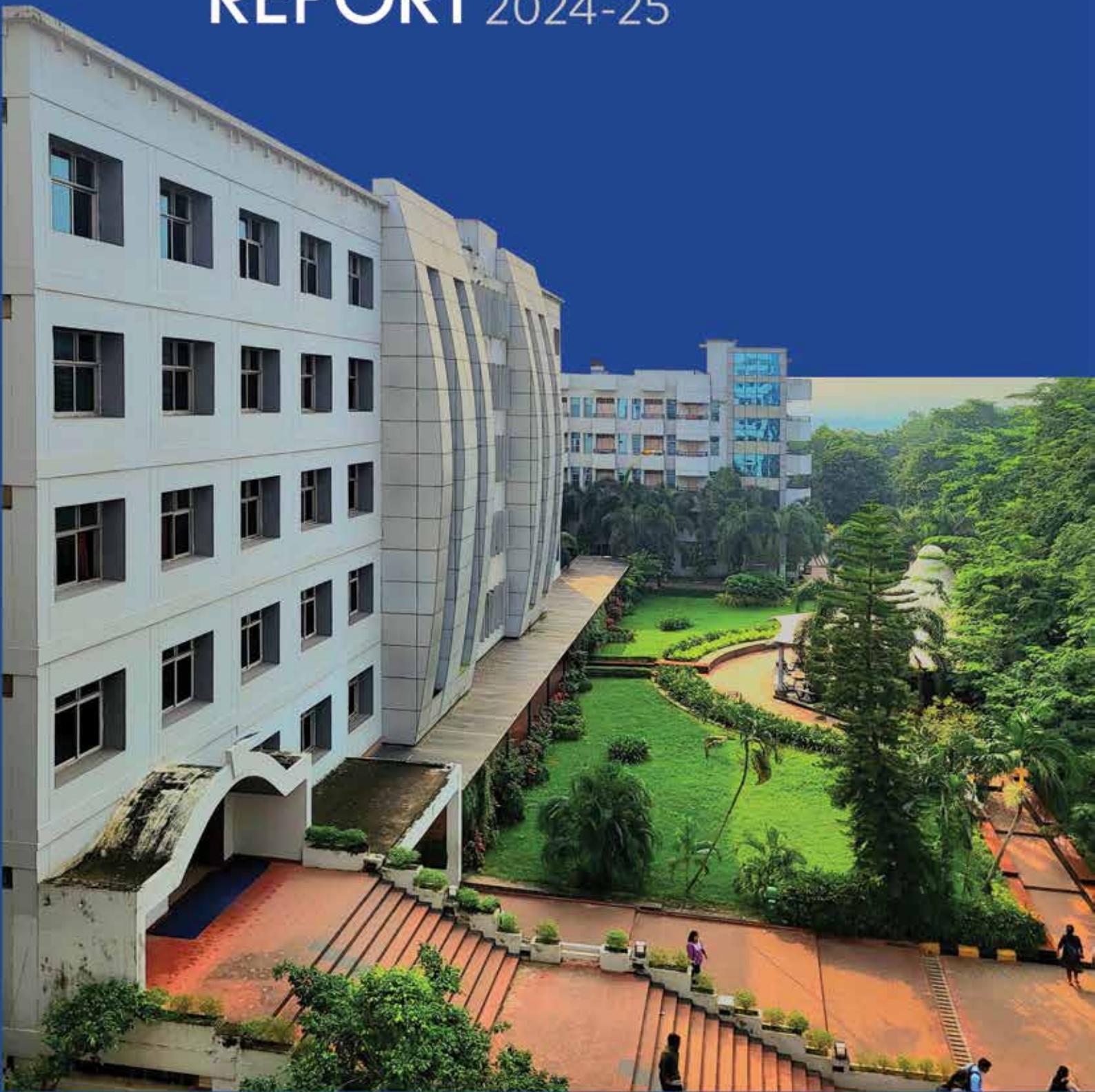


# ANNUAL REPORT 2024-25







# **ANNUAL REPORT**

**2024-25**

**Silicon University, Odisha**

Silicon Hills, Patia, Bhubaneswar  
[www.silicon.ac.in](http://www.silicon.ac.in)

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# About Silicon

## HISTORY

Silicon University was established on 10 September 2001, as Silicon Institute of Technology (SIT), jointly supported by Government of India and Government of Odisha. Silicon Institute of Technology started its campus SiliconTech, in Bhubaneswar, Odisha with four AICTE approved B.Tech. programs with the objective of bringing rigorous, outstanding, and industry-facing engineering education to young people in eastern India.

As it grew, the University Grants Commission (UGC) granted autonomous status to Silicon Institute of Technology, Bhubaneswar in 2018, for a period of 10 years, but it remained affiliated to Biju Patnaik University of Technology (BPUT).

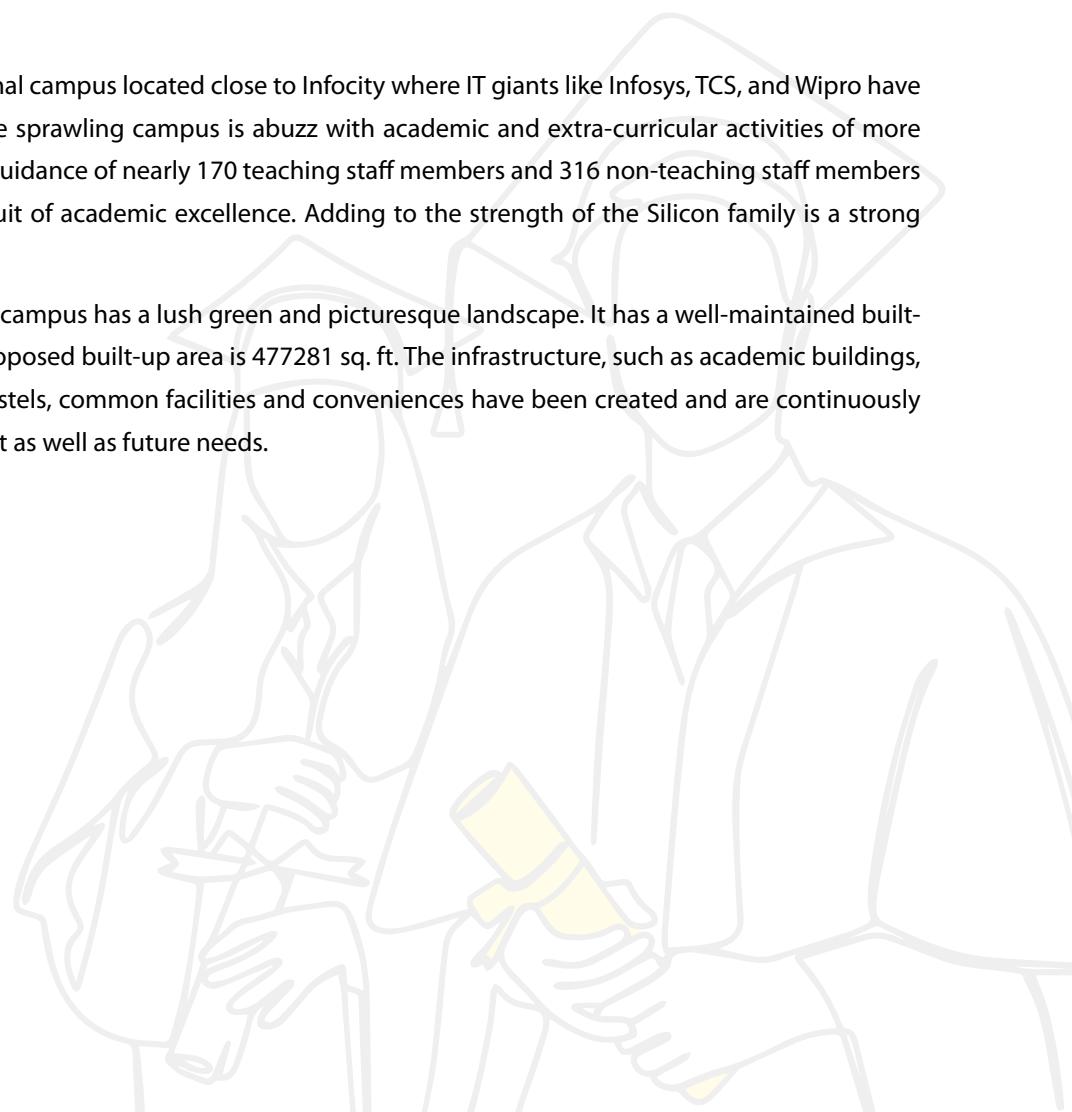
However, the turn-around came on 31 January 2024 when Silicon Institute of Technology, Bhubaneswar was upgraded to Silicon University, Odisha as per 'Odisha Universities (Amendment) Act 2020'.

Since 2001, the institute has grown to become a leading centre for technical education. Presently, Silicon University is one amongst 15 universities (national/government/private) for higher education, research and development in science, engineering & technology in Odisha. It is one among twelve institutes from Odisha to be featured within the top 300 in the Engineering Category in NIRF Rankings 2025.

## CAMPUS

The Institute has a fully functional campus located close to Infocity where IT giants like Infosys, TCS, and Wipro have their Development Centres. The sprawling campus is abuzz with academic and extra-curricular activities of more than 3000 students under the guidance of nearly 170 teaching staff members and 316 non-teaching staff members who support them in the pursuit of academic excellence. Adding to the strength of the Silicon family is a strong network of over 9000 alumni.

Spread across 18.376 acres, the campus has a lush green and picturesque landscape. It has a well-maintained built-up area of 570646 sq. ft. and proposed built-up area is 477281 sq. ft. The infrastructure, such as academic buildings, laboratory facilities, student hostels, common facilities and conveniences have been created and are continuously scaled up to cater to the present as well as future needs.



## VISION

To become a center of excellence in the fields of technical education and research and create responsible citizens.

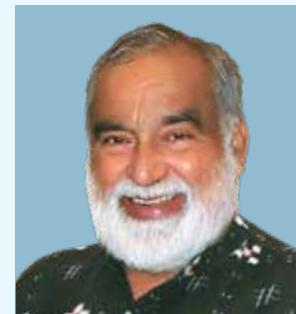
## MISSION

To provide the best technical skills, professional ethics, and human values in enriching the disciplines of Science, Engineering and Technology for social development and Nation building.

## QUALITY POLICY

We are committed to offer the best academic services to our learners through continuous innovative practices by providing high quality Lectures, state-of-the-art Laboratories, excellent Library facilities and ensuring its utilization through experiential Learning and Leadership.

## Message from the Chairman



It is always an achievement and fulfillment for an individual or an organization to complete the first year of existence. Silicon University has completed its maiden year in January 2025 and we are happy to present the first Annual Report.

Since 2001, Silicon has added many commendable achievements in its cap in the teaching-learning areas. As a University Silicon assumes added responsibility of innovations in teaching, learning and research. I wish that the faculty members and students with their wisdom and competency will elevate the University to its next level. Silicon is focusing on the frontier of technology and continuously modernizing its infrastructure for futuristic research and innovations. As a University, it is also expanding its horizon to new faculties and aiming at a multidisciplinary academic environment taking care of the various essential needs of society. It is my hope and prayer to see our institution emerge as one of the premier technical universities in the country.

All the staff members, educators, administrators and stakeholders play a crucial role in shaping the future of the University. It is imperative that we work together with dedication, commitment, and a shared sense of purpose to achieve the objectives. Together, let us strive to realize the full potential of our organization and make Silicon University a beacon of excellence in technical education and research.

I wish Silicon long years of service, as a University of excellence, in the state of Odisha and beyond.

**Joe Madiath**  
Chairman



## Message from the Vice-Chancellor

Greetings from Silicon University, Odisha!

It has been an exciting and eventful past year. The authorities and officers of the University, along with faculty members and staff, have carried out their duties with due diligence; consequently, we have made noteworthy progress in a multitude of areas including research, academics and administration.

Research and Consultancy is of paramount importance to any university, and we have embarked on this initiative with utmost dedication. This has resulted in publishing a large number of journal articles, conference papers and book chapters by our faculty members. We have also secured external grant funding - specifically, we have received fairly substantial funds from AICTE for our IDEA Lab project, and from ANRF for therapeutic studies related to Alzheimer's disease. As regards consultancy, we are involved in research projects with established companies such as Hindalco and Vedanta Ferro Alloys, to solve industrial bottlenecks.

Our academic prowess is now well known, and as a university we have attempted to further enhance it by improving the curriculum, starting new programs and incorporating outcome-based education in all segments of our academic process. Our flagship programs like Practice School and summer internship courses continue to thrive, with excellent engagement and results. Placement statistics, despite a seeming industry downturn is well above par, and IT, core and product-based companies are all well represented when it comes to hiring our graduates.

We have developed a five-year Silicon University Strategic Plan via which we aim to create critical thinkers, innovators, and problem-solvers ready to take on global challenges. The plan encompasses five broad areas-Education, Research and Consultancy, People, Resources and Engagement and Partnership. All of us -faculty members, students and staff must continue to work tirelessly across branches and disciplines keeping the Strategic Plan in mind, to make Silicon University a top-tier educational institution in the country.

**Dr. Jaideep Talukdar**  
Vice-Chancellor

# Year in Review

## TOTAL STUDENTS: 3248



UG Students: **2940**      Female Students: **1056**  
PG Students: **223**  
Ph.D. Research Scholars: **85**

## TOTAL GRADUATES: 673



UG Graduates: **571**  
PG Graduates: **102**



## TOTAL ADMISSIONS: 963



UG Admission: **809**  
PG Admission: **124**  
Research Scholar Admission: **30**



## HUMAN RESOURCE: 486



Teaching: **170**      New Faculty Members Joined: **16**  
Non-Teaching: **316**

## TOTAL PLACEMENTS: 550



Undergraduate: **488**  
Postgraduate: **62**

# Accreditations & Recognitions

**AICTE**  
Approved

**NAAC**  
Grade 'A'

**NBA**  
Accredited  
UG Programs  
(CSE, ECE, EEE)

**NIRF 2025**  
Band 201-300  
(Engineering)

**NIRF 2024**  
Band 201-300  
(Engineering)

**NIRF 2023**  
Band 151-300  
(Innovation)



**Best University Award for promoting industry-academia linkage 2024**



**Energy Conservation Award 2024**



**C V Raman Award for Academic Excellence 2021**

- Recognized as one of the **Best Performing Institution's Innovation Councils (IIC)** for the 6th consecutive year in 2024 by the Ministry of Education (MoE), Government of India
- The **only funded IIC from Odisha** selected as a mentor institution in 2023 and 2021 by MoE, Government of India
- Recognized as an "**Incubator**" in 2022 by Start-up Odisha
- **Energy Conservation Award 2022**
- Received the "**Start-up Cell**" award in 2021 from BPUT, Odisha
- Innovation & Incubation Centre approved as a **Business Incubator (BI)** in 2019 by MSME, Government of India
- Awarded "**Best Engineering College**" in Odisha in 2018 and 2019 by the Indian Society for Technical Education (ISTE)
- Won the "**Best Technical Institute Award in Research and Development**" at the Odisha Technological Conclave 2017
- "**Outstanding Engineering Institute in Eastern Zone**" by ABP News in 2016

# Board of Governors (BoG)

The Board of Governors (BoG) consists of eminent educationists, technocrats, representatives of the University and government institutions who are known for their progressive approach and dedication to the cause of education and social development. The members are:

## JOE MADIATH

Chairman  
Silicon University

## SANJEEV NAYAK

Vice-Chairman  
Silicon University

## DR. JAIDEEP TALUKDAR

Vice-Chancellor  
Silicon University

## NITAI GAUR DHALL

Co-Founder  
Silicon Institute of Technology

## J.P. SINGH

Trustee  
Silicon University

## DR. TANMAY PANDA

Member, BoG

## DR. SRIKANTH SUNDARARAJAN

General Partner, Ventureast Advisors Pvt Ltd  
Industrialist

## DEVESH SINHA

Founder and CEO, Cozentus  
Industrialist

## DR. MANOJ FOGLA

Fellow Member ICAI  
Trust Nominee

## SHRI BHUPENDRA SINGH POONIA

Principal Secretary  
Skill Development & Technical Education Dept.

## DR. SAROJ KANTA MISRA

Advisor  
Silicon University

## DR. DEBABRATA KAR

Dean (Instruction)  
Silicon University

## PRADIPTA KUMAR MOHAPATRA

Registrar  
Silicon University

Note: The BoG includes two Members of the Odisha Legislative Assembly and two members nominated by the Odisha State Government.

# Board of Management (BoM)

## DR. JAIDEEP TALUKDAR

Vice-Chancellor  
Silicon University

## SANJEEV NAYAK

Vice-Chairman  
Silicon University

## PRADIPTA KUMAR MOHAPATRA

Registrar  
Silicon University

## DR. AMAR KUMAR BEHERA

Finance Officer  
Silicon University

## NITAI GAUR DHALL

Co-Founder  
Silicon Institute of Technology

## DR. SAROJ KANTA MISRA

Advisor  
Silicon University

## DR. DEBABRATA KAR

Dean (Instruction)  
Silicon University

## DR. RAMAPRASAD PANDA

Dean (Student Affairs)  
Silicon University

## DR. MANORANJAN BEHERA

Dean (Research & Consultancy)  
Silicon University

## DR. PRAYAG PRASAD MISHRA

Controller of Examinations  
Silicon University

# Our Statutory Committees

- Academic Council
- Research & Innovation Council
- Board of Studies
- Finance Committee
- Anti-Ragging Cell
- University Grievance Redressal Committee (UGRC)
- Student Grievance Redressal Committee (SGRC)
- SC & ST Committee
- Internal Complaint Committee (ICC)
- Socio Economically Disadvantaged Group (SEDG) Cell
- Equal Opportunities Cell
- National Education Policy (NEP) Cell

# Programs Offered

## UG Programs

Sl. No.	Program Name	Program Intake
1	B. Tech. in Computer Science & Engineering	300
2	B. Tech. in Electrical & Electronics Engineering	120
3	B. Tech. in Electronics & Communication Engineering	180
4	B. Tech. in Electronics & Instrumentation Engineering	60
5	B.Tech. in Electronics Engineering (VLSI Design & Technology)	60

## PG Programs (M.Tech./ MCA/ M.Sc.)

Sl. No.	Program Name	Program Intake
1	M.Tech. in Electronics & Communication Engineering (ECE)	9
2	M.Tech. in Computer Science & Engineering (CSE)	9
3	M.Tech. in Power Engineering & Energy Systems (PE & ES)	9
4	Master in Computer Applications (MCA)	60
5	iMCA (Integrated BCA+MCA)	60
6	M. Sc. (Data Science)	30
7	M. Sc. (VLSI)	30
8	M.Sc. (Embedded Electronics & IIoT)	30
9	M. Sc. (Molecular Medicine)	30

## Ph.D. Program

Silicon University has its own Ph.D. program in Engineering, Sciences, Humanities, Social Sciences, and allied interdisciplinary areas. Our Ph.D. program has been designed as per the latest UGC guidelines. The offered disciplines are:

- Computer Science & Engineering
- Electrical Engineering
- Electrical & Electronics Engineering
- Electronics & Communication Engineering
- Electronics & Instrumentation Engineering
- Mechanical Engineering
- Chemistry
- Economics
- English
- Mathematics
- Management
- Physics
- Psychology

# Admissions

## Selection Process

Selection of students for various programs is strictly based on merit. For all programs, the university admits the students through University level counseling (SUC) and/or through OJEE counseling (OJEEC). Out of the sanctioned seats for various programs, the counseling is done as per the details mentioned in the table below.

Program	% sanctioned seats filled through SUC	% sanctioned seats filled through OJEEC	Selection criterion for OJEEC	Remarks
B.Tech.	50	50	As per the OJEE selection guidelines	All Tuition Fee Waiver (TFW) seats will be allotted through OJEE counseling
M.Tech.	50	50		
MCA	50	50		
iMCA	100	0		
M.Sc.	100	0		

- The admissions for the M.Tech. and Ph.D. courses are through the **Silicon University Admission Test (SUAT)** which comprises of a written examination and/or interview
- The institute also admits 20% seats to Diploma holders who join the B. Tech. program through Lateral Entry. They complete the degree in three years
- The students seeking admission to Silicon usually include the top 25% students appearing for the JEE Main Exams. The institute, therefore, makes an early exit from the central counselling process as the seats get filled

## Admission Statistics (UG/PG): 2024

Program	Branch	Sanctioned Intake (Reg + TFW + EWS)	Admitted student		Total	Regular		Lateral	
			Regular	Lateral		Male	Female	Male	Female
B.Tech.	CSE	300 + 15 + 75	360	25	385	246	114	17	8
	CEN*	-	-	1	1	-	-	1	0
	CST*	-	-	3	3	-	-	3	0
	ECE	240 + 12 + 60	250	0	250	166	84	0	0
	EEE	120 + 6 + 30	122	7	129	84	38	5	2
	EIE	60 + 3 + 15	41	0	41	28	13	0	0
M.Tech.	CSE	9	8	-	8	4	4	-	-
	ECE	9	0	-	0	0	0	-	-
	EEE	9	0	-	0	0	0	-	-
IMCA	IMCA	60	13	-	13	6	7	-	-
MCA	MCA	60 + 3 + 15	73	-	73	43	30	-	-
M. Sc.	DS	30	28	-	28	18	10	-	-
	VLSI	30	0	-	0	0	0	-	-
	EE & IIOT	30	0	-	0	0	0	-	-
	MM	30	02	-	2	1	1	-	-
Total		1221	897	36	933	596	301	26	10

\*CEN and CST branches are merged with CSE from 2024-25 session

## Ph.D. Admissions 2024-25

- A total of 85 Ph.D. scholars are currently continuing their research under the supervision of our faculty members in a wide range of areas in Engineering, Science, Humanities, Social Sciences, and allied interdisciplinary areas
- During the AY 2024-25, 30 research scholars (14 in the July Batch, 16 in the January Batch) have been admitted to Silicon University under different disciplines for the Ph.D. program

## Reservation & Scholarships

Silicon complies with the reservation policies of the state government to ensure equity. As the Institute attracts a large number of students from other states the reservation policies, as applicable to them, are also adhered to.

The Institute received a large number of applications for scholarship during the academic year 2024-25 and awards were made under the following categories:

Sl. No.	Name of Scholarship	Total Students
1	E-Medhabruti Scholarship-Fresh & Regular	383
2	Post Matric Scholarship-Fresh & Regular	200
3	Krishi Vidya Nidhi Yoyana	16
4	Nirman Shramik	02
5	Gopabandhu Sikhya Sahayata Yoyana	1
6	Godabarish Vidyarthi	10
7	Silicon University Scholarship	28
8	E-Kalyan Jharkhand-Fresh & Regular	47
9	National Scholarship	17
<b>Total</b>		<b>704</b>

## Student Support & Progression

- Ragging free environment
- Academic support and guidance to lateral entry students to help them adapt to the academic culture
- Ample provision for scholarship and other forms of financial assistance
- Meritorious students join the Silicon Achiever's Club to seek benefits such as study-aid materials, issuing extra books from the library, partial reimbursement of expenses towards IEEE student membership, registration fees and travelling expenses to participate in technical events
- More than 20 clubs prepare students to participate in hackathons, inter-college competitions, and other national and international events
- Awareness and assistance to prepare for competitive exams such as GATE, IES, CAT, XAT, GRE, GMAT and TOEFL

# Academics

## Academic Cycle

There are a number of programs which run concurrently at the Institute, resulting in the formation of an academic cycle which includes a specified number of teaching days. The number of teaching days, excluding examinations days, holidays, and suspended classes for the different semesters, odd and even during 2024-25 are as follows:

Odd Semester	Even Semester
1st Semester - 70 Days	2nd Semester – 68 Days
3rd Semester - 72 Days	4th Semester - 72 Days
5th Semester - 72 Days	6th Semester - 72 Days
7th Semester - 69 Days	8th Semester - 69 Days

## Teaching - Learning - Evaluation Process

Silicon has the distinction of having one of the best Teaching, Learning and Evaluation processes among the engineering institutes in the state.

- The Institute follows a non-negotiable Academic Calendar for all its academic processes
- The schedule of academic and extra-curricular activities is prepared well in advance by all the departments so that the activities and events can be effectively organized
- The teaching-learning process is student-centric involving methodologies such as integrated learning, self-learning and ICT based learning
- The Examination Cell is responsible for conducting all the internal and external exams for undergraduate and postgraduate programs fairly and systematically
- Students are evaluated through a combination of examinations and hands-on skill sets including surprise tests, quizzes, projects, and presentations
- The detailed progress records of students with regard to attendance, learning and evaluation are maintained by their respective faculty advisors (FAs)

## Library

The Silicon Central Library, spread over 17000 sq. ft., has an extensive collection of printed volumes, audio and video courses, and digital and online resources. With a seating capacity of 450, the library has reading rooms with separate cubicles to support focused study, and discussion rooms to enable collaborations.

**178**  
New Titles

**413**  
New Volumes

**10190**  
Total Titles

**40181**  
Total Volumes

**44117**  
Titles of E-books under Proquest e-book central subscription

Remote access to e-resources through **Knimbus**

## E-Resources

- **IEEE (ASPP + POP):** 243 journals and 38554 Conference proceedings
- **Science Direct (Elsevier):** 294 journals
- **Springer Nature Collections:** 175 Journals (Chemistry & Material Science)
- 175 Journals (Engineering)
- 99 Journals (Computer Science)

## Academic Performance

Program	Year	Branch	Appeared	Passed	Failed	% Success
B. Tech.	2021-2025	CEN	66	64	2	96.97
		CSE	206	201	5	97.57
		CST	71	68	3	95.77
		EEE	61	56	5	91.80
		ECE	151	142	9	94.04
		EIE	11	10	1	90.91
	2020-2024	CEN	55	55	0	100.00
		CSE	209	208	1	99.52
		CST	66	66	0	100.00
		EEE	47	47	0	100.00
		ECE	118	115	3	97.46
		EIE	10	10	0	100.00
	2019-2023	CSE	212	211	1	99.53
		EEE	121	118	3	97.52
		ECE	185	182	3	98.38
		EIE	32	32	0	100.00
MCA	2023-2025	-	69	68	1	98.55
	2022-2024		73	73	0	100.00
	2021-2023		60	60	0	100.00
M.Sc.	2023-2025	DS	20	18	2	90.00
	2023-2025	MM	5	5	0	100.00
	2023-2025	VLSI	3	3	0	100.00
M.Tech.	2023-2025	CSE	3	3	0	100.00
	2022-2024	CSE	1	1	0	100.00
	2021-2023	CSE	2	2	0	100.00
		ECE	1	1	0	100.00
		EEE	3	3	0	100.00

## University Gold Medalists and 1st Convocation

Silicon University celebrated a historic milestone by hosting its 1st convocation on 14 December 2024, marking a proud and emotional moment in the institution's journey.

- **597** Degrees awarded
- **3** Gold medalists
- **8** Branch toppers
- **23** top three CGPA positions

Sl. No.	SIC No	Student Name	Program	Branch	Award & Honour
1	22MMCD98	Swayanprabha Panda	MCA		Gold Medal & Branch Topper
2	22MDSA47	Ashutosh Das	M.Sc.	DS	Branch Topper
3	20BCTD71	Gopinath Barat	B.Tech.	CSE	Gold Medal & Branch Topper S. Sundararajan Best Graduate Award
4	20BECC41	Priyansu Sahoo	B.Tech.	ECE	Gold Medal & Branch Topper
5	20BEEB92	Surjyasnata Rath	B.Tech.	EEE	Branch Topper
6	20BCTA02	Debashis Tripathy	B.Tech.	CST	Branch Topper
7	20BCEA56	I Prasanti	B.Tech.	CEN	Branch Topper
8	20BEIA58	Ipsit Spandan Mohanty	B.Tech.	EIE	Branch Topper

## Faculty

Faculty members are selected by a Selection Committee as per the guidelines of AICTE and UGC, through open advertisement on an all-India basis.

<b>170</b> Faculty Members	<b>118</b> Assistant Professors	<b>31</b> Associate Professors	<b>21</b> Professors
	<b>91</b> Hold Ph.D. Degrees	<b>4</b> Submitted their thesis	<b>75</b> continuing Ph.D. / in enrolling process

- The **faculty student ratio** at the Institute is maintained at **1:19**
- The Institute facilitates professional development of faculty by following a transparent policy mentioned in its Service Condition Manual. It promotes liberal policy of study leave, financial assistance and rewards

## Faculty Excellence

The Institute encourages faculty and staff members to pursue higher studies and acquire qualifications like Ph. D. and D.Sc. by allowing them study leave along with financial support. During the AY 2024-25, the following faculty members were continuing their research under different universities while on study leave:

Name	Program of Study (Ph.D. /Post Doc)	Institution
Utpal Das	Ph.D.	NIT, Raipur
Sadhna Malik	Ph.D.	IIT, Kharagpur
Monorama Swain	Post Doc.	UCPH, Denmark

## Faculty Members Awarded with a Ph. D. Degree in 2024-25

Sl. No.	Name & Department	Thesis Title	Date of Award	Awarding University/ Institution
1	Priyambada Pal (BSH)	Towards socio-political Choreographing: The Dialectics of Contemporary Indian Non-Fiction	12.09.2024	Utkal University
2	Arabinda Dash (CSE)	Study and Analysis of Maize Diseases using Image Processing Techniques	26.09.2024	Sambalpur University
3	Bivasa Ranjan Parida (CSE)	QoS- Aware Resource Management Techniques in Dynamic Cloud Milieu	29.10.2024	VSSUT, Burla
4	Asit Kumar Dash (CSE)	Optimizing Trend Analytics and Forecasting Models for Diverse Financial Instruments	25.11.2024	SOA Deemed to be University
5	Pradipta Kumar Pattanaik (CSE)	Some Efficient Machine Learning Algorithms for Topic Modeling	20.02.2025	BPUT
6	Chittaranjan Mohapatra (CSE)	High Performance Algorithms for VLSI Physical Design	31.05.2025	Utkal University

## Faculty Achievements

SiliconTech takes pride in its distinguished faculty, comprising accomplished academicians, researchers, and industry experts who bring excellence to teaching and innovation in technology and engineering. Their collective expertise drives cutting-edge research, impactful consultancy projects, and transformative learning experiences for students. The key achievements of our faculty in the 2024-25 session are given below:

### Best Researcher Award 2025\*

**Dr. Ambarish Gajendra Mohapatra**  
Electronics and Communication Engineering  
**Dr. Anita Mohanty**  
Electronics and Communication Engineering  
**Dr. Suvendu Chandan Nayak**  
Computer Science and Engineering

\*The faculty members were awarded by Silicon University

### Best Faculty Advisor 2025\*

**Dr. Arnab Pal**, Electrical and Electronics Engineering  
**Dr. Bikram Keshari Mishra**, Computer Science and Engineering  
**Dr. Debangana Das**, Electronics and Communication Engineering  
**Dr. Kamalakanta Satpathy**, Basic Sciences and Humanities  
**Dr. Nivedita Pati**, Electrical and Electronics Engineering  
**Prof. Chittaranjan Mohapatra**, Computer Science and Engineering  
**Prof. Dipak Ranjan Nayak**, Electrical and Electronics Engineering  
**Prof. Gyanaranjan Biswal**, Electrical and Electronics Engineering  
**Prof. Laxminarayan Pathy**, Electrical and Electronics Engineering  
**Prof. Tophan Jena**, Computer Science and Engineering

- **Dr. Jayakrushna Mohanty**, Adjunct Professor, Electrical and Electronics Engineering, received the 'Outstanding Contribution as a Presenting Author' award for his paper titled 'Vibration Analysis and MCSA: Effective Tools for Health Monitoring of HT Motors in an Alumina Plant' in the 5th International Conference on Recent Advances in Mechanical Engineering Research and Development (ICRAMERD- 2024) organized by the Institute of Technical Education and Research (ITER), SOA from 12-14 December 2024.
- **Dr. Nivedita Pati**, Senior Assistant Professor, Electrical and Electronics Engineering, received the best paper award for UPCON conference with paper title as 'Feedback Control of a Three State Switching Cell Boost Converter Using Model Reference Adaptive Control' on 1 December 2024.

# Research and Consultancy

Silicon proudly maintains over **20 collaborative partnerships** with industry giants, esteemed knowledge institutions, and reputable consultancy firms.

<b>Publications</b>	<b>852</b> Total Publications	<b>399</b> SCI/Scopus indexed journals	<b>256</b> Journals with high impact factor	<b>300</b> Conference proceedings	<b>87</b> Books/book chapters
<b>Patents &amp; Projects</b>	<b>29</b> Patents Filed	<b>14</b> Patents Granted	<b>15</b> Research Projects	<b>35</b> Consultancy Projects	

Silicon has received **grants amounting to over 5 Crores** from various funding organizations, including the Department of Science and Technology (DST), Govt. of India, AICTE, and BPUT to conduct research in diverse areas of science and technology.

## Grant Highlights

### I. AICTE Idea Lab

**Lab Funding Agency:** All India Council for Technical Education (AICTE)

**Sanctioned Budget:** ₹1.1 crore

**Duration:** 2 years

**Chief Mentor:** Dr. Jaideep Talukdar, Professor & Vice-Chancellor

**Faculty Coordinator:** Dr. Ambarish G. Mohapatra, Associate Professor, Electronics Engineering

**Faculty Co-Coordinator:** Dr. Sudhansu M. Biswal, Associate Professor, Electronics Engineering

**Objective:** foster creativity, innovation, and hands-on learning in STEM

### II. Research project on targeting early vascular dysfunction in Alzheimer's disease associated Dementia for therapeutic development

**Funding Agency:** Anusandhan National Research Foundation (ANRF)- Prime Minister Early Career Research Grant (PMECRG)

**Sanctioned Budget:** ₹60 lakhs

**Duration:** 3 years

**Principal Investigator:** Dr. Pradeep Kumar Singh, Associate Professor, JBS Haldane Center of Molecular Medicine

**Objective:** investigate cross-talk between amyloid protein and blood clotting factors in Alzheimer's disease

## Publications

### Journal Statistics

Session	BSH	CSE/MCA	ECE	EEE	EIE	JHC	Total
2022 – 23	10 (6) 5	17(17) 14	17 (17) 10	2(2) 2	2 (2) 1	–	47 (43) 31
2023 – 24	9 (4) 6	25 (24) 22	19 (18) 19	3(3) 2	9 (9) 9	–	63 (54) 56
2024 - 25	10 (7) 6	24 (21) 18	15 (13) 10	11 (11) 5	15 (14) 15	6 (4) 6	69 (59) 49

(Numbers within brackets indicate Scopus/SCI Indexed Journals, and Number in red indicates post Ph.D. publications)

### Journal Publications Details

1. Sushruta Mishra, **Pamela Chaudhury**, Hrudaya Kumar Tripathy, Kshira Sagar Sahoo, N Z Jhanjhi, Asma Abbas Hassan Elnour, and Abdelzahir Abdelmaboud, "Enhancing health care through medical cognitive virtual agents", Digital Health, DOI: 10.1177/20552076241256732, August, 2024
2. Ghanashyam Sahoo, Ajit Kumar Nayak, **Pradyumna Kumar Tripathy**, Amrutanshu Panigrahi, Abhilash Pati, Bibhuprasad Sahu, Chandrakanta Mahanty, and Saurav Mallik, "Predicting Breast Cancer Relapse from Histopathological Images with Ensemble Machine Learning Models", Current Oncology, Vol. 31, No. 11, pp. 6577-6597, October, 2024
3. **Anita Mohanty**, Debi Prasad Pradhan, Subrat Kumar Mohanty, Bhagyalaxmi Jena, **Pradyumna Kumar Tripathy**, and **Ambarish G. Mohapatra**, "Enhancing Photovoltaic Efficiency through the Design and performance analysis of an Automatic Solar Tracking System", The Indian Journal of Technical Education, Vol. 47, No. 2, pp. 50-60, October, 2024
4. Mthokozisi Alfred Hlatshwayo, Bester Chimbo, Sreedevi Vallabhapurapu, and **Suvendu Chandan Nayak**, "Evaluating the Impact of AI-Driven Solutions on the Efficiency and Equity of Social Grant Distribution in South Africa", High Technology Letters, Vol. 30, No. 12, pp. 332-350, December, 2024
5. **Pradipta Kumar Pattanayak**, Rudra M. Tripathy, and Sudarsan Padhy, "A Semi-supervised Approach of Cluster-Based Topic Modeling for Effective Tweet Hashtag Recommendation", SN Computer Science, Springer, Vol. 5, Article No. 951, October, 2024
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7. **Rekha Sahu**, Prasant Kumar Pattnaik, Kalaiarasi Sonai Muthu Anbanathen, and Saravanan Muthaiyah, "Identification of Depression Patients Using LIF Spiking Neural Network Model from the Pattern of EEG Signals", IEEE Access, IEEE, Vol. 13, pp. 55156-55168, March, 2025
8. **Nayan Ranjan Paul** and Rakesh Chandra Balabantary, "Disaster related tweet classification method based on BERT and GAT", International Journal of Information Technology, Springer, DOI: 10.1007/s41870-024-02389-6, February, 2025
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10. **Sharmistha Puhan** and Sambit Kumar Mishra, "YOLOV7-based Moving Object Detection in Dense Fog Conditions", Journal of Mechanics of Continua and Mathematical Sciences, Vol. 19, No. 12, pp. 123-138, December, 2024
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12. **Milan Samantaray**, Ram Chandra Barik, and Anil Kumar Biswal, "A comparative assessment of machine learning algorithms in the IoT-based network intrusion detection systems", *Decision Analytics Journal*, Elsevier, Vol. 11, Article No. 100478, July, 2024
13. **Chittaranjan Mohapatra** and Nibedita Adhikari, "A Noble Rectilinear Steiner Tree with Obstacles Using Parallel DQN: NRST", *ICTACT Journal on Microelectronics*, Vol. 11, No. 1, pp. 1989 – 1996, April, 2025
14. Avantika Mishra, **Soumya P. Panda**, Isha Bharadwaj, Annada Gumansingh, and Anmol Ray, "Real-Time Sign Language Interpretation System", *Journal of Xidian University*, Vol. 19, No. 4, pp. 289-293, April, 2025
15. Dibakar Pradhan, Pramod Kumar Meher, and **Bimal Kumar Meher**, "Input–Output Scheduling and Control for Efficient FPGA Realization of Digit-Serial Multiplication Over Generic Binary Extension Fields", *Circuits, Systems, and Signal Processing*, Springer, Vol. 43, pp. 7729–7749, August, 2024
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20. **Anita Mohanty**, **Ambarish G. Mohapatra**, Pradyumna K. Tripathy, Prasanta Kumar Bal, Ajaya K. Tripathy, Sasmita Nayak, Subrat K. Mohanty and Bhagyalaxmi Jena, "Smart hospitality using IoT enabled integrated face recognition, machine learning, and fuzzy AHP for analyzing customer satisfaction measurements", *International Journal of Information Technology*, Springer, Vol. 17, pp. 1597–1605, December, 2024
21. Chapala Maharana, **Ch. Sanjeev Kumar Dash**, and B. B. Mishra, "State of the Art A Pandemic Big HealthCare Analytics Solution: Image Classification Using Quantum MAML", *Research and Reviews: A Journal of Medical Science and Technology*, Vol. 14, No. 02, May, 2025
22. Yogasambhuta Dash, **Rabindra Kumar Dalei**, and **Kasturi Dhal**, "Modified Genetic Algorithms (GA) for Load balancing in Cloud Computing", *Journal of Information Systems Engineering and Management*, Vol. 10, No. 54s, June, 2025
23. **Ashok Kumar Panda**, Sonali Pradhan, Chinmayee Pati, Naba Kumar Rath, and Deepak Kumar Baral, "AI-Based Predictive Modeling For Air Quality Assessment And Environmental Risk Forecasting In Urban Ecosystems", *International Journal of Environmental Sciences*, Vol. 11, No. 12s, pp. 163-171, June, 2025
24. **Pragyan Paramita Das**, **Jayashree Piri**, Raghunath Dey, and Biswaranjan Acharya, "An Innovative Framework for Recommending Features in Cardiotocography for Prenatal Care", *Journal of Harbin Engineering University*, Vol. 46, No. 6, pp. 115-121, June, 2025
25. **Bipin Bihari Tripathy**, Jayashree Das, Dilip Kumar Mishra, Ramakanta Naik, Sachindra Nath Sarangi, Praveen Kumar, and Kamalakanta Satpathy, "Microscopic and spectroscopic behavior of ZnO@ MWCNTs composite", *Journal of Materials Science: Materials in Electronics*, Springer, Vol. 36, Article No. 145, January, 2025
26. V. D. Liseikin, V. Gupta, and **Sanjay Kumar Sahoo**, "Optimally accurate second-order numerical scheme on layer-resolving graded mesh for singularly-perturbed boundary turning point problems exhibiting power-of-type-1 and hybrid layers", *International Journal of Computer Mathematics*, Vol. 102, No. 3, pp. 435-448, October, 2024

27. **Kumari Anamika, Manoranjan Behera, and Anshuman Sarangi**, "Comprehensive Optical, Morphological, and Antibacterial Analysis of Gold Nanoparticles Synthesized Using Aqueous Extract of *Plumeria Pudica* Leaves", Letters in Applied NanoBioScience, Vol. 14, No. 2, pp.1-15, February, 2025
28. **Narayan Nayak, Ambarish G. Mohapatra, Ashish Khanna, Jaideep Talukdar, Satyapriya Satapathy, Dipak Ranjan Nayak, and Nilam N. Ghuge**, "Enhancing fault detection and predictive maintenance of rotating machinery with Fiber Bragg Grating sensor and machine learning techniques", International Journal of Information Technology, Springer, Vol. 17, pp. 1225-1234, November, 2024
29. **Atla Shashi Bairagi**, "Electrochemical abatement of diclofenac with various electrode systems for water treatment applications", Sustainable Chemistry for the Environment, Elsevier, Vol. 10, Article No. 100237, June, 2025
30. Mrutyunjay Panda, **Bidyadhar Padhi, Mahendra Prasad Agasty**, and Prakash Chandra Dash, "Assessing the Effects of Financial Inclusion Initiatives on Rural Communities: A Case Study of Nayagarh District, Odisha, India", Scope, Vol. 15, No. 1, pp. 214-233, March, 2025
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32. **Priya K. Singh** and S. Saha Ray, "A Collocation Method for Nonlinear Stochastic Differential Equations Driven by Fractional Brownian Motion and its Application to Mathematical Finance", Methodology and Computing in Applied Probability, Springer, Vol. 26, Article. 19, May, 2024
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38. **Satish Kumar Das, Sudhansu M Biswal, LalatIndu Giri, Ipsita Pahi** and Umakanta Nanda, "Development and investigation of DMDG-MOSFET biosensor for charged biomolecule detection", Physica Scripta, Vol. 100, DOI: 10.1088/1402-4896/ad9784, January, 2025
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42. Bishwajit Dey, Srikant Misra, and **Arnab Pal**, "Flexibility In Load Demand and PHEV Parameters for Clean and Economic Microgrid Operation", Scientific Reports, Springer, Vol. 15, Article number: 22615, June, 2025
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55. Koduri Sreelakshmi, Biswa Ranjan Swain, **Amiya Bhusana Sahoo**, Manas Ranjan Jena, and Rajiv Pathak, "A Miniaturized Multiband Antenna with Frequency Reconfiguration for 5G and IoT Applications", Journal of Information Systems Engineering and Management, Vol. 10, No. 7, February, 2025

56. Madhurima Moulick, Shreya Nag, **Debangana Das**, Ajanto Kumar Hazarika, Santanu Sabhapondit, and Runu, Banerjee Roy, "A Molecular Imprinted Bi-polymer graphite electrode decorated with NiCo<sub>2</sub>O<sub>4</sub> nano-cubes for rapid detection of theaflavin in black tea", IEEE Sensors Journal, Vol. 25, No. 10, pp. 16621-16627, April, 2025

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64. Amit Roy Chowdhury, Sunny Patel, Manisha Parida, Himanshu Sekhar Dash, Sarada Prasad Grahacharya, and **Birendranath Banerjee**, "SARS-CoV-2 Catastrophe and Aftermath in 3800 Indian patients with Comorbidities: A Retrospective study", Genome Biology & Molecular Genetics, DOI: 10.17352/gbmg.000001, May, 2024

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## Conference Publications

Session	BSH	CSE/MCA	ECE	EEE	EIE	Total
2022-23	1	9	9	4	6	24
2023-24	1	20	18	8	9	49
2024-25	-	34	14	9	6	58

## Conference Publications Details

1. **Abhisek Sethy**, Ajit Kumar Rout, Soumya Ranjan Nayak, and Raghvendra Kumar, "Book Genre Classification System Through Supervised Learning Technique", 3rd International Conference on Smart Computing and Cyber Security, Springer, pp. 233–245, July, 2024
2. **Abhisek Sethy**, Y. Surya Prakash, U. Archana, Soumya Ranjan Nayak, and Raghvendra Kumar, "An Analysis of Identification of Plant Leaf Diseases and Classification Using Machine Learning and Computer Vision", 3rd International Conference on Smart Computing and Cyber Security, Springer, pp 399–410, July, 2024
3. Ajit Kumar Rout, **Abhisek Sethy**, and V. Vasudha Rani, "Predicting Disease Risk with Machine Learning: A Comparative Study of Classification Algorithms", International Conference on Advances in Modern Age Technologies for Health and Engineering Science IEEE, pp. 1-7, July, 2024
4. Payal Payal, Raghunath Dey, Rohan Senapati, **Jayashree Piri**, and Surajit Mohant, "Medicare: A telemedicine healthcare website", 7th International Conference on Circuit Power and Computing Technologies (ICCPCT), IEEE, pp. 1477-1482, September, 2024
5. Kali Johari, Swati Das, M. Sai Anupama, Meghna, Debalina Saha, Raghunath Dey, and **Jayashree Piri**, "Navigating Financial Complexity: The Role of a Tailored Finance Tracker Application for Small Businesses", 1st International Conference on Pioneering Developments in Computer Science & Digital Technologies (IC2SDT), IEEE, pp. 344-349 October 2024
6. Smruti Priya Rout, Raghunath Dey, Ashutosh Jha, Mohit Gupta, Ritesh Kumar, Himanshu Singh, and **Jayashree Piri**, "Investigating The Role of Machine Learning For Heart Disease Prediction", 10th International Conference on Electrical Energy Systems (ICEES), IEEE, pp. 1-6, December, 2024
7. Surabika Hota, **Pamela Chaudhury**, Subham Kalia, Amlan Jyoti Prakash, and Satyananda Champati Rai, "Personified Emotion Detection from Speech using Supervised Machine Learning", International Conference on Intelligent Computing and Sustainable Innovations in Technology (IC-SIT), IEEE, pp. 1-6, February, 2025
8. Sagar Verma, Rajat Kumar, Payal Pani, Anubhav Mohanty, and **Pamela Chaudhury**, "Real Time Identification of Students' Stress Factors using Machine Learning Techniques", International Conference on Intelligent Computing and Sustainable Innovations in Technology (IC-SIT), IEEE, pp. 1-6, February, 2025
9. Diana Dhal, Jasaswi Prasad Mohanty, and Sushri **Samita Rout**, "A Comprehensive Survey on Multimodal Sentiment Analysis", International Conference on Intelligent Computing and Sustainable Innovations in Technology (IC-SIT), IEEE, pp. 1-6, February, 2025.
10. Sunita Mohapatra and **Sushri Samita Rout**, "Enhancing performance appraisal in CBSE Schools through HR Analytics", International Conference on Intelligent Computing and Sustainable Innovations in Technology (IC-SIT), IEEE, pp. 1-5, February, 2025
11. Ashish Kumar Mishra, Ajaya Kumar Tripathy, and **Pradyumna Kumar Tripathy**, "Cyber-Physical System for Real-Time Tracking and Monitoring of Rare Blood Donors in Emergencies by Enhancing Donor Behavior", International Conference on Intelligent Computing and Sustainable Innovations in Technology (IC-SIT), IEEE, pp. 1-6, February, 2025

12. **Rabinarayan Mohanty**, Ranjan Kumar Dash, and **Pradyumna Kumar Tripathy**, "IFLNLP: An Improved Federated Learning and Natural Language Processing-based Smart Healthcare System", International Conference on Intelligent Computing and Sustainable Innovations in Technology (IC-SIT), IEEE, pp. 1-6, February, 2025
13. **Pulak Sahoo, Nayan Ranjan Paul, Asit Kumar Das**, Prateek Sahoo, and J. R. Mohanty, "Software Product Effort Estimation with Sequence Diagrams and Regression Analysis" International Conference on Intelligent Computing and Sustainable Innovations in Technology (IC-SIT), IEEE, pp. 1-5, February, 2025
14. **Nayan Ranjan Paul, Pulak Sahoo, Asit Kumar Das**, Prateek Sahoo, Chandan Patra. "The Use of Activity Models and Regression Analysis for Development Effort Forecasting", International Conference on Intelligent Computing and Sustainable Innovations in Technology (IC-SIT), IEEE, pp. 1-5, February, 2025
15. Dusmanta K. Pradhan, **Samaleswari P. Nayak**, Suchismita Rout, and **Surajit Das**, "Comparative Assessment of ML Models for Water Quality Prediction in Biofloc Aquaculture: A Data-Driven Approach", International Conference on Intelligent Computing and Sustainable Innovations in Technology (IC-SIT), IEEE, pp. 1-5, February, 2025
16. **Abhisek Sethy, Arabinda Dash**, and Prashanta Kumar Patra, "Deep Learning Technique Based Plant Disease Detection And Classification" International Conference on Intelligent Computing and Sustainable Innovations in Technology (IC-SIT), IEEE, pp. 1-6, February, 2025
17. Manas Ranjan Mishra, **Bivasa Ranjan Parida**, Tusharakanta Samal, Lomashradhha Parida, and Manas Ranjan Kabat, "Binary Classification of Bone Fractures using Transfer Learning: A Comprehensive Approach", International Conference on Intelligent Computing and Sustainable Innovations in Technology (IC-SIT), IEEE, pp. 1-6, February, 2025
18. **Ranjit Kumar Behera**, Dayal Kumar Behera, Subhra Swetanisha, and Ajay Kumar Jena, "Performance Analysis of Machine Learning Models for Liver Disease Patient Classification", International Conference on Intelligent Computing and Sustainable Innovations in Technology (IC-SIT), IEEE, pp. 1-5, February, 2025
19. Mamatamayee Rout, **Suvendu Chandan Nayak**, and Satyananda Champati Rai, "Automated Cardiovascular Disease Detection from ECG Images Using Deep Learning", International Conference on Intelligent Computing and Sustainable Innovations in Technology (IC-SIT), IEEE, pp. 1-6, February, 2025
20. Raghunath Panigrahi, **Rekha Sahu, Suvendu Chandan Nayak**, and Manas Ranjan Kabat, "Architectural Model of Deep Convolution Neural Network Approach for Brain Tumor Prediction", International Conference on Intelligent Computing and Sustainable Innovations in Technology (IC-SIT), IEEE, pp. 1-6, February, 2025
21. Sanghamitra Panda, **Rekha Sahu**, and Satya Ranjan Dash, "Alzheimer's Disease Prediction from MRI image using Convolutional Deep Neural Network", International Conference on Intelligent Computing and Sustainable Innovations in Technology (IC-SIT), IEEE, pp. 1-6, February, 2025
22. Sai Bhargav Kasetty, Issac Neha Margret, K. Sai Madhuri, **Rajesh Kumar Ojha**, Nuthalapati Sudha, and K. Rajakumar, "A Hybrid Machine Learning and Deep Learning Approach for Diabetes Prediction With a Tkinter-Based User Interface", International Conference on Intelligent Computing and Sustainable Innovations in Technology (IC-SIT), IEEE, pp. 1-5, February, 2025
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24. Issac Neha Margret, Sai Bhargav Kasetty, Nuthalapati Sudha, **Rajesh Kumar Ojha**, K. Sai Madhuri, and K. Rajakumar, "Advanced Deep Learning Approaches for Content-Based Image Retrieval System in Skin Cancer Diagnostics", International Conference on Intelligent Computing and Sustainable Innovations in Technology (IC-SIT), IEEE, pp. 1-5, February, 2025

25. **Ashok Kumar Panda**, Chinmayee Pati, Sonali Pradhan, Amrutanshu Pradhan, and Naba Kumar Rath, "Prediction of Heart Disease Using ML Algorithms", 1st International Conference on Advances in Computer Science, Electrical, Electronics, and Communication Technologies (CE2CT), IEEE, pp. 930-934, April, 2025
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12. **Anita Mohanty, Ambarish G. Mohapatra**, and Subrat Kumar Mohanty, "Smart Surgery: Navigating Precision through Machine Learning and IoT", *Evolution of Machine Learning and Internet of Things Applications in Biomedical Engineering*, CRC Press, Chapter. 7, October, 2024
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1. **Siba Sankar Nayak**, "Scientific and Diagnostic Instruments", Scientific International Publishing House, ISBN: 978-93-6674-341-7, November, 2024

## Student Research Publications

1. Satish K. Das, Sudhansu M. Biswal, Lalat Indu Giri, and Dibyanshu Swain, "Thermal influence on performance characteristics of double gate MOSFET biosensors with gate stack configuration", Discover Applied Sciences, Springer, Vol. 6, Article No. 447, August, 2024
2. Avantika Mishra, Soumya P. Panda, Isha Bharadwaj, Annada Gumansingh, and Anmol Ray, "Real-Time Sign Language Interpretation System", Journal of Xidian University, Vol. 19, No. 4, pp. 289-293, April, 2025s
3. Sagar Verma, Rajat Kumar, Payal Pani, Anubhav Mohanty, and Pamela Chaudhury, "Real Time Identification of Students' Stress Factors using Machine Learning Techniques", International Conference on Intelligent Computing and Sustainable Innovations in Technology (IC-SIT), IEEE, pp. 1-6, DOI: 10.1109/IC-SIT63503.2024.10862768, February, 2025

## Patents Published/Granted

Sl. No.	Patentee Names	Title of Invention	Date of Publication/Grant	Application Number/Design No.
1	<b>Ashok Kumar Panda, Chinmayee Pati, Amrutanshu Pradhan, Sonali Pradhan, Naba Kumar Rath</b>	Machine Learning Based Device for Enhancing Computer Network Safety	22/08/2024	424164-001
2	Manas Ranjan Senapati, Banishree Misra, Subhra Debdas, Deepak Jain, Bira Majhi, Archit Jain, <b>Judhisthir Dash, Sthitprajna Mishra, and Soham Dey Biswas</b>	Device for Detection of Software Malware	5/8/2024	6381066
3	Rajiv Pathak, Vikas Pandey, Manas Ranjan Jena, <b>Amiya Bhusana Sahoo, Aditya Tiwari, and Sanjeev Karmakar</b>	A Dual-Feed Tri-Band Microstrip Patch Antenna Device for 5G Communication Applications	27/11/2024	2024/03011
4	Tondamanadu Munireddy, Suprava Ranjan Laha, Debasish Swapnesh Kumar Nayak, Abhishek Agarwal, Subrat Kumar Mohanty, <b>Ambarish Gajendra Mohapatra, Anita Mohanty, Pradeep Devendra Gaikwad, and Sukhwinder Singh Sran</b>	AI based Farm environment monitoring device	12/09/2024	6388767
5	Bhagyalaxmi Jena, Sasmita Nayak, Ajaya Kumar Tripathy, Sudipta Mohanty, Amaresh Gantayat, Subrat Kumar Mohanty, <b>Anita Mohanty, and Ambarish Gajendra Mohapatra</b>	Robotic horticultural assistant	15/10/2024	6396714
6	Sasmita Nayak, Bhagyalaxmi Jena, Prashant Kumar Nayak, Abhipsa Lenka, Ellora Das, Sudipta Mohanty, Amaresh Gantayat, Subrat Kumar Mohanty, <b>Anita Mohanty, and Ambarish Gajendra Mohapatra</b>	AI-based Food Quality Checking Device	3/20/2025	6430087
7	Satyasis Mishra, <b>Lopamudra Mitra, Sankhadeep Debdas, Banishree Misra, Srikanta Mohapatra, Prakash Chandra Sahu, Nalinikanta Jena, Pratiksha Poddar</b>	Robot for Underwater Operations	23/06/2025	6451451
8	Deepsubhra Guha Roy, Santi Ranjan Dandapat, Sonali Mondal, <b>Debangana Das, Debarati Dey Roy, Mamani Bandyopadhyay, Arunika Bhadra, Toufique Ahammad Gazi, Tumpa Nath, Tanusree Dutta</b>	AI-based Monitoring Device for Remote Patient Management	23/05/2025	644455
9	Kaliprasanna Sawain, Sumanta kumar Mohapatra, <b>Nibedita Swain, Priya chandan Sattpathy, Madhusmita Mohanty, Deba Narayan pattnayak, Biswa Ranjan Swain, Prallipta Samal, Puspanjali Mallik</b>	AI based night vision system for wrong way driving and lane violation detection	09/05/2025	20253142875 A

## SRPS Projects

The Silicon Research Promotion Scheme (SRPS) promotes excellence in higher education and research by funding research projects for up to one year undertaken by faculty members in various disciplines. Broad research activities for grant consideration under SRPS are as follows:

- Investigation and literature survey

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- Hardware model development

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- Analytical model development

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- Preparatory for submitting a major project to funding agencies

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- Collection of field data from projects/ industry for research

## SRPS Projects funded in 2024-25

Sl. No.	Researcher	Research Domain	Amount (INR)
1	Saroj Rout	LoRa-based CubeSat ground station	50,000
2	Sunny Patel	DNA damage in sperm in male infertility	50,000
3	Kumari Anamika	Antimicrobial activity against multidrug resistance bacteria	55,000
4	Nirmalya Ghosal	Isolation and Characterisation of Detergent Degrading Bacteria from Soil; Application in bioleaching and waste water remediation	50,000

## Consultancy

Silicon has successfully undertaken **35 consultancy projects** with diverse organizations to address real-world challenges. In the year 2024-25, our teams have worked on **5 projects with L&T** and **1 project with HINDALCO** in the following areas.

### I. HINDALCO, Hirakud Smelter

**Lightning & Surge Protection Study** – HINDALCO sought a robust lightning and surge protection system to safeguard its critical smelter infrastructure. A comprehensive study, benchmarked against IEC and IS/IEC standards, identified system vulnerabilities and assessed potential revenue loss from outages. The optimized strategy introduced technically sound, cost-effective measures that strengthened equipment protection, minimized operational risks, and ensured business continuity—delivering a future-ready safety framework aligned with global best practices.

### II. L&T Mega Lift Irrigation Project, Odisha

**Power System Studies** - The Odisha Government's mega lift irrigation initiative depended on reliable electrical systems to power large-scale pumping infrastructure. Collaborating with L&T, Silicon University conducted power system studies including load flow, short-circuit, and motor starting analyses. These insights ensured smooth commissioning, stable operations, and reliable integration of the irrigation clusters' electrical networks—supporting timely project delivery, agricultural development, and community empowerment through sustainable water supply.

# Entrepreneurship

The Entrepreneurship Development Cell (ED Cell) at Silicon is recognized as one of the most vibrant ED Cells in the state. It anchors the work of **Silicon's Business Incubator (BI)** and **Institute Innovation Council (IIC)**, two hubs that promote entrepreneurship within the institute and in Odisha.

Silicon's BI has successfully incubated **25 start-ups**, bringing technology products and services to the marketplace.

## List of New Incubatees

- Inofinity Research & Development Pvt. Ltd. (Healthcare)
- Comepounder Technologies (OPC) Pvt. Ltd. (Healthcare)
- Mizukagami India (IT)
- We Innovate India (IT)

## Programs Conducted in 2024-25

Name of the Program	No. of activities
Experts Talks on Entrepreneurship	2
Faculty Development Program in Entrepreneurship	1
Workshop on Innovation and Idea generation	1
Workshop on Design Thinking	1
Workshop on Business Plan/Pitching	1
Prototype Exhibition	1
E-fest	1

## Entrepreneurship Development Cell (ED Cell) & Institution's Innovation Council (IIC) Events

1. **Visit to mentee institutions under the Impact Evaluation and Progress Monitoring Program**  
Dr. Mahendra Prasad Agasty, President of the IIC at Silicon conducted a series of one-day visits to mentee institutions, including Dispur College in Assam on 15 June 2024, DRIEMS Polytechnic in Cuttack on 17 July 2024, GIET in Bhubaneswar on 18 July 2024, Model Mahila College in Jharkhand on 29 July 2024, and DAMITS in Rourkela on 30 July 2024.
2. **'Prarambh', an awareness program on entrepreneurship**  
The ED Cell and the IIC organized 'Prarambh', an awareness program on entrepreneurship on 28 September 2024, to inspire students to explore entrepreneurial ventures. A key highlight of the program was a motivational session delivered by Mr. Subrat Kar, founder of MotorFloor and Vidooly, who shared his insightful entrepreneurial journey, including the launch of VidooMail and valuable lessons on overcoming challenges.
3. **Sparkup Summit E-Fest 2025**  
The ED Cell hosted its Annual Entrepreneur's Fest, Sparkup Summit, from 29 November to 1 December 2024. The event featured expert-led workshops, panel discussions, and competitions, inspiring creativity and practical problem-solving. Keynote speaker Mr. Sandeep Jain, Founder of GeeksforGeeks, shared his entrepreneurial journey, while Chief Guest Mr. Prasant Hota, President of Jindal Steel & Power Ltd., emphasized sustainability in business and innovation.

#### 4. Faculty Development Program (FDP) on Entrepreneurship

The ED Cell organized a two-week FDP from 13–25 January 2025, supported by the Department of Science & Technology (DST), Govt. of India. Key speakers included Mr. Chittaranjan Pattanaik (EDII), Mr. Deepak Chaudhury (Founder, Success Leaf), and Dr. Vishal J.C. (KIIT-TBI). The FDP featured sessions focused on design thinking, opportunity identification, and business plan development.

#### 5. Session on 'Design Thinking, Critical Thinking, and Innovation Design'

The ED Cell and IIC organized a session on 'Design Thinking, Critical Thinking, and Innovation Design' on 19 February 2025, as part of the IIC calendar activities. Conducted by Mr. Deepak Chaudhury, Founder of Success Leaf, the session offered key insights on design thinking, analytical approaches in critical thinking, and user-centric innovation strategies in product design.

#### 6. Workshop on 'Prototype Design and Development'

The IIC organized a workshop on 'Prototype Design and Development' on 5, March 2025. Conducted by Mr. Chittaranjan Pattanaik, former Regional Coordinator of EDII, Ahmedabad, the workshop explored key stages of prototyping such as concept validation, model development, and iterative refinement.

#### 7. Business Plan Pitching

The ED Cell, in collaboration with the IIC, organized a Business Plan Competition on 30 April 2025 for 6th Semester B.Tech. students. Thirteen teams presented their business ideas, including the Business Model Canvas, Value Proposition Canvas, and Revenue Model, before a panel of experts. With around 65 students participating, the event proved to be an enriching experience for aspiring entrepreneurs.

#### 8. Prototype Exhibition

The ED Cell and IIC organized a Prototype Exhibition on 7 May 2025, featuring 13 student teams who showcased working prototypes developed during their Entrepreneurship Development Projects. Innovation Ambassadors provided structured mentoring and guidance leading up to the exhibition. Jury members Mr. Deepak Choudhury from Success Leaf and Mr. Chittaranjan Pattanaik from EDII praised the creativity and execution on display.

#### 9. Session on 'Raising capital and Managing Finance'

The ED Cell and IIC jointly organized a session on 'Raising Capital and Managing Finance' on 7 May 2025, attended by 70 students from the 6th Semester B.Tech. program. Conducted by Dr. Mahendra P. Agasty, President of IIC, the session highlighted the importance of strategic planning and financial discipline.



# Industry Interface Cell

The Industry Interface Cell of Silicon University actively engages in organizing and coordinating a wide range of professional activities for students. Key initiatives include **Campus Placements**, **Pre-Placement Training**, **Summer Internship Programs**, and the **Practice School Program**. In addition, the cell facilitates guest lectures by distinguished alumni and industry leaders, industrial visits to core and manufacturing sectors for research and consultancy, as well as study tours designed to enhance students' practical exposure and learning.

## Highlights

- Over 80 companies participated in campus placement for the 2025 graduating batch, generating approximately 550 offers. Nearly 37% companies were first time visitors.
- 33% of the visiting companies were from the **Core and VLSI domains**, and more than 23% of students received offers in the core sector, compared to 19% in the previous year.
- 75% of the students were successfully placed with more than 80% placement in Electrical and Electronics (EEE) and Electronics and Instrumentation Engineering (EIE) branches.
- This year most of the companies visited in physical mode to Silicon for campus drive while few conducted it in the hybrid mode.
- Notably 31 students got the offer with **annual package more than 10 LPA** made by 6 companies including **Amazon, HP Labs, Haber, Micron, Synopsys and NexgAi**.
- The **highest package** was offered by **Amazon** with **30.3 LPA**.
- 21% of total offers with more than 5 LPA made by 37 companies.
- 106 offers were made by **Infosys** followed by **LTI Mindtree with 56 offers**.
- 300 students have joined for **industry internship** with duration of 6 months with more than 83 organizations. Out of that 263 students have joined under the Practice School program.
- Most of the students under **PS program** received a monthly stipend of 17K with **highest stipend offered by Amazon with 1.1 Lakh**.
- 92% of PS students got the **pre-placement offer** with **average package of 5.4 LPA** and **highest package of 30.3 LPA**.
- 2392 students have participated in our **1-month duration summer internship** program with more than 60 participants from other reputed universities like IIIT Bhubaneswar, KIIT, SOA, VIT.
- Total 32 courses were offered in summer internship program in different domain as per the industry requirement. Most of the courses were taken by Industry experts only either in physical or in hybrid mode.
- Around 13% students will receive the **payback** based on their performance in the summer internship program.

## Summer Internship (SI)

The Summer Internship program enables Silicon students to gain new skills and deepen their knowledge by applying their classroom learnings in simulations of real life technology. The Industry Interface Cell designs the internship programs together with industry experts and in-house subject specialists. Students choose from these programs or take the initiative to look for internships on their own.

Students develop their competencies by learning through classroom and lab sessions, small projects, group discussions, presentations, and reviews. Students get a supervised learning experience. Every internship has a Program Mentor who supports the students to complete the program.

### SI Highlights 2025\*

- 16 Domains
- 32 Programs in blended mode of learning
- 2392 Students benefited
- Around 13% Students to get payback
- 62 External students participated in SI program

\*Conducted at Silicon University

### SI Summary- Last 5 Years\*

Year	No. of courses offered	No. of Students Registered
2021	27	1414
2022	25	1575
2023	33	1911
2024	36	2122
2025	32	2392

The below tables give the course-wise student registration details for Summer Internship Program 2025.

### SI Registration Details of 1st year students

Sl. No.	Course Title	No. Registered
1	AWS masters	181
2	Backend With Rust	20
3	DSA using Python	35
4	Electronics sensor design and programming	19
5	Embedded Systems and Basic Programming for EV Technology	61
6	FRONT-END WEB APPLICATION DEVELOPMENT	46
7	Full Stack PHP	15
8	IOT AND INDUSTRIAL APPLICATIONS USING MATLAB	31
9	Mern Stack	65
10	PYTHON Application Development	114
11	Python Programming, Machine Learning, and Deep Learning for Industry	158
12	SEO & Digital Marketing	22
<b>Grand Total</b>		<b>767</b>



## SI Registration Details of 2nd & 3rd year students

Sl. No.	Course Title	No. Registered
1	Analog Integrated Circuit (IC) Design	40
2	Azure masters and Introduction to Azure Data engineering	72
3	Backend With Rust	7
4	Blockchain With Rust	26
5	CYBER SECURITY	32
6	Data Science, ML & Deep Learning Bootcamp using PYTHON	180
7	DevOps Masters	345
8	Digital System Verification using System Verilog	37
9	Digital VLSI Design fromVerilog RTL and Verification to Synthesis.	115
10	Embedded system and IoT	27
11	Foundation Course on Core Industry	17
12	Fullstack With Java Spring Boot With Angular MYSQL	77
13	Generative AI for Android: Firebase & Jetpack Compose	28
14	Generative AI with Keras, Pytorch and ChatGPT	114
15	Introduction to IoT Using Raspberry Pi	18
16	Mastering Android Development With Jetpack Compose	22
17	Mern Stack	98
18	Mobile APP Development with REACT Native	78
19	Problem Solvers using Leetcode on DSA	65
20	Security Analysis, Investing and Trading	55
21	SEO & Digital Marketing with AI	55
22	Specialized Training on Power System Analysis through hands-on practice	55
<b>Grand Total</b>		<b>1563</b>



## Practice School (PS)

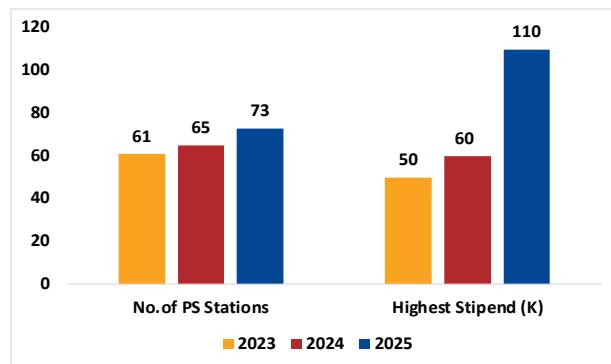
Practice School (PS) is an innovative concept in undergraduate engineering education that creates a bridge between conventional classroom learning and gaining valuable real-life skills in the industry. As part of PS, final year B.Tech. students work in a PS station (industry/research organization, research laboratories, private/public companies) for one full semester (7th or 8th semester) and enhance their competency, knowledge and skills.

### PS Highlights 2025

<b>263</b> Students opted for PS	<b>92%</b> Converted to placements	<b>73</b> PS Stations	<b>17K per month</b> Average Stipend	<b>1.1 Lakh per month</b> Highest Stipend	<b>5.40 LPA</b> Average Package
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Regardless of the prevailing industry trends, the PS program continues to demonstrate strong outcomes year after year.

### PS Three-Year Snapshot



Year	No. of eligible students	No. of PS joinees	Stipend per month		
			≥10K	≥20K	≥30K
2023	539	237	154	64	7
2024	481	261	170	76	36
2025	541	263	192	56	27

Sl. No.	Category of PS Stations	No. of Offers in PS Stations		No. of Registration	
		PS-II (8th sem)	PS-I (7th Sem)	PS-II (8th sem)	PS-I (7th Sem)
1	IT Product	69		17	
2	IT Service	93		7	
3	Research and Consultancy	1		0	
4	Core and manufacturing	15		5	
5	VLSI	26		3	
6	Social Media and Digital marketing	2		0	
7	Edutech and Upskilling	25		0	

## Placements 2024-25

Despite being in the shadow of a tech slowdown the last couple of years, Silicon continues to maintain its consistency in placements for the graduating batch of 2025.

### i. No. of companies visited the campus for placement: 80

### ii. Jobs Offered

B.Tech.: 488

MCA: 54

M.Sc. (Data Science): 8

Total Job Offers [B.Tech. + MCA + M.Sc. (Data Science)]: 550

### iii. Major Recruiters

- Aptus DataLabs
- Capgemini
- Cognizant
- Cozentus
- Deloitte
- Digit Insurance
- Genpact
- HP Labs
- Infosys
- Inovaare
- JSW
- LTIMindtree
- Mindfire
- Spikewell
- Tech Mahindra

## Overall Placement Figures for 2024-25

Branch	Total Students	Eligible	Students Placed	Job offers	% Placed on Eligible
CSE/CST/CEN	200	200	251	320	76
	67	67			
	64	64			
ECE	144	144	102	104	71
EEE	56	56	46	51	82
EIE	10	10	9	13	90
<b>Total (B.Tech)</b>	<b>541</b>	<b>541</b>	<b>405</b>	<b>488</b>	<b>75</b>
MCA	69	69	49	54	72
M.Sc. (DS)	20	20	8	8	40

## Companies Visited for Placement 2024-25

IT Product/Services		
8club	Genpact	Nexcare.Life
AABSYS IT	Haber	NexgAI
Amazon	HCL	PconUtilities
Ancrew global services	HP Labs	PixelCompute
Aptus Data Labs	i8 CLOUD	PwC
CAMS	Incure	Rhythm Innovations
Capgemini	Indus Towers	Runo
Cognitiveview	Infosys	Sasken
Cognizant	Inofinity	Signicent
Cozentus	Inovaare	Spikewell
Datwa Labs	JSW GBS	Squbix
Deloitte	Karya	Starlytics
Digit Insurance	KFINTECH	STL
Digital Logiciel Solutions	LIZMONTAGENS INDIA	Surya Digital
DIRAC AI	Logistos	TCS
Effigo	LTMindtree	Tech Mahindra
ESSPL	mapmyIndia	Technoshrine
Evolutionary Algorithms	Mindfire	Teleglobal International
Core/Manufacturing/VLSI//Media/Research/Insurance & Banking/Sales & Marketing		
ARF Design	POLYCAP	
ASIP Technologies	RABINNISON Ventures	
Avaada	Rashmi Group	
Axis Global Automation	SAIL	
Beumer Group	Scaledge	
Blaze Automation	Sevya Multimedia	
Brandshark	Surya international	
CoreEL	Synopsys	
Cosmovolt	TCE	
Cummins	Tesslove	
Jakson	Vaaman Engineers	
JSW	Volkswagen	
Micron	Wilyfox media co	
ORISSA STEVEDORES LIMITED		

# Student Achievements

## GATE 2024-25 Achievers

Sl. No.	Branch	Regd. No.	Name	AIR
1	CST	2201209501	Harsh Prasad	435
2	CSE	2201209176	Shivank Subanshi	1501

## CAT 2024-25 Achievers

Sl. No.	Branch	Regd No.	Name	Percentile
1	CSE	2101209227	Swati Nath	88.10

- **Avipsa Bhujabal (CSE, 2024)** has been selected to pursue her **MS in Data Science at the University at Buffalo, part of the State University of New York (SUNY)** system. She completed a **summer internship program with Codebeat**, and worked as a Data Science Intern at Glosity during her Practice School (PS) program at Silicon.
- **Sumaan Mishra (ECE, 2025)** completed her **summer internship program at Micron** from 17 June to 9 August 2024 with a **monthly stipend of 30K**. Due to her exceptional performance during the internship, she was extended a **Pre-Placement Offer (PPO) with a package of 14.5 LPA**.
- Swarup Nandan Das, Sai Sradha Pattanaik, Dibyansh Baranwal, Adarsh Amrit, Ranjeet Singh, and Nutan Prasad Panda from the ECE 2024 graduating batch secured the **3rd prize at the 'Odisha Technological Conclave 2024'**.
- Team Mind Matrix with Swastik Nayak, Sai Sangita Adhek, Tanisha Kar, and Arpit Kumar Nayak won the **'Best Business Award at the 'Innovate Odisha 2.0 hackathon'**.
- Swastik Nayak (CSE, 2025) Winner of **Vishwasarya Prativa Puraskar**.
- The **Silicon University Junior team** comprising Rudra Prasad Dhal, Sanam Sandeep Pradhan, Amarikhsya Ojha, Rajendra Prasad Murmu, and Bishnupriya Behera won the **runner's-up prize at the 10th Gateball Open International Tournament**, organized by the Indian Gateball Union on 24 November 2024, in Pattaudi, Gurugram.
- **Richa Kumari**, a B.Tech. Computer Science and Technology (CST) student from the 2025 batch, secured an **internship at Amazon** as a Software Development Engineer (SDE) intern, with a **monthly stipend of 1.1 lakh**. Later, she got placed at **Amazon with 30.3 LPA**.
- **Divya Swarup Mishra**, from the B.Tech. ECE batch of 2025, secured a placement as an **Analog Design Engineer at Synopsys** with a **package of 15.12 LPA**. His excellence in VLSI design, developed through extensive training and hands-on experience at the Advanced VLSI Lab at SiliconTech has been instrumental in achieving this milestone.
- **Priyanshu Mallick**, a B.Tech. Computer Science and Engineering (CSE) student from the 2025 batch, secured a **PS internship at 8 Club, a product based IT company** with a **monthly stipend of 50K**. Priyanshu developed strong technical expertise in Flutter during an internship at Nirogh and in React Native through a summer internship at Silicon.

- **Swati Nath (CSE, 2025)** secured admission to the **Post Graduate Program in Management at IIM Visakhapatnam**. She did her final year **Practice School (PS) internship** at **Mindfire Solutions**, gaining hands-on experience in Python, Django, React, and smart contracts.
- **Ratikanta Rout (CSE, 2026)** got recognized by **Indian Oil Corporation Limited (IOCL) Guwahati Refinery** while doing his summer internship over there. He was recognized for his innovative project on Predictive Maintenance using Machine Learning.
- Team 'Resilience', comprising **Gourab, Animesh Kumar Singh, Ankit Kumar, and Sudeshna Mohanty**, from the B.Tech. CSE batch of 2025 emerged as the **Top 5 Teams of 'Mobilothon 4.0'**. All team members have been offered **PS internships by Volkswagen** with a monthly stipend of INR 25K.

<ul style="list-style-type: none"> <li>● <b>Winners of NIRMAN 4.0, our annual tech fest Ideate Senior Competition</b> <ul style="list-style-type: none"> <li><b>1st Prize</b> Ajay Kumar Sahu (CSE, 1st year) Amar Kumar Sahu (CSE, 1st year) Suryanshu Panigrahy (ECE, 1st year)</li> </ul> </li> <li>● <b>Line Follower Competition</b> <ul style="list-style-type: none"> <li><b>1st Prize – Team XTreme 550</b> Darshan Mishra (CSE, 3rd year) Ananya Mishra (ECE, 3rd year) Tamanna N. K. Jaiswal (EIE, 1st year)</li> <li><b>3rd Prize – Team FlowFinders</b> Pallak (CSE, 1st year) Blessy Parida (CSE, 1st year) V. Kruthika (EIE, 1st year)</li> </ul> </li> <li>● <b>Codeverse – NIRMAN 4.0</b> <ul style="list-style-type: none"> <li><b>1st Prize – Team Marco</b> Lavkush Solanki (CSE, 3rd year) Piyush Kumar (CSE, 3rd year) Raghvendra Pratap (CSE, 3rd year)</li> <li><b>2nd Prize – Team NR-Square</b> Rishu Kumar (CSE, 3rd year) Rounak Biswal (CSE, 3rd year) Niharika Barnwal (CSE, 3rd year)</li> <li><b>3rd Prize – Team Demoralizer</b> Narayan Nayak (ECE, 4th year) Ashutosh Jha (CSE, 4th year) Lopinti Manoj Kumar (CSE, 4th year)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● <b>Spring Fest – IIT Kharagpur</b> <ul style="list-style-type: none"> <li><b>1st Prize – Spent Quiz Competition</b> Udit Mahapatra (CST, 2nd year) Aditya Prasad Sahu (CSE, 2nd year) Mayank Mahapatro (ECE, 2nd year)</li> <li><b>2nd Prize – Face Painting Competition</b> Senorita Das (CSE, 2nd year) Sai Shradha (CEN, 2nd year)</li> </ul> </li> <li>● <b>Hindu Quiz- Winners</b> Piush Praharaj (CSE, 3rd year) Kashyap Panda (EEE, 2nd year)</li> </ul>
	<ul style="list-style-type: none"> <li>● <b>Quiz Coder, Inno Frenzy World Hackathon 2025- Winners</b> Ankur Dey (CSE, 3rd year) Roshina Priyadarshini (CSE, 3rd year) Rahul Kumar Singh (CSE, 3rd year)</li> </ul>
	<ul style="list-style-type: none"> <li>● <b>Woman Achiever Award 2025</b> Sneha Sruti Sahu CSE, 2021-25</li> </ul>

# Alumni

The Alumni are a very valuable resource for the Institute, and increasingly, they have started to make a difference in the way things are done at Silicon. The **Silicon Alumni Association (SAA)** is a vibrant platform connecting alumni, faculty, and students, fostering collaboration and enhancing career and placement opportunities.

- **Alumni Engagement for 2024 B.Tech. admission batch**

SiliconTech's distinguished alumni played a pivotal role in the induction program for the 2024 B.Tech. admission batch, generously sharing their insights and experiences and providing valuable guidance to the new entrants. Among the notable alumni were **Shiv Shankar Patnaik (ECE, 2012)**, Vice President of Asset and Wealth Management at JP Morgan Chase and Co., **Eijaz Rehman (ETC, 2016)**, who is successfully managing his family business, which includes a Bharat Petroleum petrol pump as well as tiles and ceramics, **Subhendu Subudhi (CSE, 2015)**, Senior Mainframe Consultant/Engineer providing banking solutions for UBS at Union Bank of Switzerland Business Solutions, Pune, **Akampan Gupta (ECE, 2019)**, currently pursuing an M.Tech. in Computer Science and Data Processing from IIT Kharagpur, and **Abhishek Bharadwaj (CSE, 2008)**, presently working with TCS.

- **16th Alumni Meet**

Silicon Alumni Association (SAA) organized the **16th Alumni Meet on 28 December 2024**. With 250 alumni and their family in attendance, the meet successfully celebrated the vibrant Silicon spirit. A virtual campus tour video transported the attendees back in time, rekindling cherished memories while highlighting the university's growth.

- **Alumni Engagement in Summer Internship Program**

The 2025 Summer Internship Program for the 1st and 2nd year students witnessed enthusiastic involvement from our alumni, strengthening the bridge between academia and industry. **Papun Kumar Jena**, Manager – Voice & Data Core Operations at Vodafone Idea Limited and alumnus of the 2019–2023 batch, played a key role in the course titled '**IoT and Industrial Applications using MATLAB**', sharing valuable industry insights. Similarly, **Suraj Kumar Sharma**, Systems Engineer at TCS, alumnus of the 2020–2024 batch actively contributed to the course '**Python Programming, Machine Learning, and Deep Learning for Industry**', helping students grasp emerging technologies with practical relevance.

- **Swaroop Mishra**, a distinguished alumnus from the B.Tech. Electrical and Electronics Engineering (EEE) batch of 2014, **collaborated with his team at Google DeepMind to develop an AI system that can solve problems from the International Mathematical Olympiad (IMO) 2024 at a silver medalist level**. Currently a Research Scientist at Microsoft AI, Swaroop completed his Ph.D. from Arizona State University, where he contributed significantly to AI research. His experience includes roles as a Technical Consultant for the Indian government, a Research Intern at Google and Microsoft, and a software engineer at MathWorks.
- **Ushmita Dutta**, a graduate from the B.Tech. CSE batch of 2023, secured an offer as a **Software Engineer at ServiceNow** with a package of **31 LPA**. She was previously working as a Software Engineer at Cozentus Technologies Private Limited and takeUForward.

# Facilities

SiliconTech has excellent facilities that ensure that students live in ease and comfort. There are **well-furnished hostel rooms, regular bus services, an air-conditioned auditorium, large lecture theatres, an outdoor Wi-Fi zone, different food courts, and a guest house**. SiliconTech is well connected with easy access to anywhere in Bhubaneswar. Shopping areas with many food outlets near the college give plenty of dining options.

- **Silicon Residences**

Hostels at SiliconTech are named as the Silicon Residences. There are **two boys' residences and one girls' residence** where students can experience the comforts of a home.

- **Barrier Free Environment**

SiliconTech is committed to providing a barrier-free environment for differently-abled students. **Wheelchair-friendly ramps** are installed in the campus for easy access. **Disabled-friendly washrooms** include grab bars and low-height seats for added convenience. **Clear directional signage and well-lit pathways** ensure smooth navigation, creating an inclusive and supportive learning atmosphere. These measures promote an inclusive learning environment for all.

- **Transport Services**

SiliconTech has its own fleet of buses designed as per the mandatory standards, and manned by **trained drivers** and personnel sensitized to the needs of students. The buses are equipped with **GPS, first aid kits and run in different routes** covering all parts of the city.

- **Auditorium**

The **355-seater auditorium** featuring a state-of-the-art audiovisual system is an ideal place for movie shows, theatre performances, conferences, and staff programs. The Institute hosts different programs here. The institute's **Cine Club** organizes **weekly screenings of movies** from across the world for students and employees at the auditorium.

- **SkyLab**

The Sky Lab is **an outdoor WiFi zone** with high-speed internet access around a picturesque fountain, music, and a sculpted reflective roof. Students use this facility for internet browsing while listening to soothing background music, matching the hour of the day.

- **SunDeck**

The Campus has its own **sports complex** including a state-of-the-art running track and venues for different outdoor games like football, cricket and volley ball, along with dedicated basketball and badminton courts.

- **Lecture Theatres**

Lecture Theatres at SiliconTech provide students with learning spaces that are flexible, comfortable, and not classroom bound. The design of the theatres, with **semicircular, tiered seats**, enables a better view and improves the teaching-learning process. The mini- theatres are complete with **cushioned seats, projectors, surround sound systems, microphones**, and a seating **capacity of around 155**. Equipped with an audio-visual facility, they are perfect for holding **small talks, mini-events, seminars, presentations, and combined classes**.

- **Food Courts**

SiliconTech has four dining halls and one cafeteria within the campus. Each of them serves freshly prepared, delicious, nutritious food from a variety of cuisines. There are exclusive dining halls for vegetarians, non-vegetarians, and college staff. A common dining hall serves food for guests as well as staff members. A dedicated Canteen Committee of student representatives, supervisors, and faculty manages the operations of the canteen.

- **Fitness Clubs**

Different **Sports Clubs**, **Health Club & Gym**, and the **Yoga Club** provide many options for students to stay healthy and fit. The SiliconTech Health Club organizes webinars and talks for students to get the best advice for their physical and emotional health.

- **Guest House**

SiliconTech's well-furnished, guest house provides accommodation to individuals and groups associated with official visits or guests visiting our campus. **The guest house has 16 rooms, including four suites, six standard AC rooms, and six non-AC rooms.**

- The Institute makes use of a robust **ERP system** to manage its academic and administrative processes. This includes processes like class attendance, uploading study material, exam sitting plan, SMS to parents, library search, log in and log out for staff members, processing of leaves etc.
- All classrooms have **LCD Projectors to facilitate the teaching-learning process.**
- Conferences, Seminars, Workshops and Group Discussions are conducted regularly in the **Seminar Halls, the Remote Centre**, and the **new Lecture Theatres**.
- The **Guest House facility** is available for visiting parents and faculty members.
- The Institute provides **residence facility to faculty members.**
- A host of **centralized facilities** like canteen, parking, in-campus medical facility, dispensary and transport services are provided to all students and staff members.
- The **Infocity Police Station** is just half a kilometer away. There are also many **banks and ATMs** near the college.



# Events

## Key Institute Events



### MoU with the VLSI Society of India (VSI)

SiliconTech signed a Memorandum of Understanding (MoU) with the VLSI Society of India (VSI) on 16 August 2024. This partnership aims to promote innovation, research, startups, and talent development in VLSI design, aligning academic programs with industry needs to enhance employability. The collaboration will support the startup ecosystem through mentorship, industry partnerships, and seed funding. Dr. Satya Gupta, President of VSI, represented the organization at the signing.

### International Conference IC-SIT 2024

The Department of Computer Science and Engineering hosted an International Conference on 'Intelligent Computing and Sustainable Innovation in Technology' (IC-SIT 2024) from 21-23 November 2024. Shri Hare Krishna Ratha, Former Director of ITR Chandipur and Chair of IEEE Bhubaneswar Subsection was the Chief Guest of the event. Keynote speakers included Dr. Sung-Bae Cho (Yonsei University, South Korea) and Dr. Xiao-Zhi Gao (University of Eastern Finland, Finland) among others.



### Silicon University hosts its 1st Convocation

Silicon University hosted its 1st Convocation on 14 December 2024, marking a significant milestone in its journey. Degrees were conferred by Chairman Mr. Joe Madiath to graduates from various disciplines, honouring their dedication and achievements. Chief Guest Dr. Satya Gupta, President of the VLSI Society of India, delivered an inspiring speech, urging graduates to embrace challenges, innovate, and contribute to society.

### Silicon University Celebrates its First Anniversary

Silicon University celebrated its First Anniversary on 31 January 2025, marking a year since its transition from an autonomous institute to a university. Nobel Laureate Prof. James P. Allison, Dr. Hinco J. Gierman, and Prof. Padmanee Sharma shared insights on education and research. Vice-Chancellor Dr. Jaideep Talukdar reflected on the university's growth and vision. A student quiz competition, 'Know Your University,' was conducted to foster pride and awareness among students.



## Conference/FDP/Training/Workshops/Certification Programs

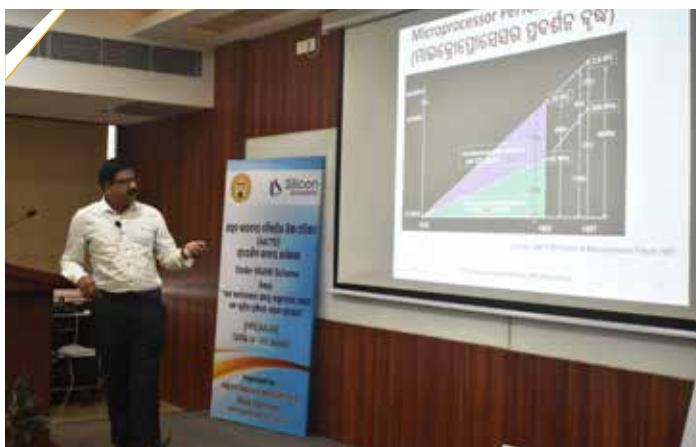


### Training program on 'IEEE Xplore'

The Central Library in collaboration with IEEE Xplore, organized an on-campus training program for faculty, research scholars, and students on 31 July 2024. The training was conducted by Mr. Ranbir Singh Sedhey and Mr. Raj Kumar Mohapatra from IEEE.

### Workshop on 'Aspects of Communication'

The Department of BSH organized a three-day workshop on 'Aspects of Communication' from 6-8 August 2024. Nine eminent academicians and industry leaders conducted various sessions.



### Workshop on 'High-Performance Computing and its Applications in AI'

The Department of CSE at SiliconTech organized a three-day workshop on 'High-Performance Computing and Its Applications in AI' (HPCAA-2024) in Odia from 8-10 August 2024. Sessions were conducted by experts from IIT Bhubaneswar, IIIT Bhubaneswar, NIT Rourkela, and NIT Warangal.

### ATAL FDP on 'AI/ML Solutions for Industry 4.0'

The Department of EE in collaboration with AICTE Training and Learning (ATAL) Academy Cell, New Delhi, organized a Faculty Development Program (FDP) on 'AI/ML Solutions for Industry 4.0' from 19-24 August 2024. Eleven distinguished speakers delivered talks and conducted hands-on sessions.





### Hands-on session on 'Embedded Systems & Live Simulation of E-Vehicles'

The Department of EEE collaborated with the IEEE Students Chapter and IEEE-PES Bhubaneswar Sub-section to organize a one-day hands-on session on 'Embedded Systems & Live Simulation of E-Vehicles' on 31 August 2024 conducted by Mr. Taj Mbasir and Mr. Amit Kumar Palai from Logiczap NextGen Technologies, Kolkata.

### Certificate Program on 'Power Distribution Management'

The Department of EEE in collaboration with the Industry Interface Cell launched a certificate program on 'Power Distribution Management' for the 7th semester students on 12 September 2024.



### Design Masterclass on 'Brand Journey'

The Social Media Cell in collaboration with the Social Utsav community, organized a design masterclass on 'Brand Journey' on 28 September 2024. The session was conducted by Mr. Priyaranjan Sahoo, a media expert.

### ATAL FDP on 'Future Generation Computing with HPC and AI'

The Department of CSE hosted an online AICTE Training and Learning (ATAL) sponsored Faculty Development Program (FDP) on 'Future Generation Computing with HPC and AI' from 9-14 December 2024.





### NES 2024-25

SiliconTech collaborated with Sevya Multimedia and the VLSI Society of India (VSI), to host the VLSI Summit on Nanotechnology and Embedded Systems (NES) 2024-25 from 31 January to 1 February 2025. Key highlights included a panel on AI's impact on analog VLSI design and a workshop on the RTL to-GDS flow.

### NWET 2025

SiliconTech hosted the 15th National Workshop on Emerging Technologies (NWET-2025) and SPARK Meet 2025 on 21 & 22 March 2025 on the theme 'Towards Net Zero: Clean, Digital, and Sustainable Grid'. The PES and TEC student chapters were launched under the Silicon IEEE learning society.



### Workshop on 'Elements of Writing'

The Publication Cell of SiliconTech organized a workshop on 'Elements of Writing: Editing and Publishing' on 22 March 2025. Dr. Shaswat Panda, Assistant Professor, Dharinadhar University, and Dr. Shikha Vats, Assistant Professor, IIIT Bhubaneswar, conducted sessions on manuscript structuring and editing.

### Workshop on 'Electrical and Electronic Devices'

The Department of EEE organized its annual Electrical and Electronics Devices (EED) workshop on 19 April 2025. This year's edition featured 24 gadgets with detailed explanations of their mechanisms and real world applications, along with a technical quiz.



## Awareness Programs/Expert Talks



### Awareness program on Career Opportunities in the Indian Air Force

SiliconTech organized an awareness program on career opportunities in the Indian Air Force (IAF) on 3 October 2024. Led by Flight Lieutenant Pranay Bhagat, the program featured interactive sessions, including an exhibit with a fighter aircraft cockpit model.

### A talk on 'AI for Mobility: Building Smart Cities'

SiliconTech organized a talk on 'AI for Mobility: Building Smart Cities' on 9 November 2024. The esteemed speaker, Mr. Ankit R Patel, a researcher at the University of Minho, Portugal, discussed how AI is revolutionizing transportation, improving safety, and optimizing energy consumption.



### Awareness Session on Gender Equality

The SAGE-W team at SiliconTech organized an awareness session on 'Gender Equality in the Era of Globalization' on 4 December 2024. The speaker, Ms. Kanta Mohanty, a renowned training consultant, career transition coach, and social activist, discussed the transformative effects of globalization on gender roles.

### Expert talk on AI

SiliconTech hosted Dr. Arun Ravindran, Associate Professor at UNC Charlotte, USA on 5 March 2025 for an insightful session on 'Unlocking Generative AI: Advances, Applications, and Impact on Education'. He explored the evolution of large language models (LLMs) and their transformative role in industries and education.





### Expert talk on 'A Career in SAP'

The Departments of Computer Science and Engineering (CSE) and Computer Applications at SiliconTech organized an expert talk titled 'A Career in SAP' on 23 April 2025. Delivered by Mr. Biswo Samal, Director of Strategy & Technology Transformation at Deloitte, the talk provided valuable insights into SAP implementation, system integration, and the competencies needed to thrive in the field.

## Industrial Visits/Field Visits



### Industrial visits to IMFA and OPTCL

The Industry Interface Cell (II Cell) conducted industrial visits to Indian Metals and Ferro Alloys Limited (IMFA) in Choudwar, Cuttack on 6 July 2024, and Odisha Power Transmission Corporation Limited (OPTCL) in Bhubaneswar on 13 July 2024.

### Visit to Rooftop Solar Plant

SiliconTech organized a tour of its 330-kW rooftop solar plant on 12 November 2024. The tour emphasized solar power's role in sustainability and combating climate change. This supplies more than 20% of our energy needs.



### Visit to FACOR, Bhadrak

A team from SiliconTech visited Vedanta FACOR's advanced facilities in Bhadrak on 15 November 2024 to foster a strategic collaboration addressing industry specific challenges.

### Visit to the Skill Development Institute (SDI)

The Department of EEE organized a one-day industrial visit to the Skill Development Institute (SDI) in Jatni, Bhubaneswar, on 1 February 2025.



### Visit to HINDALCO

A team of senior faculty members visited the HINDALCO, Hirakud Smelter plant on 18 February 2025 to discuss operational improvements for the Lightning arrester Project.

### Industrial visit to Vedanta FACOR

The Industry Interface Cell (II Cell) organized an industrial visit to Vedanta Ferro Alloys Corporation Limited (FACOR), Bhadrak, on 26 April 2025 to strengthen industry-academia collaboration through practical engagement.



### Industrial visit to HINDALCO, Hirakud

The Industry Interface Cell (II Cell) organized a two-day industrial visit to HINDALCO, Hirakud, on 19 and 20 May 2025.

### Industrial Visits to OPTCL and NALCO

The Industry Interface Cell (II Cell) facilitated two industrial visits as part of the Summer Internship Course titled 'Foundation Course on Core Industry'- OPTCL, Chandaka, on 13 June 2025 and to NALCO CPP, Angul on 21 June 2025.



## Observation/Celebration



78th Independence Day on 15 August 2024



Obscura, World Photography Day  
on 19 August 2024



IEEE Day on 4 October 2024



76th Republic Day of India on 26 January 2025



50th International Women's Day celebrated with  
two sessions held on 8 and 19 March 2025



World Forestry Day on 21 March 2025



World Earth Day 2025 on 21 & 22 April, 2025



World DNA Day on 25 April 2025



World Environment Day on 5 June 2025



International Day of Yoga on 21 June 2025

## Student Affairs



### Internal Hackathon for SIH 2024

The Silicon Innovation and Promotion Cell (SIPC) organized an internal hackathon on 6 September 2024 to select 40 teams for the Smart India Hackathon (SIH) 2024.

### India Quiz

The Silicon Quiz Club organized 'INDIA QUIZ 2024' on 24 September 2024. The winner of the quiz was Tanmaya Raut. Subham Kumar Jha & Pratham Jena jointly won the second prize, and Sandeep Pradhan won the third prize.



### Open SWORD 2024

The Meta Academics Cell organized Open SWORD 2024 on 26 September 2024, on the theme of friendship. The event comprised an 'Extempore' and a 'Team Address' to celebrated the essence of friendship.

### 'Bit and Build', an international hackathon

The Google Developer Student Club (GDSC) at Fr. CRCE, Mumbai, organized Bit n' Build, an international hackathon on 4 October 2024 in collaboration with the Tech Society, IIIT Bhubaneswar, and the ISTE Silicon Students' Chapter of SiliconTech.



### Launch of quarterly Odia magazine

The Meta Academics Cell in collaboration with Kothaghara Aama Sahitya Parivar, launched the quarterly Odia magazine 'Kothaghara Chatasali' on 8 October 2024 followed by a speech competition on 'Bhasa ra Surakhya Pain Jubapidhi ra Abadan'. Shreyashree Mishra (EEE, 2026) emerged as the winner and Amlan Tripathy (CEN, 2027) became the runner-up.

### 'Quizanna 2024'

Silicon Quiz Club hosted 'Quizanna 2024', an inter school quiz competition on 16 November 2024. Adyant Pattnaik and Sai Arush were winners, with Pratyush Dhal and Ayaan Senapati as first runners-up, and Pushpam Panda and Prayahraj Rout as second runners-up, all from D.A.V. Public School, Unit-8, Bhubaneswar.



### Techtronics, a technical event

The Silicon Innovation Promotion Cell (SIPC) hosted Techtronics on 7 December 2024, creating a dynamic platform for students to showcase innovative technical prototypes.

### UKTI 2024

The SAGE-W Cell organized UKTI 2024, a platform for impactful discussions on women's empowerment. Aditya Rath, a first-year ECE student, won the competition. Trisha Jana, a third-year EEE student, was the runner-up.



### Open Mic 2024

The Meta Academics Cell organized Open Mic on 5 December 2024. In the judge's category, Aradhana Das (CEN, 2026) emerged as the winner and Prachi Pratyasha Das (ECE, 2027) was the runner-up. In the audience's choice category, Gourab Mahakud (CSE, 2028) was the winner and Girish Bhardwaj (CST, 2025).

### IEEE Chapter Social Outreach Program

The students of the IEEE chapter at SiliconTech visited Bramhanand Gourav Gurukul, an orphanage in Bhubaneswar, to celebrate Deepavali, the festival of lights.



### Rhythmnova 2024

SiliconTech organized Rhythmnova 2024 on 7 December 2024, a distinguished celebration of talent, culture, and community. Curated by the Cultural Society, the event featured Odissi dance performances and a theatrical presentation of Konark Gatha.

#### Fourth edition of TEDxSITB

The Industry Interface Cell (II Cell) organized the fourth edition of TEDxSITB on 8 December 2024 on the theme 'Navigating Crossroads'. The event featured six remarkable speakers from diverse areas of work.



#### 16th Annual Athletic Meet

SiliconTech organized its 16th Annual Athletic Meet on 1 February 2025. The meet featured track and field events, including sprints, relays, shot put, and long jump. The winners of all the events were awarded medals and certificates.

#### NIRMAN 4.0, Annual Tech Fest

Silicon Innovation and Promotion Cell (SIPC) organized NIRMAN 4.0, the annual technological fest, from 6 to 8 February 2025 on the theme 'Avatar – The Genesis of Pandora'.



#### Green Run Silicon Marathon

SiliconTech's National Service Scheme (NSS) organized the 'Green Run Silicon Marathon for Climate Action' on 22 February 2025 to raise awareness about climate change and promote sustainability.

### ZYGON 2025, Annual Cultural Fest

SiliconTech organized ZYGON 2025, its annual cultural fest, on 28 February and 1 March 2025. The 'Odyssey Cup' included quiz, computer gaming, personality contests, , and the first-ever cooking competition, 'Flavors Parade.' The Third year B.Tech. students won the Odyssey Cup.

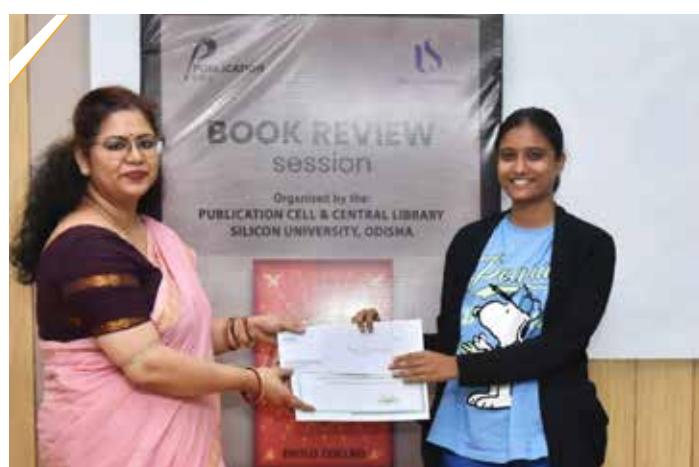


### SUMUN 2025

The Meta Academics Cell at SiliconTech organized its annual inter-collegiate Model United Nations, SUMUN 2025 from 20 to 22 March 2025. The event simulated UN proceedings, fostering negotiation, discussion, and debate to address global challenges.

### LITFEST 2025

The Meta Academic Cell organized 'Sabda-Tattva', the annual literary festival from 20-22 March 2025. The event featured 'Poetic Arena', 'Parachute Drop', 'Leadership Challenge', and 'Write-a Tale' competitions.



### Book Review Session

The Publication Cell organized a book review session on 'The Alchemist' by Paulo Coelho, a novel exploring self-discovery and the pursuit of dreams. The session highlighted Coelho's insights on following dreams, overcoming obstacles, and listening to one's heart.

### 'Parda Digital' - a film-making competition

The Social Media Cell organized a short film-making competition, 'Parda Digital', on 12 April 2025. Partha Prithviraj (CSE, 2026) won the first prize, followed by Sarthak Kalia (CSE, 2028) and Shubhranshu Maharana (CSE, 2028) in second and third place respectively.



### 'Bot League', a robotic race

SiliconTech organized 'Bot League', a robotic race on 19 April 2025 under the UDAAN initiative to promote STEM education. Team Kapidhwaj won first place, followed by team Hot Pursuit and team Code Blooded Racers winning the second and third positions respectively.

### Cultural Nite 2025

The Campus Life Coordination Committee (CCC) organized Cultural Nite 2025 titled 'Ullas-e Ratri' on 15 April 2025. The event aimed to celebrate Indian heritage and encourage creativity and cultural expression among students.



### Sports Award Ceremony

SiliconTech organized the Silicon Sports Award Ceremony 2025 on 5 May 2025. With one hundred and seventy-five students in attendance, the event celebrated commitment, discipline, and the spirit of sportsmanship.

### IoT Discovery Camp

The Department of CSE, in collaboration with DAV Public School, conducted the IoT Discovery Camp from 12-17 May 2025 for the school students. Thirty students were mentored to gain practical skills and confidence in emerging technologies.







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