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Contributors: Medhansh
Arora, Aman Tiwari
& Akanksha
Kumari

Department of Computer Science and Engineering

Always evolving, empowering lives

NEWSLETTER MAY-2024



Advisor: Dr.
Ananya Kanjilal

DEPARTMENTAL VISION

To emerge as a progressive and premier institute for Engineering and Technology education with ethical values for creative engineering solutions commensurate with global changes.

DEPARTMENTAL MISSION

Enrich students with sound knowledge in fundamentals and cutting edge technologies of CSE to excel globally in challenging roles in industries and academics. Emphasize quality teaching, learning and research to encourage creative thoughts

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

- ❖ Graduates of CSE will have good knowledge in the core concepts of systems, software and tools for analysing problems and designing solutions addressing the dynamic requirements of the industry and society, while employed in industries or work as entrepreneurs.
- ❖ Graduates of CSE will opt higher education and research in emerging fields of CSE towards building a sustainable world.
- ❖ Graduates of CSE will have leadership skills, communication skills, ethical and moral values, team spirit and professionalism.

Richard Sutton and Anrew Barto

In 2024, Richard Sutton and Andrew Barto received the ACM A.M. Turing Award for their foundational work in Reinforcement Learning (RL). This invention is the core engine behind modern AI, specifically powering Reinforcement Learning from Human Feedback (RLHF) in models like OpenAI's o1 and Google Gemini.

- Their algorithms also drive 2024 advancements in autonomous robotics and quantum error correction.
- Providing the essential architecture for systems to solve complex, multi-step problems autonomously.

PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1: Students will have proficiency in emerging domains like artificial intelligence, data science and distributed computing to develop solutions through innovative projects and research.

PSO2: Students will have capabilities to work in synergized teams to cater to the dynamic needs of the industry and society.

From the Editor's Desk: The Pulse of Innovation

At BPPIMT, innovation is more than a goal; it is the living spirit that fills our classrooms and laboratories. From the strategic precision of our coding champions to the remarkable "aquatic victory" at IIT Patna, the brilliance of our student body has set a new benchmark this semester. This edition celebrates the powerful synergy between our visionary faculty and determined students—a partnership that consistently transforms ambitious ideas into tangible excellence.

Beyond the recognition and the trophies, these milestones reveal the true character of our academic community. They are the result of countless hours spent in the labs, the spark of collaborative brainstorming in our hallways, and the steady guidance of mentors who help turn potential into performance. We aren't simply completing projects or developing software; we are forging a lasting legacy of technical mastery. As you read through these highlights, we hope they ignite your own drive to challenge the status quo and continue reaching for the extraordinary.

Medhansh Arora

The Event Spotlight

Saraswati Puja 2024: A Celebration of Wisdom and Learning

Date & Time : 14th February, 2024

Venue: Common Room, BPPIMT

- ❖ The campus of **BPPIMT** transformed into a vibrant hub of devotion and tradition on **February 14th, 2024**, as the Institute celebrated **Saraswati Puja** with immense fervour and respect.
- ❖ The day saw a spirited gathering of students, faculty, and staff members, all coming together to seek the blessings of the **Goddess of Learning**. Dressed in traditional attire, the "BPPIMTians" added a kaleidoscope of colour to the campus, making the auspicious occasion truly vibrant
- ❖ As the **End Semester Examinations** are scheduled to commence shortly, the celebration served as a timely source of inspiration and peace.



SpaceLens: Exploring Earth From Above

Date & Time: 14th March, 2024 from 2 p.m. onwards

Venue: Seminar Hall, B Block, BPPIMT

- ❖ On **March 14, 2024**, the **Department of Computer Science and Engineering**, in association with the **IEEE Student Branch, BPPIMT**, organized a seminar titled "**SpaceLens: Exploring Earth From Above.**"
- ❖ Students gathered for an insightful session on **remote sensing technology** and its vital role in Earth observation.
- ❖ We were privileged to welcome **Smt. Sharmistha B Pandey**, an esteemed **ISRO Scientist/Engineer** and a proud **BPPIMT alumna**, as our guest speaker.
- ❖ Her presentation offered a fascinating look at how satellite technology allows us to monitor and study our planet from space, bridging the gap between classroom learning and cutting-edge space research.

2-Day Girls' Intra-College Throwball Tournament 2024

Date & Time: 26th and 27th March, 2024

Venue: West Bengal Volley Ball Association, Maidan, Kolkata.

- ❖ The West Bengal Volleyball Association at Maidan, Kolkata, served as the backdrop for the high-energy **2-Day Girls' Intra-College Throwball Tournament**. The event saw spirited participation from the departments of **ECE, CSE, IT, and BBA-BCA**, with athletes showcasing remarkable teamwork and skill.
- ❖ The competition culminated in a thrilling final match between **CSE** and **ECE**. In a display of exceptional strategy and athletic prowess, the **Department of Computer Science and Engineering (CSE)** emerged as the undefeated champions, securing the **1st Position** in the tournament.
- ❖ Congratulations to the CSE team for their stellar victory and to all participants for their sportsmanship!



Top-Tier Triumph at SAP ICOE Hackathon 2024

Date & Time: 4th to 27th April, 2024

Venue: Biswa Bangla Convention Centre, Kolkata.

- ❖ Our students have once again brought laurels to the Institute! A talented team from the **CSE**, comprising **Sayandip Bhattacharyya, Rahul Sinha, and Parthiv Modak**, achieved a remarkable feat by securing a position in the **Top 3 out of over 400 competing teams** at the **SAP ICOE Hackathon 2024**.
- ❖ Organized by the **International Center of Excellence for AI, Data Science and Futuristic Technologies** in association with the **SAP Community Kolkata**, the month-long competition ran from **April 4th to April 27th**. The team demonstrated exceptional problem-solving skills.

Rabindra Jayanti 2024: Honoring the Legacy the Bard


Date & Time: 8th May, 2024.

Venue: Auditorium, C Block, BPPIMT.

- ❖ The **BPPIMT family** came together in **May 2024** to pay a profound tribute to the legendary visionary and educationist, **Rabindranath Tagore**, on the occasion of his **164th Birthday**.
- ❖ The event celebrated Gurudev's eternal wisdom and his monumental impact on our cultural and intellectual identity. The **Department of Computer Science and Engineering (CSE)** played a central role in the commemorations, expressing their deep love and honor for the Nobel Laureate. Through artistic tributes and heartfelt reflections, the CSE students and faculty celebrated his legacy, emphasizing how his philosophy of "Where the mind is without fear" continues to inspire the pursuit of technical and creative excellence today.

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25 YEARS In Celebration of Success



"We want our education to contain a resource that not only gives us information, but truth; which not only gives fuel, but fire"

Rabindranath Tagore

Celebrating his vision
On his 164 Birth Anniversary



25 Years of Holistic Excellence

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e-mail: bppimt09@gmail.com

THE HALL OF FAME: CELEBRATING EXCELLENCE

ACADEMIC ACHIEVEMENTS

Students who joined Higher Studies at Prestigious Institutes

Pritam De

Mtech CSE, IIT Chennai.

Chayan Pathak

Mtech CSE, IIT Bhilai

Ayush Agarwal

Mtech CSE, IIT Guwahati

Jahnasi Saha

PGDM (HRM), XLRI

Soumyadeep Paul

IIT (ISM), Dhanbad

Vipul Jain

Michigan State University

EXTRA-CURRICULAR ACHIEVEMENTS

Sagnick Routh and Rishav Thakkar (Team DEVTA)

KSHITIJ, IIT Kharagpur.



The duo dominated the **8 kg Robo War** category, securing the **2nd Position** and earning the prestigious **Most Destructive Bot** award on January 21, 2024.. Their achievement on a national stage underscores the technical grit and innovative spirit of our CSE students.

Sayandip Bhattacharyya

OpenAlmer, Machine Learning Hackathon, SRIJAN, Jadavpur University.



The competition was held on **March 23, 2024**, as part of **SRIJAN**, the annual Techno-Management Fest of **Jadavpur University**. Sayandip's success, as **2nd Runners-Up**, in this high-level Machine Learning challenge further cements the CSE department's reputation for technical excellence and innovation.

Srijeeta Dutta

App Mania, Open Innovation, Techstorm 2.24, BPPIMT



Srijeeta Dutta (CSE) secured **1st Place** in **App Mania: Open Innovation** during **Techstorm 2.24**, organized by BPPIMT IIC on April 3, 2024. Additionally, she achieved **3rd Place** in the **Inter-college Business Plan Innovation Competition**, showcasing excellence in both technical development and entrepreneurial strategy.

Protyoy Bhandari and Olivia Sikder

Creative Canvas, Techstorm 2.24, BPPIMT.



Protyoy Bhandari and **Olivia Sikder** secured **1st Place** as a team in **Creative Canvas 2.24**, a design contest held at BPPIMT on April 4, 2024. Their collaborative work earned them the top spot in this creative competition.

ACADEMIC ARCHIVES: RESEARCH & PUBLICATIONS

STUDENT PUBLICATIONS

Salmoli Chandra, Jayeeta Chanda, Sukumar Chandra

Prediction of Cardiovascular Disease Using Machine Learning Algorithms on Healthcare Data

Journal of Advanced Zoology, vol. 44, pp. 1215-1221, 2023.

FACULTY PUBLICATIONS

JOURNAL PUBLICATIONS

Amlan Raychaudhuri, Satyabrata Maity, Amlan Chakrabarti, and Debotosh Bhattacharjee

SMDF: Spatial Mass Distribution Features and Deep Learning-Based Technique for Human Activity Recognition

SN Computer Science, Springer Nature, ISSN: 2661-8907, vol. 5, art. no. 129, pp. 1–13, Dec. 2023. DOI: <https://doi.org/10.1007/s42979-023-02452-2>



Arnab Kumar Ghoshal, Nabanita Das, Soham Das, and Subhankar Dhar

Minimizing spread of misinformation in social networks: a network topology based approach

Social Network Analysis and Mining, Springer, Vol. 15, Article No. 15, March 2025. DOI: <https://doi.org/10.1007/s13278-025-01433-y>



Mr. Proshanta Sarkar, Mr. Amitava Podder, Ms. Taruna Chopra, Mr. Manab Kr. Das, Ms. Pooja P. Raj

ARTIFICIAL INTELLIGENCE: PROBLEM SOLVING ALGORITHMS

Alpha International Publication, 2024. ISBN NO: 978-93-5762-287-5 [Text Book]



Banhi Das, Arijit Saha & Somali Sanyal Sikder

A Novel Image Compression Technique and Secured Transmission of Compressed Satellite Images Via Optical Fiber Using 6D Hyper Chaos.

J Indian Soc Remote Sens 53, 511–530 (2025). DOI <https://doi.org/10.1007/s12524-024-01984-1> (Science Citation Index Expanded)



CONFERENCE PUBLICATIONS

Riya Majumder, Amartya Dutta, Rajarshi Bhattacharya & Rajat Kumar Pal

A Hybrid BAT Algorithm for Scheduling Droplet Mixing Operations in Digital Microfluidic Biochips, Proceedings of 27th International Symposium on VLSI Design and Test (VDAT-2023)

Dept. of Electrical and Electronics Engineering, BITS Pilani, Pilani Campus, Rajasthan, India,
29 – Oct. 1, 2023, ISBN - 978-981-97-3755-0, 978-981-97-3756-7 (eBook), © Springer Nature
Ltd.– 2025, DOI - [10.1007/978-981-97-3756-7](https://doi.org/10.1007/978-981-97-3756-7)



Ankit Prasad, Abhijit Deb, Arnab Sarkar, Harsh Joshi, Pratap Chandra Mandal

A Secure High-Capacity Steganographic Technique using AES-Encrypted Embedding in Deep CNN
International Conference on Signal Processing and Computer Vision, Springer, NIT Silchar



PATENT PUBLICATIONS

S. Biswas, Dibakar Saha, A. Das and Nabanita Das

Uniform Area Sensing Model: A Realistic Model for Smart Sensing

Application No. 202431001212 , Date of filing 06-01-2024 , Publication Date (U/S 11A) :
26-01-2024



THE TECH TERMINAL

🖱️ **The Wooden Mouse:** In 1964, the first computer mouse was a **literal block of wood** with two metal wheels. Inventor Doug Engelbart designed it to track movement, but it only had one button because **there wasn't enough room for more!**

📶 **Bluetooth's Viking Roots:** "Bluetooth" isn't a tech term; it's the nickname of a 10th-century Viking King, Harald Gormsson, who united Scandinavia. The logo is a **"bindrune"** merging the Nordic runes for his initials, H and B.

📄 **Hand-Stacked Code:** Margaret Hamilton, who led the Apollo 11 software team, famously stood next to a stack of paper containing the mission's flight code. The stack was as tall as her! Every line was printed out to be **manually checked for errors.**

🎮 **Efficiency over Power:** The original Super Mario Bros. fit into just **32 Kilobytes**. To save space, the clouds and bushes in the game are the exact same sprite, just colored differently. Modern high-end games often require **100GB just to install.**

TECH HORIZONS : MAPPING THE DIGITAL FRONTIER

EMERGING TECH PULSE

Artificial Intelligence & Machine Learning

Focused on the foundational architectures of Deep Learning and Neural Networks, our department prepares students to address complex social needs through intelligent engineering solutions.

Data Science & Predictive Analytics

By deriving insights from healthcare and industrial data, students develop the proficiency required to create creative solutions commensurate with global changes.

Distributed Computing & Cloud Systems

Building scalable and synergized systems, we cater to the dynamic needs of the global industry through modern tool usage and robust system design.

THE PROFESSIONAL TOOLKIT

System Design & Analysis

Mastering the lifecycle of complex problem investigation.

Modern Tool Usage

Proficiency in industry-standard software and development environments.



Synergized Teamwork

Fostering the ability to work in diverse teams for social and industrial impact.

ENGINEERING EXCELLENCE BEYOND THE CLASSROOM.

Our students actively bridge the gap between theory and industry by engaging with global platforms like [LeetCode](#), [GitHub](#), and [CodeChef](#). This continuous learning cycle ensures our engineers remain at the forefront of the constantly evolving technological landscape.

FUN FACTS

- Domain names were free until 1995. Today, the most expensive web addresses sell for tens of millions of dollars.
-  The QWERTY layout was designed to slow typists down to prevent mechanical arms on early typewriters from jamming.
- The world's first website, launched by CERN in 1991, is still live today in its original, text-only format.
- Despite its name, the Firefox logo is not actually a fox; it is a Red Panda native to the Himalayas.
- Only about 10% of the world's currency is physical cash; the rest exists solely as digital data on servers.
-  In 1980, the first 1GB hard drive weighed over 550 pounds and carried a staggering price tag of \$44,000.
- Ray Tomlinson sent the first email in 1971 and chose the "@" symbol simply because it was a rarely used character.

A FINAL WORD

In this edition, it is clear that the 'Pulse of Innovation' within our department is reaching new heights. The remarkable feats—from our dominance at SMART CODER 2.23 to the landmark victory at IIT Patna—are a testament to the talent and drive that define the CSE Department. As the excitement for Techstorm 2.24 builds, let this energy be the fuel for our future breakthroughs and technical triumphs.

Upcoming Events

Intra College Football 2024

International Yoga Day
Celebration

25 Glorious Years
Celebrations of BPPIMT

Blood Donation Camp

Teacher's Day Celebrations

Industrial Visit

Smart Coders, Juno &
Forma 2.24

International Conference on
Artificial Intelligence &
Sustainable Computing

CALL FOR CONTRIBUTIONS

Students, faculty, and staff of the **Department of Computer Science and Engineering** are invited to share articles, achievements, photos and creative works for the next issue.

Please send your entries to: hod-cse@bppimt.ac.in.

 BPPIMT, KOLKATA

 www.bppimt.ac.in

 033 4061 9174

 137, VIP Road, Kolkata, India,
West Bengal