

CSE@GNIT Bulletin

2025 - 26

Department of Computer Science & Engineering

ISSUE	SEM
1	ODD

Message from Principal's Desk



Guru Nanak Institute of Technology (GNIT), established in 2003 under the Guru Nanak Educational Trust, is a premier institution of the JIS Group Educational Initiatives. Affiliated with Maulana Abul Kalam Azad University of Technology (MAKAUT) and approved by AICTE, UGC, NAAC (A+), and NBA, GNIT offers undergraduate, postgraduate programs in engineering and technology. The institute became autonomous in 2016 and is the first private engineering college in West Bengal to achieve NAAC A+ accreditation. Located in North Kolkata, GNIT provides a modern, student-friendly campus with advanced laboratories, smart classrooms, digital library facilities, sports infrastructure, and innovation centres. The institute promotes an eco-friendly, plastic-free, smoking-free, and ragging-free environment that supports the holistic development of students. With around 2,000 students, GNIT combines strong academic foundations with practical learning through project-based education, internships, industry collaborations, cloud computing, High Performance Computing (HPC), and state-of-the-art research facilities.GNIT actively promotes research and innovation through AICTE MODROB, DST, SERB, and MOFPI funded projects, along with entrepreneurship initiatives under the Institution's Innovation Council (IIC).

With its emphasis on academic excellence, research, innovation, and professional development, GNIT continues to prepare competent engineers, researchers, and future leaders capable of meeting global challenges.

Prof. (Dr.) Swarup Kumar Mitra

Principal, Guru Nanak Institute of Technology, Kolkata

Message from HOD's Desk



It gives me immense pleasure to introduce this edition of the **CSE@GNIT Bulletin**, a reflection of the vibrant academic, research, and co-curricular activities of the Department of Computer Science & Engineering. This newsletter showcases the dedication, creativity, and achievements of our students and faculty throughout the year.

Our department remains committed to fostering academic excellence through innovative teaching, industry collaboration, research, technical events, and skill enhancement initiatives. These efforts continue to prepare our students to meet the challenges of the ever-evolving technological landscape.

I extend my heartfelt appreciation to our faculty members, students, alumni, and industry collaborators for their valuable contributions and unwavering support. I hope this edition serves as a source of inspiration and motivates everyone to continue striving for excellence in learning, research, and innovation.

Prof. (Dr.) Suman Bhattacharya
Head of the Department
Department of Computer Science & Engineering
Guru Nanak Institute of Technology

Message from Editor's Desk



Welcome to this edition of the **CSE@GNIT Bulletin**, showcasing the achievements, innovations, and activities of the Department of Computer Science & Engineering at Guru Nanak Institute of Technology. This newsletter reflects our commitment to academic excellence, research, innovation, and student development.

Inside, you will find highlights of technical events, workshops, research activities, placement achievements, and the accomplishments of our students and faculty. Each success reflects the dedication, creativity, and collaborative spirit of our department. We hope this edition inspires our readers, celebrates our shared achievements, and motivates everyone to continue learning, innovating, and striving for excellence.

As we continue our journey of growth and excellence, we remain committed to fostering a culture of curiosity, collaboration, and lifelong learning. We thank all our students, faculty members, alumni, and industry partners for their continued support and contributions, and we look forward to achieving many more milestones together.

Ms. Paramita Sarkar
Assistant Professor
Chief Editor, CSE@GNIT Bulletin
Department of Computer Science & Engineering
Guru Nanak Institute of Technology

VISION, MISSION & PEO OF THE DEPARTMENT

Departmental Vision

To produce proficient professionals of global standard with respect to industry, academia, and entrepreneurship who can play a key role in their respective domain and become a responsible citizen for the society.

Departmental Mission

DM-1: To impart quality education with holistic development to produce professionals with leadership traits.

DM-2: To impart knowledge on emerging technologies and entrepreneurship skills to produce technocrats of global standard and entrepreneurs.

DM-3: To promote interdisciplinary work culture and opportunity to work in a team through collaborative research and project work.

DM-4: To inculcate professional ethics and moral responsibility for a better society.

PEO

PEO 1: Our graduates will establish themselves as effective professionals in industry, academia and entrepreneurship.

PEO 2: Our graduates will become profound researchers in multiple domains.

PEO 3: Our graduates will act as a leader in society.

PROGRAMME SPECIFIC OUTCOMES (PSOS)

PSO 1: Ability to use efficient algorithm for designing and developing software applications and products.

PSO 2: Ability to correlate computer science and core engineering subjects to solve real life problems across multiple domains.

PSO 3: Ability to write code efficiently in competitive environment in national and international platform.

ABOUT THE DEPARTMENT



Established in **2003**, the Department of Computer Science & Engineering at Guru Nanak Institute of Technology has been dedicated to nurturing competent engineers through quality education, innovation, and research. The department provides a dynamic academic environment that encourages students to develop strong technical knowledge, practical skills, and professional ethics.

The curriculum is designed to meet the demands of the rapidly evolving technology landscape, with emphasis on emerging fields such as Artificial Intelligence, Machine Learning, Data Science, Cybersecurity, Cloud Computing, and the Internet of Things (IoT). Well-equipped laboratories, project-based learning, technical workshops, and industry interactions provide students with valuable hands-on experience and real-world exposure.

Beyond academics, the department actively promotes research, innovation, and lifelong learning. Students are encouraged to participate in hackathons, research projects, technical competitions, internships, publications, and professional society activities. With experienced faculty, modern infrastructure, excellent placement support, and a culture of continuous improvement, the department strives to develop skilled professionals, innovative thinkers, and responsible leaders who can contribute meaningfully to society and the ever-growing field of technology.

Editorial Team

Editor

Ms. Paramita Sarkar, Assistant Professor, Dept. of CSE

Student Editors

Niladri Sarkar, 3rd Year, CSE, Student Editor

Nupur Ghosh, 3rd Year, CSE, Graphic Designer

Rajdip Ganguli, 3rd Year, CSE, Technical Content Scrutinizers

Rudrojyoti Manna, 3rd Yer Year, CSE, Technical Content Scrutinizers

Dipanjan Ganguly, 2nd Year, CSE, Technical Content Scrutinizers

Courses Offered (CAY: 2025-26)

Course Name	Duration	Intake
B.Tech	4 years	198
M.Tech	2 years	18

Contact us:

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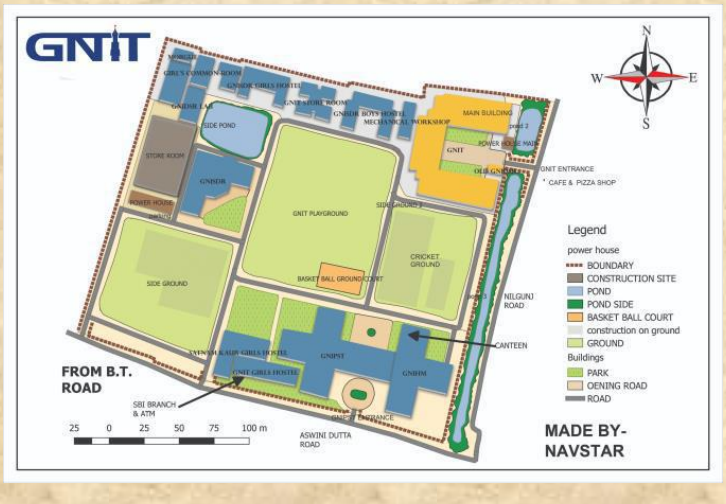
Email: info.gnit@jisgroup.org
Website: http://www.gnit.ac.in



GNIT Parent-Teacher Meeting Overview

The Parent-Teacher Meeting at GNIT, Sodepur, serves as a vital collaborative bridge connecting faculty, parents, and students to ensure peak academic performance. During these sessions, faculty members provide guardians with absolute transparency regarding internal exam scores, lab performance, and daily assignment updates to catch learning gaps early.

Strict attendance monitoring forms a central part of the dialogue to keep students compliant with mandatory MAKAUT university regulations. Beyond grades, the conversation extends to professional readiness, highlighting student participation in engineering projects, coding clubs, and pre-placement training modules.

This direct interaction establishes an immediate feedback loop, allowing mentors and parents to design customized remedial paths for struggling students. By addressing academic and behavioral trends early, this collaborative system directly boosts final graduation rates, improves campus placement outcomes, and builds long-term institutional trust.









GNIT IQAC IPR Awareness Programme

The Internal Quality Assurance Cell (IQAC) at Guru Nanak Institute of Technology (GNIT Sodepur IQAC) organized a high-level Awareness Programme on Intellectual Property Rights (IPR). The primary objective of this institutional initiative was to formally inaugurate and establish a dedicated IPR Cell on the college Campus.

This milestone project was fully funded and supported by the **West Bengal State Council of Science and Technology (WBSCST)**, Department of Science & Technology and Biotechnology (DSTBT), Government of West Bengal.

The IPR Awareness Programme hosted by the GNIT IQAC Cell features **Dr. Mahuya Hom Choudhury,** Senior Scientist and Nodal Officer at the Patent Information Centre (PIC), WBSCST, alongside **Ms. Sangita Sengupta**, Scientist I and Registered Patent Agent at PIC, WBSCST.







Industry Visit

On **25 November 2025**, the Department of Computer Science & Engineering (CSE) at **Guru Nanak Institute of Technology (GNIT)** successfully organized an official industrial visit to **Euphoria GenX**. The academic excursion was curated specifically for B.Tech engineering students to provide them with crucial industry exposure and practical insights into corporate software engineering environments. Accompanied by experienced faculty coordinators, the student delegation gathered outside the GNIT campus engineering building in Khardaha, West Bengal, before departing for the corporate facility. The visit served as a vital bridge between theoretical engineering coursework and real-world technology production pipelines, allowing the students to interact directly with industry professionals, explore modern computational infrastructures, and understand emerging workflow standards in the IT sector.



GNIT Chapter Activities and Events

Inauguration of MSA – GNIT Chapter

The Microsoft Student Ambassadors (MSA) – GNIT Chapter officially launched its technical community at the Guru Nanak Institute of Technology campus. Spearheaded by Chapter Lead Ayush Singh (3rd Year, CSE), the initiative aims to provide students direct access to global technology experts and industry-aligned workflows.

Event Logistics & Overview

- **Theme:** "Awareness on Microsoft Technologies & Services"
- **Date & Time:** November 19, 2025 | 10:30 AM – 3:00 PM
- **Venue:** Institutional Auditorium, GNIT Campus









Technical Sessions & Industry Experts

Session 1: GitHub and Open-Source Contributions for Beginners

- Expert Speaker: Mr. Aditya Seth (Software Engineer at Techno Billion AI & Gold Microsoft Learn Student Ambassador).
- Core Focus: Navigating the ecosystem of version control, open collaboration, and git workflows.
- Key Outcome: Successfully transitioned foundational learners from operational confusion to workflow clarity, motivating students to initiate their open-source contribution journeys

Session 2: Building Applications Using Gen-AI

- Expert Speaker: Mr. Gourav Ghoshal (Full Stack SDE at Truxt.ai, New Jersey, USA & Hackathon Mentor).
- Core Focus: Assessing the changing landscape of software development in the artificial intelligence era.
- Key Outcome: Participants acquired strategic insights into modern agile development, learning how to leverage generative AI models to build and ship production-ready software faster.

Strategic Institutional Impact

The interactive launch successfully bridged the gap between conventional academic theory and real-world software engineering practices. By establishing a professional foundation through collaborative Q&A sessions and live technical tracking, the MSA GNIT Chapter has solidified its community framework to drive future hands-on hackathons and advanced technology workshops across the campus.

GDG on Campus GNIT – Build with AI Workshop

On November 24, 2025, Google Developer Groups On Campus GNIT (GDG GNIT) organized its flagship tech event, the "BUILD WITH AI: GenAI & LLMs Workshop," hosted live at the GNIT Auditorium. This highly engaging, beginner-friendly technical session ran from 10:00 AM to 2:00 PM and focused entirely on demystifying the world of Generative AI and Large Language Models. The event served as a major innovation gateway for tech enthusiasts on campus, welcoming special guest speakers Dr. Abhay Nath, an AI-ML Research Scientist from CHARUSAT, alongside Mr. Saugata Sarkar, a Research Intern from IIT Kharagpur and incoming developer at Hyland.









During an immersive, hands-on workshop at Guru Nanak Institute of Technology, students worked alongside industry experts using Kaggle profiles to build and deploy practical generative AI workflows from scratch. Led by experienced mentors, attendees received step-by-step guidance on model architecture and prompt pipelines. The session concluded successfully with technical discussions, project planning insights, and community giveaways, establishing a strong professional foundation for the institute's growing developer collective.

TEACHERS DAY AT GNIT

Guru Nanak Institute of Technology (GNIT), Sodepur, celebrates its annual Teachers' Day under the vibrant banner of "UJAN," a grand cultural initiative organized entirely by the student body and the institutional Cultural Committee to honor the profound contributions of its faculty members. The grand event commences at the main campus auditorium with a traditional lamp-lighting ceremony and an inspirational opening address by the Principal, setting a deeply respectful tone that recognizes the dedication of engineering mentors who shape the future of technical education. Moving past their rigorous schedules of labs and lectures, students deliver an array of heartfelt cultural performances including classical and contemporary dance routines, beautifully arranged musical medleys, and emotive poetry recitals dedicated entirely to their educators.

The celebration thrives on bringing a lighthearted, joyful atmosphere to the campus, successfully bridging the formal gap between the classroom and the stage through interactive games and friendly competitions designed for the professors. Beyond the artistic tributes, the event acts as a key moment of institutional pride where senior administrators from the JIS Group publicly recognize outstanding educators for their exceptional contributions to research, engineering innovation, and continuous student mentorship. "UJAN" concludes as a powerful manifestation of mutual respect and gratitude, strengthening the academic bond between the student community and the faculty while leaving the entire GNIT family inspired to pursue shared milestones in the academic year ahead.







Student Achivements in Co- Curricular Activity

- **Subhradeep Dey** (collaborating with Tiyasha Sen) drove forward smarter farming systems between 26 July 2025 and 29 July 2025 by presenting a visionary paper titled ***"Agrobotics** - AI, A smart way to crop management"*. Organized by the JIS Group, his presentation detailed how deep learning systems can be seamlessly integrated with automated agricultural robotics to optimize regional crop yields and farming security.



- **Shreeja Sinha** and **Nilagrib Ray** demonstrated exceptional research capabilities from 12 September 2025 to 14 September 2025 at the *4th International Conference on Sustainable Waste Management (ICSWM - 2025)*, organized by the Office of Sustainability and the Department of Mechanical Engineering at IEM Kolkata. The duo authored and presented a high-impact research paper addressing sustainable ecological waste solutions, earning them the highly prestigious Best Paper Award for their outstanding academic contribution.



- **Pritam Patra** showcased remarkable innovation and versatility, culminating on 24 November 2025, by competing across multiple high-stakes technology platforms under the guidance of faculty member Tridip Chakraborty. He actively participated in three separate competitive fields, securing 2nd runner-up at the ISA Ideathon (hosted by Jadavpur University), winning the “Best Innovation” title at ICC InnovateX (organized by the Indian Chamber of Commerce), and placing 5th overall at the Celo Blockchain Hackathon organized by Rise & CELO.



- **Moulisha Roy** (3rd Year, CSE) engaged heavily with both competitive development and green technology during the month of July. She first tested her engineering limits from **26 July 2025 to 27 July 2025** by participating in a national-level **Hackathon** hosted by the **University of Engineering and Management, Kolkata**. Earlier that month, on **2 July 2025**, she also expanded her environmental tech skill set by attending a national workshop on *"Green Skills and Technology driven sustainable solutions"* organized by the **1M1B Green Skills Academy**.



- **Adrija Das** fast-tracked her understanding of modern language architectures on **24 November 2025** by attending an intensive, hands-on state-level **"Gen AI, LLMs Workshop"**. She actively learned the fundamental principles behind prompt structuring and deep learning workflows during the event, which was organized on campus by the **Google Developer Groups (GDG) On Campus GNIT**.



Student Achivements in Extra- Curricular Activity

- **Rudrojyoti Manna** (CSE, 3rd Year) drove forward team sports excellence between 26 November 2025 and 28 November 2025 by securing an elite double win in both the ANNUAL SPORTS- KABADDI and ANNUAL SPORTS- VOLLEYBALL tournaments. Organized by the GNIT Sports Club, his commanding performances at the National level earned him top-tier honors.


GNIT NAAC A+ JIS GROUP

Intra Institute Annual Sports Meet 2025

Organized by

Guru Nanak Institute of Technology

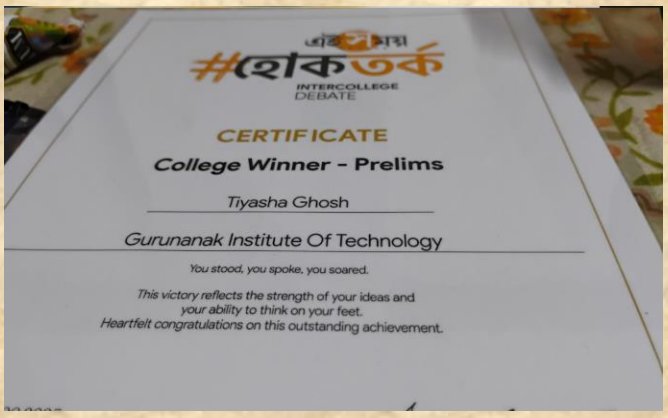
Certificate of Merit

This is to certify that Mr./Ms. Rudrojyoti Manna from the Department of CSE Participated in Volleyball Boys and secured Winners place at the Intra Institute Annual Sports Meet 2025 organized by Guru Nanak Institute of Technology (GNIT) on 26th, 27th & 28th November 2025

Shyamal Kumar Roy
Convenor - GNIT Sports club

Prof. (Dr.) Swarup Kr. Mitra
Principal - GNIT

- **Tiyasha Ghosh** (CSE_CYS, 2nd Year) showcased brilliant versatility between 3 September 2025 and 5 December 2025 by claiming a versatile accolade for her multi-disciplinary showcase in a Debate, sports, quiz tri-factor. Organized by **Ei Somoy** Debate and GNIT, her performance highlighted outstanding cultural and intellectual endurance at the State level.


#হোকতর্ক

INTERCOLLEGE DEBATE

CERTIFICATE

College Winner - Prelims

Tiyasha Ghosh

Gurunanak Institute Of Technology

You stood, you spoke, you soared.

This victory reflects the strength of your ideas and your ability to think on your feet.
Heartfelt congratulations on this outstanding achievement.

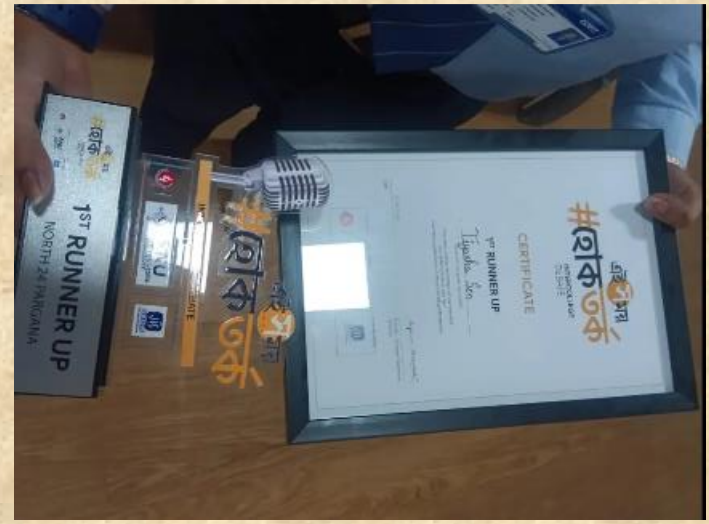
- **Bedabrata Paul** (CSE, 2nd Year) drove forward cultural and linguistic excellence between 7 May 2025 and 8 May 2025 by securing a premier distinction in the state-level competition titled Lafz-E-Tarang. Organized by the Narula Institute of Technology, his award-winning presentation highlighted exceptional creative expression and eloquence at the State level.



- **Nowrin Parveen** (CSE, 3rd Year) dominated the local indoor sports arena between 26 November 2025 and 28 November 2025 by capturing back-to-back distinctions in the Carrom singles and doubles formats. Organized by the Gurunanak Institute of Technology, her exceptional focus and tactical gameplay yielded multiple distinct State-level awards.



- **Tiyasha Sen** (CSE, 3rd Year) championed elite public speaking skills on 13 September 2025 by winning a major placement at the highly competitive District level debate competition hok torko. Organized by the major regional newspaper Ei-Somoy, her sharp presentation highlighted superior analytical logic and rhetoric at the State level.



- **Kumari Manshi** (CSE, 2nd Year) steered her team to a definitive victory between 26 November 2025 and 28 November 2025 by securing a premier award in the Volleyball tournament. Organized by the Gurunanak Institute Of Technology (Intra annual sports), her dynamic presence on the court locked down a major State-level sports accolade.


GNIT NAAC A+

Intra Institute Annual Sports Meet 2025

Organized by

Guru Nanak Institute of Technology

Certificate of Merit

This is to certify that Mr./Ms. Kumari Manshi from the Department of CSE Participated in Volleyball (girls) and secured Winners place at the Intra Institute Annual Sports Meet 2025 organized by Guru Nanak Institute of Technology (GNIT) on 26th, 27th & 28th November 2025

Shyamal Kumar Roy
Convenor - GNIT Sports club

Prof. (Dr.) Swarup Kr. Mitra
Principal - GNIT

- **Jiyashree Prasad** (CSE, 2nd Year) demonstrated outstanding athletic versatility between 26 November 2025 and 28 November 2025 during the multi-disciplinary Intra Institute Annual Sports Meet 2025. Organized by the Guru Nanak Institute of Technology, her exceptional performance earned her an official "Award Received" State-level stamp.


GNIT NAAC A+

Intra Institute Annual Sports Meet 2025

Organized by

Guru Nanak Institute of Technology

Certificate of Merit

This is to certify that Mr./Ms. Jiyashree Prasad from the Department of ..... Participated in Cross Girls and secured Runners Up place at the Intra Institute Annual Sports Meet 2025 organized by Guru Nanak Institute of Technology (GNIT) on 26th, 27th & 28th November 2025

Shyamal Kumar Roy

Convenor - GNIT Sports club

Prof. (Dr.) Swarup Kr. Mitra

Principal - GNIT

- **Soumyadeep Mondal** (CSE, 2nd Year) anchored his squad's forward lines between 26 November 2025 and 28 November 2025 by clinching a prominent award in Football / Football boys. Organized by the Guru nanak institute of technology, his strong fieldwork earned his team a key competitive State-level sports distinction.


GNIT NAAC A+

Intra Institute Annual Sports Meet 2025

Organized by

Guru Nanak Institute of Technology

Certificate of Merit

This is to certify that Mr./Ms. Soumyadeep Mondal from the Department of CSE Participated in Football boys and secured Winners place at the Intra Institute Annual Sports Meet 2025 organized by Guru Nanak Institute of Technology (GNIT) on 26th, 27th & 28th November 2025

Shyamal Kumar Roy

Convenor - GNIT Sports club

Prof. (Dr.) Swarup Kr. Mitra

Principal - GNIT

Faculty achivements

Dipankar Basu pushed the boundaries of computational intelligence from **24 July 2025 to 26 July 2025** by **presenting a high-impact research paper** titled *"Personality Trait Prediction from Handwritten Text Using Deep Feature Engineering and Ensemble Learning"*. His advanced research into behavioral analysis through machine learning was published and shared at the *2nd International Conference on Artificial Intelligence and Sustainable Computing (AISC 2025)*, organized by **Program Chairs Dr. Gitosree Khan and Dr. Soumya Sen**.



Technical Co-Sponsor IEEE KOLKATA SECTION

AISC

Springer the language of science

2nd International Conference on

Artificial Intelligence and Sustainable Computing (AISC 2025)

July 24-26, 2025

CERTIFICATE OF APPRECIATION

This certificate is presented to

Dipankar Basu , Abhrendu Bhattacharya ,Suman Bhattacharya , Ananjan Maiti

for writing a paper titled

Personality Trait Prediction from Handwritten Text Using Deep Feature Engineering and Ensemble Learning

at the **2nd International Conference on Artificial Intelligence and Sustainable Computing (AISC 2025)** organized by the **Department of Information Technology, B. P. Poddar Institute of Management and Technology, Kolkata** and **A. K. Choudhury School of Information Technology, University of Calcutta** held on **July 24-26, 2025.**

Dr. Gitosree Khan
Program Chair, AISC 2025

Dr. Soumya Sen
Program Chair, AISC 2025

Promita Chakraborty contributed significantly to wildlife conservation technologies from **24 July 2025 to 26 July 2025** by **presenting an international conference paper** titled *"Real-Time Elephant Monitoring Using Yolov8 and Swin Transformer"*. Her work on preventing human-wildlife conflict using computer vision models was showcased at the *2nd International Conference on Artificial Intelligence and Sustainable Computing (AISC 2025)*, organized by **Program Chairs Dr. Gitosree Khan and Dr. Soumya Sen**.



Technical Co-Sponsor
IEEE KOLKATA SECTION
AISC
Springer the language of science

2nd International Conference on
Artificial Intelligence and Sustainable Computing (AISC 2025)
July 24-26, 2025

CERTIFICATE OF APPRECIATION

This certificate is presented to

PROMITA CHAKRABORTY

for presenting a paper titled

Real-Time Elephant Monitoring using Yolov8 and Swin Transformer: A deployment framework for wildlife Conservation

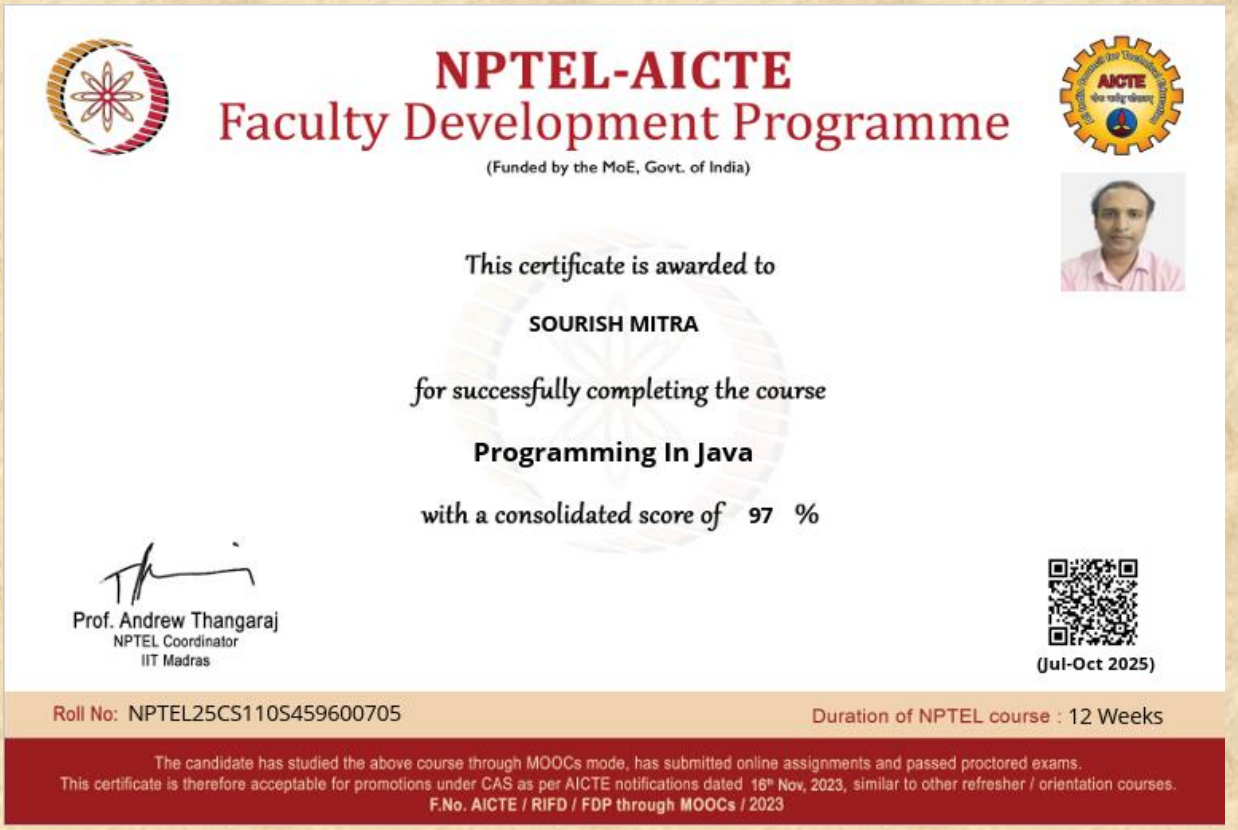
at the 2nd International Conference on Artificial Intelligence and Sustainable Computing (AISC 2025) organized by the Department of Information Technology, B. P. Poddar Institute of Management and Technology, Kolkata and A. K. Choudhury School of Information Technology, University of Calcutta held on July 24-26, 2025.

Gitosree Khan
Dr. Gitosree Khan
Program Chair, AISC 2025

Dr. Soumya Sen
Program Chair, AISC 2025

MOOCS Course

- Mr. Sourish Mitra successfully earned an NPTEL-AICTE Faculty Development Programme Certificate in "Programming In Java," a 12-week online course funded by the Ministry of Education (MoE), Govt. of India, and coordinated by IIT Madras. He completed the course with an outstanding consolidated score of 97%. This achievement reflects his commitment to continuous professional learning and strengthening his advanced skills in Java programming and software development.



NPTEL-AICTE
Faculty Development Programme
(Funded by the MoE, Govt. of India)

This certificate is awarded to

SOURISH MITRA

for successfully completing the course

Programming In Java

with a consolidated score of 97 %

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

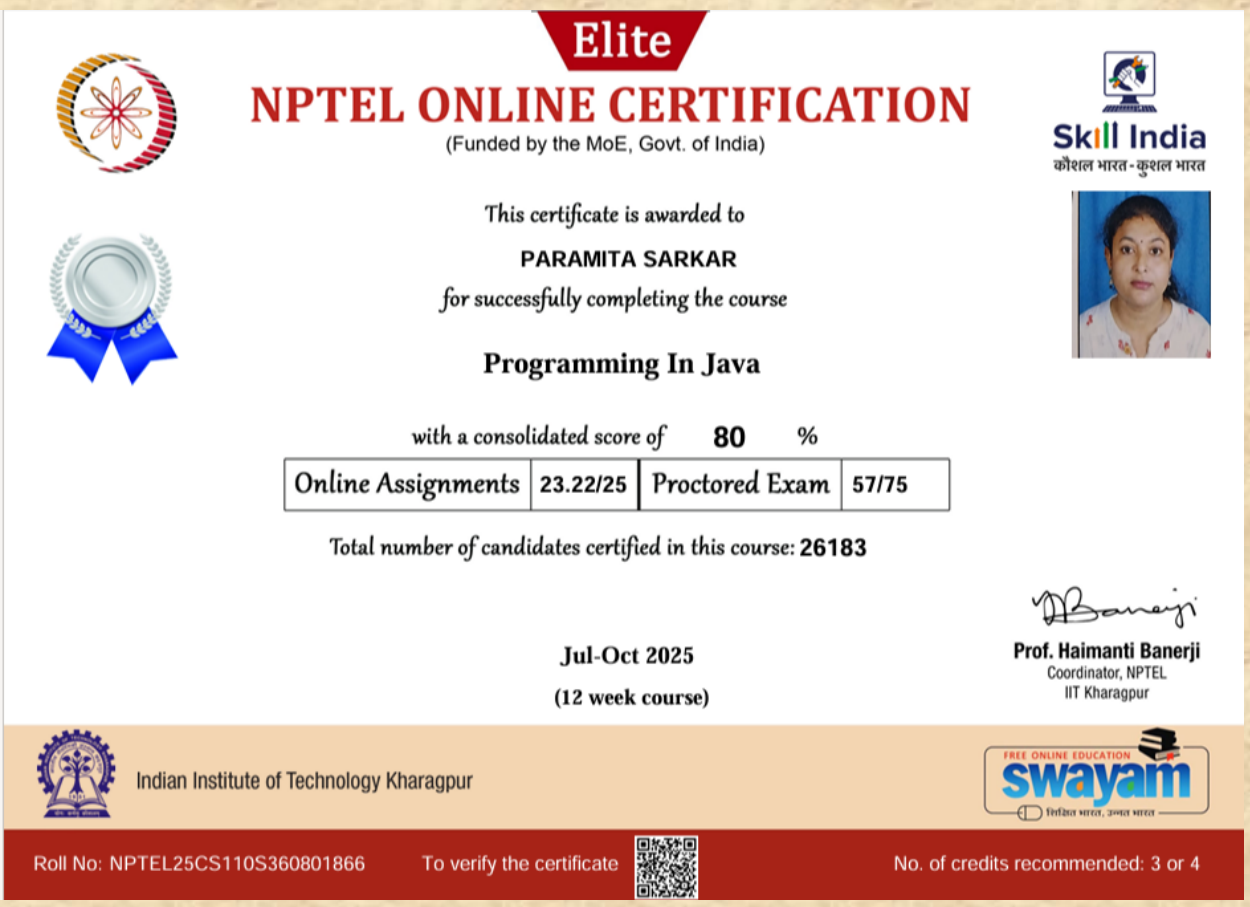
(Jul-Oct 2025)

Roll No: NPTEL25CS110S459600705

Duration of NPTEL course : 12 Weeks

The candidate has studied the above course through MOOCs mode, has submitted online assignments and passed proctored exams.
This certificate is therefore acceptable for promotions under CAS as per AICTE notifications dated 16th Nov, 2023, similar to other refresher / orientation courses.
F.No. AICTE / RIFD / FDP through MOOCs / 2023

❖ Ms. Paramita Sarkar successfully earned an Elite NPTEL Online Certification in "Programming In Java," a 12-week online course funded by the Ministry of Education (MoE), Govt. of India, and coordinated by IIT Kharagpur. She completed the course with a commendable consolidated score of 80% (securing 23.22/25 in Online Assignments and 57/75 in the Proctored Exam) among 26,183 certified candidates. This achievement reflects her commitment to continuous professional learning and strengthening her skills in Java programming and software application development.



Elite

NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)

Skill India
कौशल भारत-कुशल भारत

This certificate is awarded to

PARAMITA SARKAR

for successfully completing the course

Programming In Java

with a consolidated score of 80 %

Online Assignments	23.22/25	Proctored Exam	57/75

Total number of candidates certified in this course: 26183

Jul-Oct 2025

(12 week course)

Prof. Haimanti Banerji
Coordinator, NPTEL
IIT Kharagpur

Indian Institute of Technology Kharagpur

FREE ONLINE EDUCATION swayam

Roll No: NPTEL25CS110S360801866 To verify the certificate No. of credits recommended: 3 or 4

FACULTY RESEARCH & SCHOLARLY PUBLICATIONS

Publication Highlights | July–December 2025

International Journal Publications — 3

International Conference Publications — 5

Book Chapters — 5

Books — 3

International Journal Publications — SCI/ESCI/Scopus/WoS Indexed

01 | Tinku Adhikari., Ajoy Kumar Khan. Malay Kule. (2025). October 2025

An analytical review of security issues in centralized and distributed SDN environments. Information Security Journal: A Global Perspective, 134. https://doi.org/10.1080/19393555.2025.2550762[ESCI,SCOPUS]

02 | Paramita Sarkar, Sandip Roy, Mahamuda Sultana, Suman Bhattacharya, Suchismita Maiti, Arghadip Chakraborty, (2025), october 2025

Precision Agriculture Enhanced with Physics-Informed Neural Networks (PINNs), International Journal of Applied Mathematics, Volume 38, Issue 12s, 2025,http://doi.org/10.12732/ijam.v38i12s.1417[Scopus]

03 | . Ananjan Maiti, Indranil Sarkar, Moumita Samanta, Subhadip Nandi, Shirsendu Dutta, Sandip Roy, (2025),

Examining the Impact and Optimization of Large Language Models, Indian Journal of Natural Sciences, Volume 16, Issue 92, October 2025 [WoS]

International Conference Publications

01 | Tinku Adhikari, Sandipan Ghosal, Jinat Sultana, Sreosmi Kundu, Sk Sohel, Tanuka Ghosh, "Multi-Packet Intrusion Detection System Using Hybrid Neural Model and Ensemble Learning" presented at ICRCICN 2025, Kalyani, India, IEEE, 20 December 2025. DOI: 10.1109/ICRCICN68210.2025.11364936. pp. 637–642. [Scopus]

02 | Tinku Adhikari, Sandipan Ghosal, Jinat Sultana, Sreosmi Kundu, Sk Sohel, Tanuka Ghosh, "Multi-Packet Intrusion Detection System Using Hybrid Neural Model and Ensemble Learning" presented at ICRCICN 2025, Kalyani, India, IEEE, 20 December 2025. DOI: 10.1109/ICRCICN68210.2025.11364936. pp. 637–642. [Scopus]

03 | Tinku Adhikari, Debjit Sen, Mahek Shaw, Debadyuti Dey, Anubhab Das, Farhan Hoque,"Blockchain Based IoT Security: A Comprehensive Review of Architectures Challenges and Future Directions" presented at ICRCICN 2025, Kalyani, India, IEEE, 20 December 2025. DOI: 10.1109/ICRCICN68210.2025.11364679. pp. 643–648. [Scopus]

04 | Tinku Adhikari, Samanway Bhattacharya, Subhronil Paul, Ashwini Sharma, Srija Jana, Ayantika Dhar, "Unmanned Aerial Vehicle Security: A Critical Review of Threat Landscape and Protective Mechanisms" presented at ICRCICN 2025, Kalyani, India, IEEE, 20 December 2025. DOI: 10.1109/ICRCICN68210.2025.11364745. pp. 569–574. [Scopus]

05 | Priyanka Ghosh, Paramita Sarkar, Debdutta Paul, Subhradeep Dey "Blockchain for Health Data Management: Enhancing Data Security, Access, and Interoperability" 4 th International Conference on Innovations in Data Analytics (ICIDA 2025) held on 5 - 6 December 2025. Springer Scopus.

Book Chapters

01 | Priyanka Ghosh, Debdutta Paul, Piyali Katwa, and Bhaskar Maity, "GenKey: Cryptographic Key Generation Using a Genetic Algorithm" published on "Data Mining and Information Security" Vol. 3, on 1st October 2025, ISBN 978-981-96-6059-9.

02 | Priyanka Ghosh, Sayan Nath, Bidyutmala Saha, "IoT Security Fundamentals and Key Enabling Technologies", October 2025. Indexing: Scopus, doi.org.

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This newsletter is a reflection of our collective efforts, shared accomplishments, and commitment to continuous growth and excellence.We look forward to your continued support and valuable contributions in our forthcoming editions.

Together We Learn, Together We Innovate, Together We Excel.

— Editorial Team
CSE@GNIT Bulletin 2025–26
Department of Computer Science & Engineering
Guru Nanak Institute of Technology

Looking Ahead

Innovating Today, Inspiring Tomorrow

As we conclude this edition of **CSE@GNIT Bulletin 2025–26**, we take pride in celebrating the remarkable journey of learning, innovation, collaboration, and achievements within the Department of Computer Science & Engineering, Guru Nanak Institute of Technology.

This edition reflects the collective dedication of our students, faculty members, and academic community towards excellence in education, research, technological advancement, and holistic

development. Every achievement, initiative, and milestone highlighted in these pages represents our shared commitment to building a brighter and more innovative future.

As we move forward, the department remains dedicated to exploring emerging technologies, strengthening industry–academia collaborations, encouraging interdisciplinary research, and empowering students with the knowledge, creativity, and skills required to excel in an ever-evolving technological landscape.

We extend our sincere appreciation to the institutional leadership, faculty members, students, alumni, and all contributors whose continuous support and enthusiasm have made this edition possible.

The journey does not end here. Every achievement marks the beginning of a new opportunity to learn, innovate, and inspire.

Until Our Next Edition…

Let us continue to dream beyond boundaries, transform ideas into innovations, and shape a future driven by knowledge and excellence.

CSE@GNIT — Where Ideas Evolve, Innovation Thrives, and Excellence Inspires.



All the faculty member of CSE Department