

SiliconTech

A QUARTERLY NEWSLETTER

Volume 6 Issue 2 October-December 2024

EDITORIAL

Greetings from Silicon!

At the core of Silicon University's mission is a commitment to academic excellence and real-world impact, where innovation and practical solutions converge. We launched our Ph.D. program in 2022 with the goal of advancing the frontiers of knowledge through original research and fostering innovation across diverse academic and professional fields. Currently, we have 69 scholars engaged in cutting-edge areas such as electric vehicles (EV), artificial intelligence and machine learning (AI & ML), image processing, nanomaterials, and other emerging disciplines. A few of our scholars, who have published their work in reputed journals indexed by SCOPUS and WOS, are nearing the completion of their research and are expected to submit their theses by the end of January 2025. The university regularly conducts international conferences, faculty development programs (FDPs), and workshops to keep our faculty and students engaged with the latest developments in research and innovation.



The university is actively seeking funding from external agencies such as DST, BRNS, ANRF, DBT, ICSSR, and others to support and advance our research efforts. As part of the Grant Funded Research Initiative (GFRI), various research proposal writing groups convene monthly to discuss their progress. Several of our research groups have already submitted proposals to agencies like DBT, ICSSR, and DST. Additionally, a few groups are finalizing their proposals for upcoming submissions to the IDEX Open Challenge, NTRF, and ANRF.

Industrial consultancy plays a vital role in our efforts. Our core research team, with expertise in fields such as power systems, fluid dynamics, molecular medicine, wireless networks, Data Science, VLSI, optical sensors, environmental remediation, and electronic devices, offers consultancy services that deliver practical insights, data-driven recommendations, and innovative solutions. These services address challenges faced by industries spanning healthcare, technology, and environmental conservation. Recently, we successfully completed consultancy projects for both BALCO and HINDALCO, with several others approaching completion.

Guiding an academic institution toward both scholarly excellence and meaningful societal impact is a challenge I wholeheartedly embrace. Together, as a university, we can build a lasting legacy of research, innovation, consultancy, and thoughtful leadership that will inspire and shape future generations.

Wishing everyone a New Year filled with boundless opportunities, renewed inspiration, and impactful achievements!

Dr. Manoranjan Behera

Dean (Research & Consultancy), Silicon University



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 wins Best University Award for promoting Industry Academia Linkage

Silicon University was conferred the Best University Award for promoting Industry Academia Linkage at the Odisha EduMeet 2024, organized by ASSOCHAM on 27 November 2024, at Swosti Premium, Bhubaneswar. The award was received by Dr. Sanjit Kumar Swain, FIC, Industry Interface Cell, on behalf of the university. This recognition underscores Silicon's unwavering commitment to bridging the gap between academia and industry by empowering students with real-world exposure and hands-on experience through its Practice School (PS) program.



Silicon University wins Odisha State Energy Conservation Award 2024

Silicon University received the Odisha State Energy Conservation Award (OSECA) 2024 for its meritorious performance under the category of 'Educational Institutes', from the Department of Energy, Government of Odisha. Silicon has initiated various activities through its in-house team for energy efficiency and resource conservation which include enhancing its rooftop PV solar plant capacity, re-use of wastewater, use of energy efficient electrical appliances and gadgets and flattening of load curve through demand side management.



Silicon University hosts an International Conference on 'Intelligent Computing and Sustainable Innovation in Technology' (IC-SIT 2024)

The Department of Computer Science and Engineering at SiliconTech 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), Dr. Xiao-Zhi Gao (University of Eastern Finland, Finland), Dr. Saroj Kumar Meher (Indian Statistical Institute, Bangalore), Dr. Somanath Tripathy (IIT Patna), Dr. Siba K. Udgata (University of Hyderabad), and Dr. Swati Das (Infosys).



Silicon University hosts the fourth edition of TEDxSITB

The Industry Interface Cell (II Cell) at SiliconTech organized the fourth edition of TEDxSITB on 8 December 2024 on the theme 'Navigating Crossroads'. The event featured six remarkable speakers from diverse fields. Mr. Abinash Sahoo, CTO of BonV Aero, discussed the importance of clarity, courage, and purpose in entrepreneurship. Ms. Banasmita Pati, Author, Entrepreneur and a Silicon alumna, highlighted women's empowerment through self-reliance. Mr. Ajit Kumar Pallai, a Sustainable Ecopreneur, spoke about combating climate change and supporting local ecosystems. Mr. Prince Singh, an educational YouTuber, shared his journey of choosing between passion and academics, while Mr. Ayush Tandon, Actor and Musician, inspired attendees with his Bollywood journey. The final speaker, Mr. Harshit, a trader and investor, used his personal growth story to emphasize the importance of emotional intelligence and disciplined learning.



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 session aimed to provide a comprehensive understanding of AI's role in transforming urban mobility, focusing on smart transportation systems that enhance sustainability and reduce environmental impact. 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. The talk also emphasized data-driven decision-making in urban planning. Sixty students and faculty participated, gaining valuable insights into AI's role in smart cities.



Awareness program on Career Opportunities in the Indian Air Force

SiliconTech organized an awareness program on career opportunities in the Indian Air Force (IAF). The event aimed to inspire students to explore careers in the IAF. Led by Flight Lieutenant Pranay Bhagat, the program featured interactive sessions, including an exhibit with a fighter aircraft cockpit model. The event also highlighted the IAF's use of emerging technologies like AI and drones, and showcased the achievements of women officers, encouraging diversity. A total of 200 students attended, gaining valuable insights into IAF careers.



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

The Department of Computer Science and Engineering (CSE) at SiliconTech, 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. The program aimed to equip participants with knowledge on emerging trends in computing, focusing on the integration of HighPerformance Computing (HPC) and Artificial Intelligence (AI). Key speakers included Prof. Sudarsan Padhy, Dr. Saroj Kanta Patra, Dr. Prabhat Kumar Santi, Prof. Saraju Mohanty, Dr. Vamshi Krishna, Dr. Hemanta Rath, Dr. Sibaram Panigrahi, Dr. Suwendu Rup, Mr. Abhishek Patel, and Mr. Harikesh Shinde.



IEEE Day 2024

The IEEE student chapter at SiliconTech celebrated IEEE Day on 4 October 2024, marking the anniversary of IEEE's historic 1884 gathering. The celebration aimed to equip participants with industrial skills through a mix of theoretical insights and hands-on learning. The program included three eventstwo social outreach activities and a technical talk. Shri Hare Krushna Rath, Chair of IEEE Bhubaneswar Sub-Section, was the Guest of Honour. The outreach initiatives included a plantation drive and the inauguration of 'HE(ART) of Donating,' a blood donation initiative. The event concluded with a talk by Shri Rath on the role of DRDO's ITR in India's defence landscape, engaging 130 participants.



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. The event brought together over 180 participants from 50 teams representing various colleges and schools. With 17 hardware and 17 software teams in the senior division and 7 hardware and 6 software teams in the junior division, the competition fostered creativity, collaboration, and problem-solving. Participants addressed real-world challenges, highlighting ingenuity and teamwork, while contributing to the growth of a vibrant and inclusive tech community.



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 session aimed to explore how globalization impacts gender roles, highlighting the challenges and opportunities in achieving gender equality in an interconnected world. The speaker, Ms. Kanta Mohanty, a renowned training consultant, career transition coach, and social activist, discussed the transformative effects of globalization on gender roles and emphasized the need for inclusive policies and equal opportunities. The interactive session encouraged meaningful discussions on stereotypes, workplace inequality, and societal expectations, inspiring attendees to actively contribute to promoting gender equality. A total of 120 faculty members, staff, and students attended the session.



'Quizanna 2024'

Silicon Quiz Club hosted 'Quizanna 2024', an inter-school quiz competition on 16 November 2024, aiming to showcase students' talents and foster teamwork, communitybuilding, and self-confidence. The event featured two rounds- a preliminary round with 15 questions led by Quiz Master Subhojeet Biswas, and a grand finale with another 15 challenging questions. The top six teams advanced to the finals. Adyant Pattnaik and Sai Arush emerged as winners, with Pratyush Dhal and Ayaan Senapati as first runners-up, and Pushpam Panda and Prayahraj Rout as second runners-up. All the winners and runners-up are from D.A.V. Public School, Unit-8, Bhubaneswar.



UKTI 2024

The SAGE-W Cell at SiliconTech organized UKTI 2024, a platform for impactful discussions on women's empowerment, allowing students to present their thoughts through poetry, speech, and song. The event featured esteemed judges, Ms. Monalisha, an alumna of SiliconTech, and Ms. Banasmita Pati, an author and entrepreneur. Mr. Aditya Rath, a first-year ECE student, won the competition for his insightful talk on societal transformation and the treatment of women. Ms. Trisha Jana, a third-year EEE student, was the runner-up for her presentation on the role of women in ancient mythology, drawing connections to contemporary society. The event was a huge success, fostering valuable conversations and inspiring participants to think critically about gender equality. The SAGE-W Cell looks forward to organizing more such initiatives in the future.



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. During the visit, the delegation engaged with Vedanta FACOR's Chief Operating Officer, showcasing Silicon's technical expertise, and aligning with the company's vision for innovation. This meeting set the stage for the next phase, focusing on a comprehensive assessment of FACOR's operations to identify critical pain points. By leveraging academic research and innovation, Silicon University aims to enhance FACOR's operational efficiency and sustainability, promoting mutual growth and progress.



Visit to Rooftop Solar Plant

SiliconTech organized a tour of its 330-kW rooftop solar plant on 12 November 2024. The workshop aimed to provide participants with an understanding of the plant's operation, including key components like solar panels, inverters, and energy storage systems. Attendees observed the installation, maintenance, and monitoring processes. The tour emphasized solar power's role in sustainability and combating climate change. Participants gained hands-on experience with solar technology, learning about energy generation factors and the economic advantages of solar energy. Forty eight students and faculty members took part, deepening their knowledge of renewable energy applications.



Consultancy Project with HINDALCO

SiliconTech has achieved another milestone in its collaboration with Hindustan Aluminium Corporation Limited (HINDALCO) by securing a second consultancy project. Titled 'Analysis and Vetting of LA Report along with Recommending an Alternative Cost-Effective Solution for Lightning, Earthing, and Surge Protection Measures of Hiralud Smelter', this project focuses on enhancing safety and operational efficiency. It builds on the success of the previous consultancy in the electrical power system domain. These industry collaborations provide invaluable hands-on experience for faculty and students, reinforcing Silicon's commitment to driving innovation and fostering industry-academia partnerships.



IEEE Chapter Social Outreach Program

The students of the Institute of Electrical and Electronics Engineers (IEEE) chapter at SiliconTech visited Bramhanand Gourav Gurukul, an orphanage in Bhubaneswar, to celebrate Deepavali, the festival of lights. The initiative aimed to provide emotional, social, and physical support to orphaned children, raising awareness about their challenges. Activities included educational workshops, sports, arts, and team-building games to promote development and well-being. The IEEE team also donated food, clothing, and books while hosting fundraisers. The visit ended with a Diwali meal, fostering unity and reinforcing the importance of empathy and social responsibility.



Launch of quarterly Odia magazine 'Kothaghara Chatasali'

The Meta Academics Cell at SiliconTech, in collaboration with Kothaghara Aama Sahitya Parivar, launched the quarterly Odia magazine 'Kothaghara Chatasali'. The event was graced by prominent personalities, including Smt. Ambika Swain, Chief Editor of Kothaghara, Dr. Debi Prasanna Pattanayak, Padma Shri awardee, and Dr. Sanghamitra Mishra, writer and retired professor from Utkal University. The program featured 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 runnerup. The magazine's latest edition was unveiled, followed by a poetry recital celebrating Odia literature and culture.



Open Mic 2024

The Meta Academics Cell organized the seventh edition of Open Mic on 5 December 2024. This event brought together bright minds and creative talents. It featured performances on poetry, stand-up comedy, and storytelling. The best performances were selected based on the scores given by the judges and audience voting. 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) was the runner-up.



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 a captivating array of performances, including the elegance of Odissi dance and musical renditions spanning classical and contemporary genres. The theatrical presentation of Konark Gatha brought the rich heritage of the Konark Sun Temple to life, while a spellbinding jugalbandi showcased the harmony of musical fusion. High-energy rap, semi-classical dances, and innovative acts added vibrancy, concluding with a dance performance that exemplified the unifying power of art and creativity.



Runners-up in the International Gateball Tournament and Silicon Sports

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. Building on this spirit of competitive excellence, Silicon hosted the 15th Annual Inter-College Sports Meet – Silicon Cup 2024 from 4 to 13 December 2024 and the Interbranch Sports Meet 2024 from 12 to 30 November 2024 celebrating teamwork, talent, and Silicon's dedication to sportsmanship.

Scopus/SCI Indexed journals: **10**

Conference Proceedings: **3**

Book Chapters: **1**

Patents: **1**

High Payload Image Steganography using DNN Classification and Adaptive Difference Expansion

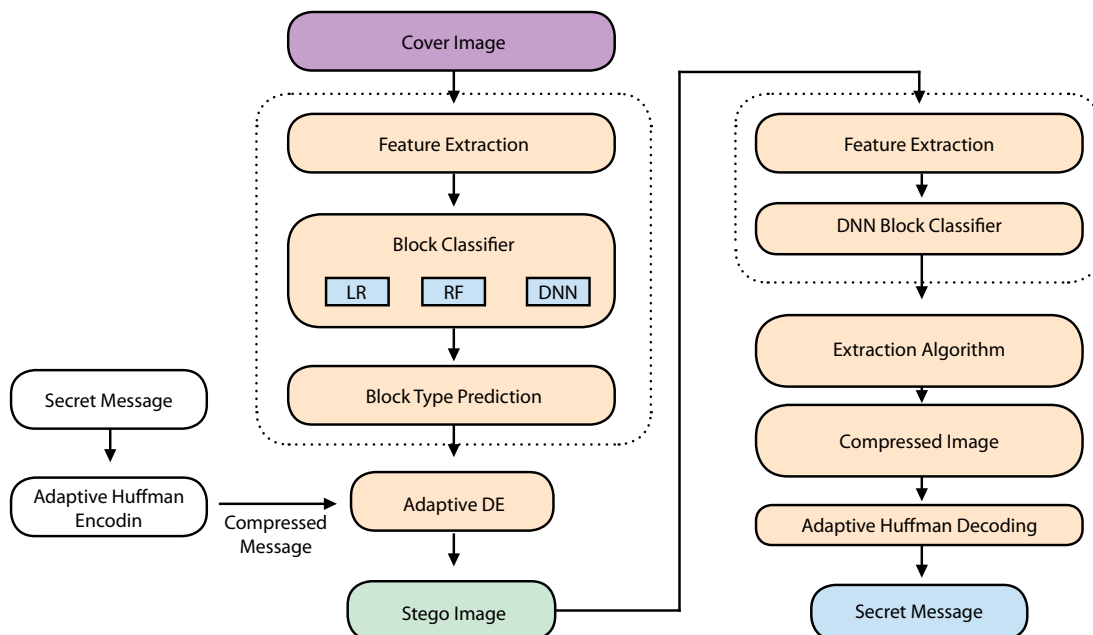
This study presents an innovative image steganography approach that enhances payload capacity while maintaining visual quality and security. The method integrates Adaptive Huffman Coding (AHC) for message compression, Deep Neural Networks (DNN) for cover image block classification, and Adaptive Difference Expansion (DE) for data embedding. AHC compresses the secret message, reducing its size and optimizing storage capacity. Local features from cover image blocks are extracted and classified using machine learning techniques, including DNN, Logistic Regression, and Random Forest, to determine the embedding capacity for each block. This adaptive approach ensures efficient data utilization while minimizing distortion.

The approach is evaluated on classifier performance, embedding efficiency, and robustness. The DNN classifier excels, achieving a 99% validation accuracy. The embedding method achieves a high payload rate of 1.22 bits per pixel (bpp) with a PSNR close to 50, reflecting

excellent image quality. Furthermore, the method demonstrates resilience, maintaining a recovery accuracy of 77% even under 50% salt-and-pepper noise. The combination of AHC compression, precise classification, and adaptive embedding ensures both enhanced payload capacity and robustness in noisy environments. This makes the proposed system well-suited for high-security applications in image steganography, offering a balance between efficiency, security, and quality.

Looking ahead, future research could explore the application of more advanced deep learning techniques, such as Generative Adversarial Networks (GANs), to further enhance the robustness and quality of embedded images. Additionally, exploring the use of different cover media, such as video or audio, could extend the method's applicability to a broader range of digital data. Further investigation into real-time embedding and extraction processes could improve the efficiency and scalability of this method, making it suitable for large-scale, high-speed applications in secure communications.

This research is being conducted by Dr. Shreela Dash, Senior Assistant Professor, Computer Science and Engineering



A Novel Approach for Implementing and Optimizing a Proportional-Resonant Controller and L-C-L Filter for a Single-Phase Grid-tied Inverter

This paper introduces an innovative optimization approach for a single-phase grid-tied inverter with an LCL filter, designed to improve the performance and efficiency of solar energy systems. Using state-space averaging (SSA), the dynamic behavior of the inverter is modeled, and small-signal models are developed based on grid current and capacitor voltage as the primary states. The control strategy includes two main components: a voltage controller to maintain a stable output voltage and a current controller to regulate the grid current. The integration of the LCL filter helps reduce harmonic distortion and minimize the filter size, enhancing system efficiency. To address resonance instability in the LCL filter, a passive damping method is applied, ensuring system stability. Additionally, a proportional-integral and proportional-resonant (PI-PR) controller is introduced to further improve system stability and tracking accuracy, making the inverter more responsive to grid requirements.

The paper also emphasizes the optimization of key LCL filter parameters, including inverter-side inductance, grid-side inductance, filter capacitance, damping resistance, and capacitor current feedback. Proper selection of these parameters reduces harmonic distortion and minimizes inverter-side current, ensuring better integration with the grid. The derived transfer function ensures system stability, and fine-tuning of the PI-PR controller enhances voltage and current regulation. The PR controller compensates for low-order harmonic components, maintaining synchronization between the inverter's output and the grid. The proposed model effectively meets grid requirements and guarantees efficient grid integration. Future research could focus on integrating adaptive filtering and advanced control techniques to further optimize performance under varying grid conditions, enhancing the system's robustness and reliability.

This research is being conducted by Dr. Nibedita Swain, Senior Assistant Professor, Electrical and Electronics Engineering

Unveiling Spoofing Attempts: A DCGAN-based Approach to Enhance Face Spoof Detection in Biometric Authentication

Face spoofing attacks present a significant challenge to biometric authentication systems, which are increasingly deployed in areas such as identity verification, access control, and mobile security. These attacks often involve using fake facial images, such as photos or deepfake videos, to bypass security systems and gain unauthorized access. As facial recognition technology evolves, so do spoofing techniques, making it increasingly difficult for current detection systems to distinguish between authentic and fraudulent faces. To address this issue, this research proposes a novel approach using Deep Convolutional Generative Adversarial Networks (DCGANs) to enhance face spoofing detection. The method supplements the training dataset with artificially generated images, improving the system's ability to accurately differentiate between real and spoofed faces. By employing adversarial learning, the discriminator network becomes more adept at detecting spoofed images, thus improving the system's accuracy and effectiveness in real-time applications.

This method addresses several challenges associated with traditional face spoofing detection, including reliance on external datasets and the high computational cost, which can make these approaches impractical for real-time use. Additionally, traditional methods struggle to adapt to new spoofing techniques like deepfake videos. By leveraging deep learning and GAN technology, the proposed DCGAN-based model offers a faster and more accurate solution to identifying spoofed images in dynamic environments. This is particularly beneficial for security systems and identity verification applications requiring quick response times. The research evaluates the DCGAN-based model's performance in handling various spoofing methods and its adaptability to new attack strategies. The study also explores how this approach could be integrated into existing biometric systems, offering a more robust solution to the growing problem of face spoofing. Future work could focus on refining the DCGAN-based approach to further improve the accuracy and efficiency of biometric authentication systems, making them more resilient to evolving spoofing tactics.

This research is being conducted by Dr. Annapurna Mishra, Associate Professor, Electronics Engineering.

STUDENT ACHIEVERS



Richa Kumari
CST, 2025

Richa Kumari secures an internship at Amazon with a monthly stipend of 1.1 lakh

Richa Kumari, a B.Tech. Computer Science and Technology (CST) student from the 2025 batch, has secured an internship at Amazon as a Software Development Engineer (SDE) intern. She will be doing her internship during the 8th semester under the Practice School (PS) program. Her journey from discovering coding in her second year to mastering Java, DSA, and MERN stack reflects her dedication and passion for software engineering. With hands-on projects and rigorous practice on platforms like LeetCode, Richa exemplifies resilience, technical expertise, and a commitment to continuous learning.



Divya Swarup
ECE, 2025

Divya Swarup Mishra gets placed at Synopsys with 15 LPA

Divya Swarup Mishra, from the B.Tech. ECE batch of 2025, has 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. Divya's technical expertise and dedication have set him apart, and he is excited to embark on this new chapter in his career at Synopsys.



Priyanshu Mallick
CSE, 2025

Priyanshu Mallick secures a PS internship at Club8 with a monthly stipend of 50K

Priyanshu Mallick, a B.Tech. Computer Science and Engineering (CSE) student from the 2025 batch, has developed strong technical expertise in Flutter during an internship at Nirogh and in React Native through a summer internship at Syllogistek Systems. This skill set has helped him secure an SDE Internship at Club8, where he will contribute to exciting projects. He has been offered a monthly stipend of 50K for this role, further solidifying his position in the tech industry.



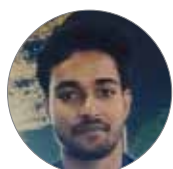
Ushmita Dutta
CSE, 2023

Ushmita Dutta gets placed at ServiceNow with a package of 31 LPA

Ushmita Dutta, a graduate from the B.Tech. CSE batch of 2023, has successfully secured an offer as a Software Engineer at ServiceNow with a package of 31 LPA. She has previously worked as a Software Engineer at Cozentus Technologies Private Limited and takeUForward, gaining valuable industry experience. Ushmita has developed a strong proficiency in Data Structures and Algorithms, which she has refined through consistent participation in coding contests and dedicated practice.

Practice School (PS) Selectees from 8th semester B.Tech. graduating batch of 2025

Micron@40K



**Spandan Kumar
Dhal**
EEE 2021-25



Jyotiraditya Bhoi
EIE 2021-25



**Smruti Sagarika
Bardhan**
ECE 2021-25



Sumaan Mishra
ECE 2021-25



Pratyusha Mohanty
CST 2021-25



Anisha Parasar
CSE 2021-25



Ansuman Parija
CSE 2021-25

PWC @35K

HP Labs@35K



Abhipsa Acharya
CSE 2021-25



Jangyaseni Sahoo
CSE 2021-25



Ayushi Prasad
CEN 2021-25



Arya Arora Dash
CST 2021-25



Tanisha Pathak
CSE 2021-25



Swati Elina
CSE 2021-25



Shraddha Mishra
CEN 2021-25



Shristi Mahapatra
ECE 2021-25



Hiranmayee Tripathy
CSE 2021-25



Akanksha Kumari
CSE 2021-25



Ananya Das
CSE 2021-25



Shreeya Gantayet
CSE 2021-25

EffiGo@25K



Ashutosh Acharya
CSE 2021-25



Sidharth Mishra
CSE 2021-25



Krutideepa Samantaray
ECE 2021-25



Sivranjni
Ph.D. Scholar



Ms. Sivranjni, a Ph.D. scholar of Chemistry in the Department of Basic Sciences and Humanities, received the 'Best Oral Presentation Award' at the International Conference on Emerging Smart Materials in Applied Chemistry (ESMAC-2024) held at KIIT University from 20-22 December 2024. The topic of her presentation was 'Study of Optical, Microstructural and Antibacterial Activity of NiO-Nanopowders synthesized via a Green Approach'.

INDUSTRY INTERFACE CELL

Placement Highlights

Despite the current market scenario for IT and other industry, the placement activities at our campus seems to be quite positive in this quarter. More than 35 companies have already participated till now across various sectors like software, consulting, analytics, VLSI & core engineering for the placement opportunity of 2025 graduating batch. More than 20 companies have already shared their final results and the rest of the company is in process. II Cell is working to on board more companies for placement and Practice School (PS) opportunities in coming quarter. The selected students will

Top recruiting companies include:

Accenture, CoreEL Technoogy, Deloitte, HP Labs, Scaledge, Genpact, Haber Technology, Incture, Infosys, LTIMindtree, Micron, Synopsys, Aptus Data Labs, Tech Mahindra, Sasken, Innovare, Mindfire Solutions, Rasmi Groups.

Practice School Highlights

- As on date 91 students from the 2025 graduating batch have received Practice School (PS) internship offers from 20 companies for their 8th semester. The number is likely to increase as few of the companies are yet to complete their process.
- The Highest Stipend for PS till date is INR 1.1 Lakh as offered by Amazon.
- Few students will be receiving the PS stipend in the range of 40K-50K.
- Most of the PS selected students will be receiving a stipend ranging from INR 10K - 50K.
- HP labs with an initiative of focusing on diversity, equity, and inclusion have selected 12 young women candidates as interns with a stipend of 35K.
- Selected students will be joining their respective PS stations for their internship program in the 8th semester.
- Most of the students will receive their pre-placement offer after the successful completion of their internship program from their respective PS station.
- The companies who have given PS offers to our students in the 8th semester till date include:



be receiving the salary range of 3.6 LPA – 15 LPA. Synopsys has offered the highest package of 15 LPA as on date.

- 196 students have received an offer greater than or equal to 3.6 LPA
- More than 50 have received an offer greater than or equal to 5 LPA
- More than 25 students have been placed in the VLSI domain
- Highest package till date is 15 LPA

Amazon	Logistos
Aptus Data Labs	Micron
Club 8	Mindfire
Durrani Lab	PwC
Effigo	Sasken
HP Labs	Scaledge
Incture	Sevya
Innovare	Signicent
Innovica	Surya Digital
Karya	Wily Fox

ENTREPRENEURSHIP DEVELOPMENT CELL

The Entrepreneurship Development Cell (ED Cell) at SiliconTech hosted its Annual Entrepreneur's Fest, Sparkup Summit, from 29 November to 1 December 2024, fostering an entrepreneurial mindset among students. 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.

The summit also featured dynamic competitions such as Build-A-thon, Ideathon, and the Startup Pitching event, where 17 teams showcased innovative business ideas to a panel of investors. Five teams were shortlisted for funding and mentorship, offering them a pathway to transform their ideas into reality. Adding a creative and entertaining touch, interactive activities like the AD-MAD SHOW and Bidding War captivated participants, while a cultural performance marked a memorable conclusion. The Sparkup Summit proved to be a resounding success, equipping students with invaluable knowledge, resources, and networks to pursue entrepreneurial aspirations and build impactful, sustainable ventures.

The summit featured a panel discussion with successful alumni entrepreneurs: Shiv Kumar Agrawal, Managing Director of Supershade Agro Textile, BrightFab Agro Industries, & Shiv Narayan Industries; Rohit Kumar Jain, Entrepreneur; and A. Surendra Nath, Director of Vaisali Dairy. They shared insights on navigating the startup ecosystem, overcoming challenges, and leveraging skills for innovation. Their stories inspired students to consider entrepreneurship as a viable career, while interactive sessions provided valuable guidance on building successful startups.



EMPLOYEES IN NEWS



Dr. Jayakrushna Mohanty

Dr. Jayakrushna Mohanty, Adjunct Professor, Basic Sciences and Humanities, 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

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.



Dr. Pradyumna Kumar Tripathy

Dr. Pradyumna Kumar Tripathy, Associate Professor, Computer Science and Engineering has participated as a Resource Person in one-day seminar on 'High Performance Computing (HPC) for Digital Humanities' on 14 September 2024 at Sri Sri University, Cuttack.



Dr. Samaleswari P. Nayak



Mr. Surajit Das

Dr. Samaleswari P. Nayak, Senior Assistant Professor, Computer Science and Engineering and **Mr. Surajit Das**, Assistant Professor, Computer Science and Engineering served as resource persons in the Techno Zeal program, connecting with the brilliant minds of Jharkhand. They visited St. Aloysius Intermediate College, Ranchi, on 30 November 2024, delivering an insightful session on IoT and its Applications. On 2 December 2024, they conducted a hands-on workshop on UI/UX Design using Figma at DAV Public School, Hazaribagh.



Dr. Sanjit Swain



Dr. Biswajit Baral



Dr. Sudhansu Mohan

Dr. Sanjit Kumar Swain, Additional Professor, Electronics Engineering, **Biswajit Baral**, Associate Professor, Electronics Engineering, and **Dr. Sudhansu Mohan Biswal**, Associate Professor, Silicon University, Dr. served as Session Chairs at the IEEE EDS Kolkata Chapter-sponsored International Conference EDKCON-2024, held on 30 November 2024 at Hotel Fairfield by Marriott, Kolkata. They delivered invited talks on 'Nanoscale Devices for Biosensor Applications,' 'Performance Parameter Analysis of Advanced Nanoscale Devices,' and 'Performance Study of Nano Devices with respect to Bio-Sensor Applications,' respectively.

ALUMNI BUZZ



Silicon Alumni Association organized the 16th Alumni Meet on 28 December 2024. The event commenced with a soulful welcome song, setting a warm and vibrant tone. A traditional lamp-lighting ceremony followed, symbolizing the illumination of knowledge and unity. Dr. Jaideep Talukdar, Vice Chancellor, delivered an inspiring welcome address, emphasizing the enduring bond between alumni and their alma mater. The day featured captivating cultural performances by the university's talented students. Batch-wise group photographs were taken, capturing joyful moments of camaraderie among alumni, faculty, and students. A virtual campus tour video transported the attendees back in time, rekindling cherished memories while highlighting the university's growth. Adding a unique touch to the meet, alumni-staff

cricket and volleyball matches were organized for the first time, fostering friendly competition and camaraderie. These spirited games brought alumni, faculty, and staff closer, making the event even more special. The evening concluded with a delightful high tea, providing an excellent platform for informal interactions among alumni, faculty, and current students. These exchanges enriched the experience, offering opportunities for networking and sharing stories. The event was organized by the Silicon Alumni Association (SAA) team under the guidance of Dr. Biranchi Narayan Rath, Faculty Coordinator of SAA, with invaluable support from the Silicon Student Council and enthusiastic volunteers. With 250 alumni in attendance, the meet successfully celebrated the vibrant Silicon spirit.

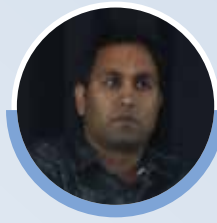
ALUMNI IN FOCUS



A. SURENDRA NATH

Director, Vaisali Dairy
B.Tech. (AEI) 2009-2013

A.Surendra, the Director of Vaisali Dairy, leads the company in delivering high-quality dairy products while ensuring innovation and sustainability in operations. During his time at SiliconTech, he worked on projects like the 'Sunlight Tracking Device for Solar Panels' and a mobile-based DTMF bot. He gained experience in the automobile industry in Pune before pursuing his passion for the Dairy Industry. To enhance his skills, he worked in sales for four months, learning customer relations, before becoming a Quality Officer. In his free time, he enjoys traveling, meeting new people, and reading books.



ROHIT KUMAR JAIN

Entrepreneur
B.Tech. (ETC) 2009-2013

Rohit began his career as a Software Developer at Infosys, where he worked for three years. Motivated by a passion for business and entrepreneurship, he transitioned into the role of Director at a Rice Mill Industry, leading the company for three years. He later launched a cold storage project in his hometown to support local farmers, a venture he continues to develop. In 2022, he founded Swosti Ecowares, a company dedicated to manufacturing 100% biodegradable, eco-friendly disposable products, aligning with the government's push to reduce plastic waste. In recognition of his contributions, he was honoured by the then Chief Minister, Honourable Naveen Patnaik, in 2023. Rohit embraces every challenge and opportunity life brings, whether joy or adversity. His hobbies include cricket, football, music, and computer games.



SHIV KUMAR AGRAWAL

Managing Director, Supershade Agro Textile,
BrightFab Agro Industries,
& Shiv Narayan Industries
B.Tech. (AEI) 2009-2013

Shiv began his entrepreneurial journey with Vgyan.com, a startup he founded during his second year of college. After being placed as a System Engineer at Infosys, he gained five years of invaluable industry experience. However, his entrepreneurial drive led him to return to business ventures, and in 2011, he was honored by the President of India, Dr. A.P.J. Abdul Kalam, for his achievements. With 15 years of business experience, he blends technical expertise with strategic insight, successfully bridging the gap between engineering principles and commercial success across diverse industries. In his free time, he enjoys playing badminton, surfing the internet, and staying updated with the news.



ANUJ SHARMA

Vice President, JP Morgan
Chase & Co.
B.Tech. (CSE) 2009-2013

Anuj currently leads the Asset-Based Lending team, where he manages corporate risk exposure and pricing strategy across North and Latin America. After completing his B.Tech., he pursued his Master's in Finance and Banking. He began his career in 2015 as an Analyst at the Investment Information and Credit Rating Agency of India Limited (ICRA), developing expertise in credit risk management for sectors like Healthcare, Higher Education, and Government. Since joining his current organization in 2017, Anuj has achieved significant professional growth, earning four promotions in just seven years. He now leads a team managing a 10 billion dollar North American credit risk portfolio. Outside of work, Anuj enjoys listening to country music, traveling, and exploring new cultures.

Alumni Desk

Visit our Alumni Portal at <https://alumni.silicon.ac.in/> & register yourself

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Compiled and Published by

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