone does not guarantee a meaningful result. Data quality, problem formulation, evaluation and responsible interpretation all matter.

DATA

Students learn how data can be collected, prepared, organised and analysed.

MODELS

Machine learning models provide opportunities to study prediction, classification and pattern recognition.

VISUALISATION

Visual representations can help students understand trends and relationships within datasets.

INTERPRETATION

Students should learn how to understand results and their limitations.

DATA TO DECISION

A data-driven system is useful only when its results are understood in context.

“Data provides information. Understanding turns information into insight.”

DIGITAL RESPONSIBILITY

Cybersecurity Awareness Activities

Think before you trust

Cybersecurity awareness is an important part of responsible digital behaviour. Students interact with digital systems every day. Understanding basic security principles helps them recognise risks associated with passwords, authentication, suspicious messages, unsafe links, privacy and digital information. Security education should develop awareness rather than fear. Students should understand why security controls exist and how individual behaviour contributes to larger systems.

PASSWORD SECURITY

Strong authentication practices help reduce the risk of unauthorised access.

PHISHING AWARENESS

Students should learn to recognise suspicious messages and misleading digital communication.

PRIVACY

Personal and organisational information should be handled carefully.

RESPONSIBILITY

Cybersecurity knowledge should always be used legally and ethically.

SECURITY STARTS WITH AWARENESS

Technology can provide security mechanisms, but responsible users remain an important part of the security ecosystem.

“Think before you click. Verify before you trust. Protect before you share.”

RESEARCH

Research Publications & Scholarly Activities

Sharing knowledge with the academic community

Research becomes part of the wider academic community when its findings are communicated, discussed and evaluated.

Publications, conference presentations, technical discussions and scholarly activities provide researchers with opportunities to share their work and receive feedback.

For students, exposure to scholarly communication introduces an important dimension of academic learning. They begin to understand how research questions are formulated and how evidence is used to support technical claims.

PUBLICATION

Research findings can contribute to the broader body of knowledge.

CONFERENCE

Academic conferences provide opportunities to present ideas and discuss results.

REVIEW

Critical review helps researchers identify strengths, limitations and opportunities for improvement.

KNOWLEDGE SHARING

Research creates greater value when findings are communicated clearly.

RESEARCH AS A CONVERSATION

A research publication becomes part of a larger conversation in which ideas are examined, questioned, extended and challenged.

“Research moves forward when ideas are shared, examined and improved.”

INNOVATION

Innovation, Entrepreneurship & Startups

Turning ideas into possibilities

Innovation begins with identifying a problem worth solving.

Students with technical knowledge can transform ideas into prototypes, applications and services that address real needs. Entrepreneurship adds another dimension by asking how such solutions can create sustainable value.

An entrepreneurial mindset does not require every student to start a company. It encourages students to identify problems, understand users, evaluate alternatives, take informed risks and learn from unsuccessful attempts.

PROBLEM

Good innovation begins with understanding a genuine problem.

IDEA

Students can explore alternative approaches through creativity and structured thinking.

PROTOTYPE

A prototype allows an idea to be tested and improved.

IMPACT

Successful innovation should create meaningful value for its intended users.

THE ENTREPRENEURIAL MINDSET

Entrepreneurship teaches students to move from asking “Can this be built?” towards asking “Should this be built, for whom, and how can it create meaningful value?”

“Find a problem. Build a solution. Test the value. Learn from the journey.”

FUTURE PATHWAYS

Higher Studies & Research Opportunities

Learning beyond the undergraduate journey

Graduation is often the beginning of a new academic journey. Students interested in deeper technical knowledge, research or specialised professional areas can explore postgraduate education and research opportunities. Higher studies require more than academic performance. Students need curiosity, discipline, the ability to read technical literature and the willingness to investigate problems independently.

SPECIALISATION

Postgraduate education allows students to develop deeper knowledge in selected areas.

RESEARCH

Research pathways provide opportunities to investigate technical questions and contribute new knowledge.

EXAMINATIONS

Competitive examinations and academic assessments can provide pathways towards advanced education.

ACADEMIC NETWORK

Interaction with teachers, researchers and academic communities can help students discover areas matching their interests.

CHOOSING THE NEXT STEP

There is no single path after graduation. Some students may choose professional careers, while others may pursue higher studies, research, entrepreneurship or specialised technical training.

“A degree opens a door. Curiosity determines how far you continue.”

CAREER

Internship & Industry Readiness

Experience before the first professional step

An internship provides students with an opportunity to experience professional work while they are still developing their academic foundations.

The transition from classroom exercises to professional projects introduces new expectations. Students may need to work with unfamiliar tools, communicate with team members, follow documentation practices, manage deadlines and adapt to existing systems.

Internships therefore complement academic learning.

EXPERIENCE

Students gain exposure to professional environments and practical technical tasks.

TEAMWORK

Working with others develops communication and coordination.

RESPONSIBILITY

Professional assignments teach students to manage tasks, deadlines and quality.

REFLECTION

Students can use internship experiences to identify areas requiring further learning.

FROM ACADEMIC LEARNING TO PROFESSIONAL PRACTICE

The greatest value of an internship comes from reflection. Students should ask what they learned, which skills they used and what they need to improve.

“Experience teaches what textbooks cannot always demonstrate.”

ACADEMIC CULTURE

Academic Excellence & Continuous Learning

Excellence is a habit

Academic excellence is built through consistent effort.

It involves understanding fundamental concepts, maintaining discipline, asking questions, practising regularly and developing the ability to apply knowledge in unfamiliar situations.

Marks and grades provide one measure of academic performance, but meaningful learning extends beyond examination results.

FOUNDATIONS

Strong fundamentals provide the base required to understand advanced concepts.

DISCIPLINE

Regular study, practice and preparation develop consistent academic habits.

CURIOSITY

Students who ask questions and explore beyond prescribed material develop deeper understanding.

LIFELONG LEARNING

Technology changes continuously. The ability to learn new concepts remains valuable throughout a career.

EXCELLENCE IS A JOURNEY

There is always another problem to solve, another concept to understand and another skill to develop.

“Excellence grows through curiosity, discipline and continuous improvement.”

INCLUSION

Women in Computing & Inclusive Technology

Building opportunities for everyone

A strong technology community benefits from diverse perspectives.

Computing brings together people with different experiences, interests, approaches and ways of thinking. An inclusive academic environment encourages students to participate confidently, share ideas and pursue opportunities according to their interests and abilities.

Encouraging participation in computing also means creating opportunities for students to explore programming, artificial intelligence, cybersecurity, research, entrepreneurship and other areas without unnecessary barriers.

OPPORTUNITY

Students should have access to academic, technical, research and leadership opportunities.

CONFIDENCE

Supportive environments encourage students to ask questions and participate actively.

DIVERSITY

Different perspectives can strengthen collaboration, creativity and problem-solving.

BELONGING

Every learner should feel that there is a place for their ideas and aspirations within the technology community.

AN INCLUSIVE TECHNOLOGY FUTURE

The future of computing should be shaped by people with different perspectives and experiences. Creating opportunities for participation helps ensure that talent can develop wherever curiosity and determination exist.

“Different perspectives create stronger ideas and better technology.”

RESPONSIBLE TECHNOLOGY

Green Computing & Sustainable Technology

Technology with a lighter footprint

Modern computing depends on significant physical and digital infrastructure. As technology becomes increasingly important, responsible use of computational resources also becomes important. Green computing encourages consideration of energy use, hardware lifecycle, efficient resource utilisation and the environmental consequences associated with technology. For students, sustainability provides another dimension of engineering thinking. A technically effective solution should also consider efficiency, resource requirements and long-term impact.

ENERGY EFFICIENCY

Efficient computing approaches can reduce unnecessary resource consumption.

RESOURCE USE

Responsible computing considers how computational and physical resources are used.

HARDWARE LIFECYCLE

The useful life, maintenance and responsible disposal of hardware are important parts of sustainable technology.

EFFICIENT SOFTWARE

Software design can also consider computational efficiency and unnecessary resource consumption.

THE RESPONSIBLE ENGINEER

Sustainability reminds us that technology exists within a larger physical and social environment. Engineering decisions can therefore consider not only performance, but also efficiency, accessibility, maintainability and long-term consequences.

“Build efficiently. Use responsibly. Think beyond the screen.”

THE FUTURE

The Road Ahead

Preparing for the next chapter

The future of computing will continue to be shaped by rapid technological change. Artificial intelligence, cloud computing, cybersecurity, advanced data systems, emerging computational paradigms and other technologies will continue to influence how people work, learn and communicate.

Preparing students for this future does not mean predicting every technology they will encounter. It means developing the ability to learn, adapt, question, experiment and solve unfamiliar problems. The strongest foundation is therefore not a list of tools. It is a combination of fundamentals, curiosity, practical experience, ethical awareness and continuous learning.

LEARN

Build strong fundamentals and remain curious about new developments.

ADAPT

Technology changes. The ability to learn new approaches is essential.

CREATE

Use knowledge to develop meaningful solutions to real problems.

CONTRIBUTE

Technology becomes more valuable when it creates responsible impact for people and society.

THE JOURNEY CONTINUES

The pages of this newsletter capture only a part of the department's academic journey. There will be new projects, new questions, new achievements, new technologies and new opportunities to learn.

The next chapter will be written by the students, faculty and academic community who continue to explore what is possible.

"The future belongs to those who remain curious enough to keep learning."

CLOSING

The Journey Continues

Learning today. Creating tomorrow.

A DEPARTMENT IS A JOURNEY

A departmental newsletter is more than a record of activities. It is a reflection of the people, ideas, efforts and experiences that shape an academic community.

The pages of *THE VISION* bring together teaching, research, student activities, workshops, competitions, technology, professional exposure and the many experiences through which students grow.

Every classroom discussion, laboratory experiment, project, presentation, seminar and event contributes something to that journey.

Some experiences produce immediate results. Others become valuable only much later, when a student remembers a concept, a conversation, a challenge or an opportunity that changed the way they approached a problem.

The department's responsibility is therefore larger than delivering academic content. It is to create an environment in which students can develop knowledge, confidence, curiosity, responsibility and the courage to explore.

The journey does not end with this newsletter.

New students will arrive with new questions. New faculty members will bring new ideas. New technologies will create new possibilities. New projects will turn those possibilities into experiences. And the cycle of learning will continue.

LEARN • EXPLORE • INNOVATE •
CONTRIBUTE

May every question lead to learning, every challenge lead to growth and every idea lead to something meaningful.

"The journey continues — with every learner, every idea and every possibility."



THE VISION

Department of Computer Science & Engineering

ACADEMIC YEAR 2026–2027



LEARN. EXPLORE. INNOVATE.

The Department of Computer Science & Engineering remains committed to creating an environment where curiosity is encouraged, knowledge is shared, ideas are explored and students are prepared to contribute meaningfully to the future of technology.

The journey continues.

THE VISION | Departmental E-Newsletter