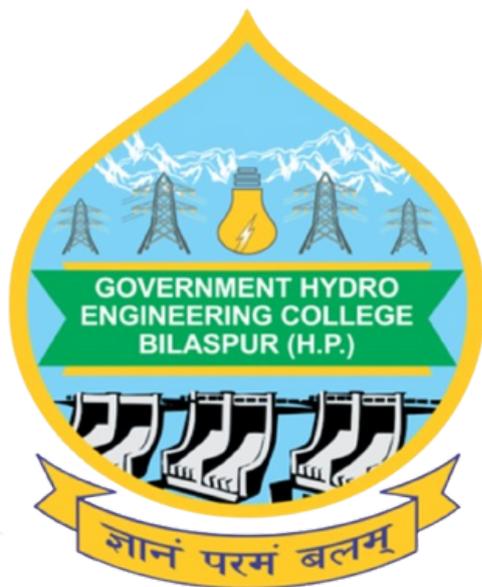


◆ VISION OF DEPARTMENT ◆

To excel at the global forefront of Computer Science and Engineering, empowering students in Artificial Intelligence and Data Science to become innovative leaders, ethical professionals, and change-makers dedicated to solving real-world challenges and driving sustainable technological advancement.

MISSION OF THE DEPARTMENT

- To strengthen the core competence in Computer Science and Engineering through analytical and collaborative learning.
- To produce successful graduates with personal and professional responsibilities and commitment to lifelong learning.
- To uplift innovative research in Computer Science and Engineering to serve the needs of Industry, Government and Society.



↓ IN THIS NEWSLETTER YOU WILL FIND:

↓ Guest Lecture, Technical & Non - technical events, Workshops, Sports events....

FACULTY MEMBERS

Dr. Shashi Gurung

Associate professor (HOD, CSE)



It gives me immense pleasure to present this edition of the CSE Department Newsletter i.e. CSE SPECTRUM. The field of Computer Science & engineering is evolving rapidly, and our department is committed to equipping students with the right knowledge, practical skills, and research mindset to meet future challenges. I sincerely appreciate the dedication of our faculty and the enthusiasm of our students, in shaping a vibrant academic environment. Wishing everyone continued success and innovation in all future endeavors.

Er. Ravi Kumar

Assistant Professor (CSE)

Faculty Coordinator, CSE Society

It gives me immense pleasure to pen down a few words for CSE SPECTRUM, our department's very own newsletter, which reflects the collective achievements, ideas, and creativity of our students and faculty. I congratulate the editorial team and contributors for their hard work and dedication in curating this edition. May CSE SPECTRUM continue to serve as a platform for inspiration, knowledge sharing, and community building.

Wishing everyone continued success and innovation in all future endeavors.



CSE Society Co-ordinators

MOTTO OF THE SOCIETY

"There is no limit to learning and Together Everyone Achieves More "

President

Abhishek Kumar

Vice-President

Sharad Kapil

Secretary

Parikshit Sankhyan

Technical Head

Pulkita Sharma

Non-Technical Head

Rashi Guleria

Members

- *Raj Jamwal (Gate & Research)*
- *Hardik (Coding Club)*
- *Arpit Awasthi (AI & Robotics)*
- *Shivam (Web Development)*

Members

- *Ipshita Puri (Event Management)*
- *Ashutosh Sharma (Literary Club)*
- *Mitesh Sharma (Sports Club)*
- *Pankaj (Soft Skills Club)*
- *Vanshika Sharma (Arts & Craft)*
- *Shivam Sharma (Dance Club)*
- *Ashish (Music Club)*
- *Aakash (Pixoverse)*

TECHNICAL ACTIVITIES



AI & ROBOTICS CLUB (CSE SOCIETY)

ROBOT TRACKING EVENT



REPORT

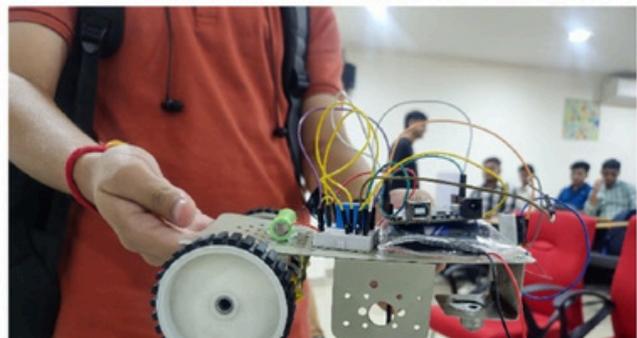
On **October 16, 2024** – The AI and Robotics Club of the CSE Society organized a **Robot Tracking** event for CSE 1st and 2nd year students **at Government Hydro Engineering College**, focusing on recent advancements in robotics and the integration of **Artificial Intelligence (AI)** and **Machine Learning (ML)** technologies. The event was held under the guidance of **Sh. Ravi Kumar**, Assistant Professor and HOD/OIC, CSE (AI and DS) Department, GHEC and coordinated by **Arpit Awasthi** and **Bhavya Nigam**. The event was assisted by CSE society GHEC.

The event featured a live demonstration of a **line follower robot**, highlighting how sensors enable the robot to detect and follow a path. Attendees were introduced to the robot's basic control mechanisms and real-world applications in industries.

In addition to the demonstration, the club heads conducted an informative session on AI and ML. The session emphasized the role of AI and ML in enhancing robotic decision-making and adaptability.

Students had the opportunity to engage directly with the robot and participate in an interactive Q&A session, exploring how AI and ML will shape the future of robotics.

The event successfully demonstrated the potential of robotics in today's technology-driven world, inspiring students to delve deeper into AI and ML for future innovations.



TECHNICAL ACTIVITIES



Deep Learning Workshop at IIT Mandi

On 8th and 9th February, a two-day deep learning workshop was held at IIT Mandi, where our group of seventeen students participated to gain valuable insights from distinguished professors. The sessions covered fundamental concepts like neurons, perceptrons, and activation functions, introduced by Prof. Aditya Nigam. We explored FCNNs and CNNs, understanding their role in feature extraction. Dr. Sneha Singh highlighted deep learning's impact on medical imaging, while Dr. Parimala Kancharia discussed its applications in generative AI. Dr. Rohit Saluja's session on Large Language Models (LLMs) explained how AI processes human-like text.

The workshop emphasized the significance of linear algebra in deep learning, particularly in optimization and vector transformations. It strengthened our grasp of essential topics such as backpropagation, loss functions, and activation mechanisms. Practical applications in AI-driven content generation, NLP models, and healthcare were thoroughly explored, offering real-world relevance to theoretical knowledge.

This insightful experience deepened our interest in deep learning and its applications. Engaging lectures and hands-on discussions made complex topics more accessible, encouraging us to delve further into AI advancements. The workshop was an invaluable opportunity to enhance our technical knowledge and explore new dimensions in machine learning.

TECHNICAL ACTIVITIES

State Level Smart Hackathon

- The **State Level Smart Hackathon 2025** was held on 22nd March 2025 at **Government Hydro Engineering College Bandla**, Bilaspur. Organized under the directive of the **Directorate of Technical Education**, the event provided a platform for engineering students to showcase their technical skills and innovative solutions to real-world problems. The competition brought together the top 10 teams from various engineering colleges, tackling 12 problem statements focused on Himachal Pradesh-specific challenges.
- The hackathon was conducted in two phases: first, an internal College Level Hackathon, where each participating institution selected its top two teams; and then the State Level Hackathon, where the final 10 teams competed at GHEC Bandla. The event was honoured by the presence of **Sh. Rajesh Dharmani**, Hon'ble Technical Education Minister, as the Guest of Honour, and **Sh. Akshey Sood**, Director of Technical Education, as the Chief Guest, both of whom highlighted the role of technology and innovation in shaping the future. A panel of esteemed jury members, including **Ms. Divya Bansal** (Professor, PEC University), **Dr. Rajesh Sharma** (HOD, Government Polytechnic College, Ambota), and **Ms. Akshita Bhardwaj**(Excellence Technology), evaluated the projects.
- After a tough competition, **Team HimArogyam** from Atal Bihari Vajpayee Government Institute of Engineering and Technology, Pragatinagar, secured **1st place** with a prize of ₹5,000. **Team Alpha** from the same institute took **2nd place**, winning ₹2,000, while **Team Synapse4** from Government Hydro Engineering College, Bilaspur, finished in **3rd place**, receiving ₹1,000.
- **Dr. Himanshu Monga**, Director of GHEC, congratulated the winning teams for their remarkable performance and praised **Er. Ravi Kumar**, the event coordinator, for successfully organizing the competition. The State Level Smart Hackathon 2025 proved to be an inspiring and competitive event, fostering innovation, creativity, and teamwork among students.



TECHNICAL ACTIVITIES

"2nd year CSE Students of Government Hydro Engineering College attended Mobile Device Security Bootcamp at NIT Hamirpur"



A two-day bootcamp on Mobile Device Security was held at NIT Hamirpur on 6th-7th March 2025, sponsored by the **Ministry of Electronics and Information Technology (MeitY)** under the **Information Security Education and Awareness (ISEA)** (Phase-III). The event provided hands-on training aimed to educate participants on mobile security, cyber threats, and secure application development.

Eleven (11) second-year CSE students from Government Hydro Engineering College attended the session under the guidance of **Dr. Himanshu Monga**, Director cum Principal, and **Dr. Shashi Gurung**, Head of the Department (HOD) of CSE. **Sh. Ravi Kumar**, Assistant Professor CSE, supervised the students throughout the bootcamp at NIT Hamirpur.

The bootcamp featured sessions by experts from industry and academia. Key topics included **Mobile Security Fundamentals, Cyber-Attack Detection, Android App Reverse Engineering, Mobile Forensics, and AI Security**. Notable speakers included **Ms. Babita Bhardwaj (UKG Noida), Dr. Sunil Kumar (Cyber Security Consultant), Mr. Gaurav Gogia (NFSU Gandhinagar), Mr. Soutam Dey (Volvo Group), Ms. Niharika Ahuja (Google DeepMind), and Mr. Aman Deep Singh (Google Gemini)**.

Students actively engaged in discussions, practical demonstrations, and case studies, gaining valuable insights into **Mobile Device Security, Cyber Threat Mitigation, and Forensic Techniques**. They also explored AI-related risks, such as **hallucinations in Large Language Models (LLMs)**.

Overall, the bootcamp served as a crucial learning experience, enhancing students' **technical proficiency and cybersecurity awareness**. **Dr. Himanshu Monga**, Director cum Principal of Government Hydro Engineering College, emphasized that the college provides students with opportunities to upgrade their skills through reputed institutions and will continue encouraging more students to attend such sessions in the future.

TECHNICAL ACTIVITIES

Workshop on AI & Data Science



Bilaspur, March 12, 2025 – A one-day workshop on Artificial Intelligence and Data Science was successfully conducted at Government Hydro Engineering College, Bandla, Bilaspur for Computer Science students. The workshop was held under the guidance of Dr. Himanshu Monga, Director-cum-Principal of the college, and coordinated by Dr. Shashi Gurung, Associate Professor and HOD CSE (AI&DS). The aim was to provide practical exposure to AI technologies and real-world applications, enhancing student's knowledge and skills in this rapidly evolving field.

The workshop covered key topics, including **Introduction to AI & Data Science**, its industry applications, and future trends. Students participated in **practical projects**, such as implementing an **AI-based Face Recognition System** and developing an **AI-powered chatbot**.

The session was conducted by **Akshita Bhardwaj**, an industry expert from Excellence Technology, who provided valuable insights into **career opportunities in AI & Data Science**. The workshop also featured **live demonstrations** and an **interactive Q&A session**, allowing students to engage with industry professionals and gain hands-on experience.

The event proved to be an **insightful and enriching experience**, equipping students with **industry-relevant AI skills** and practical knowledge essential for future technological advancements.

NON - TECHNICAL ACTIVITIES

BEAT BREAKERS

Cultural Club Event



October 18, 2024 | Government Hydro Engineering College

The CSE Society's Dance Club showcased its talent at the Beat Breakers: College Dance Showdown, organized by the Cultural Club. This vibrant event featured six solo and three duet performances from students across the CSE, Civil, and Electrical branches.

In the Solo category, Kannupriya from the 4th-year Electrical Engineering department claimed the top prize, while Kritika and Anshika, both 1st-year CSE students, secured the 1st and 2nd runners-up positions, respectively. Their impressive performances demonstrated the hard work and creativity fostered within the Dance Club.

The Duet category was equally thrilling, with Shivam and Priya (2nd-year CSE) emerging as the winners. They were followed closely by fellow CSE students Saloni and Trisha (2nd-year CSE), who earned the runner-up spot, showcasing their exceptional teamwork and talent.

The event was a lively celebration of artistry and community, reflecting the dedication of all participants. The CSE Society's Dance Club not only infused colorful energy into the competition but also strengthened bonds among students through shared artistic expression. The success of the Beat Breakers event was a memorable highlight for the college, earning praise from attendees and participants alike.

NON - TECHNICAL ACTIVITIES



LITERARY CLUB (CSE SOCIETY)

GROUP DISCUSSION



REPORT

On **November 13, 2024**, the **CSE Society** organised a **Group Discussion** session in the Computer Lab exclusively for the CSE department (1st & 2nd year) under the guidance of **Shri Ravi Kumar**, Assistant Professor and HOD/OIC, CSE (AI & DS) Department, GHEC.

The participants were divided into several groups, each consisting of 7 members. The discussions were lively and engaging, with students sharing their perspectives and discussing the **pros and cons** of various technological developments. The session was moderated by senior CSE students, who ensured that the discussions remained structured.

Divyansh of **1st year** secured **1st position**, followed by **Arpit** of **2nd year** in **2nd position** and **Sandeep Kaur** of **1st year** earned **3rd position**.

The event was a success, providing students an opportunity to express their views on emerging technologies and enhancing their communication skills.



ACHIEVEMENT'S

2nd Position in Innovation Expo held during the IIIT-Una Tech Fest



- On April 2nd the students of CSE Department of Govt. Hydro Engineering College, Bilaspur brought pride to their institution by securing the silver medal at the prestigious Innovation Expo held during the IIIT-Una Tech Fest. The event took place in Una, Himachal Pradesh, and showcased cutting-edge student innovations from across the region.
- The winning team comprised CSE students: Raj Jamwal, Sheetal Sharma, Tisha Thakur and Shanvi Sharma.
- Their project, titled "E-Health Solution for Remote Areas," focused on delivering affordable healthcare services to underserved regions.
- The team was guided by Er. Ravi Kumar, whose mentorship played a pivotal role in the project's success.

