



Annual Report

2020-21

Silicon Institute of Technology
| An Autonomous Institute |
Silicon Hills, Patia, Bhubaneswar
www.silicon.ac.in

Message from the Chairman

It is gratifying to see Silicon outperforming itself each successive year by setting higher standards in the field of engineering education. Since 2001, Silicon has added many commendable achievements to its cap such as UGC autonomy, NBA accreditation of 3 UG programs and NAAC - A grade. Silicon's NIRF ranking too has been 163 this year while it was 179 last year. It is satisfying to see this leap in the teaching-learning standards. I would like to congratulate all the faculties, staff members, students, parents, the management and all other stakeholders for silicon's new achievement this year. It is indeed the result of the hard work of all Siliconites who still aim at setting higher standards in the field of engineering studies.

This time I would like to specifically point out the institute's adaptability to the new normal during the years of Covid pandemic and competently taking up academic activities to the online mode. The institute maintained quality in classes, exams, internships, cultural events, orientations, farewell and recruitment which were conducted brilliantly online. It is good to see how the institute has displayed prudence in getting equipped for conducting classes in the hybrid mode. This will definitely help in the long run. I am also very happy that the recruitment process in this academic session continued as usual despite the pandemic. Major recruiters such as Infosys, WIPRO, TCS, Cognizant, Cozentus, Aptuslab, Hexaware and Spikewell continued to employ our students in good number.

At the same time, I express my heartfelt condolence to those Silicon members, who have lost members of their family to Covid. I pray to God to give them strength and resilience. It is a commendable effort by Silicon who have actively engaged in counselling its students who needed help throughout the pandemic; their effort for raising funds to help the students face the financial challenges is also praiseworthy.

I wish Silicon long years of service, as an Institute of excellence, to the state of Odisha and the public at large.

Joe Madiath

Vision

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

Mission

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

Profile

Silicon Institute of Technology was established in 2001 with the objective of providing value-based quality technical education. The Institute has a fully functional campus located close to Infocity where IT giants like Infosys, TCS, and Wipro have their Development Centres. The Silicon Bhubaneswar Campus has witnessed remarkable growth over the past one decade. The sprawling campus is abuzz with academic and extra-curricular activities of more than 2000 students under the guidance of nearly 157 Teaching staff members and 237 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 nearly 7500 alumni. With over a decade's existence, the Institute has carved a niche for itself on the academic map of India.

Governing Body

The Governing Body consists of eminent educationists, technocrats, representatives of the affiliating University and government institutions who are known for their progressive approach and dedication to the cause of education and social development. The members are:

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|-----|---------------------------|-----------------|
| 1. | Mr. Joe Madiath | (Chairman) |
| 2. | Mr. Nitai Gaur Dhall | (Trustee) |
| 3. | Mr. Sanjeev Nayak | (Trustee) |
| 4. | Mr. Jitendra Prasad Singh | (Trustee) |
| 5. | Mr. Ramananda Mishra | (Trustee) |
| 6. | Prof. B. K. Das | (Educationist) |
| 7. | Mr. Ashok Basa | (Industrialist) |
| 8. | Prof. Srikanth Sundarajan | (Industrialist) |
| 9. | Mr. Manoj Fogla | (Trust Nominee) |
| 10. | Prof. Jaideep Talukdar | (Principal) |
| 11. | Prof. Sanjib Tokekar | (UGC Nominee) |
| 12. | Mr. S. K. Raysardar | (Govt. Nominee) |
| 13. | Dr. S. Mohanta | (BPUT Nominee) |
| 14. | Mr. Devesh Sinha | (Trust Nominee) |
| 15. | Prof Sunil Sarangi | (Educationist) |
| 16. | Prof. Saroj Kanta Misra | (Secretary GB) |

Our 5L 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.

Silicon Best Practices

Over a period of 19 years, Silicon has evolved its set of best practices that has contributed to its emergence as a centre of excellence. Some of these practices include:

- Democratic and decentralized governance
- Secular campus with no religious bias
- Orientation program for newly appointed faculty members
- Online feedback from students on the performance of faculty members
- Dedicated Examination Halls with closed circuit cameras
- Quality Circle meetings for improvement of academic, social and environmental issues
- Orientation program for new entrants and parents meet every year
- Seminars by senior faculty members and industry experts
- Training of students for placement examination and interview
- Yoga as a compulsory subject for all students
- Institution e-mail ID for all staff members
- Special classes for academically weak students
- Peer teaching in different subjects by final year students
- Chamber consultancy/assistance available to students
- Standard guidelines for faculty members to prepare lesson plans and course handouts
- Data Management System on ERP to send lecture notes and study material to students
- In-house projects under the guidance of faculty members
- Annual Function and Tech Fest for all round development of the students
- Students' Council to manage students' affairs, their betterment, and also social causes
- Institution of the Best Student of the Year Award
- Art of Living Happiness Program for faculty members at regular intervals
- Swachh Bharat Abhiyaan by students and faculty members across the city
- Dedicated in-house counseling cell for mental health wellness

Highlights

- The institution has a campus area of 18.113 acres and a built-up area of around 356059 sq. ft., which is well maintained and provides an overall conducive academic environment. The Institute has come up with an additional built-up area of 1,15,500 sq. ft. which would augment the existing facilities at the Institute such as library, examination halls, computer laboratories, classrooms and administrative offices.
- The Institute has an Auditorium with a capacity of 350 seats and features a state-of-the-art audio visual system for conferences, lectures, movie shows and theater performances.

- The Institute has a library housed in a large hall of 17000 sq.ft. and is the centre of intellectual activities. It has well over 60,800+ books and subscribes to many international journals. It comprises with a reading room which can accommodate 450 users at a time, special cubicles for focused study, and discussion rooms for collaborative study.
- All the buildings in the campus have Wifi connectivity providing 100 Mbps with Sify Technologies Ltd as the service partner for carrying out academic and administrative processes.
- The Institute has a Skylab, an outdoor Wifi Zone for students with seating arrangements around a picturesque fountain.
- The Institute makes use of an 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 Campus has its own sports ground for different outdoor games like football, cricket and volley ball, along with dedicated basketball and badminton courts.
- There is separate facility for indoor games like Table Tennis, Carom and Chess.
- The Campus has Yoga Centre and Multi-Gym facility for students and staff members.
- The Campus has separate hostels for boys and girls which can accommodate 1423 residents in the campus. The girls' hostel can accommodate 550 residents and the boys' hostel can accommodate 873 residents. All the three hostels are fitted with modern amenities.
- 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.

Affiliation & Approval

The Institute is affiliated to the Biju Patnaik University of Technology, Odisha and offers 11 different programs of study in the fields of Engineering & Technology. All the programs are approved by the All India Council for Technical Education (AICTE) MHRD, Government of India, and also recognized by the Directorate of Technical Education & Training (DTET), Government of Odisha. The Institute is recognized by the University Grants Commission under section 2(f) of UGC Act. The institute is running as an Autonomous Institute since 2018-19 AY and three of the UG programs: CSE, ECE and EEE are accredited by NBA.

UG Programs

Sl. No.	Program Name	Intake
1	B. Tech. in Computer Science & Engineering	180
2	B. Tech. in Computer Engineering	60
3	B. Tech. in Computer Science & Technology	60
4	B. Tech. in Electrical & Electronics Engineering	150*
5	B. Tech. in Electronics & Communication Engineering	180
6	B. Tech. in Electronics & Instrumentation Engineering	60

PG Programs

Sl. No.	Program Name	Intake
1	Master in Computer Applications	60
2	M. Sc. (Data Science)	30
3	M.Tech. in Electronics & Communication Engineering	9
4	M.Tech. in Computer Science & Engineering	9
5	M.Tech. in Electrical & Electronics Engineering	9

Admissions Process

The admissions process is done through the centralized counseling of Odisha Joint Entrance Examination (OJEE) in accordance with the norms/guidelines prescribed by the state government for this purpose. The Institute provides detailed information about the admission process through its prospectus and also through its website. The Institute also adheres to the reservation policies of the state government and the regulations in this regard to ensure equity and access to different sections of the society. As the Institute attracts a large number of students from other states, the reservation policies as applicable in this case are also adhered to.

- The Institute conducts counseling for aspiring students in all important town and cities of the state and at major urban cities in the nearby states for pursuing professional courses in Engineering and MCA.
- The students seeking admission in the Institute usually include the top 25% students appearing for the JEE Main Exams. At the same time, the Institute also has the distinction of being the preferred choice of students during the central counseling, making an early exit from the process as the seats get filled.
- The Institute enjoys the unique distinction of having the highest percentage of admission for UG programs among the private affiliated colleges of the state.
- The Institute also admits 20% seats to Diploma holders who join the B. Tech. program through Lateral Entry.

Admission Statistics: 2020-21

Program	Branch	Sanctioned Intake	Admitted student		Total	Regular		Lateral	
			Regular	Lateral		Male	Female	Male	Female
B.Tech.	CSE	180	184	20	204	140	44	13	7
	CEN	60	52	0	52	35	17	0	0
	CST	60	62	0	62	45	17	0	0
	ECE	180	125	8	133	80	45	4	4
	EEE	150	66	13	79	54	12	11	2
	EIE	60	12	0	12	10	2	0	0
M.Tech.	CSE	9	1	0	1	1	0	0	0
	ECE	9	0	0	0	0	0	0	0
	EEE	9	0	0	0	0	0	0	0
MCA	MCA	60	60	0	60	28	32	0	0
M.Sc.	DS	30	16	0	16	5	11	0	0
Total		807	578	41	619	398	180	28	13

Catering to Diverse Needs

- The Institute offers Remedial Courses to the students upon joining so that they can adjust to the academic environment of Silicon with ease. This offering is unique to Silicon being a front-ranking Institute with novel academic practices. The senior residents in the hostels also provide the necessary support by conducting peer teaching sessions during the initial semesters. The Institute also plays the role of a facilitator here by providing the necessary infrastructural support for peer learning.
- The Institute conducts a comprehensive Orientation Program for newly admitted students in order to help them prepare for the course of study in different branches.
- Based on the data provided by students regarding their academic performance at the school and college levels, and also the assessment carried out by our team of teachers and mentors, an identification of the slow and weak learners is done, identifying in the process the advanced learners too. Accordingly, the slow and weak learners are given learning support in terms of extra classes, remedial classes etc. by the teachers and the mentors as required so that they can improve and learn in a better way. Faculty members also give more attention to such students as and when required.
- Tutorials are also a part of the set of academic instruments used at the Institute in order to ensure effective learning on part of the student.
- The Institute also follows a system for mentoring students with the help of a Faculty Advisor. A group of 30 students are assigned to a faculty member who interacts with them on a regular basis and helps them solve their academic as well as personal problems. The Faculty Advisor also advises them with regard to co-curricular and extra-curricular activities, thus becoming a friend, philosopher and guide to the students, helping them in shaping their future in a responsible manner.

Scholarships at Silicon

The Institute received a large number of applications for scholarship during the academic year 2020-21 and awards were made under the categories:

Sl.No	Name of Scholarship	Total Students
1	E-Medhabruti Scholarship-Fresh	65
2	Post Matric Scholarship-Fresh & regular	39
3	E-Kalyan Jharkhand-Fresh & Regular	32
4	Credit Card Loan-Bihar	02

Student Support & Progression

- The Institute provides a ragging free atmosphere to the students.
- The Institute has provision for lateral entry admission in the 3rd semester. The students admitted through the lateral entry scheme are provided proper academic support and guidance so that they can quickly adapt to Silicon's qualitative academic culture.
- The performance of students in exams is generally good which gets demonstrated by the high marks they secure, resulting in good CGPAs. On an average, a vast majority of them are selected by reputed companies during the campus placement. The dropout rate at the Institute is negligible.
- The Institute has ample provision for scholarship and other forms of financial assistance which is given to meritorious and deserving students.
- The Institute encourages students to participate in a large number of inter-collegiate competitions in curricular as well as extra-curricular fields. Students have represented the Institute in many such events and won a large number of prizes in recognition of their talent.
- The Institute also encourages students to appear for exams such as GATE, IES, CAT, XAT, GRE, GMAT and TOEFL. Nearly 50-60% students in the Institute go in for these exams and the Institute supports them through coaching/testing facilities for such exams by arranging suitable resource persons. Such efforts have been widely appreciated by students and the impact is seen in terms of the high grades scored by students and also their qualifying these exams.

Library Resources

The teaching learning processes and research activities are supported by the different facilities and services offered by the library at the Institute. In addition to borrowing, reprographic and printing facilities are also available to all the users. During AY 2020-21, the library resources were augmented by acquiring 83 new titles and 226 volumes making a total resource repository of 9499 titles and 38471 volumes. There are 40613 titles of E-books under ProQuest e-book central subscription. The library also subscribes to E-Resources: 223 journals and 1314 Conference proceedings from IEEE (ASPP + POP), 275 journals (Engineering & Computer Science) from Science Direct and 166 Journals (Engineering), 103 Journals (Computer science), 170 Journals (Chemistry & Material Science) from Springer Nature Collections.

Academic Cycle

There are a number of programs which run concurrently at the Institute, to 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 2020-21 are as follows:

Odd Semester

1st Semester - 69 Days

3rd Semester - 76 Days

5th Semester - 76 Days

7th Semester - 75 Days

Even Semester

2nd Semester - 72 Days

4th Semester - 72 Days

6th Semester - 76 Days

8th Semester - 63 Days

Academic Performance

Program	Year	Branch	Appeared	Passed	Failed	%Success
B. Tech.	2017-2021	AEI	37	33	4	89.19
		CSE	192	176	16	91.67
		EEE	125	114	11	91.20
		ECE	166	150	16	90.36
	2016-2020	AEI	56	51	5	91.07
		CSE	120	105	15	87.50
		EEE	113	88	25	77.88
		ETC	183	163	20	89.07
		IT	54	49	5	90.74
	2015-2019	AEI	47	33	14	70.21
		CSE	116	95	21	81.90
		EEE	121	81	40	66.94
		ETC	169	127	42	75.15
		IT	53	42	11	79.25
	2014-2018	AEI	35	26	9	74.29
		CSE	97	79	18	81.44
		EEE	112	78	34	69.64
		ETC	150	115	35	76.67
		IT	47	24	23	51.06
	2012-2016	AEI	55	43	12	78.18
		CSE	113	86	27	76.11
		EEE	141	88	53	62.41
		ETC	168	134	35	79.76
		IT	45	35	10	77.78

Program	Year	Branch	Appeared	Passed	Failed	%Success
MCA	2018-2021	MCA	53	51	2	96.23
	2017-2020	MCA	50	42	8	84.00
	2016-2019	MCA	51	41	10	80.39
	2015-2018	MCA	32	26	6	81.25
	2014-2017	MCA	26	16	10	61.53

Teaching - Learning - Evaluation Process

- The Institute follows a non-negotiable Academic Calendar for all its academic processes. The Institute has the distinction of having one of the best Teaching, Learning and Evaluation processes among the engineering institutes in the state.
- 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 processes at the Institute are student-centered. The methodologies used include integrated learning, self-learning and ICT based learning.
- The detailed progress records of students with regard to attendance, learning and evaluation are maintained by their respective faculty advisors who regularly monitor the students' performance and advise them on how they can improve in different areas.
- The Institute has a dedicated air-conditioned e-evaluation centre to facilitate e-evaluation of answer scripts of semester-end BPUT examinations.

Research, Consultancy & Extension

- Faculty members are provided academic and financial support to take up research projects independently as well as in collaboration with industry.
- Adequate budgetary provisions are made to strengthen research facilities and infrastructures upon the recommendations of the Research Advisory Committee.
- Students of the UG/ PG programs are assigned with research based project works.
- Consultancy for government bodies, public and private sector enterprises is taken up from time to time.
- The Institute organizes a number of seminars on technical and specialized themes which are based on the research undertaken by faculty members and students.
- The Student Subject Committees also organize seminars and talks in different areas to promote a culture of research and extension services.
- The Institute has collaborated a number of leading organizations both in academia and industry to enhance its research and consultancy output.

Teacher Quality

- Faculty members are selected as per the guidelines of AICTE and UGC, through open advertisement on an all India basis. The Selection Committee for such appointments is constituted in accordance with AICTE/UGC norms.
- Out of 157 faculty members of the Institute, 59 hold Ph. D. Degrees. Furthermore, 07 have submitted their thesis and others are continuing with their Ph.D. research or are in the process of registration under various universities.

Professors	11
Associate Professors	28
Assistant Professors	118
Total	157

- The faculty student ratio at the Institute is maintained at 1:16, as per the students' strength.
- All faculty members are regular and permanent employees. AICTE guidelines are strictly adhered to while assigning faculty workload.
- The Institute is committed to excellence in teaching, research and scholarship and actively facilitates professional development of faculty by following a transparent policy mentioned in its Service Condition Manual. These policy guidelines are upgraded regularly, depending on requirement.
- The Institute not only facilitates professional development of its faculty members through the liberal policy of study leave, but also through financial assistance and rewards.
- The Institute provides financial support to faculty members for making presentations in national and international conferences, seminars, workshops and to participate in FDPs, QIPs etc. In-house FDPs are also regularly held.
- The Institute provides financial support to faculty members for membership in professional bodies/organizations and learning societies of repute.

Faculty Excellence

To offer quality technical education to students, the Institute emphasizes a great deal on the continuous update and enhancement of knowledge and skills of the faculty and staff members. This is best reflected in the Institute's policy to encourage 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 2020-21, 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 Kumar Das	PhD	IIT, Kharagpur
Sangeeta Bagha	PhD	CSIR-IMMT, Bhubaneswar
T. Dinesh Varma	PhD	IIT, Kharagpur
Debasis Nayak	Post-Doctoral Research	University of Texas, USA
Jagadish Patra	PhD	SOA University, Bhubaneswar

Faculty Members Awarded with Ph. D. Degree

Sl. No.	Name/Designation /Dept.	Thesis Title	Month/ Year of Award	Awarding University/Institution
1	Sudhansu Mohan Biswal (Associate Professor, EIE)	A Study on Linearity and Radio Frequency Performance Analysis of Nanoscale Devices	July, 2020	MAKAUT, West Bengal
2	Kasturi Dhal (Sr. Asst. Professor, CSE)	Some Access Control Mechanism for Data Sharing in Cloud Computing Environment	Aug, 2020	KIIT University, Odisha
3	Judhisthir Dash (Associate Professor, ECE)	Some studies on optimal filter design using swarm intelligence techniques	Aug, 2020	Jadavpur University, West Bengal
4	Samaleswari Prasad Nayak (Sr. Asst. Professor, CSE)	Real-time Healthcare with Cloud-Based Wireless Sensor Network	Nov, 2020	Utkal University, Odisha

Faculty Members Submitted Ph.D. Thesis

Sl. No.	Name of the Faculty	Thesis Title	Month/Year of Submission	University/Institution
1	Annapurna Mishra (Sr. Asst. Professor, ECE)	Machine Learning Approaches for Biometric Applications	July, 2020	F.M.University, Balasore
2	Nalini Singh (Sr. Asst. Professor, EIE)	Electroencephalography Signal Analysis Using Soft Data Mining Approaches	July, 2020	F.M. University, Balasore
3	Amiya Bhusana Sahoo (Assistant Professor, ECE)	Design of Patch Antennas Using Different Optimization Techniques for Microwave Applications	Sept, 2020	VSSUT, Burla
4	Anita Mohanty (Sr. Asst. Professor, EIE)	Minimization of Traffic Congestion in Vehicular Adhoc Network	Sept, 2020	Utkal University, Bhubaneswar
5	Debasmita Pradhan (Sr. Asst. Professor, CSE)	Machine Learning for Functional Characterization of proteins	March, 2021	KIIT University, Bhubaneswar
6	Dayal Kumar Behera (Assistant Professor, CSE)	Designing Personalized Recommendation System using Hybrid Features and Machine Learning Models	June, 2021	KIIT University, Bhubaneswar

Publications:

Journal Publications: Scopus Indexed

1. **Samaleswari Prasad Nayak, Satyananda Champati Rai**, Sipali Pradhan, and J. K. Mantri, "RELAS: A reliable authentication system for patient monitoring using IoT", International Journal of Knowledge-based and Intelligent Engineering Systems, Vol. 24, No. 2, pp. 83-93, July, 2020
2. Sabyasachi Mohanty, **Sudarsan Padhy**, M. Vamsi Krishna, "A novel EN-TLBO-SVR model for analysing achievements of government schemes", Electronic Government, Vol. 16, No. 3, pp. 281-303, July, 2020
3. Santos Kumar Baliarsingh, Swati Vipsita, and **Bodhisattva Dash**, "A new optimal gene selection approach for cancer classification using enhanced Jaya-based forest optimization algorithm", Neural Computing Applications, Springer, Vol. 32, No. 12, pp. 8599-8616, July, 2020
4. K. P. Swain, **Soumya Ranjan Samal**, I S Amiri, and M.N. Mohanty, G. Palai, "Digital Advertisement: A BLE Beacon Based Application", International Journal of Advanced Science and Technology, SERSC Publication, Vol. 29, No. 8, pp. 2725-2729, July, 2020
5. U. Nanda, D.P. Acharya, and **Debasish Nayak**, "Process Variation Tolerant Wide-band Fast PLL with Reduced Phase Noise using Adaptive Duty Cycle Control Strategy", International Journal of Electronics, DOI: 10.1080/00207217.2020.1793414 July, 2020
6. **Nalini Singh** and Satchidananda Dehuri, "Multiclass classification of EEG signal for epilepsy detection using DWT based SVD and fuzzy kNN classifier", Intelligent Decision Technologies, Vol. 14, No. 2, pp. 239-252, July, 2020
7. Susanta Kumar Biswal , **Manoranjan Behera**, Ardhendu Sekhar Rout, and Arpita Tripathy, "Green Synthesis of Silver Nanoparticles Using Raw Fruit Extract of Mimosa pudica and their Antimicrobial Study", Biointerface Research In Applied Chemistry, Vol. 11, No. 3, pp. 10040-10051, September, 2020
8. Figlu Mohanty, Suvendu Rup, and **Bodhisattva Dash**, "Automated diagnosis of breast cancer using parameter optimized kernel extreme learning machine", Biomedical Signal Processing and Control, Elsevier, Vol. 62, September, 2020
9. **Amiya Bhusana Sahoo** and B. B. Mangaraj, "A Miniaturized Electromagnetically Coupled Patch Antenna Design using Eroded Ground Plane", Microwave and Optical Technology Letters, Wiley, Vol. 62, No. 11, pp. 3589-3600, September, 2020
10. Sarita Misra, **Sudhansu Mohan Biswal, Biswajit Baral, Sanjit kumar Swain**, Ansuman Sarkar, and **Sudhansu kumar Pati**, "Analytical modelling of a Cyl-JLAM MOSFET in the subthreshold region using distinct device geometry", Journal of Computational Electronics, Springer, DOI: 10.1007/s10825-020-01560-z, September, 2020
11. Debashreet Das, Chitta Ranjan Tripathy, and **Pradyumna Kumar Tripathy**, "An insect inspired approach for optimization of tasks scheduling in computational grids", Evolutionary Intelligence, Springer, DOI: 10.1007/s12065-020-00508-3, October, 2020

12. **Aditya Acharya** and Sukadev Meher, "Iterative spatial domain 2-D signal decomposition for effectual image up-scaling", *Multimedia Tools and Applications*, Springer, DOI: 10.1007/s11042-020-09947-7, October, 2020
13. **Ambarish G. Mohapatra**, Ashish Khanna, Deepak Gupta, Maitri Mohanty, and Victor Hugo C. de Albuquerque, "An Experimental Approach to Evaluate Machine Learning Models for the Estimation of Load Distribution on Suspension Bridge using FBG Sensors and IoT", *Computational Intelligence*, Vol. 36, Vol. 4, pp. 1-23, October, 2020
14. **Debasmita Pradhan**, Biswajit Sahoo, **Bijan Bihari Misra**, and **Sudarsan Padhy**, "A multiclass SVM classifier with teaching learning based feature subset selection for enzyme subclass classification", *Applied Soft Computing*, Elsevier, Vol. 96, Article No. 106664, November, 2020
15. Namita Das and **Swarupa Roy**, "Toeplitz and Hankel Operators On Weighted Bergman Spaces", *Annals of the Academy of Romanian Scientists: Series on Mathematics and its Applications*, Vol. 12, No. 1-2, pp. 99-116, December, 2020
16. **Annapurna Mishra**, Satchidananda Dehuri, and **Biranchi Narayan Rath**, "4-class classification of fingerprint images using biogeography based optimization techniques", *International Journal of Advanced Research in Engineering and Technology*, Vol. 11, No. 12, pp. 916-929, December, 2020
17. **Manoranjan Behera**, Susanta Kumar Biswal, Mohammed A Ahemad, and Bhabani Shanker Panda, "Demonstration of Enhanced Thermal Stability, Dielectric Constant and Low Tangent Loss by Particle-Reinforced Silver/poly (Vinylidene Difluoride) Polymer Nanocomposites", *Biointerface Research In Applied Chemistry*, Vol. 11, No. 5, pp. 12584-12595, January, 2021
18. Sreedevi Vallabhapurapu, L. D. Varma Sangani, M. Ghanashyam Krishna, **Jayashree Das**, A. Srinivasan, and V. V. Srinivasu, "Optical and resistive switching properties of Chitosan-aluminum-doped zinc oxide composite thin films for transparent resistive random access memory application", *Journal of Materials Science: Materials in Electronics*, Springer, Vol. 32, pp. 3556-3565, January, 2021
19. Chapala Maharana, **Bijan Bihari Mishra**, and **Ch. Sanjeev Kumar Dash**, "A Topical Survey: Applications of Machine Learning in Medical Issues", *Journal of Computational and Theoretical Nanoscience*, Vol. 17, No. 11, pp. 5010-5019, January, 2021
20. Sasmita Mishra, **Sudarsan Padhy**, Satya Narayan Mishra, and Satya Narayan Misra, "A novel LASSO-TLBO-SVR hybrid model for an efficient portfolio construction", *The North American Journal of Economics and Finance*, Elsevier, Vol. 55, Article No. 101350, January, 2021
21. **Mukti Routray** and Niranjana Kumar Ray, "Remote homology detection using GA and NSGA-II on physicochemical properties", *International Journal of Computer Applications in Technology*, Vol. 64, No. 4, pp. 393-402, January, 2021
22. S. Bandopadhyaya, **Soumya Ranjan Samal**, and V. Poulkov, "Machine Learning Enabled Performance Prediction Model for Massive-MIMO HetNet System", *Sensors*, Vol. 21, No. 3, pp.800, January,2021

23. Umakanta Nanda, Debiprasad Priyabrata Acharya, **Debasish Nayak**, and **Prakash Kumar Rout**, "Modelling and Optimization of Phase Locked Loop under Constrained Channel Length and Width of MOSFETs", *Silicon*, Springer, DOI: 10.1007/s12633-021-00967-y, January, 2021
24. **Chittaranjan Behera**, Radhanath Rath, and **Prayag Prasad Mishra**, "Oscillation and asymptotic behavior of a higher-order neutral delay difference equations with variable delays under δn ", *Mathematica slovacica*, Vol. 71, pp. 129-146, February, 2021
25. **Saswati Jena**, "Understanding the panorama of sexuality and gender identity with an emphasis on transgender persons and the impact of intervention through The Rights-Based Counselling Approach: A case study", *Journal of Public Affairs*, Wiley, pp. 1-8, February, 2021
26. **Soumya Ranjan Samal**, Shuvabrata Bandopadhyaya, Kaliprasanna Swain, and Vladimir Poulkov, "Mobility Management in Heterogeneous Cellular Networks: An Analysis of Power Consumption and Network Selection Delay in a K-tier Architecture", *Journal of Mobile Multimedia*, Vol. 17, No. 1-3, pp. 407-425, February, 2021
27. **Bhagwat Prasad Chaudhury**, **Rabindra Kumar Dalei**, and Ajit Kumar Nayak, "HEERAC-A Hybrid Energy Efficient Routing Algorithm based on K-means clustering for Wireless Sensor Networks", *Journal of Huazhong University of Science & Technology*, Vol. 50, No. 4, April, 2021
28. **Dayal Kumar Behera**, Madhabananda Das, Subhra Swetanisha, Janmenjoy Nayak, S. Vimal, and Bighnaraj Naik, "Follower Link Prediction Using the XGBoost Classification Model with Multiple Graph Features", *Wireless Personal Communications*, DOI: 10.1007/s11277-021-08399-y, April, 2021
29. **Nivedita Pati** and Babita Panda, "Control and Regulation of the Conversion Phase of a Double-Stage Grid Connected PV System: H_∞ and Voltage Sliding Mode Control", *Journal of Electrical Engineering and Technology*, Springer, DOI: 10.1007/s42835-021-00761-1, April, 2021
30. Abhimanyu Sahu, Kanungo Barada Mohanty, and **Rabi Narayan Mishra**, "Development and experimental realization of an adaptive neural-based discrete model predictive direct torque and flux controller for induction motor drive", *Applied Soft Computing*, Elsevier, Vol. 108, DOI: 10.1016/j.asoc.2021.107418, April, 2021
31. **Satish K. Das**, Umakanta Nanda, **Sudhansu M. Biswal**, Chandan Kumar Pandey, Lalat Indu Giri, "Performance Analysis of Gate-Stack Dual-Material DG MOSFET Using Work-Function Modulation Technique for Lower Technology Nodes", *Silicon*, Springer, DOI: 10.1007/s12633-021-01095-3, April, 2021
32. Eleena Mohapatra, Tara Prasanna Dash, Jhansirani Jena, **Sanghamitra Das**, and Chinmaya kumar Maiti, "Design study of gate-all-around vertically stacked nanosheet FETs for sub-7nm nodes", *SN Applied Sciences*, Springer, Vol. 3, Article ID: 540, April, 2021
33. Saradiya Kishor Parija, **Sanjit Kumar Swain**, Sarosij Adak, **Sudhansu Mohan Biswal**, and Pradipta Dutta, "Comparison Study of DG-MOSFET with and without Gate Stack Configuration for Biosensor Applications", *Silicon*, Springer, DOI: 10.1007/s12633-021-01118-z, May, 2021

34. **Kasturi Dhal, Satyananda C. Rai**, P. K. Pattnaik, and S. Tripathy, "CEMAR: a fine grained access control with revocation mechanism for centralized multi-authority cloud storage", *The Journal of Supercomputing*, Springer, DOI: 10.1007/s11227-021-03908-z, June, 2021
35. **Suchismita Rout, Samaleswari P. Nayak**, and **Partha Sarathi Behera**, "AQM: Indoor and Outdoor Air Quality Monitoring using SDN Based IoT Framework supporting Cloud Platform", *Journal of Huazhong University of Science and Technology*, Vol. 50, No. 5, June, 2021
36. Shreela Dash, Madhabananda Das, and **Dayal Kumar Behera**, "An Improved Dual Steganography Hybrid Model Using Modified QVD and Difference Expansion Technique ", *International journal of Intelligent Engineering and Systems*, Vol. 14, No. 2, June, 2021
37. **Pradyumna Kumar Tripathy**, Ajaya K. Tripathy, A. Agarwal, and S. P. Mohanty, "My Green: An IoT-Enabled Smart Greenhouse for Sustainable Agriculture", *IEEE Consumer Electronics Magazine*, Vol. 10, No. 4, pp. 57-62, June, 2021
38. S. Dash., M. N. Das, and **Dayal Kumar Behera**, "Adaptive difference expansion image steganography for increasing capacity", *ICIC Express Letter*, Vol. 15, No. 8, pp. 819–827, June, 2021
39. **Bhagwat Prasad Chaudhury, Samaleswari P. Nayak**, and Ajit Kumar Nayak, "CIF: An IoT - based Pollution Awareness Model through Carbon level Monitoring in Urban Areas", *Turkish Online Journal of Qualitative Inquiry*, Vol. 12, No. 6, pp.1207-1223, June, 2021
40. **Amiya Bhusana Sahoo**, G. P. Mishra, and B. B. Mangaraj, "Design and Performance Study of Single and Multi-Layered Fractal Based Miniaturized Patch Antennas for 2.4 GHz Applications", *Journal of Microwaves, Optoelectronics and Electromagnetic Applications*, Vol. 20, No. 2, pp. 274-296, June, 2021

Others Journal Publications

1. **Manoranjan Behera** and Shanker Ram, "Synthesis and characterization of gold (Au): Fullerene (C60)-Poly (vinyl pyrrolidone) nano fluids in an alcoholic medium", *Indian Journal of Science and Technology*, Vol. 13, No. 30, pp. 2188-2192, August, 2020
2. Ansuman Jena, **Manoranjan Behera**, Chittaranjan Routray, and Susanta Kumar Biswal, "Fabrication, Characterization and Antibacterial Study of Polyvinyl alcohol/Cuprous Oxide Nano fluids and Polymer Nanocomposite Films", *Oriental Journal of Chemistry*, Vol. 36, No. 4, pp. 713-719, August, 2020
3. **Priyambada Pal** and Sanjeeb Kumar Mohanty, "A Comparison between "The Fire Sermon" of T.S. Eliot and the Dhammapada of the Buddha to Establish Ethical Values for B.Tech Students in ELE Classes", *International Journal of English: Literature, Language & Skills*, Vol. 9, No. 3, pp. 115-121, October, 2020
4. **Nibedita Swain**, "A Comparative Study of Adaptive Feedback and Feedforward Controller Scheme to Boost Converter", *Journal of Information and Computational Science*, Vol. 10, No. 11, pp. 70-81, November, 2020

5. **Suchismita Rout**, Kshira Sagar Sahoo, Sudhansu Sekhar Patra, Bibhudatta Sahoo, and Deepak Puthal, “Energy Efficiency in Software Defined Networking: A Survey”, SN Computer Science, Springer, Vol. 2, Article ID: 308, May, 2021

Conference Proceedings Published

1. Abhimanyu Sahu, Kanungo Barada Mohanty, **Rabi Narayan Mishra**, and Dipak Ranjan Nayak, “Adaptive Fuzzy Sliding Mode based Torque and Speed Compensator for DTC IM Drive”, In proc: IEEE 29th International Symposium on Industrial Electronics (ISIE), IEEE, pp. 245-250, July, 2020
2. **Gyana Ranjan Biswal** and Banaja Mohanty, “Voltage Control Method of Isolated Wind Power System”, In proc: Advances in Electrical Control and Signal System (AECSS 2019), Springer, pp. 361 – 371, July, 2020
3. **Nibedita Swain**, **Sadhana Mallik**, and **Gyana Ranjan Biswal**, “Robust Controller Application to PV Fed CUK Converter for Constant Voltage Regulation: A Review”, In proc: Advances in Electrical Control and Signal System (AECSS 2019), Springer, pp. 167 – 181, July, 2020
4. **Jagadish Kumar Patra** and **Ramprasad Panda**, “A Stand-Alone Sine-Wave Inverter with Reduced Switching Loss”, In proc: Advances in Electrical Control and Signal System (AECSS 2019), Springer, pp. 681-689, July, 2020
5. **Jagadish Kumar Patra** and **Ramprasad Panda**, “A Review of Advancements in DC Grid Technology”, In proc: Advances in Electrical Control and Signal System (AECSS 2019), Springer, pp. 645-660, July, 2020
6. **Nivedita Pati**, Babita Panda, and Bhagabat Panda, “Sensitivity Analysis of PI and Youla Controllers for a PV-Fed Boost Converter”, In proc: Advances in Electrical Control and Signal System (AECSS 2019), Springer, pp. 567-579, July, 2020
7. **Rabi Narayan Mishra**, Kanungo Barada Mohanty, Abhimanyu Sahu, and **Partha Sarathi Behera**, “Hybrid Sliding Mode Based Simplified NFC for Fuel Cell-Powered Linearized IM Drive”, In proc: Advances in Electrical Control and Signal System (AECSS 2019), Springer, pp. 373-386, July, 2020
8. Abhimanyu Sahu, Kanungo Barada Mohanty, and **Rabi Narayan Mishra**, “Improved Sector-Based DTC-SVM for Induction Motor Drive Using Hybrid Fuzzy-PI Controller”, In proc: Advances in Electrical Control and Signal System (AECSS 2019), Springer, pp. 415-428, July, 2020
9. **Anita Mohanty**, Subrat Kumar Mohanty, and Jitesh Kumar, “A Prototype of Density based Intelligent Traffic Light Control System using Image Processing Technique and Arduino Micro Controller in LabVIEW Environment”, In proc: International Conference on ‘Advances in Electrical Control and Signal System (AECSS-2019), Springer, pp. 749-763, July, 2020
10. E. Mohapatra, T. P. Dash, J. Jena, **Sanghamitra Das**, and C. K. Maiti, “Performance Analysis of Sub-10nm Vertically Stacked Gate-All-Around FETs”, In proc: IEEE VLSI Device Circuit and System (VLSI DCS), IEEE, pp. 331-334, August, 2020

11. J. Jena, T. P. Dash, E. Mohapatra, **Sanghamitra Das**, J. Nanda, and C. K. Maiti, "Performance Analysis of FinFETs with Strained-Si Fin on Strain-Relaxed Buffer", IEEE VLSI Device Circuit and System (VLSI DCS), IEEE, pp. 327-330, August, 2020
12. Nilima Rani Das, Mamata Nayak, **Satyananda Champati Rai**, and Ajit Kumar Nayak, "An Analysis of Various Demand Response Techniques in Smart Grid", In proc: International Conference on Intelligent and Cloud Computing (ICICC 2019), Springer, pp. 511-520, October, 2020
13. VKVN Vinuth Velagala, **Soumya Ranjan Samal**, Amarjit Roy, and Shuvabrata Bandopadhyaya, "Truncated Design for Patch Antenna in S, C, K- Bands for 5G Satellite Networks", In proc: International Conference on IoT based Control Networks and Intelligent systems (ICICNIS-2020), Elsevier, pp. 171-178, January, 2021
14. **Bhagyalaxmi Jena**, **Anita Mohanty**, and Subrat Kumar Mohanty, "Gender Recognition of Speech using KNN & SVM", In proc: International Conference on IoT based Control Networks and Intelligent systems (ICICNIS-2020), Elsevier, pp. 548-557, January, 2021
15. **Suchismita Rout**, Sudhansu Shekhar Patra, Punyaban Patel, and Kshira Sagar Sahoo, "Intelligent Load Balancing Techniques in Software Defined Networks: A Systematic Review", In proc: International Symposium on Sustainable Energy, Signal Processing and Cyber Security (ISSSC-2020), IEEE, pp. 1-6, February, 2021
16. **Gyana Ranjan Biswal** and Banaja Mohanty, "Optimal Frequency Control of PV and Fuel Cell-based Microgrid System", In proc: International Conference on Power Electronics and Energy (ICPEE), IEEE, pp. 1-5, February, 2021
17. Abhimanyu Sahu, Kanungo Barada Mohanty, and **Rabi Narayan Mishra**, "Design of MPC-PSO based Torque Regulator for DTC-SVM Induction Motor Drive", In proc: International Conference on Power Electronics and Energy (ICPEE), IEEE, pp. 1-6, February, 2021
18. Alka Ranjan and **Soumya Priyadarsini Panda**, "A Semantic based Information Retrieval System", In proc: International Conference on Communication, Circuits, and Systems (iC3S 2020), Springer, pp. 517-523, April, 2021
19. **Soumya Priyadarsini Panda** and **Jasaswi Prasad Mohanty**, "A Domain Classification-based Information Retrieval System", In proc: 6th IEEE international Women in Engineering (WIE) Conference on Electrical and Computer Engineering 2020 (IEEE WIECON-ECE 2020), IEEE, pp. 122-125, April, 2021
20. K. P. Swain, **Soumya Ranjan Samal**, I. S. Amiri, M. N. Mohanty, and G. Palai, "Academic Students Attendance System: A Case Study of Alexa Skill Development", In proc: International Conference on Communication, Circuits, and Systems (iC3S - 2020), Springer, pp. 1-6, April, 2021
21. Millee Panigrahi, **Dayal Kumar Behera**, and Krishna Chandra Patra, "A Hybrid Model for Epileptic Seizure Classification Using Wavelet Packet Decomposition and SVM", In proc: Advances in Intelligent Computing and Communication, Springer, pp 211-219, May, 2021

22. **Asif Uddin Khan**, R. Puree, B. K. Mohanta, and S. Chedup, "Detection and Prevention of Black hole Attack in AODV of MANET", In proc: International IOT, Electronics and Mechatronics Conference (IEMTRONICS), IEEE, pp. 1-7, May, 2021
23. **Ch. Sanjeev Kumar Dash**, **Ajit Kumar Behera**, Sarat Chandra Nayak, and Satchidananda Dehuri, "QORA-ANN: Quasi Opposition Based Rao Algorithm and Artificial Neural Network for Cryptocurrency Prediction", In proc: 6th International Conference for Convergence in Technology (I2CT), IEEE, pp. 1-5, May, 2021
24. Arya, Lambodar Jena, Rajanikanta Mohanty, and **Ramakrushna Swain**, "Role of Deep Learning in Screening and Tracking of COVID-19", In proc: ICAC 2020, Springer, pp.677-687, May, 2021
25. **Ambarish G. Mohapatra**, **Pradyumna Kumar Tripathy**, Maitri Mohanty, and Ashish Khanna, "IoT enabled distributed cardiac monitoring using Fiber Bragg Grating (FBG) sensing technology", 3rd Doctoral Symposium On Computational Intelligence (DOSCI 2022), Elsevier, DOI: 10.2139/ssrn.3842806, May, 2021
26. **Bhagyalaxmi Jena**, **Anita Mohanty**, and Subrat Kumar Mohanty, "Gender Recognition and Classification of Speech Signal", In proc: International Conference on Smart Data Intelligence (ICSMDI 2021), Elsevier, pp. 1-6, May, 2021
27. Mahmoud Al Ahmad, Sudhansu Shekhar Patra, Suman Bhattacharya, **Suchismita Rout**, Sachi Nandan Mohanty, Subham Choudhury, and Rabindra K. Barik, "Priority Based VM Allocation and Bandwidth Management in SDN and Fog Environment", In proc: International Conference on Computing for Sustainable Global Development, IEEE, pp. 29-34, June, 2021
28. **Sanghamitra Das**, E. Mohapatra, S. Choudhury, T. P. Dash, and C. K. Maiti, "Stress-Engineered AlGaIn/GaN High Electron Mobility Transistors Design", In proc: 4th International Conference on Devices for Integrated Circuits 2021 (DevIC 2021), IEEE, pp. 471-473, June, 2021
29. J. Jena, **Sanghamitra Das**, E. Mohapatra, J. Nanda and T. P. Dash, "Performance Analysis of FinFET based inverter at 7nm Technology Node Using TCAD Simulation", In proc: 4th International Conference on Devices for Integrated Circuits 2021 (DevIC 2021), IEEE, pp. 143-147, June, 2021
30. E. Mohapatra, T. P. Dash, **Sanghamitra Das**, J. Jena, J. Nanda and C. K. Maiti, "Investigation of Work Function Variation on the Electrical Performance of sub-7nm GAA FETs", In proc: 4th International Conference on Devices for Integrated Circuits 2021 (DevIC 2021), IEEE, pp. 103-106, June, 2021
31. Nisarga Chand, **Sanjit Kumar Swain**, **Sudhanshu Mohan Biswal**, Angsuman Sarkar and Sarosij Adak, "Comparative study on Analog & RF Parameter of InAlN/AlN/GaN Normally off HEMTs with and without AlGaIn Back Barrier", In proc: 4th International Conference on Devices for Integrated Circuit (DevIC 2021), IEEE, pp. 616-620, June, 2021
32. Umakanta Nanda, **Debasish Nayak**, Suraj Kumar Saw, Abdul Majeed K, and Biswajit Jena, "Analysis of Static Noise Margin of 10T SRAM Using Sleepy Stack Transistor Approach", In proc: Devices for Integrated Circuit (DevIC-2021), IEEE, pp. 242-246, June, 2021

33. **Dhananjaya Tripathy, Prakash Kumar Rout, Debasish Nayak, Sudhansu Mohan Biswal, and Nalini Singh**, "The impact of oxide layer width variation on the performance parameters of FinFET", In proc: Devices for Integrated Circuit (DevIC-2021), IEEE, pp. 577-580, June, 2021
34. **Narayan Nayak**, P. Das, and S. R. Das, "Heading plane Control of an Autonomous Underwater Vehicle: A novel Fuzzy and Model Reference Adaptive Control Approach", In proc: 3rd International Conference on Advances in Electronics, Computers and Communications (ICAEECC-2020), IEEE, pp. 1-5, June 2021

Book Chapters Published

1. U. Nanda, D. P. Achary, **Prakash K. Rout, Debashish Nayak**, and B. Jena, "Performance Linked Phase Locked Loop Architectures: Recent Developments", Advanced VLSI Design and Testability Issues, CRC Press, Chapter. 16, pp. 271-290, August, 2020
2. **Bhagyalaxmi Jena**, "Biometric Voting System", Contemporary in Social Sciences, Kunal Books, Chapter. 24, pp. 246-255, November, 2020
3. **Ajit Kumar Behera** and Mrutyunjaya Panda, "Efficient Software Reliability Prediction with Evolutionary Virtual Data Position Exploration", Handbook of Research on Automated Feature Engineering and Advanced Applications in Data Science, IGI Global, Chapter. 16, pp. 275-285, January, 2021
4. **Bhagyalaxmi Jena**, "Impact of the Covid-19 Pandemic", Challenges and Opportunities of COVID-19 IN INDIA, Kunal Books, Chapter. 28, pp. 246-257, February, 2021
5. **Ch. Sanjeev Kumar Dash, Ajit Kumar Behera**, and Sarat Chandra Nayak, "Online Clinic Appointment System Using Support Vector Machine", Cognitive Computing Using Green Technologies, CRC press, Chapter.14, pages. 13, March, 2021
6. **Ch. Sanjeev Kumar Dash, Ajit Kumar Behera**, Sarat Chandra Nayak, and Satchidananda Dehuri, "Usage of Convolutional Neural Networks in Real-Time Facial Emotion Detection", Cognitive Computing Using Green Technologies, CRC press, Chapter.16, pages. 15, March, 2021
7. Sarat Chandra Nayak, Sanjib Kumar Nayak, Sanjaya Kumar Panda, and **Ch. Sanjeev Kumar Dash**, "Cognitive Intelligence-Based Framework for Financial Forecasting", Cognitive Computing Using Green Technologies, CRC press, Chapter.12, pages. 18, March, 2021
8. **Bhagyalaxmi Jena**, "Stress and Women", Women Education in 21st century, Kunal Books, Chapter. 24, pp. 255-260, April, 2021
9. **Sanghamitra Das**, "Stress Generation Techniques in CMOS Technology", Stress and Strain Engineering at Nanoscale in Semiconductor Devices, CRC press, Chapter. 3, May, 2021

Books Published

1. **Saswati Jena** and Namita Mohanty, "Counselling and Mental health of Adolescents", Neelkamal Publications Pvt. Ltd, Hyderabad, ISBN: 978-93-89740-57-8, August, 2020
2. P. Satpathy and **Saswati Jena**, "Childhood and Growing up", Neelkamal Publications Pvt. Ltd, Hyderabad, ISBN: 978-93-90897-08-7, April, 2021

Participation in FDPs

1. Pradyumna Kumar Tripathy participated in the National Level online FDP on “Machine Learning”, Maharishi Markandeshwar Engineering College, Mullana, Ambala, 28th July-1st August 2020.
2. Sushri Samita Rout participated in the FDP program on “Advanced Logistics & Supply Chain Management: Innovating for the Future” an online Certificate Program, ASBM University, 28th July - 10th August 2020.
3. Biranchi N Rath participated in the FDP program on “Reliability aspects in Power System planning and operation”, VNR Vignana Jyothi Institute of Engineering and Technology, 10th August 2020.
4. Debasmita Pradhan and Pradipta Kumar Pattanayak participated in the FDP program on “Computational Linear Algebra”, SIT, Bhubaneswar, 10th- 31st August 2020.
5. Biranchi N Rath and Sudhansu Mohan Biswal participated in the FDP program on “Recent Advances in Electronics and Communication Engineering (RAECE-2020)”, Government College of Engineering, Kalahandi, 17th-21st August 2020.
6. Biranchi N Rath participated in the FDP program on “WEB Robot Technology”, Latha Mathavan Engineering College, 29th August 2020.
7. Siba Sankar Nayak participated in the FDP program on “Polymer composites & Nano composites”, NITTTR, Kolkata, 31st August - 4th September 2020
8. Subhakanta Dash participated in the ATAL-AICTE FDP on “Data Sciences”, NIT Andra Pradesh, 7th -11th September 2020
9. Narayan Nayak participated in the FDP on “Applications of different control techniques for sustainable energy”, GEC, Keonjhar, 8th-12th September 2020
10. Bhagyalaxmi Jena and Sushant Kumar Pattnaik participated in the FDP on “Role of Artificial Intelligence in Data Science and Internet of Things Applications” (RAIDIA-2020)”, IGIT, Sarang, 9th-22nd September 2020.
11. Jasaswi Prasad Mohanty, Ramakrushna Swain and Siba Sankar Nayak participated in the online FDP program on “Outcome Based Education”, Dr. D. Y. Patil Institute of Technology, Pimpri, Pune, 10th- 16th September 2020.
12. Kamalakanta Satpathy participated in the ATAL-AICTE FDP on “Mathematical Modeling on Coastal and Offshore Engineering”, IIT-Guwahati, 14th-18th September 2020
13. Pradyumna Kumar Tripathy participated in the HANDS-ON Online FDP program on “Artificial Intelligence using Python”, Govt. College of Engineering And Ceramic Technology, 14th - 19th September 2020.
14. Prakash Kumar Rout participated in the FDP on “RTL Design using System Verilog”, QSOCs, Bangalore, 14th September - 7th October 2020.

15. Kamalakanta Satpathy participated in the Online FDP on “Trained the Teachers (TLC-7)”, NITTTR-Bhopal, 21st-25th September 2020.
16. Subhakanta Dash participated in the ATAL-AICTE FDP on “Data Sciences”, NIT Raipur, 21st-25th September 2020.
17. Subrat Kumar Sahu participated in the ATAL-AICTE FDP on “Waste Technology”, MRSPTU, Bathinda, 21st-25th September 2020.
18. Satish Kumar Das, Dhananjaya Tripathy, Nalini Singh and Biranchi Narayan Rath participated in the TEQIP-III FDP on “Signal Processing Applications”, CET, Bhubaneswar, 21st-25th September 2020.
19. Subrat Kumar Sahu participated in the ATAL-AICTE FDP on “Energy Engineering”, VIT, Pune, 5th -9th October 2020.
20. Kamalakanta Satpathy participated in the ATAL-AICTE FDP on “Quantum Computing”, CDAC, Mohali, 5th -9th October 2020.
21. Sushri Samita Rout participated in the refresher course on “Digital Marketing” an online FDP Program, Srusti Academy of Management, Bhubaneswar, 15th-21st October 2020.
22. Siba Sankar Nayak participated in the AICTE Training and Learning (ATAL) Academy Online FDP on “Green Technology for Sustainability”, SVNIT, Surat, 26th-30th October 2020.
23. Chittaranjan Mohapatra participated in the AICTE Training And Learning (ATAL) Academy Online FDP on "Data Sciences", Institute of Road and Transport Technology, 2nd-6th November 2020.
24. Dayal Kumar Behera participated in the AICTE-ISTE sponsored FDP on “Recent Trends in Cloud Computing”, DRIEMS Autonomous Engineering College, Cuttack, 7th - 12th December 2020.
25. Nivedita Pati, Nibedita Swain, and Priyanka Kar participated in the TEQIP-III FDP on “Power Quality issues and energy management in a Grid integrated with Renewable sources”, Einstein Academy of Technology and Management, Bhubaneswar, 24th-28th February 2021.
26. Nibedita Swain, Susmita Biswal, and Swarupa Roy participated in the “Women Entrepreneurship Development Programme”, IGIT Sarang, 20thFebruary-10thMarch 2021.
27. Dhananjaya Tripathy, Nalini Singh and Biranchi Narayan Rath participated in the FDP on “Towards 5G and Intelligent Communications”, SIT, Bhubaneswar, 8th-20th March 2021
28. Nivedita Pati participated in the TEQIP-III FDP on “Grid integration of Renewable Energy Sources: challenges and solution”, GIET, Bhubaneswar, 2nd-4th March 2021.
29. Kamalakanta Satpathy participated in the FDP on “Academic Integrity and the Role of the Similarity Report”, Turnitin, South Asia Division, 23rd April 2021.
30. Kamalakanta Satpathy participated in the FDP on “Academic Integrity and the Role of the Similarity Report”, Wessex Institute, UK, 28th April 2021.
31. Manoranjan Behera participated in the FDP on “Research Methodology”, Kamala Nehru Mahavidyalaya, Nagpur, 26th April-1st May 2021.

32. Aditya Acharya, Amiya Bhusana Sahoo, Annapurna Mishra, Aradhana Raju, Bhagyalaxmi Jena, Biswajit Baral, Judhisthir Dash, Bodhisattva Dash, Monorama Swain, Nihar Ranjan Panda, Sanghamitra Das, Pradipta Kumar Jena, Sanjit Kumar Swain, Soumya Ranjan Samal, Srikrishna Bardhan, Sudhansu Ku. Pati, Sushant Kumar Pattnaik, Satis Kumar Das, Utpal Das, Amulya Ku. Roul, Nalini Singh, Dhananjaya Tripathy, Biranchi N Rath, Ambarish Mohapatra, Sudhansu Biswal, Anita Mohanty, Narayan Nayak, Prakash Rout, Debasish Nayak and Santanu Sarangi participated in the ATAL FDP on "IOT in 5G Technology", SIT, Bhubaneswar, 24th-28th May 2021.
33. Judhisthir Dash participated in the FDP on "Design of Nano electronics and Nano photonic Devices Using Advanced Software Tools (DONEPAST-2020)", GITA, Bhubaneswar, 10th-22nd May 2021.
34. Chittaranjan Mohapatra participated in the ATALFDP on "Artificial Intelligence and its Applications", Government College of Engineering, Nagpur, 7th-11th June 2021.
35. Siba Sankar Nayak participated in the ATAL FDP on "Functional materials for Environment, Energy & Health Care, NIT, Calicut, 21st-25th June 2021.
36. Aditya Acharya, Amiya Bhusana Sahoo, Annapurna Mishra, Aradhana Raju, Bhagyalaxmi Jena, Biswajit Baral, Judhisthir Dash, Monorama Swain, Nihar Ranjan Panda, Sanghamitra Das, Pradipta Kumar Jena, Sanjit Kumar Swain, Soumya Ranjan Samal, Srikrishna Bardhan, Sudhansu Ku. Pati, Sushant, Kumar Pattnaik, Satis Kumar Das, Utpal Das, Amulya Ku. Roul participated in the ATALFDP on "IOT in 5G Technology (Advanced)", SIT, Bhubaneswar, 21st - 25th June 2021.
37. Gyana Ranjan Biswal participated in the FDP on "Typhoon HIL Real Time HIL Simulation Tool for Power Electronics, Power Systems, EV and Microgrid", VIT, Chennai, 14th-18th June 2021.

Participation in STTPs

1. Suchismita Rout participated in the online STTP on "Training of Trainers (TOT) For Teacher Educator (Under TLC Project), NITTTR, Bhopal, 21st-25th September 2020.
2. Tusar Parida participated in the STTP on "Role of computational Mathematics in science and engineering", CET, Bhubaneswar, 15th-19th February 2021.
3. Ananya Roychoudhury, Aruni Nayak, Jayashree Das, Janmejy Senapati, Kamalakanta Satpathy, Manoranjan Behera, Mahendra Prasad Agasty, Prayag Prasad Mishra, Priyambada Pal, Rupambika Pattanaik, Saswati Jena, Siba Sankar Nayak, Suvashree Suvadashinee, Subhakanta Dash, Subrat Kumar Sahu, Susmita Biswal, Rupa Kanungo, Tusar Parida, Swarupa Roy, Debahuti Paikaray, Pradyumna Kumar Tripathy, Sudhansu kumar Pati, Sanghamitra Das, and Biswajit Baral participated in the STTP on "Professional Ethics & Human Values", SIT, Bhubaneswar, 22nd-27th March 2021.
4. Sachin Das, Dipak Ranjan Nayak, Nibedita Swain, Nivedita Pati, Seema Behera, Rabi Narayan Mishra, Lopamudra Mitra, Partha Sarathi Behera, Ipsita Pahi, Rajan Mishra, Dinesh Verma, Laxmi Narayan Pathy, Ram Prasad Panda, Tapas Kumar Maji, Sadhna Mallik, Priyanka Kar, and

Gyana Ranjan Biswal participated in the STTP on “Application of Advanced control Techniques in Power Electronics & Power Technology”, SIT, Bhubaneswar, 5th -9th April 2021.

5. Sudhansu Mohan Biswal participated in the STTP on “Emerging Nanoscale Devices, Circuits, and Its Applications (NANODC-21)”, Delhi Technological University, 10th-14th May 2021.
6. Nivedita Pati participated in the STTP on “Smart Practices Towards Tomorrow's Electric Power Paradigm”, GMIT, Kolkata, 25th- 29th May 2021.
7. Nibedita Swain participated in the STTP on “Renewable Energy sources and Energy Technology”, NITTTR, Kolkata, 7th-11th June 2021.
8. Chittaranjan Mohapatra participated in the Training Program on “AI & ML”, Talent Next, Wipro, 21st -25th June 2021.
9. Pulak Sahoo participated in the QIP on “Data Analytics using Python”, CHRIST Deemed to be University, Delhi, 7th-13th June 2021.

Participation in Workshops

1. Ananya Roychoudhury and Subhakanta Dash participated in the online workshop on “Getting Aligned to the Publishing Process- Scopus + Science Direct”, Elsevier, 25th September 2020.
2. Ananya Roychoudhury and Subhakanta Dash participated in the online workshop on “Getting Aligned to the Publishing Process"- Author Workshop”, Elsevier, 28th September 2020.
3. Asif Uddin Khan and Subrat Kumar Sahu participated in the online workshop on “Universal Human Value on the theme- Inculcating Universal Human Values in Technical Education”, AICTE, during 19th-23rd October 2020.
4. Priyambada Pal participated in the ATAL-AICTE Workshop on “Emotional Intelligence”, NIT Hamirpur, 19th-23rd October 2020
5. Ch. Sanjeev Kumar Dash, Pamela Chaudhury, Pulak Sahoo participated in the Workshop on “R for Data Science”, Teaching Learning Centre (ICT), IIT Bombay, 28th-30th January 2021.
6. Sushri Samita Rout participated in the Workshop on “Creating Effective Dashboards”, JS Academy, 2nd-7th March 2021.
7. Judhithir Das participated in the Workshop on “Recent Advancement on Electronics and Computer Intelligence. (RAECI -2021)”, Sambalpur University, Odisha, 26th-30th April 2021.
8. Bhagyalaxmi Jena participated in the National Level Online Workshop on "Number Theory and its Applications", Gates Institute of Technology, Andhra Pradesh, 14th-19th June 2021.
9. Bhagyalaxmi Jena participated in the Workshop on “Recent trends in Applied Mathematics”, Universal Engineering College, Thrissur, Kerala, 5th-11th June 2021.

Participation in Seminars/Webinars/Conferences/Other Training Programs

1. Gitisudha Giri and Manoranjan Behera participated in the National Webinar on “Advances in Composite Materials for Engineering Applications”, COEB, Bhubaneswar, 7th- 8th September 2020.

2. Manoranjan Behera participated in the International Conference on “Emerging Frontiers for Health care and delivery”, KIIT University, Bhubaneswar, 12th-14th September 2020.
3. Gitisudha Giri participated in the National Webinar on “Advanced Metal-Organic Frameworks (AMOF-2020)”, VSSUT, Burla, 25th- 26th September 2020.
4. Ananya Roychoudhury participated in the Webinar on “Research, Structuring, Statistical Insights and Publication Strageries”, NFED, Coimbatore, 27th-28thSeptember 2020.
5. Manoranjan Behera participated in the Webinar on “Advanced metal-organic frame works”, VSSUT, Burla, 27th-28thSeptember 2020.
6. Bodhisattva Dash participated in the Webinar on “Computer Aided Medical Diagnosis of Heart and Brain Diseases”, IIT Indore, 11th October 2020.
7. Gitisudha Giri participated in the Webinar on “Potential Application of Plastics, Rubber & Allied Materials to lead the industry Transformations”, CIPET, Bhubaneswar, 16th-17th October 2020.
8. Bidyadhar Padhi participated in the online Webinar on “Entrepreneurial Opportunities in Rural India”, Synergy Group of Institution, 29th October 2020.
9. Dayal Kumar Behera participated in the online Webinar on "Industry Internet of Things-2020", SIT, Bhubaneswar, 11th-13th November 2020.
10. Sachin Das, Dipak Ranjan Nayak, Nibedita Swain, Nivedita Pati, Seema Behera, Rabi Narayan Mishra, Lopamudra Mitra, Partha Sarathi Behera, Ipsita Pahi, Rajan Mishra, Dinesh Verma, Laxmi Narayan Pathy, Ram Prasad Panda, Tapas Kumar Maji, Sadhna Mallik participated in the “Energy Efficient Distributions Systems”, SIT, Bhubaneswar, 8th- 9th January 2021.
11. Rabi Narayan Mishra participated in the Webinar on “High Efficiency High Power Density E-capless On board Battery Charger for Electric Vehicles”, IEEE PELS Bhubaneswar Chapter, 8th January 2021.
12. Sadhna Mallik participated in the Webinar on “Types of Patents in India”, BITS Vadodara, 16th January 2021.
13. Nibedita Swain, Aditya Acharya, Amiya Bhusana Sahoo, Annapurna Mishra, Aradhana Raju, Bhagyalaxmi Jena, Biswajit Baral, Judhisthir Dash, Bodhisattva Dash, Monorama Swain, Nihar Ranjan Panda, Sanghamitra Das, Pradipta Kumar Jena, Sanjit Kumar Swain, Soumya Ranjan Samal, Srikrishna Bardhan, Sudhansu Ku. Pati, Sushant Kumar Pattnaik, Satis Kumar Das, Utpal Das, and Amulya Ku. Roul participated in the Winter Webinar on Signal Processing (WWSP)-2021, SIT, Bhubaneswar, 18th-22nd January 2021.
14. Mahendra Prasad Agasty participated in the “53rd Annual Conference of Orissa Economics Association”, NISER, Bhubaneswar, 12th-14th February 2021.
15. Siba Sankar Nayak participated in the National Webinar on “Functional Materials”, Nagpur University, 21st February 2021.
16. Manoranjan Behera and Siba Sankar Nayak participated in the International Webinar on “Innovations in Science & Technology”, Nagpur University, 27th February 2021.

17. Manoranjan Behera participated in the International Webinar on “2G Biofuel : A Way Forward”, BPCL- OUAT Biofuel Project, 24th-26th February 2021.
18. Bipin Tripathy, Dharitri Moharatha, Jayashree Das, Kamalakanta Satpathy, Manoranjan Behera, Manas Ranjan Singh, and Siba Sankar Nayak participated in the Webinar on “Functional Materials for Emerging Materials-2021”, 2nd-5th March 2021.
19. Amarjeet Mohanty, Bijan Bihari Mishra, Bikram Keshari Misra, Ch. Sanjeev Kumar Dash, Dayal Kumar Behera, Debabrata Kar, Kasturi Dhal, Mukti Routray, Pamela Chaudhury, Pradyumna Kumar Tripathy, Pulak Sahoo, Ramakrushna Swain, Samaleswari Prasad Nayak, Satyananda Champati Rai, Soumya Priyadarsini Panda, Suchismita Rout, Sushri Samita Rout, Tarini Charana Mishra, Manoj Kumar Samantara, Rabindra Kumar Dalei, Biswajit Baral, Judhisthir Dash and Dhananjaya Tripathy participated in the Webinar on “Machine Learning and its Applications (MLA - 2021)”, SIT, Bhubaneswar, 4th-6th March 2021.
20. Siba Sankar Nayak participated in the International Webinar on “On Multidisciplinary Research”, Gondwana University, Maharashtra, 15th-18th March 2021.
21. Sadhna Malik participated in the Webinar on “ Electric Vehicle Chargers: Indian context”, T Microelectronics & IIT Kharagpur, 17th March 2021.
22. Siba Sankar Nayak participated in the Webinar on “Sustainable Chemistry”, TIFR, Mumbai, 22nd-27th March 2021.
23. Judhisthir Dash participated in the One Week International Seminar on Electronics and Computing Technology (ISECT -2021), Sambalpur University, Odisha, 27th March - 1st April 2021.
24. Saswati Jena participated in the Webinar on “Restoring Positive Mental Health of Adolescents as schools reopen”, SHARP NGO, 3rd April 2021.
25. Nibedita Swain participated in the Live Master Class on “Introduction to India Patents Act”, Turnip Innovation, Mumbai, 30th April 2021.
26. Saswati Jena participated in the Webinar on “Supporting Mental health of frontline workers during Resurgence”, SHARP NGO, 15th May 2021.
27. Saswati Jena participated in the Webinar on “Supporting Mental health through Counselling during COVID-19 pandemic”, SHARP NGO, 22nd May 2021.
28. Rabi Narayan Mishra participated in the Webinar on “Benefits and Scope of IEEE being a Graduate Member”, IEEE IES and CTS Bhubaneswar Chapter, 22nd May 2021.
29. Bhagyalaxmi Jena participated in the National Webinar on “Mathematical Software Workshop”, Universal Engineering College, Thrissur, Kerala, 2nd-6th June 2021.
30. Siba Sankar Nayak participated in the Seminar on “Recent trends in Applied Chemistry”, Bharat Institute of Engineering & Technology, Maharashtra, 4th-6th June 2021.
31. Gyana Ranjan Biswal participated in the STC on “Development of Residential Microgrid (In Collaboration with Typhoon HIL)”, NITTTR, Chandigarh, 7th-11th June 2021.

32. Kamalakanta Satpathy participated in the Webinar on “AICTE quality Initiatives”, AICTE, 18th June 2021.
33. Priyanka Kar participated in the Webinar on “Level up your business writing skills”, SIT, Bhubaneswar with PROMPT, 22nd June 2021.
34. Bhagyalaxmi Jena participated in the International Women Engineers Conclave-2021, DOHA-QATAR, The Institution of Engineers (India), Qatar Chapter, 25th June 2021.
35. Siba Sankar Nayak participated in the Conference on “E-Recent Advances in Physics, Chemistry & Biological Sciences”, ACT, Mumbai, 28th-30th June 2021.
36. Nivedita Pati and Sadhna Mallik participated in the Webinar on “Teaching Electrical Engineering with MATLAB”, Maths work, 30th June 2021.

Participation in Online Courses and Programs during Lockdown

Along with participation in various faculty development programs in regular/ online mode (listed above), almost all faculty members participated in a large number of online courses, seminars, and knowledge enriching programs provided by various renowned Universities/ Organizations/ Institutions in Online mode during the pandemic time of COVID-19 lockdown.

Editor/Reviewer of Journals

The following faculty members are continuing as reviewers in different International Journals:

Faculty Name	Journal Name
Ambarish G. Mohapatra	Computers and Electronics in Agriculture (Elsevier), Journal of Science and Technology (Springer)
Asif Uddin Khan	Future Generation Computer Systems (Elsevier), IJNS, National Chung Hsing University, Taiwan
Jayashree Das	Journal of Alloys and Compounds (Elsevier)
Kamalakanta Satpathy	Journal of Nuclear Science & Technology (Elsevier)
Manoranjan Behera	International Nanoletters(Springer) Plasmonics (Springer), Iranian Polymer Journal (Springer), Journal of Nanoparticle Research (Springer), Indian Journal of Applied Chemistry (Hindwai)
Rabi Narayan Mishra	ISA Transaction (Elsevier), Review of Scientific Instruments, Renewable Power Generation (IET), International transaction on electrical energy systems (Wiley), IEEE Transactions on Power Electronics(IEEE), Engineering Applications of Artificial Intelligence(Elsevier), International Journal of Numerical Modelling (Wiley)
Soumya Priyadarsini Panda	Transactions on Industrial Informatics (IEEE), IEEE Access, Speech Communication (Elsevier), International Journal of Speech

Faculty Name	Journal Name
	Technology (Springer), Transactions on Asian and Low-Resource Language Information Processing (ACM)
Tapas Kumar Maji	IEEE Systems Journal (IEEE), Electric Power Components and Systems (Taylor & Francis), International Transactions on Electrical Energy Systems (Wiley)

Ph. D. Guidance

Faculty Name (Dept.)	Research Area(s)	Registered Guide in Universities	No. of Scholars Guiding/ Awarded
Dr. Aditya Acharya (ECE)	Image Processing	BPUT	02
Dr. Ambarish Gajendra Mohapatra	IoT	BPUT, GIET University, Gunpur	02
Dr. Bijan Bihari Mishra (CSE)	Data Mining, Soft Computing	VSSUT Burla, BPUT, KIIT University, SOA University	07
Dr. Ch. Sanjeev Kumar Dash (CSE)	Data Mining	BPUT	01
Dr. Lopamudra Mitra	Power Electronics in Renewable energy systems	BPUT	01
Dr. Mahendra Prasad Agasty (BSH)	Economics	KIIT University	01
Dr. Manoranjan Behera (BSH)	Nano Composite	Centurion University of Technology and Management	02
Dr. Prayag Prasad Mishra (BSH)	Mathematics	BPUT	01
Dr. Pradyumna Kumar Tripathy (CSE)	Parallel Distributed System, Reliability Engineering, Image Processing	BPUT	02
Dr. Prakash Kumar Rout (EIE)	VLSI & Embedded Systems	BPUT	04
Dr. Rabi Narayan Mishra	Power Electronics in Renewable energy systems	NIT, Rourkela	01
Dr. Sanjit Swain (ECE)	Semiconductor Device Simulation	KIIT University	
Dr. Satyananda Champati Rai (CSE)	Mobile Computing	BPUT, KIIT University, SOA University, Utkal University	04/02
Dr. Sudarsan Padhy (CSE)	Machine Learning, Computational Biology, Computational Finance, Parallel Algorithms, Finite Element Method, Computational Fluid Dynamics, Optimization	Utkal University, Ravenshaw University, KIIT University, SOA University, IIIT, Bhubaneswar and Centurion university of Technology and Management	10/02
Dr. Sudhansu Kumar Pati (ECE)	Advanced Semiconductor Device Modeling and	BPUT	01

Faculty Name (Dept.)	Research Area(s)	Registered Guide in Universities	No. of Scholars Guiding/ Awarded
	Simulation		
Dr. Sushri Samita Rout (CSE)	Computational Intelligence, Data Mining, and Internet of Things	BPUT	02
Dr. Soumya Priyadarsini Panda (CSE)	Natural Language Processing	GIET, Gunupur	01
Dr. Tusar Parida (BSH)	Mathematics	BPUT	02

List of Patents Granted

Sl. No.	Patentee Names	Title of Invention	Date of Publication	Patent Application Number
1	Tulasi chandra Sekhar Gorripotu, Andhavarapu Kanthi, Soubhagya Ranjan Mallick, Pradyumna Kumar Tripathy , Vipin Jain, Aayush Mangal	AEMC-IOT SYSTEM: Agriculture Environment Managed and Control Using IoT System	05-06-2020	202041012395
2	Manish Kumar Mishra, Om Prakash Jena, Chinmaya Kumar Nayak, Anil Kumar, Rituraj Chandrakar, Vikas Dubey, Soumya Ranjan Samal , Santosh Kumar Sahoo, D. S. Kshatri, Shubhra Mishra, Samaleswari Prasad Nayak , Subha Ranjan Das, M.K.Mariam Bee, S.Balamurugan	Sensor Based Smart Railway System to Minimize Train Collisions and Accidents	30-10-2020	202041045313
3	Ambarish Gajendra Mohapatra , Ashish Khanna, Deepak Gupta, Maitri Mohanty, Pradyumna K. Tripathy , Poonam Rani, Piyush Kumar Pareek	Performance Enhancement of Polymer Deposited Fbg Sensor for Cardiac Parameter Monitoring in Mri Environment	12-02-2021	202131001862 A
4	Ajaya Kumar Tripathy, Pradyumna Kumar Tripathy , Niranjana Kumar Ray, Saraju P. Mohanty	IOT based Personal Security System	12-02-2021	202111004091 A

Sl. No.	Patentee Names	Title of Invention	Date of Publication	Patent Application Number
5	Biswamohan Jena, Loveleen Gaur, Biswaranjan Acharya, Bhagyalaxmi Jena , Manas Ranjan Pradhan, Mohit Vij, Anupama Baral, Aurobinda Das	A Mobile Sanitizer Dispensing Unit	23-10-2020	202011044 163
	Biswaranjan Acharya, Bhagyalaxmi Jena , Biswamohan Jena, Manas Ranjan Pradhan, Mohit Vij, Loveleen Gaur	Smart Classroom System	23-10-2020	202011044 177
6	Soumya Ranjan Samal, Tarini Charan Mishra , Chinmay Kumar Nayak, Rajnish Kumar, Adarsh Panda	Multi-firmwire Aided Aviation System with 3-D Mapping Capabilities	02-04-2021	202131010 399
7	Chinmaya kumar Nayak, Satyabrata Das, Soumya Ranjan Samal , Jagannath Singh, Shuvabrata Bandopadhyaya, S. Balamurugan	Wireless Sensor Networks based Smart Eye Glasses for Assisting Visually Impaired People	31-07-2020	202041030 393
8	Kaliprasanna Swain, M. V.S.V. Prasad, Soumay Ranjan Samal , Suryakanta Nayak, Kaibalya Kumar Sethi, Gopinath Palai, Soumya Ranjan Nayak	Optical Lock Through Visible Light Communication for Electronic Device	28-05-2021	202111022 796
9	Susanta Pattnaik , Padmalochan Sahoo, Punyadeepa Pattnaik, Ayusman Pattnaik, Anisha Mohanty, Amit kumar Patro, Shreyash Behera	Food and Crops Tracking System	11-12-2020	202031050 081 A

Honours/ Awards Received by Faculty Members

Sl. No.	Name of the Faculty	Name of the honour/award	Granting authority	Honour/Award for	Date/Month of Receiving the Award
1	Dr. Pradyumna K. Tripathy (CSE)	University Foundation Day Research Award	Biju Patnaik University of Technology (BPUT)	Research Papers	21 st November 2020.
2	Dr. Manoranjan Behera (BSH)				
3	Dr. Ambarish G. Mohapatra (EIE)				
4	Dr. Bodhisattva Dash (ECE)				
5	Ms. Debasmita Pradhan (CSE)				
6	Dr. Saswati Jena (BSH)	MANODARPAN - Certificate of Appreciation	NCERT, New Delhi - Ministry of Education (MoE), Govt of India	Providing Psycho-social support and Counselling	Feb, 2021
7	Ms. Monorama Swain (ECE)	Institution Award	The Institution of Engineers (India)	For the paper entitled: "Automatic Classification of Discrete Emotions In Various Dialects of Odia Speech"	March 2021

Seminars and Workshops Organized

Webinar on Industry Internet of Things

The departments of ECE & EIE at Silicon organized a 3-day webinar on "Industry Internet of Things" from 11th - 13th November 2020. This webinar primarily focused on cutting edge technologies used to resolve various problems related to day-to-day life and industry. A total of 233 participants across the country registered for this webinar. The talks were delivered by eminent speakers from the Industry and Academia such as Er. Anish Sarangi (Silicon alumnus) from Fusion Practices Pvt. Ltd.; Prof. D. P. Acharya & Prof. Santosh Das from NIT, Rourkela, Er. Debasmita Satapathy from Capgemini, Er. Renjith CV from Philips India Ltd. and Prof. Albena D. Mihovska from Aarhus University, Denmark.



Webinar on Nanotechnology & Embedded Systems (NES-2020)

Silicon, in collaboration with VLSI Expert Pvt. Ltd. Noida, conducted NES 2020, a 3-day webinar on “Nanotechnology and Embedded Systems (NES-2020)” from 15th - 17th December 2020. The primary objective of the webinar was to create awareness on the recent advances in solid-state devices, VLSI circuits and embedded systems. The keynote speaker was Dr. Shivananda Koteswar (Head R&D at Synopsys Inc., Bengaluru). Industry talks were delivered by Mr. Atul Bhargava (Principal Engineer, ST Microelectronics, Greater Noida), Mr. Rajat Bansal (Design Engineer, Keen Heads Technologies Pvt. Ltd., Noida), Mr. Narasayya Donepudi (Co-Founder, Sevyam Multimedia, Noida), and our collaborator & host Mr. Puneet Mittal (Founder, VLSI Expert Pvt. Ltd., Noida). A hands on workshop on ‘Transaction Level Verilog: A modern Approach to Integrated Circuit and Design’ was also conducted in the online mode by Steve Hoover (Founder & CEO, Redwood EDA, USA). 634 registered participants across India joined live from both academia and industry.



Webinar on Energy Efficient Distribution Systems (EEDS 2021)

The Department of Electrical and Electronics Engineering (EEE) organized a two-day webinar on “Energy Efficient Distribution System (EEDS 2021)” on 8th and 9th January 2021. The webinar focused on different aspects of efficient energy management of new and existing distribution systems where the concept of smart city and smart buildings were discussed. Mr. Amok Agarwala, Assistant GM, TP Central Odisha Distribution System (TPCODL), Dr. Hari Om Gupta, Director, Jaypee Institute of Information Technology (JIIT), Prof. A. K. Tripathy, Fellow of the Indian Academy of Engineering (FNAE) and former DG, Central Power Research Institute (CPRI), Bangalore, Mr. Jayant Sinha, Spectrum Infra Ventures and Mr. P. K. Pattanaik, GM, Odisha Power Transmission Corporation Limited (OPTCL) were the speakers. A total of 193 participants attended the webinar.

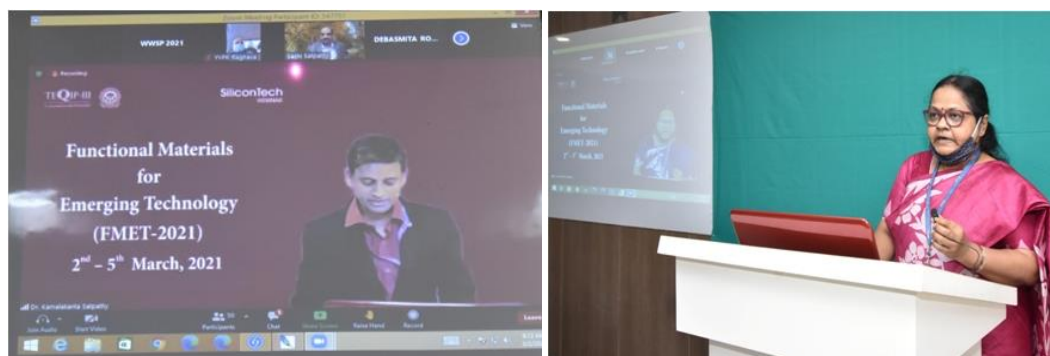
Winter Webinar on Signal Processing (WWSP-2021)

The Department of Electronics and Communication Engineering (ECE), along with the Department of Electronics and Instrumentation Engineering (EIE), organized a five-day webinar on “Signal Processing” from 18th-22nd January 2021. The objective of this webinar was to provide a platform to the students, researchers, academicians and industry personnel to discuss various cutting-edge technologies including voice recognition, object recognition, and motion recognition. The webinar included 10 expert talks offered by eminent speakers from industry and academia - Dr. Gagan Rath, Inter Digital Inc. (France), Dr. Sitaram Ramachandrala, (24)7. ai, Ms. Minerva Panda, Niramai Health Analytix; Prof. Anil Vuppala, IIIT Hyderabad, Prof. Nithin V. George and Prof. Nitin Khanna from IIT Gandhinagar, Prof. Sachidananda Dehuri, Fakir Mohan University, Prof. Venkatesh Babu Radhakrishnan, IISc, Bangalore and Prof. Wellington Pinheiro dos Santos from Federal University of Pernambuco, Recife, Brazil were the speakers. Practical sessions were organized and e-certificates were given. More than 300 participants including industry veterans and stalwarts from academia attended this webinar.

Webinar on Functional Materials for Emerging Technology (FMET 2021)

A national level webinar on “Functional Materials for Emerging Technology (FMET 2021)” was organized by the Department of Basic Sciences & Humanities (BSH) at Silicon, in association with Visvesvaraya Technological University (VTU) and Aryabhatta Knowledge University (AKU), Patna from 2nd-5th March 2021 under the BPUT sponsored TEQIP III program. The objective of the webinar was to

bring together international and national experts from academic and R&D organizations to facilitate interactions on the recent trends in functional materials processing, characterization and its applications. Nine eminent speakers from different premier academic and research Institutes from India, USA and Europe delivered their talks on different topics of Functional Materials and their applications. 190 participants (faculty members, young researchers and students) from TEQIP & Non-TEQIP institutes from Odisha, as well as from other premier institutes viz., IISc, IITs, NITs, and other renowned technical institutes from India attended this webinar.



Webinar on Machine Learning and its Applications

Department of CSE and MCA conducted a three-day webinar on “Machine Learning and its Applications” from 4th- 6th March 2021. The major topics discussed were Industrial applications and approach to solving problems using Machine Learning, Regression Problems in Supervised Learning, Ensemble Methods in Machine Learning, Quickest Change Detection, and Unsupervised Learning. Dr. Bighnaraj Panigrahi (Associate Consultant in TCS Networks Innovation Lab), Dr. Hemanth Kumar Rath (Senior Scientist at TCS Networks Lab), Er. Sumanta Patro (researcher at TCS Networks Lab), Dr. Siba Narayan Swain (Asst. Professor, IIT Dharwad), Dr. Vineeth N Balasubramanian (Department Head, AI, IIT Hyderabad), Dr. Taposh Banerjee (Asst. Professor, University of Texas) and Dr. Ashish Ghosh (Head, Machine Intelligence, ISI Kolkata) were the eminent speakers for the webinar. Around 190 participants, consisting of industry professionals, faculty members and students attended this webinar.



STTP on Professional Ethics and Human Values (PEHV 2021)

A six-day Short Term Training Program (STTP) on “Professional Ethics and Human Values”, an AICTE-funded initiative, was organized at Silicon from 22nd - 27th March 2021. The objective of the program was to equip the participants with human values, ethics and key life skills, to enhance leadership qualities among faculty members and students and help them recognize and resolve ethical issues at the workplace. Faculty members from AICTE approved institutions and industry personnel were invited via online registrations. The resource persons were from varied areas with broad knowledge base with expertise and experiences in their respective fields. Dr. Tapan Kumar Chand, Former

Chairman / Managing Director – NALCO and BALCO; Prof. Neharika Vohra, Vice Chancellor at Delhi Skill and Entrepreneurship University and Professor at IIM Ahmedabad; Dr. Rooplekha Khuntia, Assistant Professor, NISER, Bhubaneswar; Prof. Aditya Mohanty, Retd. Professor of Philosophy, Utkal University, Dr. Vijaya Lakshmi Mohanty, Associate Professor and Director of Film and Media Studies, Sri Sri Advanced Global Center for Conflict Resolution and Peace Studies, Prof. Dhaneswar Sahoo, Retd. Professor of Philosophy, Govt. of Odisha, Dr. Pratap Kumar Rath, Retd. Professor of Psychology, Utkal University, Swami Achalananda Giri, Kriya Yoga, Prajnana Mission, Dr. R. K Biswal, Assistant Professor, NIT, Rourkela, Dr. S. K. Kar, Program Director, CTTC, Bhubaneswar and Prof. S. P. Adhikary, Former Vice Chancellor at F. M. University, Balasore were some of the notable speakers.

STTP on Application of Advanced Control Techniques in Power Electronics and Power Technology

A Short Term Training Program (STTP) on “Application of Advanced Control Techniques in Power Electronics and Power Technology” was organized in the online mode from 5th – 9th April 2021, by the Department of Electrical & Electronics Engineering (EEE), in association with IEEE (Institute of Electrical and Electronics Engineer) Bhubaneswar subsection PES (Power & Energy Society) & IES (Industrial Electronics Society) Chapter. The objective of this program was to educate the participants in the recent advancements and state-of-the-art research areas in Control Engineering. Notable invited speakers from the academia were Dr. Rajeev Kumar Singh (IIT BHU), Dr. Aritro Dey (NIT Durgapur), Dr. Ullash Kumar Rout (CET, BBSR), Dr. Papia Ray (UCE, Burla), Dr. Ashutosh Giri (GEC, Bharuch), Dr. Santanu Kapat (IIT Kharagpur), Dr. Sudipta Chakrabarty (NIT Silchar) and Dr. Susovan Samanta (NIT, Rourkela). 84 participants attended this program.

Silicon Technodium 2021- a National Level Poster competition

SiliconTech hosted Silicon Technodium 2021- a National Level Poster Competition for undergraduate engineering students across the country on 17th April 2021. This online competition provided the students a national platform to showcase their knowledge and help them explore a career in research and development. The ideas were invited for three tracks viz. Computer Science and Application (CSA), Electronic Systems and Applications (ESA) and Electrical Power Engineering and Applications (EPEA). A team of experts from industries and academia were in the panel of judges. Dr. Mrutyunjay Rout (NIT, Jamshedpur) and Mr. Siddhartha Shankar Pany (Scientist, BARC) were the judges for the CSA track; Dr. Suraj Sharma. IIIT, Bhubaneswar and Dr. Subudhi Badri, IIT Jammu were the experts for the ESA track and Prof. Baidyanath Bag, NIT Raipur was the judge for the EPEA track. 100 students from 10 states across the country participated in this event. The winners were from different colleges across the country. All the winning team members were given cash prizes and a certificate of merit. The Silicon team led by Padma Lochan Sahoo (ECE) from the graduating batch of 2021 received the 1st prize in the CSA track. The other members of this team were Smruti Mandal (ECE), Shreyash Behera (ECE) and Priyadarshan Mohapatra (ECE). Their topic was ‘GADDHE- Government App to Detect and Decrease Holes Efficiently’.

FDP on Internet of Things (IoT) in 5G Technology

The Department of Electronics and Communication Engineering (ECE) organized a Faculty Development Program (FDP) on “Internet of Things in 5G Technology” from 24th – 28th May 2021. The objective of this program was to train and educate the faculty to interact on cutting edge technologies in this emerging area. Resource persons were from academia and industry who hailed from India and abroad. The experts presented their research knowledge in 5G, Beyond 6G Communication, IoT application in Communication and Networking, AIoT, Hyper connectivity, Vehicular Ad-Hoc Networks, AI for Wireless Communication, IoT in Public Cloud and Security attacks on IoT network. The key invited speakers for the program were Dr. Ramjee Prasad, Professor, President, CTiF Global Capsule, Aarhus University, Denmark and Mr. Amiya Kumar Samantray, Founder & CEO, Phoenix Robotix Pvt. Ltd., India. Other invited speakers were Dr. Alben Mihovska, Associate Professor, Senior Academic

Research professional, Aarhus University, Denmark; Dr. Sunil B. Somani, Associate Professor, MIT-WP University, India; Dr. Madhukar Deshmukh, Postdoctoral Fellow, Bar-Ilan University, Israel; Dr. Chayapol Kamyod, Assistant Professor, Mae Fah Luang University, Chang Rai, Thailand; Dr. Vaibhav Hendre, Deputy Director & Professor, GHRCEM, India; Mr. Anish Sarangi, Senior Data Scientist, Fusion Practices Pvt. Ltd; Ms. Nidhi, Research Associate, Aarhus University, Denmark; Dr. Sanjay Kumar, Associate Professor, BIT Mesra, Ranchi, India and Dr. Pranav Pawar, Assistant Professor, BITS Pilani, Dubai. The FDP was conducted in the online mode and was sponsored by AICTE under the AICTE Training and Learning (ATAL) Academy. 200 participants from across the country attended this program.

FDP on Internet of Things (IoT) in 5G Technology (Advanced)

The Department of Electronics & Communication Engineering (ECE) organized a five-day Faculty Development Program (FDP) from 21-25 June 2021 on “Internet of Things (IoT) in 5G Technology (Advanced)”, in the online mode. The IoT has evolved from the convergence of wireless technologies and the internet by connecting ‘things’ in the real world such as home appliances, industrial equipment, monitoring sensors, etc. The objective of this FDP was to train the faculty in these emerging areas. Eminent experts from the field of technology presented their research knowledge in 5G, RAN, Artificial Intelligence, Machine Learning, Industry 4.0, IoT application in Communication and Networking, 5G connected EDGE Platform, Cyber Security, practice sessions on different topics like IoT Architecture & Implementation with MQTT, MQTT Protocol Driven routing in IoT with Data Archival using My SQL DB Server, Routing in IoT with Hands-on Simulation Using CONTIKI- COOJA Simulator, Cisco Packet Tracer. There was also an Art of Living session to teach yoga and meditation to the participants. The talks were highly appreciated by the participants as evidenced by their continual positive feedback. The FDP ended with the valedictory session followed by an MCQ test for the participants. This FDP was sponsored by AICTE under the AICTE Training and Learning (ATAL) Academy and was the second part to the FDP conducted by the department during 24th-28th May 2021. 200 participants from different parts of the country participated in this program.

Other In-house Events

FDP on Computational Linear Algebra

A Faculty Development Program (FDP) on “Computational Linear Algebra” was conducted on 31st August 2020 by the department of Basic Sciences and Humanities. The objective of this program was to aid the faculty members in their teaching and research areas. The leading in-house resource persons were Dr. Saroj Kanta Misra, Dr. Sudarsan Padhy and Mr. Pradipta Kumar Pattanayak. 14 faculty members attended this program.

Webinar on Recent Trends in VLSI Verification

The department of EIE (Electronics and Instrumentation Engineering) organized a webinar on “Recent Trends in VLSI Verification” on 20th September 2020, in order to make the students aware about the various career options and the recent technologies used in the VLSI industry. The chief resource person was Dr. Ranjan Kumar Barik, Senior Verification Engineer, XILINX, India. Dr. Barik also spoke in detail about the role of a verification engineer in the VLSI industry. Students from different electronics streams of engineering participated in the webinar.

Lecture Series on Data Science

An in-house lecture series on “Data Science” was conducted by the Department of Computer Science and Engineering (CSE) to enhance the skills of faculty members in the domain of Data Science. Dr. Sudarsan Padhy (Sr. Professor, CSE) conducted ten sessions across the session 2020-21, in the domain of Machine Learning (Data Science) and 14 faculty members attended the sessions.

Training Program on Thermal Imaging for Biomedical Instrumentation& Agriculture

The Department of Electronics and Instrumentation Engineering (EIE), along with the Department of Electronics and Communication Engineering (ECE) organized a one-day training program for the faculty members on “Thermal Imaging for Biomedical Instrumentation & Agriculture” on 1st April 2021. Dr. Lalat Indu Giri, Assistant Professor from NIT, Goa was the expert for the occasion. Dr. Giri touched upon various topics such as thermal imaging, fundamental concepts and working of infrared thermography, application of thermal-infrared imaging for military and civilian purposes such as target acquisition, surveillance, night vision and tracking, non-military uses including thermal efficiency analysis, environmental monitoring, industrial facility inspections remote temperature sensing, short-ranged wireless communication, spectroscopy, and weather forecasting and their medical applications during the session. 30 faculty members attended the session.

Activities by Entrepreneurship Development Cell

Webinar on Opportunities for Start-up in Post-Covid Situation

The Entrepreneurship Development Cell of Silicon organized a webinar on Opportunities for startup in Post-Covid Situation on 12th September 2020. Mr. Deepak Kumar Khaitan (Fellow Member of ICSI), was the chief resource person on this webinar. He was awarded the Entrepreneurship Education Champion – Special Jury Award at Entrepreneurship Education Conclave at New Delhi orgd. by National Entrepreneurship Network, MSDE, Intel & British Council. About 300 students and emerging entrepreneurs participated in this online programme from different parts of the country.

Warm-Up Session on Silicon Start-Up Ecosystem

The Entrepreneurship Development cell of Silicon organized an online Warm-Up Session on Silicon Start-Up Ecosystem with 3rd and 5th semester students on 8th December 2020. Silicon has taken the initiative to build a platform for creating a startup eco-system in the campus to provide opportunity to convert student’s innovative ideas into marketable products and eventually establish them as successful startups. In this regard, Silicon has engaged Free Flow (Mind Space Ventures), a Venture Building company, with the target to produce at least 5 successful startups every year. Mr. Aaqib Hussain Founding Partner – Free Flow (Mind Space Ventures) talked to our students about the importance of startups and presented the road map to reach at the goal. About 200 students participated in this talk and interacted with team Free Flow.

Entrepreneurship Awareness Programme

The ED Cell of Silicon organized an online Entrepreneurship Awareness Programme on 10th December 2020. In this event, Mr. B.S. Pani spoke to the students on idea generation. Mr. Dharendra Kar, CEO BIPRO, Technologies shared his experience as an entrepreneur with the students. About 350 students attended the programme and interacted with the guest speakers.

Workshop on Entrepreneurship Development Phases

The ED cell and Institution’s Innovation Council of Silicon organized a workshop on Design thinking during 15th-16th December 2020 in online mode. Mr. Bhabani Sankar Pani, Prof. Tusharkanti Pani and Dr. Mahendra Prasad Agasty took the sessions on various Entrepreneurship Development phases. The speakers discussed about the business idea, its evaluation, forming a plan, accumulating resources, putting a proper structure in place, and planning the future. About 160 students attended the sessions.

Session on Identifying Intellectual Property Component at the Early Stage of Innovation

The ED cell and Institution's Innovation Council of Silicon organized an online session on Design validation on 19th December 2020. Dr. S.K.Kar was the resource person in this occasion. The session was focused on the dimensions of Intellectual Property (IP) at the early stage of innovation. Dr. Rout told how innovation is important for the progress of the society and innovation is crucial to the development and deployment of technologies.

Session on "Design Validation (Double Diamond Approach)"

The ED cell and Institution's Innovation Council of Silicon organized an online session on Design validation on 19th December 2020. Dr. Mahendra P. Agasty was the resource person in this occasion. In the beginning of the session the problems were identified and explanations were presented to solve these problems by double diamond approach. The processes of design validation were also highlighted. Four phases to this approach were discussed in this session: 1. Discover customer problems 2. Define specific customer problems 3. Develop potential solutions to these customer problems 4. Deliver feasible and viable solutions to these customer problems.

Freeflow Entrepreneurship Training Programme

The ED cell of Silicon signed MOU with Freeflow Kolkata for Entrepreneurship Development Programme. This programme is outcome based and target oriented programme. As a part of the programme 837 students appeared for EAAT (Entrepreneurship Acumen Test). 576 students selected for the training programme. Seven teams have been formed to carry on various activities. First activities started on 30th January 2021. Mr. Aaquib Hussain from freeflow discussed about the process of problem identification and idea generation. Some broad areas were given to the students to have the solution to the various problems.

Technology based Entrepreneurship Development Programme (TEDP)

The ED cell of Silicon conducted a six-week long Entrepreneurship Development programme from 12th Feb -27th March 2021 which was sponsored by NSTEDB, Govt of India. The training programme was conducted in online mode due to the COVID scenario. Dr. Mrutyunjaya Suar, CEO, KITT, TBI and Mr. C. R. Pattnaik, former Regional Head EDII, addressed the participants. The objective of the program was to encourage the young technocrats to take entrepreneurship as their career. The interest shown by applicants to attend the program was quite encouraging; however, 25 out of 90 applicants were selected to attend the training where renowned resource persons, including trainers, faculty members from reputed management schools, bankers and different government agencies taught the various aspects of entrepreneurship to aspiring entrepreneurs. This Technology Based EDP was primarily focused on the training and development need of entrepreneurs in a specific technology area of ICT designing and manufacturing in industrial automation domain. The participants were provided with hands-on training in indigenous technologies development with R&D institutions that are available for commercial exploitation.

Women Entrepreneurship Development Programme (WEDP)

The ED cell of Silicon organized a six weeks Entrepreneurship Development programme from 20th Feb -20th March 2021 in online mode which was sponsored by NSTEDB, Govt of India. Dr. Chidatmika Khatua, a successful woman social entrepreneur addressed and motivated the participants on the day

of inauguration. Mr. Bhabani Shankar Pani talked about the importance of such programme in the present time. As per his views, Indian economy is growing every decade and startups are turning out to be the primary engines driving this growth. Despite being the third largest startup nation and having over 27,000 startups, India still has only 5 women startup founders. This figure highlights the multi-layered challenges faced by female entrepreneurs. So such training programs will help and encourage the women, who are interested to take entrepreneurship as their career.

Webinar on “Scope of Entrepreneurship in Solar & Renewable energy”

Entrepreneurship Development Cell, Silicon Institute of technology, Bhubaneswar in association with Odisha Corporate Foundation (OCF) organized a webinar on the theme “Scope of Entrepreneurship in Solar & Renewable energy” on 18th April 2021. Mr. Upendra Tripathy– Founder & Director General, International Solar Alliance (ISA) & EX- IAS - Secretary of Ministry of New & Renewable energy GOI) joined as the chief guest. Dr. Mahendra P. Agasty talked about the entrepreneurship and startup ecosystem of the Odisha. Dr. Santanu Rath, EX-Director HR, OPTCL & OMC moderated the discussion. Mr. Tripathy highlighted about the scope of Solar and renewable energy and advised the students to take his help whenever necessary. About 70 students and 20 entrepreneurs’ participated in the webinar.

Idea Generation Competition (Ideathon)

The ED Cell of Silicon organized Idea Competition (Ideathon) on 25th April 2021. Ideathon is the yearly idea generation program which is organized by the ED Cell of Silicon Institute of Technology, Bhubaneswar. The Ideathon aims to provide students a platform to showcase their innovative and creative ideas and to motivate them to pursue entrepreneurship. In this event, students pitch their ideas to a bench of judges and get rewarded on the basis of creativity, innovation, feasibility, and scalability of their ideas. The Ideathon 2k21 was conducted in two phases, viz. Abstract Submission and a Final Pitching Round. In the 1st round, students from various technical institutions were invited to submit their innovative ideas. On 25th April final presentation was made. The 11 teams pitched their ideas in the session of 3 hours. The panelists evaluated the ideas based on 8 parameters like revenue plan, feasibility etc. Out of the 11 ideas, the top 3 were awarded with cash prizes worth RS 33k and Certificates of Achievement. The teams: XSTREAMS (1st Position), FWM (2nd Position) and MultiWEE (3rd Positions) were declared as the winners of the Ideathon 2k21. Mr. Bhabani Shankar Pani, Mr. Srustijeet Mishra, Dr. Prakash Kumar Rout joined as the panelist.

Interactive Session/Mentoring Session with "Successful Start-up founders”

Entrepreneurship Development Cell, Silicon Institute of technology, Bhubaneswar organized an Interactive Session/Mentoring Session with "Successful Start-up founders” on 20th June 2021. Mr. Ayaskanta Mohanty, Founder and MD of Tatwa Technology joined as the guest. The topic of the webinar was Odyssey of an Entrepreneurial Genius. Mr. Ayaskanta told about his entire journey as an entrepreneur. In his talk he expressed the means of inspiration he got during his journey as an entrepreneur. He mentioned about the challenges he encountered and how he managed it. He also mentioned about his source of inspiration. He gave some tips to the student who wants to take entrepreneurship as their career. About 75 students participated in the webinar.

Mentorship Session with Innovation Ambassadors

Entrepreneurship Development Cell and Institution’s Innovation Council, Silicon Institute of technology, Bhubaneswar organized mentorship session on 21st June 2021 in virtual mode both for

faculty members and for the students. Thirty students and 5 faculty members attended the mentoring session. Dr. Mahendra Prasad Agasty, Dr. Sushri Rout and Mr. Jagdish Patra mentored the students on entrepreneurship, patents and on startup. Dr. M.P. Agasty mentored about the pre-incubation facilities which we have in our institute. He talked about how to generate ideas and how to develop the business model. Dr. Sushri Rout answered the question from the faculty members on Patent. How AICTE through KAPILA Programme help the faculty members to file patent. She advised the students once you are developing an idea it is necessary to protect the idea by applying for patents.

Session on “How to plan for a Startup: Legal & Ethical Steps”

Entrepreneurship Development Cell and Institution’s Innovation Council organized a session on “How to plan for a startup: Legal and ethical steps” on 25th June. Sr. Sachikanta Kar, CTTC was the resource person on this occasion. Thirty students participated in this session. In his session he spoke about different types of business organization we have and how to form them.

Workshop on Start-up: The Inceptive Phase

Entrepreneurship Development Cell organised two-day workshop on “Start-up: The Inceptive Phase” from 26th to 27th June 2021. On 26th the session was on “Building a Start-up from Absolute Zero”. Mr. Siddharth Bhatte, CEO Karkhana was the resource person. In his session he talked about ideation, team building, testing of product’s viability etc. On the second day, i.e., 27th June 2021, the session was on “Angel Investment & Accelerator Incubation”. Mr. Aaqib Hussain of Freeflow joined as resource person to talk on the theme. In his talk he covered how ideas are pitched, stages of investment and dynamics of Angel Investors and Incubators. About 70 participated joined the online workshop conducted in online mode.

Other Activities/ New Initiatives

TechnoZeal Program

The department of CSE and MCA conducted online courses for teachers and students across the country to enhance their skills. All the courses were complimentary. The course titled Understanding Higher Mathematics, Simplified was organized for high school (ICSE & CBSE) mathematics teachers from 11th to 13th July 2020. A total of 139 teachers across India joined this online training program. Two courses were conducted for school students- C++ was conducted from 13th to 17th July 2020 while Python Programming was organized from 20th to 31st July 2020 to help students build a foundation in object oriented and Python programming respectively. More than 300 students joined both the programs.

Webinar on Career Options and Opportunities for Electronics Engineers

The Department of Electronics and Instrumentation Engineering (EIE) at Silicon organized a webinar on ‘Career options and Opportunities for Electronics Engineers’ on 8th August 2020. The notable expert Mr. Renjith CV, Product Designer - Medical Imaging at Philips Healthcare R&D Centre, Pune was the speaker. The major focus of this webinar was to sensitize students about career prospects for Electronics Engineers in various manufacturing industries such as smart phones, industrial automation systems, smart devices, biomedical devices and aviation systems

Launch of Silicon CodeChef Chapter

Siliconites earned their CodeChef College Chapter shield for Silicon in November 2020 under the Silicon ISTE (Indian Society for Technical Education) banner. Silicon was inducted through an online Induction session held on 1st and 8th November 2020. The objective of the Silicon CodeChef Chapter is to build a

robust competitive programming culture on campus and help students become better problem solvers. Rishav (ECE, 2017-2021) is the Student Chairperson of CodeChef who founded the CodeChef Silicon Chapter. Other founding members are Prashant Kumar (ECE, 2017-2021) as Event Lead, Akash Dash (CSE, 2018-2022) as Media and Outreach Lead and Ashish Sureka (CSE, 2018-2022) as Competitive Programming Lead.

Formation of the SAGE- 'W' Cell

The Social Awareness and Gender Equality for Women (SAGE-'W') Cell comprising of faculty and student members was formed on 27th January 2021, as per AICTE guidelines. Its 3Ps aim at Promoting, Practicing and Propagating leadership skills among women students, acknowledging women student achievers through awards in various categories like academics, technical innovations, entrepreneurship, and cultural practices. SAGE-W Cell also will be involved with conducting competitions, seminars and awareness programs to promote gender equality, creating opportunities of self-expression for women and promoting ideal cultural practices among them, and drawing inspiration from India's age old epics and scriptures.

Weekend of Webinars (WoW 21)

D2C Igniters Club Silicon Chapter conducted Weekend of Webinars (WoW 21) - a 2-day webinar series - on 31st January and 7th February 2021. Three webinars were conducted. Mr. Anuj Garg (Founder @Code for Cause & Coding Junior; GSoC Admin @JBoss Community & Open source Outreach Advocate @JBoss College), spoke on 'Road map of Opportunities' during College. He advised students to explore different career opportunities, networking with experts etc. while pursuing studies. Mr. Vikram Mondal (ICPC Regional Finalist; Teaching assistant @Coding Ninjas; Intern@ WD), gave an insight into Competitive Programming (CP), and how students can get started with CP, various CP competitions, CP versus Projects and how to excel in this field. Mr. Manas Hota (Entrepreneur; Co-founder @DrinkPrime & a Business Developer) spoke about the importance of 'Digital Marketing' in this era. The event received more than 300 student registrations.

PRAYAAS - by ISTE & Student CodeChef Chapter

A program named 'PRAYAAS - The Pursuit of Campus Placements' was conducted for students on 21st March 2021 to remove the fear related to placements in students. The initiative was taken by ISTE Students' Chapter in association with CodeChef Silicon chapter and the Industry Interface Cell of the Institute. 95 students from 2nd and 3rd year appeared for the 1st round i.e., written test comprising of quantitative aptitude, reasoning, verbal ability and basic computer science topics. This was followed by a Coding test, GD and PI rounds. The GD round was conducted by the students of Meta Academics Cell and PI round was conducted by the final year students of Silicon who got campus placements. A total of 10 students were selected as the winners.

TechnoZeal 2021

The Department of CSE conducted a complimentary online Train the Trainer program on Computer Network for higher secondary school teachers on 27th March 2021. The program included the basics of computer networking, as per the syllabus of higher secondary. Mr. Amarjeet Mohanty, Assistant Professor, CSE department explained the concepts of computer network through real life examples. A total of 129 teachers across the country attended this program. The CSE Department also conducted a free online training program for higher secondary school students on the basics of 'Python Programming' in the last two weekends of March. A total of 523 students across the country attended this program.

60 Seconds of Innovation

The IEEE students' chapter at Silicon conducted a technical Video Making competition titled, '60 Seconds of Innovation' from 15th April to 5th May 2021. This technical video making competition gave a platform to the students to showcase their talent and knowledge on various technologies in computer science like Artificial Intelligence, Data Science, IOT, Blockchain, Edge Computing as well as their efficient problem solving skills. The winners were chosen on the basis of the creativity of their ideas and the content of their videos.

Codify 2021

The D2C Igniters Club Silicon Chapter conducted a two-day event on coding and aptitude test skills from 8th-9th May 2021. The event was conducted to make the students aware of the importance of aptitude tests and coding skills, instill competitiveness among them and guide them on how to do better in the future. The event was the first of its kind to be organized by the Chapter. Registrations were invited in two categories. Category 1 was for the first and second year students and Category 2 was for third year students. 138 students participated in Category 1 and 39 students participated in Category 2. The test had two rounds, one to test the examinee's aptitude and another to test their coding skills. The winner in Category 1 was Animesh Tripathy (CSE, Batch 2023), followed by Kumar Jignasu (CSE, Batch 2024) and Arpita Mohanty (CSE, Batch 2023) as the 1st and 2nd runners-up. In Category 2, the winner was Saswati Rath (CSE, Batch 2022), followed by Sagar Swarup Swain (CSE, Batch 2022) and Atul Kumar Jain (CSE, Batch 2022) as 1st and 2nd runners up.

Industry Visit by Students of M. Sc. (Data Science)

An Industry visit for first year M.Sc. (Data Science) students was organized on 19th February 2021. Sixteen students, accompanied by two faculty members – Prof Sanjeev Kumar Dash & Professor Dayal Kumar Behera (from the Department of CSE), visited AcesoCloud Software Solutions Pvt. Ltd., Bhubaneswar. The students interacted with their professionals. Mr. Mohar Manohar Mishra - CEO and Co-founder of AcesoCloud also interacted with the students and briefed them about career prospects in the domain of Data Science.

ASCI-2021:

During this lockdown, in an effort to encourage technical productivity and skill development, the newly formed Coding club of Silicon- Silicon Wing of Technical and Coding Hub (SWITCH) organized an innovative project development competition for students- ASCI-2021 (Annual Switch Convention for Innovation-2021) in online mode during 5th to 30th June 2021. A total of 24 teams consisting of 60+ students participated and competed to develop projects based on unique problem statements within a deadline of 25



days. After a month of continuous evaluation and strict assessment by the SWITCH core team members and overall quality checking by the faculty coordinator of SWITCH, 6 teams were selected for the final pitching round organized on 6th July 2021, where they were evaluated by a panel of faculty members. The team Creative Name from 2nd year (Srijan Paul-CSE, Manohar Pattanayak-ECE) is the winner and team The DevLoopers from 1st year (Dipankar Maharana-CSE, K. Nirmal Kumar-CST, Sreeballabh Sahu -ECE) is the runner up for the competition. The event was sponsored by SIPC, Silicon

and the winner and runner up teams were awarded with cash prizes of RS. 5000/- and 3000/- respectively along with certificate of achievements. Some selected works from the competition are in the process of publication as student research papers.

Our Covid Response: Initiatives during the 2nd Lockdown Period

On 5th May 2021, after the announcement of the lockdown by the State Government, conduction of online classes from home by faculty members began promptly. All academic activities continued online during the lockdown and arrangements were made to have essential services on campus following Government guidelines and COVID protocols. Examinations for the even semester B.Tech., M.Tech., MCA and M.Sc. were all held in an online mode.

Drive- in Vaccination Centre identified by BMC

The SiliconTech campus at Patia became one of the three drive-in vaccination centers identified by Bhubaneswar Municipal Corporation (BMC) effective 10th June 2021. The arrangements and facilities provided at our centre were greatly appreciated by BMC, the vaccination team and by the people coming in for vaccination. The centre has been recognized as one of the best managed centers by BMC. On 27 June 2021, BMC conducted a special vaccination drive for the Silicon students, staff and their family members. A total of 19018 people were vaccinated (1st/2nd



dose) over a span of 45 days at our vaccination centre, at an average of about 423 per day.

Survey conducted on Students' & Faculty Members' Wellbeing

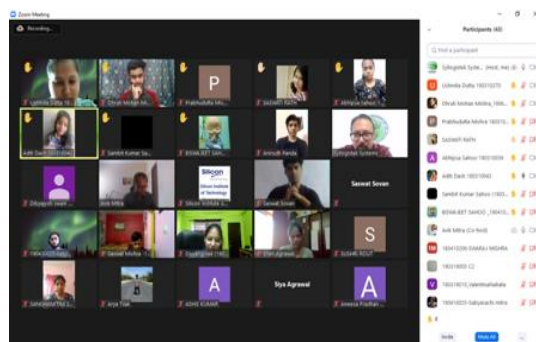
An online survey was conducted through a detailed questionnaire to know the well being of students during the pandemic. Dr. Saswati Jena, our in house psychological counsellor conducted the process. A significant majority of the students reported feeling emotional lows during the lockdown and seemed to have difficulty in coping with long distance friendships. The psychological well-being initiative for teaching faculties was conducted after one month of complete lockdown to understand the status of their mental health and well-being. Work-life stress, adaptability and family ecosystem were some of parameters faculty members gave their opinions on, and coping mechanisms along with curative measures were presented.

Creation of Silicon Support Fund

A fund, named as Silicon Support Fund has been created to provide financial assistance to the 14 students who have lost the earning member of the family. An independent committee is looking after the fund raising and fund disbursement.

Summer Internship Programme-2021

The first phase of Summer Internship for 4th & 6th semester students started from 15th May 2021 in online mode despite the lockdown. A total of 17 programs were conducted to accommodate majority of the students. 837 students from 2022 and 2023 graduating batch participated in this month-long program.



Summer Internship-2021 for 2nd and 3rd Year students, 15th May-30th June 2021

Category-A			
Sl. No.	Course Title	No of students Registered	Course Coordinator
1	Applied machine learning using MATLAB and Tensorflow	58	Dr. Biranchi Rath (in-house)
2	Cyber Security	35	Syllogistek
3	Digital CMOS VLSI Design	50	Dr. Saroj Rout (In-house)
4	Digital VLSI Design and Verification: A Verilog HDL Approach	94	Dr. Debasish Nayak (In-house)
5	Full Stack PHP	53	Syllogistek
6	Industrial System Design and Embedded Applications Using LabVIEW: A Hands-On Approach	12	Dr. Ambarish G. Mohaparta (In-house)
7	Java Fundamentals	25	Geeks for Geeks
8	Mastering IoT Product Development and Embedded System Linux	38	Karkhana & Mr. Sushant Patnaik
9	MEAN Stack Programming	164	Syllogistek
10	Programming of IOT devices using Raspberry Pi	27	Dr. Rajan Mishra (In-house)
11	SEO and Digital Marketing	42	Syllogistek
12	Specialized Training on Power System Analysis	20	PRDC and Dr. R. P Panda
13	WEB Application Development Using .NET (C#)	46	Syllogistek
14	DeVops	10	IICELL & Animesh Nayak
Category -B			
1	Data Science with Project	22	Syllogestek
2	Data structure and Algorithm using C++ and Java	49	Geeks for Geeks
3	Problem Solving and Data Structure Using Python	92	E Box
Total		837	

Campus Placement 2020-21

During the AY 2020-21, 55 companies visited the campus for placement and 757 jobs were offered. The major recruiters were Accenture, Akridata, Aptus Datalabs, Cognizant, CoreEL, Evosys Technologies, Felix Healthcare, Finastra, HCL, Hexaware, Infosys, Marquee Semiconductor, MindFire

Solutions, MTX, PeopleStrong, SAP Labs, Sevy Multimedia, Spikewell, SquidMind, TCS, Tech Mahindra, and Wipro. The overall placement figures for 2020-21 are:

Overall Placement Figures for 2020-21:

Program	Branch	Total no of Students	Eligible Students	Placed (Unique)	No. of Job Offers	Total Job Success Rate (in %) on Total Students	Total Job Success rate(in %) on Eligible Students	Unique Job Success rate(in %) on Eligible Students
B.Tech	AEI	37	34	25	41	110.81	136.67	83.33
	CSE	192	186	163	366	190.63	206.78	92.09
	ECE	168	153	114	207	123.21	146.81	80.85
	EEE	126	118	64	121	96.03	108.04	57.14
	Total	523	491	366	735	140.54	159.78	79.57
MCA	MCA	53	52	21	22	41.51	95.65	91.30
	Total	576	543	387	757	131.42	156.73	80.12

Company-wise Placement (2021 Pass out Batch)						
Company	Branch					Grand
	AEI	CSE	ECE	EEE	MCA	Total
Abzooba		1				1
Accenture	10	49	34	16		109
Akridata		1				1
Appitsimple Infotek		1				1
Aptus Datalabs		6	2			8
Broadridge			2			2
BRN Commerce		1				1
Centrox					4	4
Chargebee			1			1
Cognizant	6	53	36	24		119
CoreEL			3			3
Cozentus		2		1	1	4
CSM					1	1
Digit General Insurance		3	2			5
eClerx		1	2	1		4
ESSPL		2			1	3
Evosys Technologies		1	1			2
Felix Healthcare		1				1
Finastra				1		1
HCL		1	2			3

Company-wise Placement (2021 Pass out Batch)						
Company	Branch					Grand
	AEI	CSE	ECE	EEE	MCA	Total
Hexaware	1	10	3	1		15
Infosys	3	65	29	21	1	119
Infoagain		1				1
Intel			1			1
iServeU		4	4		1	9
KPIT			1			1
Larkai Healthcare			2			2
Larix Technologies					1	1
Marquee Semiconductor				1		1
Mavenir		1				1
Maventic		2				2
MindFire Solutions		13				13
MTX		1				1
Nagarro		1	1			2
Nirmalya Labs					4	4
Pentair		1				1
PeopleStrong		1				1
Perfect Vip	3		1	1		5
Phoenix Software					3	3
PoloSoft Tech					3	3
Qvantel		1				1
Rewoke			1			1
SAP Labs		7	1			8
Sevya Multimedia	3		5			8
Spikewell		6				6
SquidMind		1				1
STL		3	1	1	1	6
Surya International				3		3
SysCloud		1	1			2
TCS	10	60	35	21		126
Tech Mahindra		2	1			3
ThinkZone		1				1
Torry Harris		6			1	7
VVDN			3	1		4
Wipro	5	55	32	28		120
Grand Total	41	366	206	121	22	757

Higher Salary 2021:

Higher Salary	26 LPA	14LPA	12 LPA	8 LPA	7 LPA	6-7 LPA	5-6 LPA	4-5 LPA
No. of Students	1	1	1	14	6	13	31	257

Students Selected for Practice School

For the batch-2022 a total of 42 students were selected for the Practice School (PS) program. Out of which 28 students have joined their program in the 7th semester and rest 14 selected students will be joining with their respective PS station in their 8th Semester.

Sl. No.	SIC No.	Name	Branch	PS Station company
1	180310504	Akansha Kumari	CSE	Accolite
2	180310364	Anish Sinha	CSE	
3	180310273	Chinmay Anand Panda	CSE	
4	180610329	Anshuman Das	EEE	
5	180310501	P.Sibam	CSE	ALLD Technologies
6	180310367	Atul Kumar Jain	CSE	
7	180310322	Aman Jena	CSE	
8	180310297	Preeti Patnaik	CSE	
9	180310404	Simron Senapati	CSE	
10	180310507	Pratyush Pattnaik	CSE	
11	180310286	Samannita Giri	CSE	
12	180310212	Shaswat Ranjan Nath	CSE	Aptus Data lab
13	180310209	Achyutananda Nayak	CSE	
14	180310037	Sritik Dash	CSE	Cozentus
15	180310360	Swapnil Nayak	CSE	
16	180310499	Debashish Sahu	CSE	
17	180410190	Ruchi Agarwal	CSE	
18	180410267	Abhipsa Roychoudhury	CSE	
19	180310015	Amit Raj	CSE	
20	180310423	Smita Agarwal	CSE	
21	180310515	Sanjog Samuel Samantaray	CSE	
22	180310004	Aniket Kumar	CSE	
23	180310506	Prateek Kumar Panda	CSE	
24	180310247	E Swarup Kumar	CSE	Devathon
25	180310202	Swapnosanjog Mohanty	CSE	
26	180310246	Ankit Acharya	CSE	
27	180310051	Prateek Bharadwaj	CSE	
28	180310256	Md Razi Shahid Ansari	CSE	
29	180310347	Aditya Viswabhusan	CSE	DGLiger
30	180310076	Sagar Swarup Swain	CSE	Maventic

Sl. No.	SIC No.	Name	Branch	PS Station company
31	180610104	Diksha Kumari	EEE	PRDC
32	180610425	Yash Agrawalla	EEE	
33	180610431	B Manasi Patro	EEE	
34	180610454	Sunny Kumar Singh	EEE	
35	180410527	Sagar Kumar	ECE	Spikewell
36	180310427	Saswati Ratha	CSE	
37	180310221	Saurav Kumar	CSE	
38	180310510	Sekhar Kumar Chhualsingh	CSE	
39	180310351	Sourav Suman Acharya	CSE	
40	180410044	Sreeya Sahoo	ECE	
41	180410135	Chandan Singh	ECE	Stmicron
42	180610067	Satya Ranjan Panda	EEE	Sevya

Achievements by Students

GATE-2021 Achievers

Branch	Regd. No.	Name	AIR	YOP	Gate
CSE	1601209419	Akash Kumar	20	2020	2021
CSE	1701209415	Koustav Ray	67	2021	2021
EEE	1701209187	Swagat Behera	381	2021	2021

CAT-2021 Achievers

Sl #	Branch	Regd. No	Student Name	CAT Percentile	YOP
1	CSE	1701209064	Prateek Ram	97.67	2021
2	ECE	1701209498	Kewal Krishna	95.6	2021
3	CSE	1701209403	Diksha Sharma	93.5	2021
4	EEE	1701209355	Abhishek Lohia	92.22	2021
5	ECE	1701209021	Muskan	91.61	2021
6	ECE	1701209320	Kasturi Priya	90.55	2021
7	CSE	1701209045	Gaurav Mahapatro	90.15	2021
8	CSE	1701209467	Subhasish Pattnaik	89.64	2021
9	ECE	1701209043	Anurag Mohanty	87.91	2021
10	CSE	1701209312	Mithilesh Chakraborty	84.17	2021
11	ECE	1701209030	Aniket Pattnaik	84.14	2021
12	CSE	1701209396	Abhishek Kumar	83	2021
13	CSE	1701209325	Aishwarya Sahu	74.16	2021
14	EEE	1701209101	Anshuman Upadhyay	71.16	2021
15	EEE	1701209199	Pratyush Kumar Parida	70.49	2021
16	CSE	1701209217	Ashish Kumar	49.74	2021

Students Enrolled for Higher Studies

Sl. No.	Name of the student	Branch	YOP	University/ Institute Admitted to	Program
1	Alka Ranjan	CSE (M. Tech.)	2021	IIT, Kharagpur	Ph.D.
2	Akanshya Tripathy	CSE	2015	Purdue University	MS
3	Tapsi Choudhury	CSE	2017	XIMB	MBA
4	Sharthak Mohanty	CSE	2017	XIMB	MBA
5	Anubha Sourya	CSE	2021	CHRIST Deemed to be University	MBA

Student Achievements in Hackathons/Other Events

Smart India Hackathon 2020- Software Edition Winners

Two shortlisted teams from Silicon viz., Creative_Beings and Vektor made it to the Grand Finale (Software Edition) of Smart India Hackathon (SIH) conducted from 1st - 3rd August 2020 which is a nation-wide initiative to provide students with a platform to solve pressing problems faced in everyday life. Both the teams comprised of students from the 4th year. The team Vektor led by Swastik Pradhan (ECE) submitted their ideas in the domain 'Software - Mobile App development' under the Problem Statement Category 'Pothole Challenge'. Team Vektor narrowly missed the winning position in the final tie round. Asutosh Senapati (ECE), Praliptra Rajoo (CSE), Supriya (ECE), Padmalochan Sahoo (ECE) and Shreyash Behera (ECE) were the other members of the team. The team Creative_Beings led by Kiran Kumar Potnuru (ECE) was the winner in the domain 'Waste Management' against the Problem Statement 'Smart Management of Food Storage and Waste Reduction'. The other members of the team were Sachin Kumar Rawani, P. Digvijay, Sidhant Ray from CSE and Subhadra Panda, Vicky Kumar from ECE. The team won a cash prize of INR 1 lakh.

Winners in Elocution Competition

Siliconites outshone all contestants in the Elocution Competitions organized by NALCO during the Vigilance Awareness Week celebration from 27th October to 2nd November 2020. Our students earned the first position in the competition in all 3 languages viz. English, Hindi and Odia. Sanath Kumar Swain (4th Year, EEE) was first in English, Geetansa (2nd Year, ECE) in Hindi and Annada Guman Singh (3rd Year, CSE) in Odia.

Empowering Youth Hackathon 2020 Winners

Team Farm Folks from Silicon is one of the top 5 winning teams in the Empowering Youth Hackathon 2020 conducted from 28th–30th November 2020. Empowering Youth Hackathon is a meeting of minds, backgrounds and skills at the national level, on innovation and tech ideas. In the 2nd round of this Hackathon 2 out of 10 teams were selected who represented Odisha in the national level. Team Farm Folks was one of these 2 teams, which comprised of 6 members from 2021 graduating batch viz., Punyadeepa Pattanaik (ECE), Ayushman Patnaik (ECE), Ashutosh Patra (CSE), Asutosh Rath (CSE), Amit Kumar Patro (ECE) and Neha Mohanty (ECE). They competed against the top 20 teams across India, securing 5th position and were awarded up to 2 lakh worth prototyping support from IKP Eden and incubation opportunity at 100 Open Start-ups.

Team 'FarmFolks': 1st position in the Global Innovation Drive 1.0

Team FarmFolks comprising of 6 members from Batch2021 viz., Punyadeepa Pattanaik (ECE), Ayushman Patnaik (ECE), Ashutosh Patra (CSE), Asutosh Rath (CSE), Amit Kumar Patro (ECE) and Neha Mohanty (ECE), secured the 1st position in the Global Innovation Drive 1.0 – an international Hackathon, organized by Startup Grind, in collaboration with KIIT –TBI, from 23rd - 31st January 2021 and were awarded a pre-incubation opportunity at KIIT -TBI. They were one of the top 5 winning teams in the 'Empowering Youth Hackathon 2020' conducted from 28th - 30th November 2020, where they had competed against the top 20 teams across India, securing 5th position and were awarded up to 2 lakh worth prototyping support from IKP Eden and incubation opportunity at 100Open Start-ups. Team Farm Folks has also been selected by MHRD for the prototyping stage and entered the 2nd round on 26th January 2021, in the IIC National Innovation Contest (NIC) 2020 launched by IIC – MoE's Innovation Cell.

Hack Girl Summer 2.0 Winner

Prasansha Satpathy of B.Tech. CSE 2019-23 Batch won the prize best use of Google Cloud Sponsored by Google in the "Hack Girl Summer 2.0"-an online hackathon hosted by MLH during 4th-6th June 2021. She presented a masculine-voiced AI assistant-ROSE to ensure the conversation is gender-neutral and all inclusive.

Team JCoders: Won HACK THE MOUNTAIN 2.0

The team JCoders comprising members: Sumeet Naik, Sunil Panda, Ayush Mohanty (CSE), and Nishikanta Ray (ECE) of 2019-23 Batch won the hackathon-HACK THE MOUNTAIN 2.0- A 36 hour virtual hackathon organized by Tech community from Jammu and Kashmir "SUDAN'S Tech" during 26th-27th June 2021. They presented a solution for Eliminating Black Market of Medicine and won cash prize of RS 10000 in ETH.

HackWithInfy 2020 Winners

8 students from 2021 graduating batch were selected for the role of SSE (5 LPA) and SE (3.6 LPA) in HackWithInfy 2020, the pan-India Hackathon contest conducted by Infosys. These students are Ankita Das (CSE), Medha Raj (CSE), Prateek Ram (CSE), Sachin Kumar Rawani (CSE), Utkarsha Koushik (CSE), Kamaljeet Mallik (CSE), Navin Chandra (CSE) and Deepak Kumar (ECE).

TCS Digital Winners

5 students from 2021 graduating batch were selected for TCS Digital 2021 (These students were the top performer in TCS-NQT exam and got the opportunity to participate for TCS digital interview and were selected for a package of 7LPA). The selected students are Pratik Ram (CSE), Rachit Pattnaik (ECE), P. Digvijay (CSE), Siddharth Chakraborty (ECE) and Ayush Poddar (CSE).

TCS CodeVita Winners

11 students from Batch 2021 were selected in TCS CodeVita, a global programming contest conducted by TCS and also got a job offer of 3.5 LPA. These students were Anubhaba Samanta (CSE), Navnita (CSE), Nityakrushna Behera (CSE), Piyushi Poddar (CSE), Prateek Ram (CSE), Rahul Kumar (CSE), Ritesh Kumar Sinha (CSE), Shubham Saw (CSE), Swastik Mishra (CSE), Potnuru Kiran Kumar (ECE) and Vikrant Kumar (ECE).

Other Student Achievements

- **Aditi Agarwal** (CSE- 2016-20 Batch) published an International Journal paper entitled- “MyGreen: An IoT-Enabled Smart Greenhouse for Sustainable Agriculture” in *IEEE Consumer Electronics Magazine*, June 2021.
- **Alka Ranjan** (M. Tech., CSE: 2019-21) presented and published a research paper entitled- “A Semantic based Information Retrieval System” in *International Conference on Communication, Circuits, and Systems (iC3S 2020)*, Springer, April 2021.

Official Events

Independence Day Celebration

The Institute celebrated the Independence Day on 15th August 2020. The Principal Prof. Jaideep Talukdar hoisted the National Flag and addressed the gathering of students and staff members present on the occasion.



MCA Farewell 2020

The farewell for the MCA batch of 2020 was conducted online on 5th September 2020. The Director, Principal, Dean Academics and HoD addressed the students with their motivating words. Ayan Mukhi was the proud recipient of the ‘Best Student of the Year’ Award. The event ended with performances by Ardhendu Mishra and Abhishek Chatterjee. Everyone received Amazon Coupons as a special gift. The e-farewell ended with a vote of thanks by the HoD, Dr. Rabindra Kumar Dalei.



Foundation Day

Silicon observed its 19th Foundation Day on 10th September 2020. The event started with an introductory welcome address by the Principal Dr. Jaideep Talukdar. The keynote speaker for the event was Dr. Sudhasatwa Basu, Director of Council of Scientific Industrial Research, Institute of Minerals and Materials Technology (CSIRIMMT), Bhubaneswar who is an eminent academician and researcher. Dr. Basu spoke on the ‘Role of Education in Innovation, Start-up and Entrepreneurship’. To mark the occasion, online elocution and quiz competitions were conducted amongst the students. Swaraj Baral (CSE, 3rd year), Sital Panigrahi (CSE, 2nd year) and Akash Pandit (CSE, 2nd Year) were the top three winners in the elocution contest. In the quiz contest, Ipsita Mudaly (ECE, 4th

year) and Saswati Biswal (CSE, 4th year) were the winners; Akansha Kumari (CSE, 3rd year) and Rakesh Kumar (CSE, 3rd year) were the first runners-up; Ashutosh Panda (CSE, 3rd year) and Priyabrata Sahoo (EEE, 3rd year) were the second runners-up.



B. Tech. Farewell 2020

The farewell function for the B. Tech. 2020 graduating batch was conducted on 19th September 2020 in online mode. It was organized with live video streaming on the social media handles of the Institute. Gracing this event with their presence were Dr. Saroj Kanta Misra (Director), Dr. Jaideep Talukdar (Principal), Dr. Debabrata Kar (Dean Academics), Head of all Departments and faculty members. Students participated in full zest and shared nostalgic memories at Silicon. Everybody received Amazon Coupons as a special gift. Akshay Kumar from the IT branch received the 'Best Student of the Year' award.



Induction of 2020 Admission Batch (3rd Batch under Autonomy)

The Orientation-cum-Induction program, for the 3rd Batch under Autonomy (2020-2024) was conducted in the online mode from the 8th-13th December 2020. The program had been designed so as to orient students into cultivating the right attitude towards their chosen career and inculcating a strong value system. Some of the eminent speakers were Prof. Sunil Kumar Sarangi- Ex-Director, NIT Rourkela, Dr Joe Madiath- Ex Chairman Gram Vikas, Prof. Shradha Padhi- Professor OB & HR, KSOM Bhubaneswar, Mr. Abhijit Sen- Ex-AVP, Infosys and Founder, Syllogistek Systems and Prof. Kalyani Samantray- HoD FACIS, Sri Sri University. Many of our distinguished alumni addressed the students with their inspirational success stories.



Alumni Meet

The 12th Alumni Meet, was conducted in online mode on 26th December 2020. A total of 160 alumni attended the event. The event commenced with the welcome address by our Director, Prof. (Dr.) Saroj Kanta Misra, followed by the Principal, Prof. (Dr.) Jaideep Talukdar, and FIC II Cell, Dr. Sanjit Kumar Swain. These yearly meets provide a platform for our alumni to share their experiences through insightful discussions, know the progress and major achievements of the Institute and students over the years. The event ended with alumni bonding over various cultural performances clubbed with fun activities and an exquisite virtual campus tour, specially curated to reminisce on their memories.



The Republic Day Celebration

The Republic Day was celebrated on 26th January 2021. Prof. Saroj Kanta Misra (Director) hoisted the National Flag followed by recital of the National Anthem.



Launch of Practice School (PS) Program

Industry Interface Cell of Silicon launched the Practice School (PS) Program for the final year students on 20th March 2021. It is the first institute in Eastern India and one of the few institutes in the country to have launched this program. Practice School is a continuous and rigorous internship of about 6 months which is integrated into the present autonomous curriculum and carries 16 credits. It is aimed at enhancing the interaction of students with the industry or research organizations.



Mr. Devesh Sinha, Founder & CEO of Cozentus Technologies Pvt. Ltd, Mr. Amiya Samantaray, Founder & CEO of DATOMS (Phoenix Robotix Pvt. Ltd), Mr. Mohar Manohar Mishra, CEO & Co-founder at AcesoCloud Software Solutions Pvt. Ltd, Mr. Surendra Kumar Rout, Chief Operating Officer at Power Research Development Consultants Pvt. Ltd, Mr. Atul Bhargava, Principal Engineer, ST Microelectronics and Mr. Srikant Modugula, Co-founder & CEO of Sevy Multimedia Pvt. Ltd, all from various industry domains, addressed the students regarding the importance of Practice School.

Farewell for B. Tech. 2021graduating batch

Owing to the Covid restrictions, the formal Farewell function was not conducted this year. Instead, a dinner was organized on 31 March 2021 for the B.Tech. 2021graduating batch to mark the occasion. Animesh Kumar Nayak (CSE) received the Best Placement Award forgetting the highest salary package of 26 LPA and Koustuv Ray (CSE) received the Best GATE Performance Award forgetting AIR 69 in GATE 2021.

Other Activities/Events

Silicon Observes World Mental Health Day

Silicon observed 'World Mental Health Day– 2020' on 10thOctober 2020. The theme for this year was 'Mental health for all- Greater Investment, Greater Access'. Silicon promotes good mental health for all the students & staff. To create and propagate this awareness, a video podcast was released on YouTube on this occasion by our in-house Counseling Psychologist, Dr. Saswati Jena (Assistant Professor, BSH). The important message conveyed in the podcast was that mental health is as important as physical health. It is absolutely Okay to feel helpless, low, detached and stressed, but it is not Okay to remain silent.

SITMUN 2021



The Model United Nations (MUN) conference which is a simulation of the UNO (United Nations Organization) was held from 12th-14thFebruary 2021. It is an annual event of the Meta-Academics Cell, an inter- college debating forum. Students participated in good numbers from SiliconTech and other institutes. Outside participants were from BJB College, SOA University, Sri Sri University, DAV School of Management, Astha School of Management, Rama Devi University (from Bhubaneswar); Jindal Global University- JGU, Kolkata, and Christ University, Bangalore. The participants joined the program both online and offline. Retd. Col. Dr. Satyanarayan Ray (Ex- Indian Army) inaugurated the event and the three-day conference ended with the felicitation ceremony on 13thMarch 2021.

Arabinda Misra Memorial Quiz

Silicon Quiz Club organized the 'Arabinda Misra Memorial Quiz' online this year on 7th February 2021. It was open for students at the National level. A total of 140 teams (each team consisting two members) participated in the preliminary round. Dr. Adarsh Kumar Mohapatra (MBBS, Intern doctor @ AIIMS, Bhubaneswar) and Mr. Ritwik Tripathy (Batch 2020, Associate Software Engineer at Mindtree, Bhubaneswar) were the quiz masters. The winners were Mr. Ayuj Consul (3rd year, Television Writing and Production, Chapman University, CA, USA) and Mr. Pranava Dhar (1st year, Cognitive Science, Yale University, CT, USA). First runners-up were Mr. Aditya Tiwari (1st year, BA Economics, Ashoka University, Sonapat, Haryana) and Mr. Abhiraj Singh (1st year, BA Economics, Shri Ram College of Commerce, Delhi University). Second runners-up were Mr. Amlan Sarkar (1st year, MA Sociology, Delhi School of Economics, Delhi University) and Ms. Sonal Sharma (2nd year, BA English, Miranda House, Delhi University). This quiz is named after Late Professor Arabinda Misra of SiliconTech who was the founder of the Odisha Quiz Association.

International Women's Day Celebration

The International Women's Day with the theme 'Choose To Challenge' was observed on 13th March 2021. Dr. Adyasha Das (Associate Professor, Indian Institute of Tourism & Travel Management-IITM, Bhubaneswar, Ministry of Tourism, Govt. of India)-an acclaimed playback singer and one of the notable contemporary Odia writers and Sri Surendra Kumar Sahoo (OFS, working as Comptroller of Finance, Utkal University) addressed the Siliconites on this occasion. Dr. Das' inspiring talk was on how women live in an age cluttered with stereotypes which are difficult to break. Sri. Sahoo on the other hand emphasized on keeping the right mindset to face challenges in life. Ms. Subha Snigdha, (4th year, CSE), who is also the Secretary General of Silicon Students' Council received the 'Woman Achiever Award 2021'. This event was conducted by the SAGE-'W' Cell.



Earth Day Competition

The Creative Club of Silicon conducted an Art Competition on the 'EARTH DAY'. The students submitted their creative artwork through the online platform. The winners were voted by the core members of the club on 1st May 2021. Abhilipsa Dhal (CSE) was the winner followed by Priyanka (ECE) who got the second prize. Kajal Sharma (CSE) and Anurag Nayak (CSE) got the third prize. All the winners are from 1st year.

International Yoga Day

To celebrate International Yoga Day, a Yoga Session was organized on 22nd June 2021 within Silicon premises. The session commenced with a talk on the importance of Yoga in Life followed by the Yoga postures demonstrated by the yoga teacher of the institute, Mr. Prasanta Kumar Mallik. There were around 40 attendees including faculty members, supporting staff members and students.

45 Seconds to Fame

The Campus Life Co-ordination Committee (CCC) of SiliconTech Residence successfully organized the event '45 Seconds to Fame' on 26th June 2021 in the online mode. This event was for the first year students only. The event was promoted through Silicon Social Media Cell. The main objective of the event was to give a platform to the students to showcase their talent and to interact with their seniors. Many students of our residence participated in the event. Arpita Mahapatra of CST branch was announced as the winner of this event. Prathma Bhuyan (ECE) and Aparna Padhi (M.Sc. Data Science) were the runners up and 1st runners up of the event respectively.

Activities of the Sports & Cultural Committee

Silicon Vibes- A Cultural Ensemble

Silicon organized a first of its kind cultural ensemble, the Silicon Vibes, to mark the beginning of the academic session 2020-21. Various cultural events in the categories of creative and performing arts viz., live concerts, live competitions, quizzes were conducted. Some of the events conducted were Best Buddies-Dance and Song competition where students participated with their siblings, Celebrating Friendship—a videography contest celebrating nostalgic moments with friends, Dip and Daub—a drawing competition on the theme 'My LockdownFreedom' to share the creative practices taken up during lockdown, Shutter Up – a photography contest, Battle of Wits—a debate competition, Libretto Monologues—a dramatic rendition in mono-acting having a combination of powerful speeches, music and narration and India Quiz- a quiz competition celebrating our 74th Independence Day. The event spanned across the whole of the month of September and finally ended with a live concert.

Open MIC 3.0

Open MIC. 3.0 - the annual literary and musical event was conducted on 16th January 2021 in online mode by the Meta- Academics Cell. The event provides a platform to writers, performers, comedians, and storytellers to showcase their talent. The winners were chosen across two categories - Judges' choice and through audience voting. Vivek Mohapatra (CSE, 3rd Year) and Isha Bharadwaj (CSE, 3rd Year) were the winner and runner-up respectively in the Judge's category, while Ritish Mohanty (ECE, 1st Year) and Vivek Mohapatra (CSE, 3rd Year) were the winner and runner-up in the voting category respectively. Arpita Mohanty (CSE, 2nd Year) received the Woman Achiever Award. Our alumni members, Subhangi Nayak (CSE, 2019), Shalini Mohapatra (EEE, 2017), Dipinty Ghosal (CSE, 2015) and Mr. Shiv Shankar Pattanaik (ECE, 2012) were invited to judge the event, along with our faculty members.

Mini Intra-College Cricket Tournament (Silicon Super 7)

'Silicon Super 7' - a mini (25 yard) intra-college cricket tournament, was organized on 30th and 31st January 2021 for the final year B. Tech. and PG program students staying in the hostel. A total of 12 teams, each containing 7 players, participated in the event. The team The Crid-7 from 3rd year B. Tech. was the winner and the team Bullet-7 from MCA was the runner-up. The event was successfully conducted, abiding by all rules and regulations of COVID-19 guidelines.

Staff Award Function

The Annual Staff Award Function 2021 was organized on 6th February 2021 by the Silicon Staff Welfare Committee. Five employees received the long service recognition awards for 20 years, twenty five employees received the same for 15 years and twenty five employees received awards for 10 years' service. Eight faculty members, who were awarded with Ph. D. Degrees, were also felicitated during the function. The 'Employee of the Quarter' award category was introduced this year. Prof. Sushant Kumar Pattnaik, ECE (Category- Teaching), Mr. Debi Prasad Pradhan, EIE (Category- Non Teaching, Technical) and Mr. Jitendra Kumar Nayak, (Category-Administration) were felicitated for the quarter ending December 2020, for their contribution, innovation and dedication.



Uttarang 2021

The Silicon Music Club conducted Uttarang 21 to observe the World Music Day on the 21st June 2021. The event comprised of renditions in dance, music, song and poetry recitation. Students across all the years participated with full zest in this event which was streamed live on YouTube with the help of our Social Media Cell. Our alumni B. Gaytri (Batch 2016-currently working as an Associate Consultant at Wipro Technologies) and Pallavi Sahu (Batch 2019-currently working as Systems Engineer in TCS) participated and interacted with the audience. This online event had 27 programs.

Institute Collaborations

MoUs:

Sl. No.	Organization/Industry
1	The Institute of Engineers (India)
2	Institute of Minerals and Materials Technology (IMMT), Bhubaneswar
3	Perfect VIPs Techno Solutions Private Limited, Bhubaneswar
4	AcesoCloud Software Solutions Private Limited, Bhubaneswar
5	Silicon Techlab Private Limited, Bhubaneswar
6	UdreamTechnolab Private Limited, Bhubaneswar
7	NORD
8	STMicron*
9	Phoenix Robotics

Advanced VLSI Lab collaborates with Innatera Nanosystems B. V., Netherlands

The Advanced VLSI Laboratory signed an agreement with Innatera Nanosystems B.V. on 10th June 2021, to conduct research & development in Analog VLSI Design using the state-of-the-art CMOS Technology. Innatera is a pioneering Dutch company in the Netherlands developing ultra-low power neuromorphic processors for Artificial Intelligence (AI) at the sensor-edge.

Institute Achievements/Recognitions

ARIIA Ranking 2020

Silicon Institute of Technology, Bhubaneswar was placed in Band B (Rank between 26 to 50) under the category of Private or Self-Financed College/Institutes, in the East Region as per ARIIA Rankings 2020. Atal Ranking of Institutions on Innovation Achievements (ARIIA) is an initiative of Ministry of Education (MoE), Govt. of India to systematically rank all major higher educational institutions and universities in India on indicators related to 'Innovation and Entrepreneurship Development' amongst students and faculties. ARIIA Rankings 2020 was released by Honorable Vice-President of India, Shri. M. Venkaiah Naidu on 18th August 2020. A total of 674 institutes (including IITs) participated in the ranking process this year which marks the second edition of ARIIA.

Institution's Innovation Council Awarded with 5 Star Rating

Institution's innovation council, Silicon Institute of technology, awarded with 5 star rating for the year 2019-20 announced by MoE (Ministry of Education) ,Govt of India on 15th October 2020, New Delhi. In year 2019-20, 1700 IIC were established all over the Country. Out of 1700, about 100 institutes awarded with 5 star rating. Only 7 institutes from eastern region got the 5 star rating. Silicon Institute of Technology is the only institute from Odisha to have 5 star rating. In the year 2018-19, we were also given the award for the best performing Institution's innovation council.

NIRF Rankings 2021

Silicon Institute of Technology has been ranked 163 by National Institutional Ranking Framework (NIRF), Ministry of Human Resource Development (MHRD), Govt. of India in the 'Engineering' category while it was 179 last year.