

# SYNAPSE

A BIENNIAL NEWSLETTER | VOLUME - 1 | ISSUE - 2 | JULY 2023 - FEBRUARY 2024



## FROM THE DESK OF THE DIRECTOR:

First of all, I wish you a happy and prosperous 2024. The New Year has marked a new beginning for NIT Goa. The institute has moved to its permanent campus at Cuncolim, South Goa after a decade long journey in the transit campus. The institute was inaugurated by our Honorable Prime Minister, Shri Narendra Modi Ji on 06/02/2024.

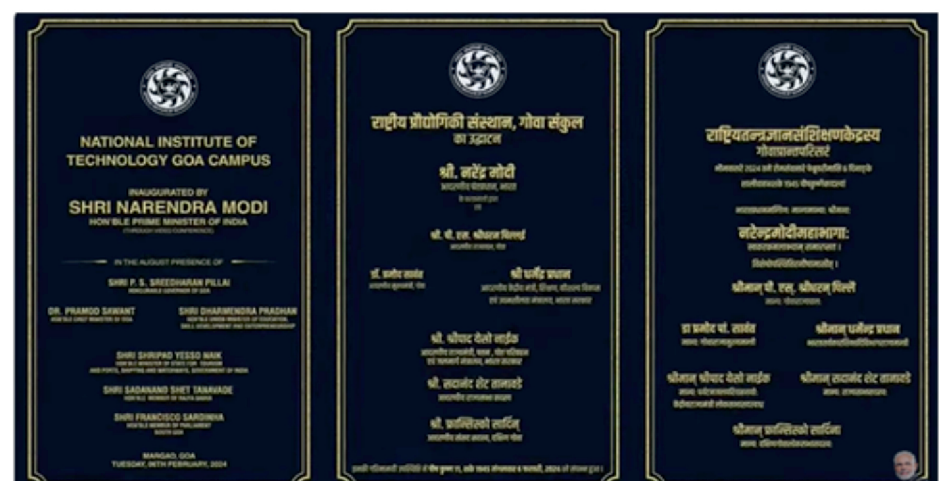
This has made the new year quite significant for all the beneficiaries of the institute. The construction of the campus was done using RCC Precast 3S Technology, which is a unique feature. The campus has total built up area of 70750 sqm with various facilities such as tutorial complex, departmental complex, seminar complex, administrative complex, hostels, health centre, staff quarters, amenity centre, sports ground and other utilities. It feels great that the students study in their campus and move freely in and around with smile and joy.

Entire NIT Goa community is feeling more confident and energised at this new abode of learning. All of us are optimistically looking forward to new academic laurels in near future in terms of research achievements, recognition to students etc. I am grateful to the MoE and the State Government for extending their cooperation. We can now envision our dream to be a part of Viksit Bharat 2047 through our research and academic collaborations.



The permanent campus of National Institute of Technology Goa at Cuncolim, South Goa was inaugurated by the Hon'ble PM, Shri. Narendra Modi ji on 6th February 2024 in the august presence of Shri Sreedharan Pillai (Governor of Goa), Dr. Pramod Sawant (CM of Goa), Shri Sripad Yesso Naik (Union Minister of State for Ports, Shipping & Waterways & Tourism), Shri Francisco Sardinha (MP, South Goa) and other central and state dignitaries. It was a historic moment for all the stakeholders of the Institute.

## GLIMPSES OF THE INAUGURATION







Shri. Narendra Modi (Hon'ble PM) is in conversation with the Director, Faculty and the students of NIT Goa



Newly Inaugurated Campus

## YUVA SANGAM: NIT GOA PAIRED WITH IIT BHILAI

Yuva Sangam delegates from Chhattisgarh came to Goa in December 2023. The delegates comprised of 45 UG and PG students (23 male + 22 female) from diverse backgrounds along with five officials. In Goa, they were taken to different heritage sites of the state in old Goa. They had interacted with Madam Tulsi Gowda at her forest residence in Ankola. The delegates further savoured the traditional Goan lunch at Sahakari Spice Garden, Ponda. Shri. Govind Gaude, Hon'ble Minister for Sports, Culture and Rural Development, Prof. M.S. Krupashankara, principal GEC, Shri. Surendra Naik, observer and representative from Ministry and Director NIT Goa, Prof. Jaiswal. Shri Gaude addressed the enthusiastic young guests from Chhattisgarh, who travelled all the way from central India to the west coast to explore its heritage, culture and life to promote the message of unity in diversity.



Delegates from Chhattisgarh at Goa



CM of Goa Dr. Pramod Sawant in conversation with the Delegates of Yuva Sangam





The Delegates and the Hosts of Yuva Sangam at CM's Office

## OUTREACH ACTIVITIES BY SPIE



SPIE Activity

A workshop on "Light" at Mustifund High School engaged Class 10 students, fostering enthusiasm through quizzes and experiments. Another workshop at Damodar Higher Secondary School for 11th and 12th graders explored the "Introduction to Light," with interactive sessions and experiments. SPIE introduced first-year undergraduates to its significance in photonics and optics, featuring speakers from NIT Goa faculty.

National Engineers' Day (NIT Goa's Innovative Idea Contest): On September 15, 2023, an Innovative Idea Contest celebrated National Engineers' Day, encouraging inventive solutions from NIT Goa's future engineers.

Machine Learning Workshop by the Student Chapter of SPIE NIT Goa: The Students of the chapter hosted a successful Machine Learning Workshop, led by Dr. Venkatnareshbabu Kuppili, aiming to provide a theoretical understanding and practical

applications of machine learning. Further, an informative session on photonics introduced first-year students to the world of photonics, sparking interest and understanding.

Industry engagement field trip - A visit to Kaiga Nuclear Power Plant in Karnataka enriched students' understanding of nuclear power

TECHNITIA 2023 showcased diverse activities, providing a platform for students to exhibit their skills. Also, a Diwali Photo Contest organized by SPIE Student Chapter celebrated the Festival of Lights through captivating photography from November 11–16, 2023.

## TALKS ORGANISED BY INSTITUTE

Prof. Sadanand S Gokhale, Former Professor of Aerospace and Dean of Student at IITM. Former Director of NIT Kozhikode, VNIT Nagpur, NIT Mizoram, and also LNMIIT Jaipur gave a talk on "Academic reforms and Industry 4.0" on 18th December 2023. Mrs. Beena Gokhale, Former Faculty of HSS at LNMIIT Jaipur gave a talk on "Pedagogy and Effective Communication for Researchers" on 18th December 2023



Prof. Sadanand S Gokhale at NIT Goa.

Prof. Bidyadhar Subudhi, Professor in Electrical Engineering, IIT Goa (Presently on lien as Director, NIT Warangal) delivered a talk on 3rd Feb 2024 entitled: "R&D- a key Enabling Factor for Accomplished Career and Institute Growth".



Prof. Bidyadhar Subudhi at NIT Goa.





## DEPARTMENT OF COMPUTER SCIENCE ENGINEERING (CSE)

### Students' Achievements :

Mr. Aman Kushwaha and Mr. Sumit T won the 1st Prize in the IEEE CIS Hackathon held at MNIT Jaipur. Additionally, Mr. Aman Kushwaha was recognized as a finalist in the Doceree Machine Learning Hackathon, while Mr. Sumit reached the pre-final round of the Flipkart GRID 5.0 Hackathon. Mr. Zubin Shah emerged victorious in the Infofest hackathon hosted by Goa University. In another notable achievement, Aman Kushwaha, Zubin Shah, and Aryan Shrivastav formed the winning team in the HackAI Hackathon conducted by FetchAI during IIT Bombay Techfest 2023. Moreover, Zubin and Aryan were recognized as ICPC Regionalists with a commendable Rank of 153 in Amritapuri. Aman Kushwaha and Karan Jayendra Barai were part of the winning team in the Smart India Hackathon 2023.

Final Year B.Tech students, Pritika Barshilia & Suyash Mirchandani, bagged the "Goa State Innovation Council Grant" for their innovative project on "Modelling and Simulation of Brain-Computer Interface for Lie Detection using Deep Learning Paradigms and Fuzzy Logic" and received research grant of 50k for their project under the guidance of Dr. Damodar Reddy Edla.

Furthermore, Atharva Khade and Harsh Patel received the 2nd Best Paper Award in the Security and Privacy Track at the IEEE International Conference on Blockchain and Distributed Systems Security held at IIIT Raipur in October 2023. Lastly, Shruti and Vaibhav secured the 2nd rank in a Hackathon organized by Don Bosco Engineering College on October 7th, 2023.

### Faculty Achievements :

Three faculty members of the department have been recognized for their significant contributions to their respective fields. Dr. Damodar Reddy, Dr. Modi Chirag Navinchandra, and Dr. Venkatnaresh babu Kuppili have been listed among the world's top 2% most influential scientists for 2023, according to a study conducted by Stanford University. Additionally, Dr. C. Vyjayanthi and Dr. Chirag N. Modi have been granted an Indian patent for their invention titled 'Internet of Things Enabled Smart Solar Photovoltaic Module and Control Method Thereof'.

Furthermore, Dr. Veena Thenkanidiyoor, played a pivotal role as a member of the organizing committee for the 25th International Conference on Speech and Computer, held from November 29th to December 1st, 2023, in Hubli Dharwad. As part of the conference, a one-day satellite workshop on "Speaker and Language Identification, Verification, and Diarization" was successfully organized at the International Center Goa on December 2nd, 2023.

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING (ECE)

### Students' Achievements :

Manobhav Sachan, Deepak S. and Ambesh Gaunker won the smart India hackathon. Further, Manobhav Sachan, Deepak S. and Teja Sivawon Goa State Innovation Council and received research grant of 50k for their project. Manobhav Sachan and Deepak S were the finalist of Doceree Machine Learning Hackathon. Abhiraaj Verma and Aman Tiwari were the winners of Smart India Winter Hackathon 2023.

### Faculty achievements:

Dr. Nithin Kumar Y.B. and Dr. Vasantha M.H. as inventors, have been granted an Indian Patent titled 'A LOW-POWER N-BIT SAR ADC WITH A RELAXED CAPACITIVE DAC' on 26/12/2023. Under the supervision of Dr. E. Mallikarjuna, B.Tech ECE students Mr. Manobhav Sachan, Mr. Prathipati Teja Siva Narayana, Mr. Deepak S. received a grant from the Goa State Innovation Council for their project titled, "Student Attendance System". Dr. Trilochan Panigrahi presented the following paper in *IEEE International Symposium on Smart Electronic Systems (iSES) 2023*, held between 18 and 20 Dec 2023 at Nirma University, Ahmedabad. Shilpa Sikdar and T Panigrahi, "Low Power and Area-Efficient Hybrid Adder for ALU Operation," in *IEEE International Symposium on Smart Electronic Systems (iSES) 2023*, Nirma University, Ahmedabad, 18-20 Dec 2023. Dr. Anirban Chatterjee and his guided PhD student, Dr. Kalyan Sundar Kola, published two SCIE-indexed papers in AEU (Dec 2023) and IJCS (Jan 2024). Their conference paper at IEEE SILICON-2023 (Nov 3-5, 2023) won the Best Paper Award. Dr. Shivnarayan Patidar and Ms. Nidhi Kalidas Sawant (Research Scholar) as a team named "Medics" from NIT Goa clinched the 7th rank out of 35 ranked (or 113 total) global teams in the PhysioNet Challenge 2023.



Also, as an outcome of the same one conference paper was published in IEEE 50th Computing in Cardiology (CinC) conference which was held in Atlanta, Georgia, US. Dr. Shivnarayan Patidar as an Inventor have been granted an Indian Patent titled "DETECTION AND MONITORING OF ATRIAL FIBRILLATION AND OTHER CARDIAC ABNORMALITY" with National Institute of Technology Goa as an applicant. Dr. Prasanth G.R., as an inventor have been granted an Indian Patent for his innovative creation, "*An Apparatus for Enhanced Fluorescence Detection*" with IISc Bangalore as the applicant.

## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING (EEE)

### Students' Achievements :

Dr. Suresh Mikkili's Ph.D. scholars and M.Tech. Students have published six papers in indexed journals and presented eight papers in indexed international conferences. A paper, "Modeling and Simulation of DC-DC Converters for PEM Fuel Cell Electric Vehicles" authored by Mr. George Munus and Dr. C Vyjayanthi, has been honored with the "Best Paper Award" at the IEEE 8th International Conference on Micro-Electronics, Electromagnetics and Telecommunications (ICMEET-2023) held at the National Institute of Technology Mizoram, India, 06-07 October 2023.

### Faculty achievements:

Dr. B Venugopal Reddy published two papers: "Robust and efficient control strategy for single-phase two-stage PV grid-tied system with improved power quality" in Renewable Energy Focus, Elsevier Journal, 2023. "Dual-Objective Optimization for Maximizing Photovoltaic Output Power in a Two-Stage Single-Phase Grid-Tied System" in Energy Technology, Wiley, 2023. He presented two papers at the National Power Electronics Conference (NPEC), 14-16 December 2023: "An Optimal Shade Dispersion Technique for Dynamic PV Array Reconfiguration to Mitigate the Partial Shading Conditions" and "Power Quality Improvement for PV Array Reconfiguration based Grid Tied System". Dr. Suresh Mikkili's Ph.D. Scholar Ms. Vinaya C. Chavan successfully defended her Ph.D. thesis titled "Development of Novel PV Array Reconfiguration Techniques to Enhance Maximum Power under Partial Shading Conditions". During her Ph.D., she published her work in 07 SCI-E Journals.

He is currently working on two projects: One worth Rs. 36,21,332/- funded by SERB, DST Govt. of India. Another worth Rs. 9,99,995/- funded by NIT Goa. He has published 05 papers in reputed Journals and presented research work in 08 IEEE Conferences. The journals where the papers were published include: Two papers in IEEE CPSS Transactions on Power Electronics and Applications International Journal of Circuit Theory and Applications – Wiley. International Journal of Energy Research – Wiley. Circuit World Journal of Control, Automation and Electrical Systems – Springer. Dr. C. Vyjayanthi published a paper titled "Filter-Based Active Damping of DAB Converter to Lower Battery Degradation in EV Fast Charging Application" in IEEE Access. She presented a paper titled "Modeling and Simulation of DC-DC Converters for PEM Fuel Cell Electric Vehicles" at the IEEE 8th International Conference on Micro-Electronics, Electromagnetics and Telecommunications (ICMEET-2023). She has been granted a patent titled "Internet of Things Enabled Smart Solar Photo Voltaic Module and Control Method Thereof", Indian Patent, 28 Dec 2023. The patent was granted to Madhu G M, Dr. Chintamani Vyjayanthi, Chirag Modi. She is working on a Consultancy project titled "Exploration of Future Energy Applications and Future Energy Trends" with M/s Siemens Goa Ltd. She has received the Best Paper Award at the IEEE 8th International Conference on Micro-Electronics, Electromagnetics and Telecommunications (ICMEET-2023). Dr. Amol D. Rahulkar published a paper titled "A Novel Design Approach and VLSI Architecture of Rationalized Bi-Orthogonal Wavelet Filter Banks" in IEEE Transactions on Very Large-Scale Integration (VLSI) Systems. He presented three papers at various conferences. He is currently executing a project titled "Design and Development of FPGA Accelerator IP for Deep Neural Network (FAipDNet)", sponsored by MeITY, Govt. of India, with a total outlay of 86 lakh. Further, he has filed a patent titled "POWER EFFICIENT APPROXIMATE 4:2 COMPRESSOR USING CMOS CIRCUIT", Indian Patent, Application NO.- 202421005060. The patent was filed by Mubarak M, Dr. Amol D. Rahulkar, T. Veerakumar, Lokesh Brahamne. Dr. Sreeraj E. S. has received a project titled "Installation of a grid connected single phase PV rooftop system with capacity under 1 kW at Goa Energy Development Agency" funded by Goa Energy Development Agency. He has Published a paper titled "Optimal scheduling and demand response implementation for home energy management" in International Journal of Electrical and Computer Engineering (IJECE).



- Celebrated Teacher's Day and Engineer's Day with the objective of nurturing innovation and passion.
- Hosted a placement talk for its alumni.
- Conducted a placement workshop by Richa Singh, Corporate Trainee.
- Successfully completed the Tesla workshop on Microcontroller and essentials for 3 phases.
- A batch of 100 students from Tamil Nadu embarked on a school tour specifically to explore NIT Goa.

## Tesla Club Activities:



Tesla Club Activities

## DEPARTMENT OF MECHANICAL ENGINEERING (MCE)

The Department of Mechanical Engineering, NIT Goa witnessed notable advancements and achievements during the period of July 2023 to February 2024. The faculty members have published 03 research articles in reputed journals like Fuel and Journal of Environmental Management.' In addition, they have one book chapter publication on 'The Developments and Retrospect of Water-Laser Machining Technology: An Overview with Wiley-Scrivener Publishing.

The faculty are actively carrying out funded projects under Start-up Research Grant, SERB, DST, and has served as reviewer for various journals. The department organized an industrial visit for the third year BTech students to Goa Dairy (Goa State Cooperative Milk Producers' Union), Ponda, Goa on 2nd September 2023. Faculty members and technical staff of the department accompanied the students on this visit.

During the visit, students were exposed to the operation of water tube boilers, chillers, heat exchangers, condensers, etc. Another visit was made with the third year BTech students to IFB Industries Limited (Washer Plant), Verna, Goa on 19th January 2024. The students were exposed to the manufacturing and complete assembly line process of the front and top load washing machines, right from raw material to product packaging, and testing.



Industrial visit to Goa Dairy Plant, Ponda



Industrial visit to IFB Industries Limited (Washer Plant), Verna, Goa

The students of third year B.Tech. attended a one-week workshop on Design of Electric Vehicles organized by SEVC team (Solar Electric Vehicle Championship) and the Department of Mechatronics at Manipal Institute of Technology, MHAE, Manipal, during 02-06 November, 2023.

This workshop was structured into distinct mechanical and electrical segments, delving deep into the intricacies of each. Mr. Prabhat Kumar, student of 3rd year completed online NPTEL course on computing using Python and achieved 83% score earning the prestigious Silver Elite badge.

Mr. Anand Mishra, 3rd year B.Tech. has completed online courses on Python programming, Mr. Sidshant Lotlikar, 3rd year B.Tech. has completed an online course on Machine Learning. A two-week bootcamp was organized by the department of Mechanical Engineering in association with META, from 16th to 26th October 2023.





This Bootcamp was meticulously crafted to provide students with a holistic learning experience on SolidWorks software that combined essential theoretical foundations with a plethora of real-world engineering projects. The students of 3rd year B.Tech. visited the laboratory facilities at NITK, Surathkal from 10th to 23rd November 2023 and conducted various experiments.



Visit to the laboratory facilities at NITK, Surathkal

The Department of Mechanical Engineering continuously strives for knowledge transfer to students through interaction with experts. An invited talk was organized on 23rd October 2023 on the topic, 'Modelling of Gaseous Radiation for Applications of Combustion, Plume Radiation' by Dr. Pradeep Kumar, Associate Professor in the School of Mechanical and Materials Engineering at Indian Institute of Technology, Mandi. The students gained insights on radiation modelling and how it can aid in space applications. Another talk on the topic, 'Maglev EDM' on 13th December 2023 by Dr. Vivek Bajpai, Associate Professor, Department of Mechanical Engineering, Indian Institute of Technology (ISM), Dhanbad.



'Torque Tales' event organized by META

An event named, Torque Tales was organized by the Department in association with the student association META, coordinated by Dr. Prasenjit Dey and Dr. Darius Barreto on 26th and 27th January 2024.

The students were exposed to the scope and opportunities in the area of Mechanical Engineering by Dr. Shashidhar Kudari, Dr. L. Shangerganesh, Dr. B. Santhi, and Dr. Pravin A. Pawar. Subsequently, an alumni meet was organized on 27th January 2024 where the staff and the present students interacted with our alumni. From the 4th year B.Tech. batch, Ms. Tanu Kurade and Ms. Rutuja Patil got placed in Technip Energies. Mr. Abhitej Tiwari and Ms. Prachi have got placement in Ashok Leyland.

## DEPARTMENT OF CIVIL ENGINEERING (CVE)

A field trip for the third year Civil engineering students to Salaulim Dam, South Goa district, Goa was organized on 01st September 2023



Field Trip to Salaulim Dam, South Goa

A workshop on Concrete Mix Design was conducted at Alcolab, Kundaim, Goa, for fourth-year students on 19th and 20th October 2023.



Workshop at Alcolab, Kundaim, Goa



An Expert Talk was conducted on the topic "Engineer to Entrepreneur" by Shri. Prashant Pawar (Director, Techno Engineering Services and Ex-General Manager, ACC Limited) on 14th September 2023, followed by multiple events like Technical Quiz, Bridge Building and Poster Making for the students (fig. 3).



An Expert Talk on "Engineer to Entrepreneur"

An interactive expert lecture on the occasion of Akshay Urja Diwas was conducted on 06th September 2023 by the chairman of IGBC Goa Chapter, Shri. Bharat Kamat. The interactive workshop arranged was on the topic of 'Energy Efficient Buildings'



An interactive expert lecture by Shri. Bharat Kamat.

An educational site visit for second-year students to the RDC (Ready Mix Concrete Company) Concrete site located at Kundaim Industrial estate was organized on 9th November 2023



An educational site visit at Kundaim Industrial estate

## Students' Achievements :

Mr. Venkat Rohith and Mr. Fardeen Hasan got selected in direct Ph.D programme at IIT Gandhinagar. Ms. Shaivi Chanekar and Mr. Kaushik Bhat got selected for PG programme at IIT Gandhinagar. Mr. Atharva Mopkar, Mr. Devendra Patidar, Mr. Fardeen Hasan and Mr. Kaushik Bhat, B.Tech final year (Batch 2020-24) students got placed at Larsen & Toubro as Graduate Engineer Trainees.

## Faculty Achievements :

Dr. Bright Singh presented a paper on the Effect of copper slag addition on the performance enhancement of alkali-activated pervious concrete in 13th Structural Engineering Convention (SEC) organized by VNIT, Nagpur during 07th -09th November 2023, participated in Online Short Term Training Programme on Tools for Transportation Data analysis & modelling organized by NIT Calicut during 9th-14th October 2023) and in a One Week Online Short Term course on Resilient and Sustainable Transportation Infrastructure organized by NIT Patna during 06th -10th November 2023. Ms Vanessa Fernandes participated in IGS Geoconclave 2023 and 3rd Symposium on women in Geotechnics on Sustainable Retaining Structures, 2nd ISSMGE TC 107 Symposium on Residual Tropical soils organised by Goa Engineering College and Indian Geotechnical Society Goa Chapter on 01st - 02nd December 2023. Dr. Harikumar M attended the BIS meeting for CED57 - Cyclone Resistant Structures Sectional Committee, for discussion on formulation of the necessary Indian standard codes related to Cyclone-related structures. Dr. Ankit Balvanshi published a book chapter on Climate Change Impact on Future Reference Evapotranspiration and Crop Evapotranspiration for Maize in Sehore District of Madhya Pradesh in Lecture Notes in Civil Engineering, vol 313. Springer.

## DEPARTMENT OF APPLIED SCIENCES (APS)

### Students' Achievements :

Hariharan S, a Ph.D. research scholar, actively participated and contributed to prestigious conferences including the National Conference on Recent Trends in Mathematical Biology-Theory, Methods, and Applications at Sri Sathya Sai Institute of Higher Learning, the National Conference on Recent Advances in Industrial and Applied Mathematics at Periyar University,



Salem Tamilnadu, and the 10th International Congress on Industrial and Applied Mathematics at Waseda University, Tokyo, Japan. Ms. Ruchika Thayil, scholar of Dr. Saidi Reddy, has received the UMANG Fellowship through the Crompton CSR's Umang Scholarship Program, while his other scholar, Mr. Sahil Sharma was honored with the INSPIRE Fellowship.

#### Faculty Achievements:

Dr. Saidi Reddy Parne, Associate Professor of Physics, secured an Indian Patent for the "Superconducting Permanent Magnetic Motor" (Grant No.: 468162). The inventors of this patent include Mr. Nithin Kumar, Dr. Saidi Reddy Parne, Dr. G R C Reddy, and Dr. R Singh. Over the past six months, he has published 15 research papers in respected Science Citation Index journals.

### DEPARTMENT OF HUMANITIES & SOCIAL SCIENCES (HSS)

#### Students' Achievements :

Mr. Ali Alshikh Hasan, Research Scholar of Economics has published a paper "Assessing the efficacy of India's disaster management system and the involvement of non-governmental organizations (NGOs) amid the covid-19 pandemic" In the Journal of "Population Therapeutics and Clinical Pharmacology" 30(19). Ms. Lijna Johnson, Research Scholar of Economics, has presented a paper titled "Estimating the Linkage between University and Startup Activity" in a conference Impact of Automation and Artificial intelligence on Indian Economy during 12-13 October 2023 at Government College Kasaragod, Kerala. She has presented another paper titled "Fueling Indian Startup Growth: Unleashing Knowledge Spillover through Organizational and Spatial Dimensions." During 13-15 Decemebtr at IIT Madras. Ms. Maria John Paul, Research Scholar of English has been shortlisted as a Paper Presenter at the International Conference on Sustainable Futures: Literary Reflections on Precarious Lives and Anthropocene by IIT Patna.

#### Faculty Achievements :

Dr. Sarani Ghosal has been invited by the Ministry of Culture as a Critic of Sri Aurobindo's Literature to attend Auroville Literature Festival from 25th Aug to 27th Aug, 2023. She has delivered two lectures on "ELT & Post-Method Era" at a Refreshers' Course organised by JNTUH in November, 2023.

Dr. Sunil Kumar A has received a grant of Rs. 16,00,000 for conducting a short term empirical research project on the theme of "startup India policy and startup ecosystem".

### HACKATHON NIT GOA

Zubin Shah (IV year B.Tech. CSE), Rahul Jalan (IV year B.Tech. EEE), and Ann Mariya Roy (IV year B.Tech. CSE) won the first position in the 24 hour hackathon of InfoFest 2023, organized by Goa University, during 10-11 August 2023.



#### InfoFest 2023

Aman Kushwaha, Varun Pandiya and Sumit, students of IV year B. Tech. CSE, won the first prize at the National level hackathon (24 hour) organized by MNIT Jaipur, during 7-8 September 2023. The team won 1st position amongst 65 teams that were shortlisted to the finals. They had developed an inclusive video calling system integrating image, text, and speech processing to empower individuals with visual, hearing, and speech impairments.



#### National level hackathon at MNIT Jaipur

Shruti Patil (III year B.Tech. CSE), Vaibhav Yadav (III year B.Tech. CSE) and Gunaditya Patil (III year B.Tech. EEE) won the second prize in Inspirathon, a 24-hour hackathon organized by Don Bosco College of Engineering, Goa, during 6-7 October, 2023.





Inspirathon 2023

Pranav Tikone, Numan Maldar, Shivansh Pandey, and Hamees Muhammad, students of II year B.Tech. CSE, were shortlisted to the finals of Nexus 2023, a 36-hour hackathon organized as part of iConclave' 23, at IIIT Pune, during 26-28 October 2023.



Nexus 2023

Coding Club of NIT Goa hosted a thrilling 24-hour Intra-Institute Hackathon, Winter Hackathon, on 4th and 5th Nov, 2023. This event served as an important platform giving opportunity to students in technological innovation and in bringing a competitive spirit within the tech minded community of students.



Intra Institute Hackathon 2023

Two teams of students won the first position at the Smart India Hackathon 2023, a 36-hour non-stop coding competition, jointly organized by the Ministry of Education's Innovation Cell and the All India Council of Technical Education (AICTE), held during 19-20 December, 2023. The first team, index.tsx, comprised Abhiraaj Verma (IV year B.Tech. ECE), Aman Tiwari (IV year B.Tech. ECE), Piyush Singh (IV year B.Tech. EEE), Vijay Gautam (IV year B.Tech. EEE), and Karan Barai (IV year B.Tech. CSE). They won the first position for solving PS ID: SIH 1508, floated by the Ministry of Power, Govt. of India at the Smart India Hackathon 2023. They had created a dedicated Procurement Data Portal as well as Vendor Payment Data Portal to capture all data related to NEEPCO's Procurements and Payments' including procurement from MSE Sector and procurement in GeM Portal. The second team, Team Alchemist, comprised Deepak S (IV year B.Tech. ECE), Manobhav Sachan (IV year B.Tech. ECE), Ambesh Gaunker (IV year B.Tech. ECE), Aman O Kushwaha (IV year B.Tech. CSE), Ann Mariya Roy (IV year B.Tech. CSE), and Darshan Bilana (IV year B.Tech. EEE). The team won the first position for PS ID: SIH 1435, floated by the Ministry of Rural Development, Govt. of India. They had created a portal that incorporates an algorithm to measure the increase in income of Farmers Producer Organisation under WDC 2.0. Team LegalConnect, comprising of Shantanu Ingale, Rakshitha K, Ayushi Kandpal, Poonam Prabhugaonkar, Pranav Tikone, and Shivansh Pandey, students of II year B. Tech. CSE, were also shortlisted to the finals of Smart India Hackathon 2023, for PS ID: 1457, floated by MathWorks India Private Limited.



Smart India Hackathon 2023





Aryan Shrivastav, Zubin Shah, Omkar Borker, and Aman Kushwaha, students of IV year B.Tech. CSE, won the first prize at HackAI 2023, an AI-based hackathon, organized as a part of 'Techfest' 23, IIT Bombay, on 27 December, 2023. They developed an AI-enabled personal assistant powered by FetchAI's decentralized Web3 network that handles travel plans to a new city including cab booking and syncing of reminders through Google Calendar.



HackAI 2023

## SWACHH BHARAT ABHIYAN (SBA) ACTIVITIES

Swachhata Hi Seva\_Ek Tareek Ek Ghanta (National Initiative\_1st October 2023) was conducted. Despite heavy rain, event was very successful and around 150 members participated. Bandora Sarpanch, Secretary, and ward members also participated in our drive. We have cleaned Shri. Shivaji Maharaj Fort and the roadsides of Farmagudi Circle to Nageshi temple. NIT Goa Employees and students have actively participated in our program. The 2nd phase of Ek Tareek Ek Ghanta (National Initiative\_1st November 2023) was organized on 1st November 2023 under the "Swachhata Hi Seva-2023" campaign. As part of this campaign, the members of the institute cleaned the roadsides from the campus to the Shree Katamgal Dada Shrine temple. Every month 1st (Ek Tareek Ek Ghanta), it is being observed by NIT Goa.

## Swachhata Pakhwada, Swachhata Hi Seva-2023 :

- Cleanliness Drive: Cleanliness Drive conducted at NIT Goa Permanent Campus on 15th August 2023. We have cleaned the premises of permanent campus.



Ek Tareek Ek Ghanta, National Initiative  
1st October 2023



SBA at Permanent Campus

## OLD CAMPUS CHRONICLES

### 77<sup>th</sup> Independence Day 2023 :



Celebrating the 77th Independence Day

The institute celebrated the 77th Independence Day on the 15th of August 2023. Students, Staff and Faculty members filled with a feeling of patriotism and dedication gathered in front of the Institute. The celebration started with the hoisting of the National Flag by the Director, Prof. O. R. Jaiswal, followed by the National Anthem. As part of his address, the director said India is one of the fastest growing nations in the world and with national missions such as "Atmanirbhar Bharat" and "Make in India" is on its trajectory to become a developed nation.



In addition to that, He congratulates faculty members and students for their accomplishments.



### National Sports Day Celebration :

Like every year, National Sports Day was celebrated with solemnity by the sports unit of NIT Goa on 29th August, to commemorate the birth anniversary of the legendary Hockey player and Olympian, Major Dhyan Chand. The Sports, NIT Goa organized “National Sports Day” – Mini Marathon & Volleyball Tournament for NIT Goa Community comprising Students, Research Scholar, Non - Teaching and Teaching staff for both Men and Women.

### Rashtriya Ekta Diwas (national Unity Day) :

The institute has observed National Unity Day on October 31st, 2023 to commemorate the birth anniversary of Shri. Sardar Vallabhbhai Patel, popularly known as the Iron Man of India.



### Inter Branch Volleyball Tournament 2023 :

The sports section conducted an inter-branch volleyball tournament from 03 – 05 November, 2023. The competition's outcome was as follows: Winner: III year B.Tech Students. Runners Up: IV year B.Tech Students.



### Participation At Various Inter-nit Tournaments :

Kabaddi (Men) team has participated in the All India Inter NIT Tournament organized by NITK Surathkal from 27th to 29th October 2023.







Faculty and Staff Cricket (Men) team has participated in the All India Inter NIT Tournament organized by NIT Trichy from 14 to 17 December 2023.



Faculty and Staff Chess (Men) team has participated in the All India Inter NIT Tournament organized by NIT Bhopal from 21 to 23 December 2023.



Student Cricket (Men) team has participated in the All India Inter NIT Tournament organized by NIT Trichy from 05 to 08 January 2024.



Chess and Table Tennis (Men) teams have participated in the All India Inter NIT Tournament organized by NIT Jamshedpur from 02nd to 04th February 2024.



Table Tennis men team (Raghav, Ayush Kumar Bisht, and Verron) placed fourth out of twenty four teams from various NITs that took part in the competition.



The Chess Team (Milind, Ahan, Shivam, Nischal, Darren) secured 2 points overall with notable individual performances. Milind Gauns excelled on board 2, securing 3.5/5 and claiming the 6th position, while Ahan G S, with a score of 3/5 on board 3, secured the 7th spot out.

## 75<sup>th</sup> REPUBLIC DAY CELEBRATION AT THE PERMANENT CAMPUS







The institute has celebrated the 75th Republic Day with grandeur and excitement. It was the first national festival celebrated at NIT Goa's newly inaugurated permanent campus at Cuncolim, Goa. The students, staff, and faculty members, filled with patriotism and dedication, gathered in front of the Sardar Vallabhbhai Patel Administrative complex. The honourable Director, Prof. O. R. Jaiswal unfurled the National Flag followed by the National Anthem. In his speech, the director highlighted the importance of the Constitution and its unique features such as Sovereign, Socialist, Secular, Democratic, and Republic that are enshrined in the preamble of the Constitution. He also gave insight into the various accomplishments achieved by students, professors, and staff, motivating the crowd to bring more laurels to the institute through their accomplishments. The Director also mentioned the Viksit Bharat@2047 vision, representing the Government of India's ambitious vision to transform the nation into a developed country.

He urged the students to take part in this campaign by submitting innovative ideas that can contribute significantly to India's development and growth. The speech was followed by a spectacular show by the students. The program ended with the message to create a great nation through collective efforts.