

# SiliconTech

A QUARTERLY NEWSLETTER

SILICON INSTITUTE OF TECHNOLOGY, BHUBANESWAR

Volume 1 Issue 2 October – December 2019

## EDITORIAL

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Wish you a very happy New Year 2020!

The quarter of October - December 2019 was quite a happening one. A lot of knowledge sharing sessions like technical workshops, seminars, industrial talks were organized in the campus which featured experts from academia and industry from across the country and abroad.

Our students, dedicated faculty members and staff are the pillars of success at Silicon. The number of Siliconites getting placed with differential salary packages is increasing significantly. When information is easily available in the digital world, the academic activities are less confined to the four walls of class rooms. The interactive special talk sessions, hands on programs, problem solving activities with ideations and innovations have become an integral part of academics. Along with it, the musical programs, TEDx Program, Alumni Meet and other social activities and awareness programs have kept the campus abuzz with excitement.

**Prof. (Dr.) Saroj Kanta Misra**  
DIRECTOR

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## NEWS & EVENTS

### MHRD Recognition

The Silicon Institution Innovation Council has been awarded with the first golden star by MHRD Innovation Cell (MIC) with a score of 24.99 out of 25 for the first quarter (July-September 2019) activities of the current session 2019-2020.

### Scientific Talk by Prof. Erik Jacquemyn

Professor Erik Jacquemyn (Founder & CEO of Jacquemyn & Associates, Belgium), UNESCO Kalinga Laureate 2017, gave a talk on *Popularization of Science* on 27th November 2019. Professor Erik Jacquemyn is a leading international expert in science communication and in science centers, science and interactive museums. He used various physical/ visual aids to enhance certain basic concepts of science & engineering. It was an interactive session with excellent student participation. There were around 200 participants which included faculty members, guests and students.



### STTP on Industrial Automation and Control for Industry 4.0 (IACI 2019)

The department of EIE organized a BPUT TEQIP-III sponsored 5 day Short Term Training Program (STTP) on *Industrial Automation and Control for Industry 4.0 (IACI 2019)* from 25th–29th October 2019. The main objective of conducting this interactive program was to minimize the gap between the industry and academia. Industry 4.0 is the trend towards automation and data exchange in manufacturing technologies and processes which include cyber-physical systems (CPS), the internet of things (IoT), industrial internet of things (IIoT), cloud computing, cognitive computing and artificial intelligence.

The technical session opened with a talk on *What is Industry 4.0?* by Er. S. Maity, Director, CTTC, Bhubaneswar. Other notable speakers of the programme were Prof. (Dr.) Sudhansu Kumar Mishra, BIT, Mesra, Ranchi, Er. Sangram Samantray, Director, Whizzo Infotech Pvt. Ltd, Dr. Kunal Pal, NIT, Rourkela, Er. A. Satapathy, Managing Director and Er. Praneet Kumar, Sr. Engineer, Automation from Electron Techno Centre, Raipur, Er. P. L. Gouda, AGM (Telecom), OPTCL, Bhubaneswar, Dr. Santosh Kumar Behera, Scientist, CSIR-IMMT, Bhubaneswar, Er. Dileep Dwarakanath, Director, AGVI India Pvt. Ltd., Bangalore and Er. Jitendra Kumar Khilar, Asst. Manager (E&I), NALCO Smelter Plant, Angul.



## IoT Workshop

The department of CSE/IT/MCA organized a hands-on workshop on *Internet of Things (IoT)*, in association with Lecture Notes, Bhubaneswar from 29th October to 8th November 2019. Students were trained on topics like basics of Arduino, interfacing analog signals and discrete signals with Arduino, interfacing sensors with Arduino, Basics of NodeMCU, and Server-Client Communication using NodeMCU, Cloud Communication and Introduction to Raspberry Pi.

## GUI Application Development using JavaFX Workshop

The department of CSE/IT/MCA organized a hands-on workshop on *GUI Application Development using JavaFX*, in association with Lakshya, Bhubaneswar on 9th November 2019. The workshop covered JAVA FX vs. SWING, JAVA FX Architecture, FXML, Layouts and UI controls, Event Handling and Scene Builder.

## Expert Talk on Biomedical Image Analysis

The department of CSE/IT/MCA organized a TEQIP-III, BPUT sponsored expert talk on *Biomedical Image Analysis using Fusion Techniques* under the twining activity of BPUT with VTU (Visvesvaraya Technological University) and AKU (Aryabhatta Knowledge University) on 28th November 2019. The expert talk was delivered by Prof (Dr.) Shubhangi D.C. from VTU. There were 120 participants.



## IoT and Sensor Embedded Applications (ISEA-2019) Workshop

The Department of Computer Science and Engineering conducted a BPUT TEQIP-III sponsored five days' workshop on *IoT and Sensor Embedded Applications (ISEA-2019)* from 16th to 20th December 2019. The objective of the workshop was to build expertise around the sensor embedded application with Internet of Things (IoT). The workshop focused on different applications of IoT using different types of sensors. The implementation of sensor



devices with IoT was simulated with the Raspberry Pi. The participants implemented mini projects on Smart Dust Bin, Soil Moisture Checking, NFC card reading with Arduino, etc. The participants were able to learn about the various communication protocols and the applications of different types of sensors.



# Connecting the Dots in and around OS (CDOS-2019) Workshop

The department of CSE/IT/MCA organized a two day TEQIP-III workshop sponsored by BPUT on *Connecting the Dots in and around OS (CDOS-2019)* from 27th to 28th December 2019. This workshop was conducted by Dr. Debadatta Mishra, Asst. Prof. at IIT Kanpur. The objective of the workshop was to have a deep insight into the

Operating System (OS) from a practical perspective. The OS functionality and its behaviour was understood through simulation and hands-on experiments. This workshop enabled the participants to understand non trivial details of the operating system. The workshop had 75 participants.

# National Workshop on Nanotechnology and Embedded Systems (NES-2019)

The Department of Electronics and Communication Engineering (ECE) organized a four days TEQIP-III National Workshop on *Nanotechnology and Embedded Systems (NES-2019)* from 27th to 30th December 2019. The program was inaugurated by Prof (Dr.) Chita Ranjan Tripathy, the Vice-Chancellor of BPUT. The primary focus of the workshop was to create awareness on the recent advances in solid-state devices, VLSI circuits and embedded systems with series

Modugula (CEO, Sevia, Greater Noida), Dr. Bibhu Datta Sahoo (Associate Professor, Dept. of EC, IIT Kharagpur), Dr. Debashis De (Professor and Director, Dept. of CSE, West Bengal University of Technology, West Bengal), Dr. Angsuman Sarkar (Associate Professor, KGEC, West Bengal) and Mr. Puneet Mittal (Founder, VLSI Experts, Noida). Hands on workshops on some cutting-edge technologies were conducted by Mr. Kunal Ghosh,



of lectures and hands on workshops by eminent speakers from leading universities and semiconductor companies. Keynote addresses were delivered by Dr. Sameer Sonkusale (Professor, ECE, Tufts University, USA), Dr. Shivananda Koteswar (Head R&D of Synopsys Inc., Bengaluru) and Dr. Laxmidhar Behera, Professor, EE, IIT Kanpur.

Industry and research oriented invited talks were delivered by notable researchers and engineers including, Mr. Atul Bhargava (Principal Engineer, STMicroelectronics, Greater Noida), Mr. Srikant



Director and Co-Founder, VLSI System Design, Bengaluru, Dr. Cyril Prasanna Raj, Dean (R&D), MS Engineering College, Bengaluru and Sevia's team.

An engaging panel discussion was conducted on *Bridging the Gap – Academia to Industry* by experts throwing light on how to make the engineering graduates industry ready. There were 160 registered participants including students and faculty members from other institutions apart from Silicon.

## FDP on Leadership Development & Conflict Management

A Faculty Development Program (FDP) on *Leadership Development & Conflict Management* was conducted on 6th & 7th December 2019 by Mr. S. Chandrasekaran from Sundaram Learning, Chennai for 36 selected senior faculty members to hone their leadership skills. The objective of the program was to make the participants

aware of their current leadership style and its impact on others, help them establish a relationship between their Values & Actions, understand the power of leadership communication, inspire higher team management & be aware of their current style of managing conflicts and how to handle conflicts in daily life.



## Events by Silicon Green Club

The Silicon Green Club organized a series of activities. Plastic Waste Free Campaign was launched with a cleanliness drive - *Swachhata hi Seva* on 2nd October 2019. Dr. Jaya Krushna Panigrahi, Secretary OES (Odisha



Environmental Society) delivered a talk on *Urban Waste Management: A Greater Challenge Ahead* on 16th October. An essay competition was conducted on *Plastics: Waste or Wealth* on 19th October 2019. A plantation drive was conducted in the college premises on 2nd November 2019.

## Faculty News

Dr. Rabi Narayan Mishra, Sr. Assistant Professor (EEE), received Jagadish Chandra Bose Memorial Award 2019 - The Institute of Electronics and Telecommunication Engineers (IETE) recognizes outstanding achievements of individuals in the field of Electronics, Telecom, IT and related areas through its various awards. Under the category of IETE Best Paper Awards, Dr. Rabi Narayan Mishra's paper "Design and

Implementation of a Feedback Linearization Controlled IM Drive via Simplified Neuro-Fuzzy Approach" co-authored by Kanungo Barada Mohanty was awarded by the IETE Jury in the Best Engineering-Oriented Paper category for the IETE- Jagadish Chandra Bose Memorial Award- 2019. The awards ceremony took place during the 62nd Annual IETE Convention of IETE at Dr. Ram Manohar Lohia Avadh University, Ayodhya, (UP) on 28th September 2019.



Ms. Monorama Swain received ISTE Certificate of Achievement 2019 - The ISTE Odisha Section committee has selected Ms. Monorama Swain, Assistant Professor, ECE, for Best Faculty Award (Engineering) in honor of distinguished contribution in the area of Technical

Education and development of ISTE activities in the state of Odisha. Ms. Swain was conferred with the award on 7th December 2019 during the inaugural function of 22nd ISTE Annual faculty convention.

## SILICON ENTREPRENEURSHIP DEVELOPMENT CELL



### Silicon Business Incubator

Silicon Institute of Technology has been approved as a *Business Incubator (BI)* by MSME, Govt. of India under the scheme "Support for Entrepreneurial and Managerial Development of MSMEs through Incubator" during PMAC meeting held on 20th December 2019 at New Delhi. The BI is entitled to get a funding up to 1 crore for machinery and equipment to develop its incubation labs. Under this scheme 10 innovative proposals from students and entrepreneurs will also be funded every year. Each innovative idea will get a funding of INR 15 lakh to develop the product within one year. There is also a provision of seed capital up to INR 1 crore for commercialization of a product for existing entrepreneurs

### Entrepreneurship Development Program (EDP-2019)

The ED Cell at Silicon conducted Entrepreneurship Development Program (EDP-2019) from 7th December 2019 till 4th January 2020.

Twenty five participants from diverse background attended this training program. The Chief Guest Dr. R.N. Behera, former Director of NIC, Govt. of India, spoke on the importance of skill development. The key objective of the program was to motivate the youth to choose entrepreneurship as a career.

### Certificate of Association with Bhubaneswar Smart City Ltd

Silicon has been associated with the Youth Connect Program of Bhubaneswar Smart City Limited for the past one year. The institute received a certificate at Youth Conclave 2019 organized at KIIT University on 21st December 2019 in recognition of different activities conducted under the Youth Connect Program.

### Field Visits

Student members of the Entrepreneurship Development (ED) Cell visited Mechem Pvt. Limited, Bhubaneswar on 26th October 2019 as part of a field visit arranged by the Silicon Institute Innovation Council.

The Director of the company Mr. J. K. Rath interacted with the students and narrated about his journey as an entrepreneur. The student members also visited some nearby villages and schools to know about the problems faced there so that they can propose appropriate solutions. This would motivate the students to generate new ideas.

### Seminars Conducted

A seminar on *Youth to end violence against women and Promoting healthy living* was conducted on 26th October 2019 by Mr. Lenin Mohanty, Advocate and social worker. It was an awareness program where Mr. Lenin emphasized on being socially smart and focus on safety & security for everyone. He threw light on the laws about crimes against women and also spoke about the IPC354 which helps in stopping all kinds of violence. He discussed about the two major issues in our society viz. gender equality and healthy living. There were 131 participants.

# STUDENT ACHIEVERS

## Internship@STMicron, Amazon, Spikewell

Subhra Sutapa Mahapatra (ECE) got an internship offer of INR 21000 per month from STMicron. Subhashree Praharaj (IT), Himanshu Ranjan (IT) and Krishna Singh (CSE) have been selected for internship at Amazon with a stipend of INR 20000 per month. Eight students viz., Soumya Ranjan Behera (CSE), Akanksha Kumari (CSE), Nirmon Kalia (ECE), Priya Gope (ECE), Jakie

Anwar (ECE), Rucha Patnaik(ECE), Subhankar Nayak (EEE) and Raghav Agarwal (EEE) have been selected for internship at Spikewell with a stipend of INR 20000 per month. All the students are from the 2020 graduating batch.

## TCS CodeVita Season 8 Global Coding Contest

Silicon students participated in the TCS CodeVita Season 8 Global Coding Contest (Round 1 and Round 2) which was conducted during the months of June 2019 and November 2019. Six students from the 2020 graduating batch got global ranks within top 500 qualifiers in CodeVita Season 8 – Kaustav Purakit (ECE) got the global rank of 55 followed by Abu Talib (CSE), Kashif Nehal (CSE),

Rishab Dega (CSE), Amit Mahapatra (CSE) and Ronak Nanda (ECE). CodeVita, besides deciding top three prize winners from top twenty-five global rank holders, gives an opportunity for top coders for an exciting career with TCS.

## @ Hackathon Winners

**Rebuild Odisha Hackathon-** Team Alpha (Saswat Sagar Sahu, Ashutosh Nayak, Amrita Priyadarshini, Prajnashree Pradhan and Neha Biswal) won 3rd prize in Rebuild Odisha Hackathon organized by Startup Odisha at IHM, Bhubaneswar.

**GRIET Hackathon-** Team DASH (Haraprasad Chatterjee, Ashutosh Rath, Dibya Prusti and Swastik Pradhan) got 3rd prize in GRIET Hackathon at GRIET University, Hyderabad.

**Hack-una-matata-** Team Wizards (Nitesh Kumar, Deepak Kumar Sharma, Vikrant Kumar and Sheekha Swaroop Samanataray won the 1st prize in hack-una-matata in Sri Sai Ram Engineering College, Chennai.

**Best IoT Award-** Team Wizards (Nitesh Kumar and Deepak Kumar Sharma) won the best IoT award at Vellore Institute of Technology, Vellore, Chennai in the given problem statement on water management.

**Team Binary Block-** Prashant Ranjan, Adhyayan Pradhan, Akansha Rani, Rahul Kumar and Smruti Pragya Dash won 3rd prize in Innovation challenge (Surveillance Drone) and circuit designing (Water Flow System) in KIIT University.

**Team Binary Block-** Prashant Ranjan and Adhyayan Pradhan won the 2nd prize in PSI-PHI Hackathon in Agriculture domain at NIT Rourkela.



# Vikram Sarabhai Centenary Celebrations (VSCC) by ISRO

Satish Dhawan Space Centre SHAR (SDSC SHAR), Indian Space Research Organization (ISRO), popularly known as Spaceport of India located at Sriharikota, Andhra Pradesh organized the “Vikram Sarabhai Centenary Celebrations (VSCC)” from 12th August 2019. Awareness programs, events and exhibitions in selected places of Andhra Pradesh, Tamil Nadu and Odisha were organized. Various competitions were conducted at SOA University, Bhubaneswar on 18th November 2019. Five students from Silicon won prizes in debate/ elocution competitions.



## NALCO Vigilance Awareness Week

NALCO Bhubaneswar had organized NALCO Vigilance Awareness Week 2019 on 26th October 2019. Four Siliconites won prizes in various categories like inter-college debate and elocution competitions.



## INDUSTRY INTERFACE CELL TEDxSITB

Silicon Institute of Technology, Bhubaneswar conducted TEDxSITB on 15th December, 2019. The theme of this event was *Half Empty Half Filled*. It featured a number of popular faces of the state as well as the country. Mr. Vijay Mahajan (CEO, Rajiv Gandhi Foundation, Founder - PRADAN, BASIX) gave his talk on the effects of changing economy in relation to the TEDxSITB theme viz., Half Empty Half Filled. He also responded to a lot of impactful questions clarifying young minds between the democracy of today versus the democracy of tomorrow. Mr. Arfi Lamba (Actor, Producer, Philosopher) shared his real passion behind movie making. He spoke about his entire journey from being an actor from scratch to becoming a part of Oscar winning movie (Slumdog Millionaire).

The event also featured three popular faces of the state - Mr. Rajesh Patil, IAS, Director Special Projects, Government of Odisha; Mr. Alokesh Sinha, Stand-up Comedian and Founder, Comedy Highway and Ms. Vidisha Kandoi, Founder, WTF (We The Foodies).



Mr. Rajesh Patil shared his personal journey from being a mischievous school kid to getting through Civil Services and spoke about how successfully he implemented different projects in Mayurbhanj district. Mr. Alokesh Sinha focused on the radical change our society is going through. Ms. Vidisha Kandoi spoke about her passion for food and how she managed to switch from MBA to the Food and Beverages Industry.

TEDxSITB was overall a great combination of young and old minds with several interaction sessions with the invited speakers.



## Industry Talk by TCS

Mr. Partha Sarkar, Academic Relationship Manager from TCS, addressed the students during the interactive Industry Talk session on 27th November 2019. Mr. Sarkar, while addressing the students on *Industry Demand in Technology Space*, advised the students to cultivate knowledge on the fast changing technologies demanded by the Indian industries, develop out-of-the-box innovative ideas, entrepreneurial and intrapreneurial skills, and work on real-life collaborative projects under guidance of industry experts.



## FDP on 5G Communication, SDN, Networking & IoT by TCS

Dr. Hemant Rath, a Senior Scientist at TCS Research & Innovation Lab conducted a Faculty Development Program (FDP) on *5G Communication, SDN, Networking & IoT* on 27th November 2019. Dr. Rath talked about

how 5G technology enables communication between and interconnection as well as controlling of machines, objects and devices, how SDN is redefining the network architecture to support the requirements of the 5G ecosystem and how IoT will lead to a revolutionary change in the devices in the near future.

## Placement Highlights

The placement scenario at our campus has always been extremely positive. Silicon Tech has witnessed a very good placement season this year with over 75% of its students already placed by the end of December 2019. More than 37 reputed companies have recruited our students in this placement season till date, a big number of whom were repeat visitors. Over 25% of the placed students have got multiple offers with differential salary packages of 4.5 LPA and above. Akash Das from CSE branch has got the highest pay package of 8 LPA from Infosys. Some of the notable recruiters are Amazon, SAP Labs, Infosys, Wipro, TCS, IBM, ValueLab, ST Micron, Mindfire, Mindtree, AcesoCloud, Spikewell, etc. More than 75 students have joined as paid

interns. Reputed companies like Amazon, Infosys, Deloitte, Ernst & Young, STMicroelectronics, Spikewell selected students from the 2020 graduating batch for internship/internship-cum-placement hiring in their 8th semester with stipend as high as INR 21000 per month. Some of the other companies who also selected the students for internship with full time placement offers are Acesocloud, ValueLabs, Spikewell, Mindfire, Aptus Data Labs Nexright, Centrox, Rewoke, BlackKnight etc.

Some of our students have also been selected by reputed universities in India and abroad to do their higher studies. Astha Gunjan (CSE branch 2015-2019) is pursuing her Masters in University of West Florida. K.V.D. Pallavi (EEE branch 2016-2020) has been selected by SIMON Business School, University of Rochester, USA to do a full time Masters of Science in Finance Program. Ritu Rani Keshri (CSE branch, 2016-2020) has been selected to do M.Tech from BITS Pilani while working at SAP Labs.

# ALUMNI CORNER

## Alumni in Focus

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### Rahul Kumar Dubey

Expert in Robert Bosch Corporate Research, India  
B.Tech.(EEE) 2006-2010

Rahul after completing his Ph.D. degree in Power System Engineering from the Department of Electrical Engineering, IIT Delhi, in 2016, is currently working as an Expert in Robert Bosch Corporate Research, India, where he is mainly involved in the areas of research and innovation in AI/ML. Dr. Rahul has received a number of awards in national and global forums for his outstanding work including the Young Researcher Award in 2018, POSOCO Award (Power Grid India) for Best PhD Thesis in 2017, Prime Minister Fellows Award, 2016 (*First candidate in India in the area of EPS engineering*) and Clayton Griffin Best Paper Award in 2015 at Georgia Tech, USA (*only candidate in ASIA in the area of PSR engineering*). Dr. Rahul is also the Brand Ambassador of CII India for PM Fellow Scheme since 2017 till now. Under this, he will be in special guests' list in any Government of India Tech Summit in future organized by CII and Prime Minister's Office or DST.



### Swarnalata Patra

Research Intern in VITO Research Institute, Belgium  
B.Tech. (ETC) 2008-2012

Swarnalata is working as a research intern in VITO Research Institute in Belgium on *Multi modal Glaucoma disease detection using Deep learning*, after having completed Masters in Artificial Intelligence from KU Leuven University in Belgium(2018-2019). She was among the top 10 students from KU Leuven University in Google Hackathon competition for AI.

### Priyanka Shadangi

Ex- Sr. System Engineer, Indian Air Force  
B.Tech. (EEE) 2001-2005

Priyanka has 10 years of diverse leadership experience in the Indian Air Force as a Senior System Engineer of the OSA-AKM Surface to Air missile system. She was responsible for conducting various air defence deployments and operations of the missile system in the most challenging contours of the country. She has been a part of the elite IAF's 'Women Skydiving Team' as a professional formation skydiver for 8 years.



## Shivangi Ranjan

HR, Exponentia DataLabs, Pune  
B.Tech. (IT) 2010-2014

Shivangi Ranjan, is an HR professional specialized in setting up and building HR practices and policies for companies in their early stages. She is currently working with Exponentia DataLabs, Pune. Prior to that, she worked with PowerSolv Inc., Delhi building their India and US operations. She graduated from Symbiosis International University with a management degree in Human Resources and International Business. She has been recognized and rewarded for rewriting the company policies of Powersolv, Inc; for conducting best campus recruitment process for three consecutive years and also for organizing social events and employee morale boosting events in Powersolv and Exponentia DataLabs.



## Alumni Buzz

*Rajib Mishra (B.Tech. CSE, 2006-2010)* addressed the 6th semester CSE students of 2021 graduating students on *Cloud Computing and Data Analytics* on 7th December 2019. He is currently working with Capgemini in USA as a Senior Consultant in Micro Strategy and Business Intelligence.

## Alumni Meet

The 11th Alumni meet, an initiative by the Silicon Alumni Committee, to stay in touch with our alumni and to ensure that our alumni feel connected irrespective of the physical boundaries, was organized on 27th December 2019 evening at the North Lawn of the institute. A total of 205 alumni attended the event. These yearly meets provide a platform for our alumni to know the progress and major achievements of the institute and students over the years. The event ended with cultural events, entertainment programs, camp fire and formal discussion with the alumni for the betterment and growth of the institute.



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# NEXT QUARTER EVENTS

## CSI Student Workshop

(11th January – 12th January 2020)

THEME

Blockchain Technology



## MLDSP 2020 Workshop

(15th January – 19th January 2020)

THEME

Machine Learning for Data Science using Python



## SIT MUN 2020

(14th February – 16th February 2020)

THEME

Revolution through Resolution



## Electrical & Electronics Devices Workshop

(15th February 2020)

THEME

Electrical & Electronics Devices



## NWET 2020 Workshop

(27th February – 29th February 2020)

THEME

Emerging Technologies with focus on Power with Quality, Reliability, Safety & Security (PQRS)

