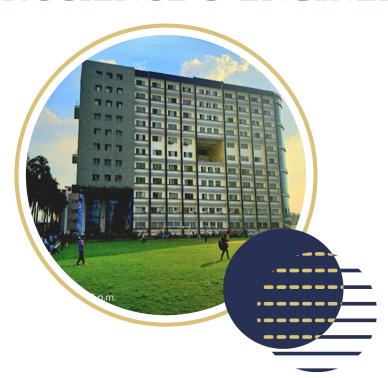


# JIS UNIVERSITY

Department of

### COMPUTER SCIENCE & ENGINEERING



#### DEPARTMENTAL BROCHURE

2025

www.jisuniversity.com Agarpara Campus, Kolkata 81, Nilgunj Road, Agarpara, Kolkata-700109

#### COMPUTER SCIENCE & ENGINEERING DEPARTMENT

### ABOUT:

The Department of Computer Science and Engineering offers 4year B.Tech. and BCA programmes in Computer Science and Engineering.

At the undergraduate level, the Department lays emphasis on foundations in Computer Science and Engineering with emphasis on hardware / software / systems. The students get exposure to state-of-the-art education and hands-on experience through well-equipped laboratories. The students are encouraged towards innovative thinking supported by projects that support this process.

### VISION:

Build a strong research and teaching environment towards meeting the future needs of the nation.

### MISSION:

- Provide academic excellence through quality teaching-learning methods and train students to apply their knowledge to solve real world problems.
- Enhance the potential of the students towards career paths with high quality foundation in ethics and critical thinking.

### PROGRAMS OFFERED:

- Engineering
  - ◆ B. Tech

**CSE** (Computer science Engineering)

CSE with AI & machine Learning

**CSE** with Cyber Security

CSE with Data science

- **♦ B. Tech CSE Lateral**
- M. Tech
- **♦** PhD

# ComputerApplication

**BCA** 

# SALIENT FEATURES OF OUR DEPARTMENT:

- State-of-the-Art Infrastructure Well-equipped laboratories, high-performance computing facilities, and modern classrooms.
- Experienced Faculty Highly qualified professors with expertise in diverse areas of Computer Science & Engineering.
- Industry Collaboration MoUs with leading tech companies for training, internships, and research projects.
- Internship & Training Programs Hands-on industry exposure through mandatory internships.
- Student Innovation & Hackathons Encouragement for participation in coding competitions, hackathons, and startup incubation.
- Global Exposure Opportunities for exchange programs, international conferences, and research collaborations.
- Active Student Clubs & Societies Coding club, AI club, Robotics club, and more to foster technical and leadership skills.





- Swami Vivekananda Merit-Cum-Means Scholarship
- Astom India STEM Scholarship
- Reliance Foundation Undergraduate Scholarship
- Aikyashree WB Merit Cum-Means Scholarship
- National Means-Cum Merit Scholarship Scheme

### COURSE PLAN:

The Computer Science & Engineering (CSE) program is designed to equip students with a strong foundation in computing principles, software development, and emerging technologies. The curriculum follows a balanced approach, combining theoretical concepts with hands-on practical training. The first year covers fundamental subjects like Mathematics, Physics, and Programming. From the second year onwards, students delve into core CSE subjects, including Data Structures, Algorithms, Operating Systems, **Database** Management, and Computer Networks. The curriculum also advanced topics such as Artificial Intelligence, includes Machine Learning, Data science, IoT, Cybersecurity, and Blockchain Technology to align with industry trends. Elective courses and capstone projects allow students to specialize in areas of their interest. Additionally, students internships, industry collaborations, and research projects, ensuring they graduate with real-world experience and a competitive edge in the job market.



### SYLLABUS:

#### • B. Tech

- Engineering Mathematics I & II
- Engineering Physics / Chemistry
- Basic Electrical & Electronics Engineering
- Engineering Mechanics
- Programming in C
- Data Structures
- Digital Logic Design
- Environmental Science
- Engineering Drawing
- Python Programming (Lab)
- C Programming Lab / Data Structures Lab
- Discrete Mathematics
- Object-Oriented Programming (Java/C++)
- Computer Organization & Architecture
- Operating Systems
- Design and Analysis of Algorithms
- Database Management Systems
- Software Engineering
- Computer Networks
- DBMS Lab / OS Lab
- Java / OOPs Lab
- Communication Skills & Professional Ethics
- Theory of Computation
- Web Technologies
- Compiler Design
- Artificial Intelligence
- Machine Learning
- Cloud Computing
- Internet of Things (IoT)
- Data Mining & Data Warehousing
- Mini Project / Seminar
- AI/ML Lab / IoT Lab / Web Tech Lab
- Elective I (e.g., Blockchain, AR/VR, Cybersecurity, NLP)
- Big Data Analytics
- Human Computer Interaction
- Software Project Management
- Cybersecurity / Ethical Hacking
- Elective II & III (e.g., Quantum Computing, Edge AI, DevOps)
- Research Methodology
- Major Project Phase I & II
- Industrial Visit / Seminar

#### BCA

- Fundamentals of Computers & IT
- · Programming in C
- Digital Electronics
- Mathematics for Computing
- Communication Skills
- Operating Systems (Basics)
- Web Design (HTML, CSS, JavaScript)
- C Programming Lab
- · Web Design Lab
- Environmental Studies
- Data Structures using C
- Object-Oriented Programming in C++
  / Java
- Database Management Systems (DBMS)
- Computer Networks
- Software Engineering
- Operating Systems (Advanced)
- · Java / OOP Lab
- DBMS Lab
- Python Programming
- Web Application Development (PHP / JavaScript Frameworks)
- Data Analytics / Basics of AI & ML
- Cloud Computing
- Cybersecurity & Ethics
- Mobile Application Development (Android/iOS basics)
- Project Work / Internship / Dissertation
- Elective II & III (e.g., Digital Marketing, IoT, Game Dev)
- Python Lab / Cloud & Security Lab

# Department's Visionaries



Dr. Sandip Roy



Dr. Rajesh Bose



Dr. Dharmpal Sigh



Dr. Dipankar Mishra



Dr. Sayantan Nath



Dr. Nazma B J Naskar



Dr. Paramita Sarkar



Dr. Abhrendu Bhattacharya



Dr. Radhakrishna Jana



Dr. Bidisha Bhabani



Dr. Tanaya Das



Dr. Kaushik Adhikary



Mrs. Sonali Bhowmick



Mrs. Debmitra Ghosh



Mr. Chowdhury Md Mizan



Mr. Suprativ Saha



Mr. Debasish Mahanty

# **Publication Highlights:**

Faculty Publication Details				
SN	Item	2023-24	2022 - 23	2021 - 22
1	No. of Peer Reviewed journal published	44	30	29
2	No. of Peer Reviewed conference papers published	14	2	3
3	No. of books/book chapters published	6	6	4
4	No. of Patents	7	2	0

Student Publication Details		
SN	Assessment Year	No. of Publication
1	2023-24	29
2	2022-23	27
3	2021-22	15



### Placement Highlights:



### Year - 2022

Name	Course	Company Placed	
Anudeep Das	В.ТЕСН	MINDTREE	
SAYANI PAL	В.ТЕСН	WIPRO	
Arindam Panda	В.ТЕСН	BYJU's	
SOUVIK DEY	В.ТЕСН	NAGARRO SOFTWARES / HIGHRADIUS	
sanjit shome	В.ТЕСН	BYJU's	
PIYALI PAUL	В.ТЕСН	NSEIT	
SAGNIK GHOSH	в.тесн	WIPRO / TCS	
SWARNADIP GHOSH	В.ТЕСН	ACCENTURE / TECH MAHINDRA	
ANKITA MISHRA	В.ТЕСН	ACCENTURE / HEXAWARE / WIPRO	
TANYA SAXENA	В.ТЕСН	WIPRO / TCS / High Radius	
KOYEL MONDAL	В.ТЕСН	WIPRO	
MADHURIMA MUKHERJEE	В.ТЕСН	WIPRO	
AMAN GIRI	в.тесн	PERSISTENT / BLUECONCH / JOSH TECHNOLOGIES/ TCS / WIPRO	
SNEHASISH DAM	В.ТЕСН	WIPRO	
DEEPAK KUMAR	В.ТЕСН	WIPRO	
SAGAR MISHRA	В.ТЕСН	WIPRO	
PRAMOD KUMAR PANDEY	в.тесн	WIPRO	
UMRAO SINGH	в.тесн	CITITUSTECH	
SHIVAM SHARMA	в.тесн	TCS	
ARKA NARAYAN JAS	в.тесн	CAPGEMINI	
SOUMALYA CHOWDHURY	в.тесн	ACCENTURE	
KOUSTAVI DAS	в.тесн	ARC DOCUMENTATION SOLUTIONS	
TUHIN SARKAR	В.ТЕСН	NAGARRO SOFTWARES	
SAHINI MOULICK	в.тесн	EMBEE SOFTWARES	

### **Year - 2023**

Name	Course	Company Placed
ABHISHEK KUMAR GUPTA	в.тесн	IBS Software
Ankit Prasad	в.тесн	Persisitent Systems
ANKITA SAH	в.тесн	Hexaware Ltd
ARKAJYOTI PODDAR	в.тесн	Ernst & Young
DIPANKAR MAZUMDER	в.тесн	IBS Software & CAPGEMINI
GAIRIK SAJJAN	в.тесн	Capgemini ; Ernst & Young ; TCS
INDRANIL SAMANTA	в.тесн	TCG Digital & Tech Mahindra Ltd
KRISHNENDU PAL	в.тесн	AMAZON ; Ernst & Young ; Persistent Systems & Tech Mahindra Ltd
MD IMTIYAZ	В.ТЕСН	ByJus
SANDIP DAS	в.тесн	Siechem
SANGHITA DATTA	в.тесн	UST Product Engineering & Tech Mahindra Ltd
SAYANTAN BANERJEE	в.тесн	Bitwise Solutions
Shipon Nandy	в.тесн	TCS
SOUMEN MAITY	В.ТЕСН	Ernst & Young
SOUVIK SANTRA	В.ТЕСН	AMAZON & CAPGEMINI
SUBHADIP GHOSH	в.тесн	CAPGEMINI
SUBHAJEET MONDAL	в.тесн	Mantra Labs Globa



### Year - 2024

NAME OF STUDENT	COURSE	COMPANY PLACED
JAYASREE GHOSH	B. TECH(CSE)	ARTECH INFOSYSTEMS
TIRTHAJYOTI NAG	B. TECH(CSE)	JMAN DIGITAL SERVICES; TCS (DIGITAL); MOCERO HEALTH SOLUTIONS(INTERNSHIP)
WRIDDHI HAZRA	B. TECH(CSE)	ZSCALLER
RITU MAHATO	B. TECH(CSE)	PERSISTENT SYSTEMS LTD; TCS (DIGITAL)
HRITTIK PAUL	B. TECH(CSE)	TELAVERGE COMMUNICATION INDIA; PROLIFICS
SHASWATA BASU	B. TECH(CSE)	APMOSYS TECHNOLOGIES
ARNAB MONDAL	B. TECH(CSE)	BITWISE SOLUTIONS
RUSHDA RAHMAN	B. TECH(CSE)	PLANET SPARK
HIMANGSHI SAHA	B. TECH(CSE)	ACCENTURE; CAPGEMINI; TCS (DIGITAL)
ANJALI SINGH	B. TECH(CSE)	EDVEDHA EDUTECH PVT LTD; MY JOB GROW
SAYANI GHATAK	B. TECH(CSE)	CAPGEMINI; TCS (NINJA)
ARITRA BHATTACHARJEE	B. TECH(CSE)	TCS (NINJA)
SUBHADIP BASAK	B. TECH(CSE)	TCS (NINJA)
RIJU SANTRA	B. TECH(CSE)	TCS (DIGITAL)
ADESH SHARMA	B. TECH(CSE)	TCS (NINJA)
SNEHASHIS DASGUPTA	B. TECH(CSE)	TCS (DIGITAL)
SOUVIK DAS	B. TECH(CSE)	TCS (NINJA)
TUSHAR YADAV	B. TECH(CSE)	TCS (NINJA)
MIRAJ KHAN	B. TECH(CSE)	TCS (NINJA)

### Year - 2025

NAME OF STUDENT	COURSE	COMPANY PLACED
ARINDAM SARKAR	B. Tech(CSE)	TELAVERGE COMMUNICATIONS INDIA PVT LTD
DEBANJAN PAN	B. Tech(CSE)	IBM CONSULTING
SOUVIK MOITRA	B. Tech(CSE)	IBM CONSULTING
AMAN KUMAR SINGH	B. Tech(CSE)	DREAMZTECH SOLUTIONS PVT LTD
MD NASAR ZIA	B. Tech(CSE)	DREAMZTECH SOLUTIONS PVT LTD
CHANDAN KUMAR PANDEY	B. Tech(CSE)	HCL TECH; LTI MINDTREE
SATHI GHOSH	B. Tech(CSE)	HCL TECH
SOUMODIP PAL	B. Tech(CSE)	HCL TECH
ANSHITA CHOUBEY	B. Tech(CSE)	INTERNZVALLEY
ARPAN HALDER	B. Tech(CSE)	INTERNZVALLEY
BIRAJ NASKAR	B. Tech(CSE)	INTERNZVALLEY
NANDINI GHOSH	B. Tech(CSE)	INTERNZVALLEY
NILADRI DAS	B. Tech(CSE)	INTERNZVALLEY
RITAM SINGHA	B. Tech(CSE)	INTERNZVALLEY
RITOBRATA BOSE	B. Tech(CSE)	INTERNZVALLEY; LTI MINDTREE
SIMRAN MAITY	B. Tech(CSE)	INTERNZVALLEY
SOURAV SAMANTA	B. Tech(CSE)	INTERNZVALLEY
SRIJAN MONDAL	B. Tech(CSE)	INTERNZVALLEY
ATIN BERA	B. Tech(CSE)	LTI MINDTREE
DIGANTA BISWAS	B. Tech(CSE)	LTI MINDTREE
MAHASWETA SAHA	B. Tech(CSE)	LTI MINDTREE
RAMITA KUNDU	B. Tech(CSE)	LTI MINDTREE

### Student Achievements:

Participation in inter-institute events by students of the program of study

Year	No. of Student	ts Participated	No. of Awards Received	
Year	Within State	Outside State	Within State	Outside State
2023-24	56	46	37	26
2022-23	49	39	32	22
2021-22	46	25	21	19
Total	151	110	90	67



### **Laboratory Facilities:**

- **○** Apple Lab − Dedicated iOS development lab equipped with the latest Apple iMacs and MacBooks for app development and design.
- Programming Lab Fully-equipped with modern PCs and essential software for coding in C, C++, Java, Python, and more.
- Data Science & AI Lab High-performance computing systems with GPU support for Machine Learning, Deep Learning, and Data Analytics projects.
- IoT & Embedded Systems Lab Hands-on lab with Arduino, Raspberry Pi, sensors, and IoT kits for smart device prototyping.









### Co-curricular Activities:

#### 2021-2022 Session

Seminar/Workshop/I ndustrial Visit	Name Of The Event	Date
Webinar	One-day Webinar on Mathematical Modeling and Analysis	17.12.2021
Seminar	One-Day Seminar on Women Empowerment Through Skill Development	24.12.2021
Seminar	Introduction to Intellectual Property Rights	10.12.2022
Seminar	Intellectual Property Rights (IPRS) And Ip Management	10.12.2022

### 2022-2023 Session

Seminar/Workshop/Industrial Visit	Name Of The Event	Date
Webinar	Webinar On Early Stage Of Entrepreneurship And Innovation	15.10.2022
Seminar	Seminar On Cyber Security Awareness	29.10.2022
Children's Day	Children's Day	14.11.2022
Seminar	Seminar On Networking Using Cisco Tools	16.11.2022
Industrial Visit	Industrial Visit-Techno Exponent	23.09.2022
Engineer's day	Engineer's day	15.09.2022
SKILL X EXHIBITION	SKILL X EXHIBITION	25.11.2022
Workshop	Workshop On Machine Learning Using Python	25.08.2022
Industrial Visit Ardent Computech Pvt. Ltd	Industrial Visit Ardent Computech Pvt. Ltd	09.11.2022
FDP	FDP On Innovation In Recent Trends In Computing	09.11.2022

### 2023-2024 Session

Seminar/Workshop/Industrial Visit	Name Of The Event	Date
Industrial Visit	Industrial Visit at Ardent Computech Private Limited	12.08.2023
Alumni Talk	Alumni Talk on "preparation for Placement".	26.08.2023
Industrial Visit	Industrial Visit at "Euphoria Genx"	16.09.2023
National Engineers Day 2023	Seminar on National Engineer's Day 2023	15.09.2023
GDSC and its Mission	GDSC and its Mission	24.09.2023
Workshop	Machine Learning and Data Science with Python	25.11.2023
Hackathon	Programado -24 hours Hackathon	26.08.2023
BCT Training	Beyond Curriculum Training	10.03.2025 - 17.03.2025

# Extra-curricular Activities:













