

# The Ingenuium

Biannual Newsletter for Trident School of Engineering

## **Tech confluence:**

merging of ideas and innovations  
from ETC, Mechanical, EEE, and Civil  
Engineering,



# Editor's Note

The School of Engineering at Trident Academy of Technology has emerged as a powerhouse of innovation, where diverse engineering disciplines converge to create tomorrow's leaders. Our programs blend rigorous academic foundations with immersive, hands-on experiences, giving students in Electronics, Mechanical, Civil, and Electrical Engineering direct access to cutting-edge technologies and industry practices. From top-tier placements to national recognition in competitions like the Vodafone Hackathon, Capgemini Hackathon, Smart India Hackathon, Odisha Semiconductor Design Challenge contest, our achievements speak to our mission: cultivating adaptable, forward-thinking professionals ready to shape the future.

Looking ahead, the School of Engineering is gearing up for an exciting journey. By building stronger ties with industry leaders, expanding research horizons, and embracing an interdisciplinary approach, we are positioning ourselves as a nucleus of engineering breakthroughs. The future will see us diving into vital fields like green infrastructure, intelligent automation, and global collaboration, empowering our students to drive change in a rapidly evolving world. With a focus on impact, excellence, and innovation, we remain dedicated to redefining engineering education for the next generation.



Empowering the  
Engineers of Tomorrow!  
We offer transformative  
programs across Electronics,  
Mechanical, Civil, and Electrical  
Engineering, nurturing  
visionary minds and pioneering  
advancements.  
Our curriculum merges  
cutting-edge technology  
with real-world applications,  
inspiring innovation, research, and  
professional growth to shape  
a sustainable and smarter future.

Two groups from the Mechatronics Club belonging to the Dept. of ETC were shortlisted and recommended for the *EmTekCoE Program at STPI, Bhubaneswar*. Both the groups will be funded up to **9 Lakhs** and incubated for **9 months**.



Successful Achievements of Team Members in different fests organized by IIT-Bhubaneswar, IGIT-Sarang, and the Silicon Institute of Technology. Conducted During:- 15.03.2024 to 17.03.2024. Team names: **SHARP BOTZ, RNG.**



A unique AI-based application for detecting and identifying marine plastics in water bodies' Epipelagic Layers (Ocean Savers) In the **Odisha Technological Conclave 2023** organized by **EVER GREEN FORUM**, conducted on **15.09.2023** on the eve of **Engineer's Day**. ETC students from TAT stood in **second place** (In New Innovation category) competing with many groups from various colleges and universities. Model Title:- "A unique AI-based application for detecting and identifying marine plastics in water bodies' Epipelagic Layers". The dignitaries of the ceremony were Er. Guru Prasad Biswal (CEO-AEROSPACE, Bharat Forge Ltd., Pune), Prof. Amiya Rath (VC, BPUT), Er. Priti Ranjan Gharai (Minister, Rural Development and Skill Development & Technical Education, Odisha), Er. Sarada Nayak (Minister, Labour & ESI, Odisha), Prof. Bibhuti Bhusan Biswal (VC, OUTR), Dr. Prakash Jena (President, EGF) and Dr. Deepak Kumar Rout, Chairman of OTC 2023.



# BOOTCAMP under ACM(19.05.2023)

Trident ACM Student Chapter is inaugurated which is a student-led organization affiliated with the Association for Computing Machinery (ACM). Our chapter is dedicated to fostering a vibrant community of computer science and technology enthusiasts. As a part of the ACM, our students align with the mission to advance computing as a science and profession. Today they organized a hybrid BOOTCAMP on IoT, Git/GitHub, Web Development which catered to students nationally and internationally through live streaming.



# IETE Student Forum (ISF) (24.05.2023)

The Department of Electronics & Telecommunication (ETC) Engineering, Trident Academy of Technology, Bhubaneswar in collaboration with IETE Student Forum (ISF) organized the event of “Technical Paper Presentation” on the topic “Chat-GPT in Education” on 24.05.2023. The event was quite competitive and evoked zealous participation and cutting-edge knowledge sharing. It motivated the students for an active participation in various events organized under the aegis of the professional society chapter and getting an opportunity for their professional growth.



# Inauguration of IEEE(27.05.2023)

IEEE Trident Academy Students Branch was officially inaugurated at the campus by the Odisha subsection Chairman Dr (Prof). Subhransu R. Samantaray of IIT Bhubaneswar. There are three student chapters under this branch i.e. The Electronic Packaging Society (EPS) Chapter, The Computer Society Chapter and The Geo Informatics Society Chapter.



# IDE Bootcamp (22.06.2023)

A Mega Contingent of 54 students from Trident Academy of Technology selected for IDE bootcamp conducted at IIT-Bhubaneswar where ETC, mechanical and Civil Projects were also got selected.



# O-HUB

TRIDENT students participated in the Start-up Hackathon at Bhubaneswar's newly built Start-up Hub called the "O-Hub". About 35 nos. of 4-member student teams spent 150 minutes ideating on the theme of "Building a Circular Economy around Renewable Waste". Due to proximity, we had sent 8 teams from TRIDENT. Finally, 10 shortlisted teams will pitch their selected ideas tomorrow before Investors. We have developed a culture of Innovation and Entrepreneurship and Govt of India has granted us an MSME Business Incubator and an Innovation and Entrepreneurship Development Cell (IEDC)



## CISCO + NASSCOM Foundation (10.09.2023 and 16.09.2023)

The "thingQbator" team (CISCO + NASSCOM Foundation) visited the Trident campus. They provided training to our students on developing solutions using "Artificial Intelligence" and "Internet of Things" technologies. A 3-hour-long Micro-Hackathon, "HACKDAY," was also conducted, followed by a panel discussion where I joined representatives from Start-up Odisha, NASSCOM, and the Startup Bookingini as co-panelists.



## SMART INDIA HACKATHON (17.09.2023)

An internal hackathon was conducted as a preliminary screening for India's SMART INDIA HACKATHON (SIH), with nearly 40 teams participating in the event—30 teams from the software domain and 10 teams from hardware are from ETC Dept.



## IETE student Forum (10.11.2023 and 11.11.2023)

The Department of Electronics and Telecommunication Engineering at Trident Academy of Technology, Bhubaneswar organized an event in cooperation with the IETE Students Forum (ISF) on November 10th-11th, 2023. The ETC department partnered with the Institution of Electronics and Telecommunication Engineers (IETE) for the technical quiz competition. The programme was honoured by the presence of Dr. Uday S. Panda (Chairman IETE) as the chief Guest, along with Mr. Sarat Kumar Brahma (Coordinator, IETE)



# ESCON-2023(02.12.2023)

A state-level Energy Sustainability Conclave "ESCON-2023" was inaugurated on the Trident campus by Mr. Sivapada Swain IRS (Retd), Former Chief Commissioner of Income Tax, Government of India, and Former Member of the Odisha Electricity Regulatory Commission (OERC). The Managing Director and Director (Finance) of GRIDCO were honored guests at the event. Four sessions were conducted on topics such as Odisha's Renewable Energy Policy, Grid Integration Challenges for Renewable Generation, Intelligent Energy Efficiency, and the Present and Future of EVs in India.



## SARCON-23(09.12.2023)

A National-level conclave, SARCON-23, was conducted, focusing on Semiconductor, AI, Remote Sensing, and AVGC-XR technologies. The event featured the Minister for Science and Technology, Odisha, along with 19 dignitaries from connected academia, government bodies, and industries from different parts of India. Four panels addressed intricacies and explained technologies to registered delegates, students, and teachers.



## Research Conclave of BPUT (14.12.2023)

The Research Conclave of Biju Patnaik University of Technology was conducted at Trident Academy of Technology.





## The statewide competitions OSCO and OSBC(16.12.2023)



Trident's "Catch Them Young Talent" initiative, featuring a boot camp on Maths-Computing and Bio talent, was conducted and concluded with the final function of the statewide competitions OSCO and OSBC. Cash prizes totaling over Rs 5 lakhs were distributed to promising teenagers.

## ODSIC(03.04.2024)

ODSIC, Odisha Diploma Students innovation Competition is a NOVEL AND BOLD step taken by us as a UG and PG Degree Engineering college of Odisha. Considering the fast development of technologies, particularly in Automated/Robotic Designs and Manufacturing in Industry 4.0 age we invited diploma students from all around the state to participate in this event and showcase their ideas.



## Annual Sports (17.02.2024 to 19.02.2024)



## Trident is in TOP 100 Ranking list of India's NPTEL-SWAYAM(25.02.2024)

Trident is in TOP 100 Ranking list of India's NPTEL-SWAYAM for college/Universities for 2023, Our Dean-School of Engineering DR(Mrs) Sakuntala Mahapatra, who is also the institution's NPTEL SPOC, received the award in a function in Kolkata.



## TRIFEST-2024(22.02.2024 to 24.02.2024)



TRIFEST-2024, the Springfest of the Trident Group of Institutions is being celebrated during 16th and 24th of February. The week includes "UDAYAN-24" as well where students participate in friendly competitions in both technical and cultural tracks being organized by the 20+ student driven clubs of the group. These include Mechatronics to Artificial intelligence and Rangoli to Classical dances.

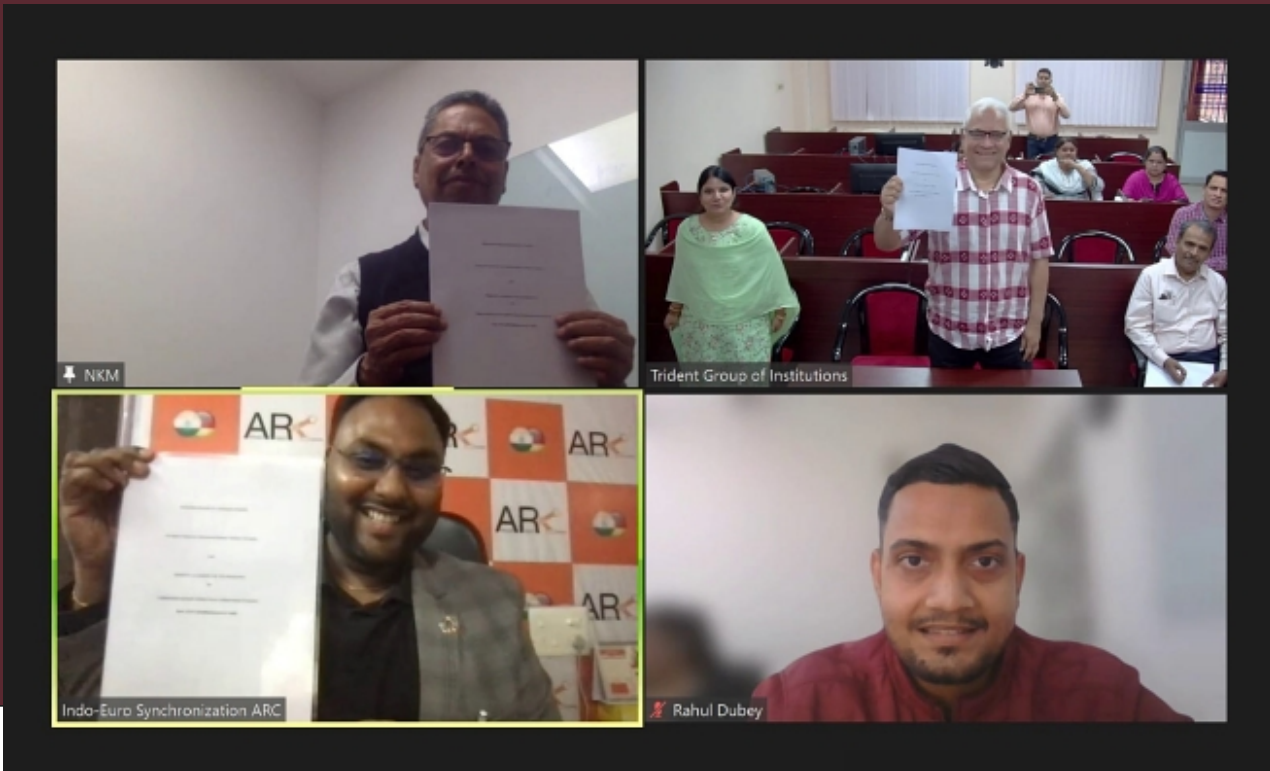
## MOU with India Meteorological Dept. (IMD) (29-02-2024)



MOU was signed between Trident Academy of Technology and the India Meteorological Department (IMD), Government of India. This agreement will grant Trident faculty and students access to a special HPC platform, the PARAM Supercomputing platform, and ERDAS IMAGINE (a Remote Sensing and GIS platform). This initiative will enable their AI and GIS groups to utilize IMD's climate data for futuristic localized climate modelling under the expert guidance of scientists from IMD.

# MOU with High Performance Computing (HPC) Lab (01.03.2024)

Performance Computing (HPC) Lab MOU was signed virtually between Trident Academy of Technology and a German varsity. The Trident team participated from the High Performance Computing (HPC) Lab, along with former CEO of ESSCI Mr. NK Mohapatra and the CEO of Indo EuroSynchronization (representing the German varsity, Aachen, Germany). Symbolic gestures included shaking hands while holding up our respective copies of the pre-signed MOU.



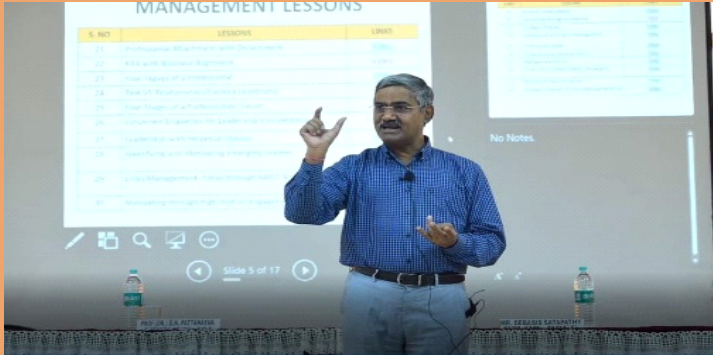
# MOU with French Diplomat (10.11.2023)

Trident signed an MOU with French Diplomat Mr. Nicolas Facino, marking the first step toward establishing a French Language Learning Center under Af du Bengale.



## MOU signed with NAVRATNA PSU NBCC Ltd.( 21.04.2023)

TRIDENT signed a strategic MOU with the Govt of India NAVRATNA PSU NBCC Ltd. Through this, NBCC, during the coming 5 years will accommodate every year, up to 50 Internship candidates from the Institution.40 from B Tech (Civil 20, Mech 10, Elect 10) and 10 from MBA to undergo course projects training. Sri Debasish Satpathy, the GM(HR) of NBCC Delhi visited the Institution.



## MOU signed with IIT BBSR on 7th June 2024



Trident Academy of Technology and IIT Bhubaneswar have signed an MOU for collaboration on many areas of Academics ,Research, Innovation and Start-ups.

# MOU signed with National Informatics Centre on 12.06.2024

Dr. B.B Panigrahi, Chief Mentor, on behalf of Trident signed an MOU for knowledge collaboration with Dr A K Hota, Deputy Director General NIC (National Informatics Center), Govt of India. Our faculty and students will be mentored by the officers of this prestigious organization here onwards.



## Talks and Seminars

Our IEEE student members attended a Distinguished Lecture on “Deep learning for massive MIMO hybrid beamforming” on March 20th, 2024 delivered by Dr. Kumar from the US Army Research Laboratory. The students got a comprehensive understanding of the latest advancements in communication system.



A team from STPI EmTek, including the Joint Director of STPI and the COO of EmTek, visited Trident Academy of Technology. They mentored our students, encouraging them to participate in an upcoming national-level competition. The team also enthusiastically toured the NASSCOM-CISCO funded and Trident-managed thingQbator, a makers' space for tech innovators.



TRIDENT is strongly pursuing its carbonless energy resolve to achieve NET ZERO CAMPUS status by this year end. As a part of the transition towards mitigating steps against the climate change challenges , energy shift is towards Solar and Wind electricity and further to produce high intensity Green methane from green hydrogen. Accordingly , our GREEN HYDOGRN RESEARCH GROUP was officially set in motion on April 13<sup>th</sup> 2024 through an illuminating talk by Sri DMR Panda ,Chief General Manager NTPC-RE-Hydrogen New Delhi, and the post talk interaction that I had with him, holds a lot of promise for our sustainability endeavor in the coming days..



# National Technology Day

School of Engineering organized a National Technology day celebration on 14<sup>th</sup> May 2024 hosting two senior scientists and researchers from the CSIR-IMMT ( Govt of India) Bhubaneswar which marked a beginning of our collaborative deep-tech exploratory research on NEST(New Energy Storage Technology),an evolving area of Sustainability and Green Energy.



## International Clean Air Day & International EV day celebration (07.09.2023 to 09.09.2023)

School of Engineering organized a National Technology day celebration on 14<sup>th</sup> May 2024 hosting two senior scientists and researchers from the CSIR-IMMT ( Govt of India) Bhubaneswar which marked a beginning of our collaborative deep-tech exploratory research on NEST(New Energy Storage Technology),an evolving area of Sustainability and Green Energy.



7th Sept. was the International clean air day and 9th Sept. is the International EV day. SACRED (Sustainability and climate Research Economics Department) had a combined celebration of both. The TRIDENT EV CHAMPIONS are on the dais and the entire SACRED team members are on the foreground in front of the packed audiences.

## World Intellectual Property Day

The World IP Day falls on the 26th April. The World Intellectual Property Organization (WIPO) is the global forum for intellectual property (IP) services, policy, information and cooperation. They are a self-funding agency of the United Nations, with 193 member states. World IP Day 2024 is an opportunity to explore how intellectual property (IP) encourages and can amplify the innovative and creative solutions that are so crucial to building our common future.

Their mission is to lead the development of a balanced and effective international IP system that enables innovation and creativity for the benefit of all. Their mandate, governing bodies and procedures are set out in the WIPO Convention, which established WIPO in 1967. This year's focus was the technological innovation driven efforts for achieving the target of Sustainable Development Goals decided in 2015 at Paris.



## World Earth Day



Our EARTH DAY celebration on the 22nd April was a joint affair of the MBA department's SUSTAINABILITY CLUB and the SACRED (Sustainability And Climate Research Enviro-social Development) department of TRIDENT.

## World Creativity And Innovation Day

celebrated on the 21st April in style in TRIDENT .Our MBA department's SUSTAINABILITY CLUB students really demonstrated one of the CIRCULAR ECONOMY 7R principles "REUSE" highlighting on TRASH TO FASHION(TRASHION) and WASTE TO WEALTH. We also made it an "All ladies Audience" to appreciate the efforts of the club members (SDG 5 and 10)



# New Innovative Laboratories for Experiential learning Inauguration of EV Technology Lab and Renewable Energy Lab

The Electric Vehicle Technology (EVT) LAB and the Renewable Energy LAB was inaugurated on 5<sup>th</sup> July 2024 with the introduction of M Tech courses in EVT and in Energy Environment Engineering.



A photograph of a modern university campus. The central focus is a wide, paved walkway that leads towards a cluster of buildings. On either side of the walkway are lush green plants and bushes with pink flowers. The buildings are multi-story, with a mix of brick and glass facades. In the background, a taller building with a glass facade is visible, with the words "NIA TOWER" on its side. A few people can be seen walking on the path in the distance. The sky is clear and bright.

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