SES
SHIRPUR EDUCATION SOCIETY

R. C. PATEL INSTITUTE OF TECHNOLOGY

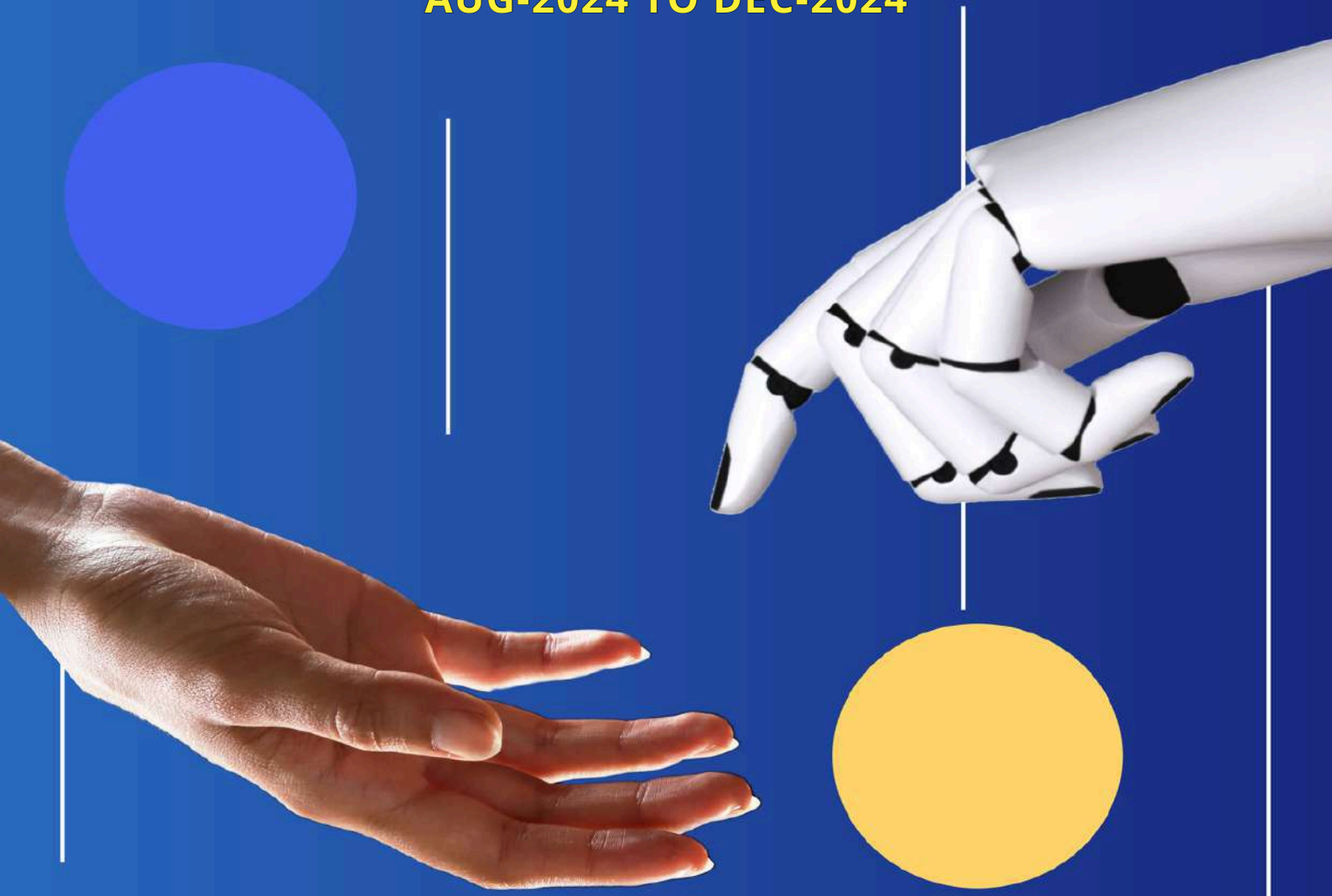
An Autonomous Institute

Approved By AICTE, New Delhi and Govt. of Maharashtra (DTE: EN - 5172)

Accredited by NAAC 'A' Grade, Bangalore.

Department of Computer Engineering

AUG-2024 TO DEC-2024



The CompVoice

News Letter for A.Y. 2024-25

www.rcpit.ac.in

R. C. Patel Institute of Technology
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Vision of the Institute

To become a leading Institute in Technical education fostering innovation, research, ethical values, and sustainable development for the betterment of society.

Mission of the Institute

To impart high quality Technical Education through:

M1. Innovative and Interactive learning process and high quality, globally recognized instructional programs.
M2. Fostering a collaborative scientific temper among students with ethical responsibility towards the society.
M3. Preparing students from diverse backgrounds to have aptitude for employment, entrepreneurship and research with a spirit of Professionalism.
M4. To contribute to nation's sustainable development.

Vision of the Department

To provide high quality Computer Engineering education with socio-moral values.

Mission of the Department

M1 To provide state-of-the-art ICT based teaching-learning process.
M2 To groom the students to become professionally sound computer engineers to meet emerging needs of industry and society.
M3 To make the students employable professionals by inculcating ethical values.

Program Educational Objectives (PEOs) of the Department

PEO1 Graduates will have technical proficiency, lifelong learning skills to become a professional, entrepreneur and leader.
PEO2 Graduates will function effectively in diverse cultural and professional environments, respecting societal perspectives and inclusive practices.
PEO3 To foster ethical and social values to be socially responsible human being.

Program Specific Outcomes (PSOs)

PSO 1 Apply programming principles, algorithms, and data structures to design efficient software solutions and intelligent systems using structured, object-oriented, and emerging technologies.
PSO 2 Design, develop, and deploy responsive web and mobile applications integrated with databases and cloud platforms, leveraging modern frameworks and tools for digital transformation.

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From the Director's Desk



Dear Students, Faculty Members, Staff, Parents, and Esteemed Stakeholders,

I am pleased to reflect on the Academic Year 2024–2025, which marked steady academic progress and continued commitment to quality education at R. C. Patel Institute of Technology, Shirpur.

Throughout the year, the institute remained focused on promoting academic excellence, innovation, and professional ethics. Our dedicated faculty members played a key role in delivering effective teaching and mentoring, while continuously enhancing their academic and professional competencies.

Students actively participated in academic and co-curricular activities, which encouraged skill development, teamwork, and leadership. These experiences complemented classroom learning and helped prepare them for future professional challenges.

We also continued efforts to strengthen industry interaction and promote skill-oriented learning, ensuring our students are well-prepared for a dynamic and competitive environment.

I sincerely appreciate the efforts of our faculty, staff, students, and the continued support of parents and stakeholders. Let us move forward with confidence and determination to achieve greater milestones in the years ahead.

Warm regards,
Prof. Dr. Jayantrao. B. Patil
Director
R. C. Patel Institute of Technology, Shirpur

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From the HOD's Desk



It gives me great pleasure to share a brief reflection on the activities and progress of the Department of Computer Engineering during the Academic Year 2024–2025.

Throughout the year, the department remained focused on promoting academic excellence, technical competence, and continuous learning. Through various academic initiatives, technical events, workshops, and student activities, we encouraged the development of problem-solving skills, innovation, and professional readiness among our students.
The consistent efforts of our faculty members played a vital role in maintaining high academic standards and guiding students toward holistic development. I sincerely appreciate the active participation and dedication of our students, which contributed significantly to the department's achievements.

I extend my heartfelt thanks to the faculty, staff, and students for their commitment and teamwork. I am confident that our collective efforts will continue to strengthen the department and prepare our students to meet future technological challenges with confidence.

With best wishes,

Prof. Dr. Rajnikant B. Wagh
Head, Department of Computer Engineering
R. C. Patel Institute of Technology, Shirpur

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Editorial Board Message



Dear Readers,

It is a matter of great pride to present the Department Magazine of Computer Engineering for the academic year 2024–25. This publication stands as a testament to the department's commitment toward holistic student development, innovation, and professional growth.

During the academic year, the department focused on strengthening students' technical knowledge, analytical abilities, and communication skills through academic engagement, project-based learning, and exposure to emerging trends in computer engineering. The articles, achievements, and project highlights featured in this magazine demonstrate students' readiness to meet industry and societal challenges.

I sincerely commend the efforts of the student editorial team and faculty coordinators for their dedication and teamwork. I am confident that this magazine will encourage students to think critically, learn continuously, and contribute responsibly as future engineers.

Dr. Vipul D. Punjabi
Editor
Associate Professor
Department of Computer Engineering

Editorial Board Student Member



Mitesh Gajanan Chaudhari
Member



Yash Nitin Chaudhary
Coordinator



Aniket Pravin Patil
Member

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Faculties Achievements



ICISML – 2024

Dr. Sandip R. Sonawane

Presented his research paper titled "**A Modified YOLO-based Approach for Weed-Crop Classification and Detection in Sesame Fields**" at the 4th International Conference on Intelligent Systems and Machine Learning

Dr. Sandip R. Sonawane

Received **copyright registration** from the Government of India under Intellectual Property India. Their work on **"Agricultural Transformation: YOLOv8 Based Deep Learning for Weed Detection in Realtime Farm Images"** highlights innovative research in AI-driven smart agriculture.



Copyright Registration



Research Paper SSSDET 2K24

Ms. Punam R. Patil

Presented her research paper at the 1st International Conference on **Smart and Sustainable Developments in Science, Engineering and Technology** (SSSDET 2K24) held on 10th August 2024

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Faculties Achievements



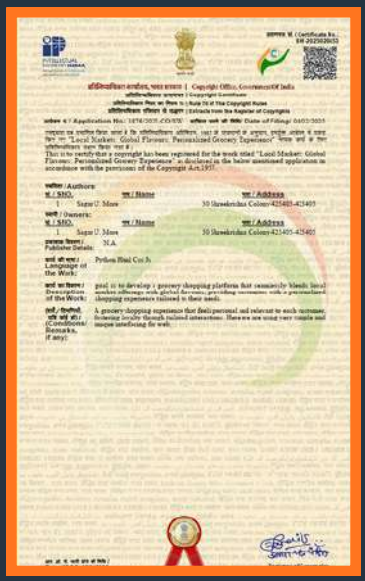
Research Paper ASCIS 2024

Ms. Punam R. Patil

Presented her research paper titled **"Deep Learning Approaches for Skin Cancer Segmentation and Classification Using Capsule Network"** at the 3rd International Conference on Advancements in Smart Computing & Information Security

Mr. Sagar U. More

Received Government of India Copyright Registration (No. SW-2025020453) for the project **"Local Markets: Global Flavours – Personalized Grocery Experience"**



Copyright Registration



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Department Activities



Smart India Hackathon 2024

The Department of Computer Engineering successfully organized the **Internal Smart India Hackathon 2024** at **R. C. Patel Institute of Technology, Shirpur, on 2nd and 5th September 2024**. The event aimed to encourage innovation, problem-solving abilities, and teamwork among students by providing a platform to present impactful ideas and working prototypes.

The competition was conducted in two rounds. **Round I, held on 2nd September 2024,** focused on idea presentation, where teams pitched their innovative concepts. **Round II, organized on 5th September 2024**, involved prototype development and evaluation. After comprehensive assessment based on novelty, feasibility, usability, and scalability, **30 teams were shortlisted** to represent the institute at the National Level Smart India Hackathon 2024.

A total of 43 teams with 258 students participated in the event, demonstrating collaborative effort from all branches with mandatory inclusion of girl participants. The hackathon provided students valuable exposure to real-world problem statements, teamwork culture, and hands-on learning with mentoring support.

The event was efficiently **coordinated under the guidance** of **Mr. Sagar U. More and Mr. Harshal S. Patil** (Internal Hackathon Faculty In-charge), ensuring smooth and successful execution.





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Department Activities



Cyber Dhamaka Quiz and Challenge Fest

The Department of Computer Engineering successfully conducted, **The Cyber Dhamaka Quiz and Challenge Fest** was organized by the **Cyber Security Cell.**

As per **AICTE guidelines, the main objective of** the **Cyber Security Cell is to raise awareness about cyber security among students.**

The event was conducted in two rounds. The **first round** of the **quiz** was **conducted on 20th September 2024,** and the **second round** was a CTF (Capture The Flag) challenge that was **conducted on 27th September 2024.**

In the first round, 48 teams participated, from which 10 teams were shortlisted for the final round.

In the final round, 10 CTF challenges were given to each team. The team that solved the maximum number of challenges quickly was considered the winner. **The prize distribution of the event was held on 10th October 2024.**





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Department Activities



Nodevember 2.0

The Department of Computer Engineering at **R. C. Patel Institute of Technology, Shirpur,** under the Akatsuki Coding Club, **successfully organized a four-day hands-on workshop titled "Nodevember 2.0"** from **11th to 14th November 2024 for third-year Computer Engineering students.** The workshop was designed to strengthen students' backend development skills through industry-relevant **training in JavaScript, Node.js, Express.js, and MongoDB,** enabling them to build scalable server-side applications and modern web services.

The program followed a blended learning approach that combined concept-based sessions, live demonstrations, and guided hands-on practice. **Throughout the workshop, students gained practical exposure to developing secure RESTful APIs, integrating cloud-based databases, and deploying backend applications.** Interactive Menti quizzes conducted each day helped reinforce key concepts while encouraging participation and healthy competition among students.

A total of 120 students actively participated in the workshop, demonstrating strong curiosity, collaboration, and enthusiasm for backend development. Over the four days, students progressed from **understanding client–server architecture** and JavaScript fundamentals to working with advanced JavaScript concepts, Node.js, Express.js frameworks, and MongoDB database integration.

The final day focused on backend project development, where students **built a Company Review System using the MVC architecture,** implemented schemas and APIs, and tested endpoints using Postman. This practical experience allowed participants to apply the concepts learned during the workshop and develop a functional backend prototype.





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Students Achievements



TECH-CARVAAN 2025

Ms. Ojaswini Kiran Borse

Second Year Computer Engineering student, was a **Finalist in the Codesphere event at the National Level Technical Fest TECH-CARVAAN 2025**, organized by Government College of Engineering, Jalgaon

Ms. Kajal Mali

Second Year Computer Engineering student, successfully completed the **Greedy Algorithms certification course** offered by Great Learning, enhancing her algorithmic problem-solving skills.



Certification Course



Certification Course

Mr. Vedant Vispute

Third Year Computer Engineering student, successfully completed the course **"Text Mining with Machine Learning and Python"** offered by Infosys through Infosys Springboard. The achievement highlights his skills in machine learning, data analytics, and Python programming.

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Students Achievements



NAT-TEST (N5 Level)

Ms. Diksha Madhav Pal

Third-year student successfully participated in the **National Level Margdarshak Event** held during **Fluxus, the annual techno-cultural festival of IIT Indore**. He was awarded a Certificate of Appreciation in recognition of his active participation and meaningful engagement in the national-level event.

Mr. Om Patil

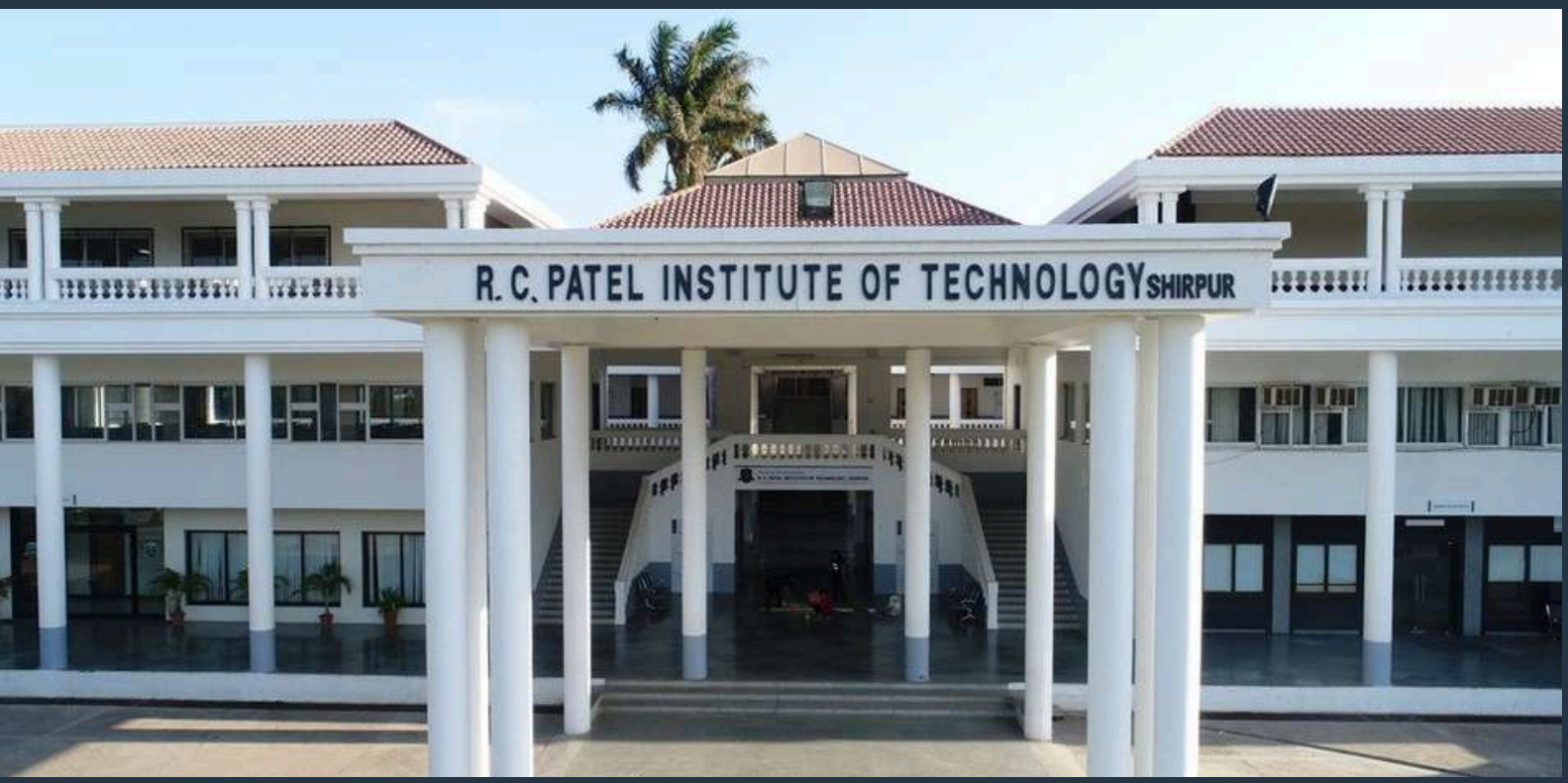
Third-Year Computer Engineering student, actively participated in **Cyber Dhamaka – Quiz and Challenge Fest,** organised by the Cyber Security Cell, on September 20, 2024. The event enhanced students' knowledge in cybersecurity through quizzes and technical challenges. His participation reflects enthusiasm towards learning emerging technologies and strengthening technical skills.



Cyber Dhamaka - Quiz and Challenge



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