EDITORIAL

Greetings from Silicon Institute of Technology, Bhubaneswar!

I welcome you to our quarterly digital newsletter - *SiliconTech*. This edition of the newsletter brings to you the latest happenings at Silicon from July - September 2019.

At Silicon, we are continuing our efforts to make our graduating students more industry - ready. Month-long courses were conducted on Data Science and Python, concentrating on Industry related problems, which were open to all.   A PHP course was offered specifically for the MCA students. Workshops and FDPs were conducted for faculty members by TCS, Syllogistek and Entuple Technologies to apprise and equip them with the latest trends in the corporate world. Significant student achievements over the past three months include several qualifying with enhanced pay packages via HackWithInfy, Infy TQ Certification and TCS CodeVita, all national level competitions.

Prof. (Dr.) Jaideep Talukdar
PRINCIPAL

NEWS & EVENTS
MHRD Recognition

Silicon has received the certificate and trophy for the **"Best Performing Institution Innovation Council"** from the East Zone for the year 2018-19. This recognition was received from the MHRD at a felicitation ceremony held in New Delhi on 11th September 2019. Silicon is among three Institutes from the EAST Zone and the only Institute from Odisha to receive a trophy.

MoU Signed with German Company (NORD Drive Systems)

Silicon Institute of Technology has signed an MOU with the German company NORD at an event organized by the German Federation (VDMA) on 17th July 2019. The purpose of this MoU was to recognize the need for co-operation in information sharing/training opportunities for both Silicon and NORD as well as in some instances, in joint programs for both entities in areas like Gears, Gear Boxes, Mechanical, Electrical & Electronic Industrial Drives, Gear Trains and Transmission.

Induction of 2nd Autonomous Batch

The Orientation-cum-Induction program for the freshmen (Autonomous Batch of 2019-2023) completed its second edition in September 2019. Thirteen guest lectures on various topics like universal human values, career counseling, professional ethics, mental health and hygiene, entrepreneurship were conducted during the induction. Ms. Bobby Patnaik, HR Head, Infosys, Bhubaneswar, Prof. S. K. Sarangi, Ex-Director, NIT Rourkela, Prof. S. Govindrajan, Eminent Prof. XIMB/ IIM/Praxis, Ms. Anuradha Mahapatra, Founder, Manam Foundation, Mr. Abhijit Sen, Ex-AVP, Infosys and Founder, Syllogistek Systems, Prof. P. K. Rath, Ex- Prof Utkal University, Ms. Padmini Rout, International Chess Player were among the eminent speakers. There were sundry interactive sessions and activities such as games and sports, drama, music, elocution, management games, quiz, yoga to give the students a wholesome experience.

Ms. Bobby Patnaik, HR Head, Infosys, Bhubaneswar

Foundation Day Celebration

The Institute celebrated its 18th Foundation Day on 10th September 2019. Two eminent speakers delivered talks on this occasion. Shri Subroto Bagchi, Chairman Odisha Skill Development Authority & Co-Founder of Mindtree, delivered the Foundation Day

Shri Subroto Bagchi
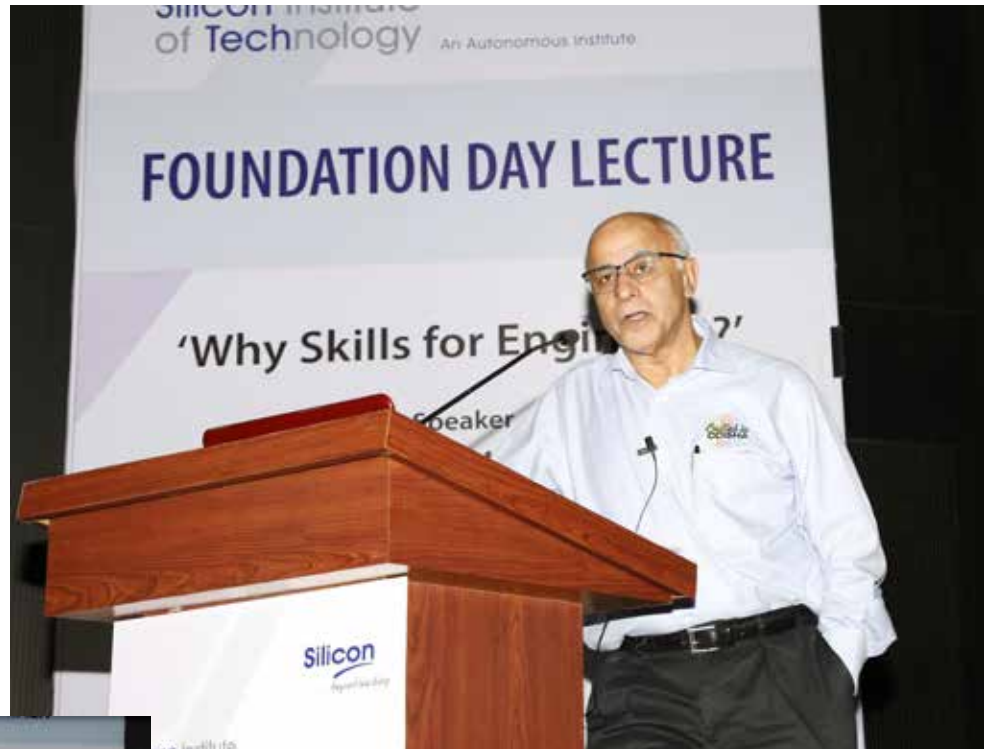
Shri Seshadri Venkatesan

Lecture on *"Why Skills for Engineers?"*
Shri. Seshadri Venkatesan, Lieutenant (Ex Indian Navy), delivered a talk on *"What is the meaning of success and how one should approach career growth?"*

IBM Call for Code Global Challenge 2019

The IBM Call for Code Global Initiative ended on 29th July 2019. This initiative was about building the best technology solution to improve natural disaster preparedness, response and recovery.

The participating team led by **Mr. Umasankar Das, Sr. Asst Prof., Silicon,** Dr. Debi Prasad Das, Scientist, IMMT, Mr. Chinmayananda Padhy, Co-Founder of Udiyate Technology Ltd, Mr. Harish Mohanty, Freelancer, Mr. Maheswar Rao, Freelancer were

among the **top 5 teams** in the National round and the **top team** from the Eastern zone. The team offered Innovative specially designed communication backbone with a service platform where conventional communication backbone was completely damaged. The team is currently targeting for investment and making its *Minimum Viable Product (MVP)* for the client trial.

NWACS 2019

The Department of Electronics and Communication Engineering organized a 3-day National Workshop on Advanced Communication and Signal Processing (NWACS-2019) from 27th to 29th September 2019 at Silicon. This workshop primarily focused on cutting edge technologies in the field of communication, signal and image processing.

The keynote address on "5G Mobile Communication Technology and its Security Issues in IOT Platform" was delivered by Dr. V. M. Rohokale, Associate Professor and Head, Dept. of ECE, SITS, Pune.

Some of the eminent speakers were Dr. Debi Prasad Das, Principal Scientist, CSIR-IMMT, Bhubaneswar, who delivered a talk on *An Introductory Approach to Machine Learning and Deep Learning,* Dr. N. B. Puhan, Assistant Professor, Dept. of EE, IIT, Bhubaneswar who delivered a talk on *Machine Learning and its Application in Biometrics and Medical Image Processing,* Dr. R. P. Panda, Professor, Dept. of ECE, VSSUT, Burla, who spoke on *AI Techniques for Biomedical Engineering Applications* and Er. S. Panigrahi, Circle Integration

Project Management Lead, Vodafone, Bhubaneswar who presented a talk on *IoT 5G, Latest trends in Digital Communication.* In addition, there was a hands-on training session on *"Programming and Application Employing Wavelet based image fusion using MATLAB"* by Dr. S. Kumar, Assistant Professor, Dept. of ECE, KIIT University, Bhubaneswar.

There were 133 registered participants which included students and faculty members from other institutions apart from Silicon.

SILICON ENTREPRENEURSHIP DEVELOPMENT CELL

Start-Up Boot Camp

Silicon Entrepreneurship Development Cell, Start-up Odisha and TiE, Bhubaneswar organized a 1-day Start-up Boot Camp(E-Start) on 20th July 2019. Vishnu Nagaraj, Founder and Start-up evangelist, Carve Start-up Labs, Coimbatore was the chief resource person of the boot-camp. Officials from TiE and Start-up Odisha were present at the boot-camp. A total of 70 students participated in this camp.

Entrepreneurship Awareness Camp (EAC)

The Entrepreneurship Development Cell of Silicon organized an Entrepreneurship Awareness Camp from 14th to 16th September 2019. The Program Coordinator, Dr. M.P. Agasty, Associate Prof. Silicon apprised the audience about the objective of the program. Invited guests who spoke on the occasion were Mr. J. K. Rath, Director Mechem, Mr B.B. Panda, former Director, Institute of Entrepreneurship Development, Bhubaneswar, Mr. B.S. Pani, Industry Consultant and former NALCO Officer, Mr. C.R. Patnaik, Entrepreneurship Development Institute of India (EDII) and Prashant Biswal, Institute Of Entrepreneurship Development, Bhubaneswar.

4-Star Recognition by MHRD to Institute Innovation Council @ Silicon

The council recently has earned *4 Golden Stars* by *MHRD* based on the performance of the council for the year 2018-19.

STUDENT ACHIEVERS

ISTE Odisha Chapter

Mr. Akash Das (CSE-4th year) received the ISTE **'Best Student'** award for the year 2019 and Ms. Souravashree Kanungo (EIE-1st year) received the 2nd prize in the Poster Presentation Competition on the occasion of ISTE (Indian Society for Technical Education) 22nd Student Convention held at GEC, Bhubaneswar on 31st August 2019.

Mr. Akash Das

BPUT Gold Medalists

5 students bagged gold medals in the BPUT *(Biju Patnaik University of Technology – the State Technical University)* convocation held on 8th August 2019.

2016-17: Salauddin Khan (EEE), Anmol Gupta (CSE), Rashmi (ECE)

2017-18: Nikita S Kar (CSE), Nivedita Mahapatra (ECE)

Ms. Nikita S. Kar

InfyTQ Certification

InfyTQ is a free platform open to all engineering students in their third and fourth year across India. The platform encourages holistic development in students by imparting technical as well as professional skills and thus helping to make them become industry-ready. *Mr. Akash Das (CSE-4th year), InfyTQ certified, was offered the highest package of 8 LPA by Infosys.*

#HackWithInfy 2019

#HackWithInfy, Infosys' nationwide Hackathon provides students an enriching experience and inculcates the culture of rapid problem-solving and innovative thinking.The #HackWithInfy program also offers pre-placement for Power Programmer, Systems Engineer Specialist, and Systems Engineer roles at Infosys. *9 best performing students from Silicon were offered a package of 5 LPA each and 1 student was offered 3.6 LPA.*

Internship experience @Deloitte

Mr. Nikhil Sahoo (CSE- 4th year): "My internship experience at Deloitte, Mumbai was probably one of the most rewarding experiences of my life in terms of both gaining knowledge and experience. It's

not only about the level and the quality of work that I was assigned but also the amazing colleagues with whom I worked and the work culture that I loved the most. Now coming to a little background about the company, I'm sure most of the students already would be aware that Deloitte is one of the BIG 4 companies (Deloitte, PWC, EY, KPMG) that provide services dealing with audit, consulting, financial advisory, risk and tax services."

TCS CodeVita 2019

CodeVita, a Global Programming Contest from TCS, is based on the philosophy that programming can be both fun and challenging. The objective of CodeVita 2019 was to infuse the essential traits of a game or sport – to try, to err, to practice, to evolve, to improve, to compete, to win and to rejoice. *3 top performing students from Silicon were offered a pre-placement package of 7 LPA by TCS.*

Code Clash 2019

ISTE Silicon Students' Chapter hosted Code Clash 2019, an absolute coding event, in association with CodeChef on 21st September 2019. This contest was designed to inculcate competitive coding environment in the college. The event successfully completed with participation of 550 students. The winners were *Anubhav Gupta & Prayas Agarwal (CSE-4th year)* and the runners-up were *Ujjual Choudhary & Chinmay Lenka (CSE-3rd year).*

Internship experience @Google

Mr. SoumyaRanjan Behera (CSE – 4th year): "The Google-Udacity scholarship transformed me from a web-development enthusiast to someone with the experience and knowledge to win competitions and

go places around the world. I would urge Siliconites to realize that hard work can make dreams come true. Winning the competition was the result of the incredible support accorded to me by Google, Udacity and my teachers who helped to sharpen my developer skills and achieve excellence."

INDUSTRY INTERFACE CELL
Internship Program

The first batch of B.Tech. autonomous students (2018-2022) went through an internship program at the end of their first year viz., summer of 2019, which ended in the month of July 2019. Internship at the end of each year is a mandatory requirement for autonomous students. The objective is to give structured and supervised learning experiences in the college/industry campus so as to help students to reinforce existing knowledge or learn a new skill, along with hands-on experience by doing projects under guidance.

Industry Interface Cell (II Cell) coordinated month long internship program for these students. Industry professionals and in-house experts conducted these programs. A total of 8 Internship programs were offered in different areas at Silicon. PYTHON, Java, Embedded Systems & IoT were conducted by industry experts. C++, MATLAB & Simulink, Electronic Circuit Design, Basic Simulation techniques, Implementation of Electronics Hobby Kit and Hardware Kit were conducted by in-house experts. Each program was of 100 hour duration which comprised of lectures, hands-on and a mini- project component. A total of 420 students participated in this program.

Also, a 2-week internship program on PHP was conducted for 50 MCA students by industry experts. This program was of 100 hrs duration which included assignments, lab sessions and a mini-project.

TEDxSITB Event (Unbox Your Mind)

A TEDx internal event was organized at Silicon on 15th September 2019. Mr. Siddharth Bhatter, CEO, Karkhana Makerspace and Ms. Snigdha Panigrahi, LL.M, Human Rights, Member of Women Commission for Odisha were the invited guest speakers. Mr. Bhatter spoke mostly about technology at hand and how to grow with it rather than going the conventional way of writing assignments and having a regular life in college. He also spoke about his motivational entrepreneurial career.

Ms. Snigdha Panigrahi

Mr. Siddharth Bhatter

Ms. Panigrahi spoke about the ideals followed by modern day youngsters - how they are beneficial in some way and how they can be harmful in some other way. She also discussed about the women of modern era and their sense of judgement. A total of 120 students from Silicon and other colleges participated in this event and showcased their talent in art, music, oration, photography, coding etc.
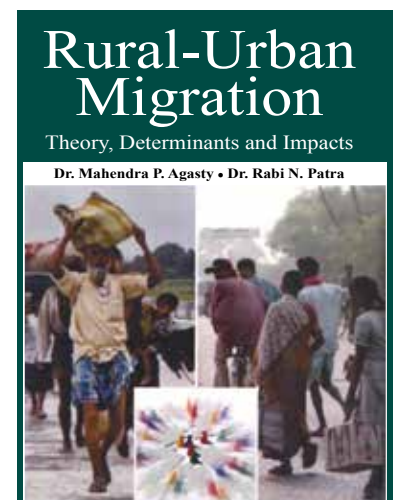
Industry Readiness Program

The objective of this program was to give the students an exposure to the technologies where the demand is high through skilling and mentoring by industry experts. Industry Interface Cell conducted 3 such programs by associating with experts from industry – viz., Data Science, CMOS VLSI Design and Python Expert.The highlight of this program was the industry relevant technical project which the students did/are doing under the guidance of an expert from industry. A select group of 50 B.Tech/MCA students (from the 2020/2021 graduating batch) went through a rigorous training and were immensely benefitted.

RESEARCH & INNOVATION

- # of SCI Indexed Journals published (with high impact factor): 3

- # of Awards received for research work (best engineering oriented paper): 1

- # of Ph. D. Guidance (Awarded/ submitted): 2

- # of Publications (Journals+ Conferences): 17

- # of Scopus Indexed Journals Published: 9

- # of PhD completion:5

- # of Books Published:1 (Dr. Mahendra Agasty, Associate Professor at Silicon)

Rural-Urban Migration
Theory, Determinants and Impacts
Dr. Mahendra P. Agasty • Dr. Rabi N. Patra

Chip Fabrication@Silicon
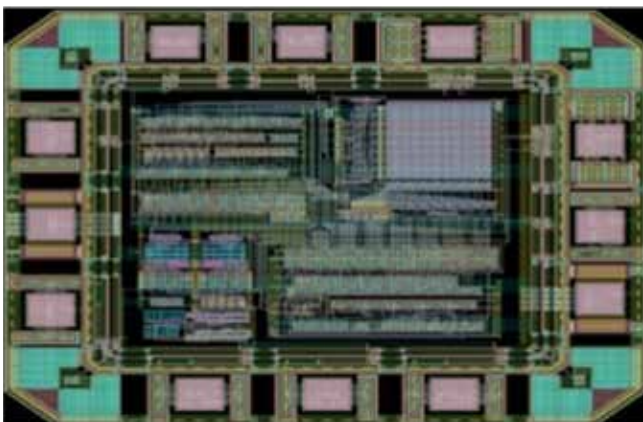
A mentionable accolade was added this quarter in the form of a completely in-house designed mixed-signal microchip, at the Advanced VLSI Lab at Silicon. *The team at Silicon has successfully fabricated 2 microchips around analog and digital VLSI design through IMEC, Belgium and X-Fab, Germany*. Along with faculty members, about a dozen undergraduate students were part of this project. The chip was fabricated using CMOS technology at X-FAB in Germany. Currently, the chip is under testing phase. This chip can be used in any electronic system that requires low power and where speed is not necessarily a big concern, like in IOT-based applications.

ALUMNI IN FOCUS

Biraja Prasad Rout
Founder of BIGGIES BURGER 'n' More
in QSR segment
B.Tech. (EEE) 2005-2009

With 29 stores across 7 states, the chain, headed by Mr. Biraja, is planning to reach its 100th store by 2021. He is currently heading the Growth, Strategy, Expansion & Product R&D divisions. He was nominated as the "Most Aspiring Entrepreneur 2018" by NITTE Institute, Karnataka. He believes - "Growth is the ultimate achievement. Today is hard, Tomorrow is worse, but the Day After will be Sunshine."

Chirasmita Mallick
Senior Data Scientist, G2, Bangalore
B.Tech. (CSE), 2010-2014

G2 is world's leading B2B software and services review platform! Since last 5 years, Chirasmita has been working in various domains building data science expertise across companies, leveraging Data Science for software buyers and sellers to have data-driven decisions, understanding user patterns, building products and working on huge automations in speech recognition, deep learning and NLP. Currently, she mentors aspiring data science learners in association with Springboard, an online platform.

Ritesh Kumar Mohapatra
OPS, Deputy Superintendent of Police,
Home Dept, Govt. of Odisha
B.Tech. (ECE), 2005-2009

Ritesh qualified State Civil Services
examination in his first attempt and
got Odisha Police Service cadre.
Prior to this , he worked in TCS for
seven years. Heworked in almost
all domains of IT industry such as
testing, development and support.
He published 4 white papers,
filed 2 copyrights and has many
internationally accepted certifications.

Anindita Dash
Founder, Owner, Believer at Iktaara
Creations-Hands Entwining Magic
B.Tech. (IT), 2001-2005

Anindita is the Founder, Owner and
Believer at Iktaara Creations, an online
shopping platform. Prior to this, she
worked in Pre-Sales and as a Business
Developer in Accenture Services Pvt
Ltd, for almost 10 years.

Alumni Buzz

Silicon alumni - *Biraja Rout, 2005-2009 (EEE), Anindita Dash, 2001-2005 (IT), Ritesh Mohapatra, 2005-2009 (EC), Sabyasachi Mishra, 2002-2006 (ETC), Ankita Mohapatra, 2004-2008 (ETC) Ranjan Mohapatra, 2003-2007 (CSE) Deepanjan Sarkar (IES), 2010-2014 (EEE), Anubha Sourya, 2010-2014, (CSE), Priyanka Sarangi (Ex-Airforce Squadron leader), 2001-2005 (EEE)* - interacted and shared their experiences with the 2nd Autonomous batch of students (2019-2023) during their Induction Program in September 2019.

UPCOMING EVENTS

VLSI Workshop

(27th December – 30th December 2019)

Theme
**Workshop on Nanotechnology &
Embedded Systems**

TEDxSITB

(15th December 2019)

Theme
HalfEmptyHalfFilled

Alumni Meet

(27th December 2019)