



VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY

NEWSLETTER | MAR-AUG 2023



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P.O.: Engineering College, Burla (Siddhi Vihar), Dist: Sambalpur
Odisha - 768018, India



TECHNICAL SOCIETY



Prof. Sanjaya Kumar Patro
The Dean, Students' Welfare, VSSUT



Dr. Bidyadhar Rout
The VP Technical Society, VSSUT



Dr. Punyapriya Mishra
The Associate Dean Students' Welfare, VSSUT



Dr. Anand Kumar Behera
Co-ordinator Student's Welfare, VSSUT



DEAN STUDENTS' WELFARE MESSAGE

In the panorama of education, the conventional notion of students imbibing knowledge solely from their instructors has expanded. Today, education encompasses a broader spectrum. Our students must be nurtured with a holistic approach, one that imparts 21st-century competencies encompassing leadership, critical thinking, effective communication, and adept technical skills. These proficiencies are indispensable in molding them into proficient global citizens.

As we reflect on the past academic year, we see a rich mosaic of scholastic pursuits and vibrant club engagements that have ignited the passions and potential of our students. This newsletter stands as a vibrant gallery, showcasing their intellect, creativity, and unyielding spirit. Kudos to the students who conceived this platform, a testament to their innovative thinking and collaborative ethos.

In extending our gratitude, we applaud the entire Veer Surendra Sai University of Technology, Burla community. The fusion of diverse perspectives, unwavering determination, and relentless pursuit of excellence define us. With this indomitable synergy, we stand poised to chart new frontiers, achieving milestones that will embellish the tapestry of our future endeavors.

Prof. Sanjaya Kumar Patro
Dean Students' Welfare
VSSUT, Burla



ASSOCIATE DEAN STUDENTS' WELFARE MESSAGE

In today's ever-evolving landscape, innovation stands as the cornerstone of progress, and our current generation of students is at the forefront of pioneering change. These young minds exhibit a remarkable capacity for creativity, problem-solving, and pushing the boundaries of what's possible. Their efforts, often transcending traditional disciplinary confines, are a testament to their ability to tackle pressing global challenges and reshape the future.

Our institution boasts vibrant communities of students who are fueled by an unwavering commitment to innovation. These communities, driven by passion and curiosity, cultivate a fertile ground for experimentation, learning, and collaboration. Their collective drive inspires us all to think beyond the ordinary, adapt to change with resilience, and embrace new horizons. As we witness the astonishing projects and initiatives emerging from these groups, I encourage each and every one of you to actively engage with and draw inspiration from these exceptional individuals.

Together, we can foster a culture of innovation that not only propels our institution to new heights but also contributes positively to our ever-changing world. By supporting and celebrating the remarkable efforts of our students, we can collectively steer our future toward greater innovation and progress. Let us unite in this shared mission to empower the innovators of today to shape the world of tomorrow.

Dr. Punyapriya Mishra
Associate Dean Students' Welfare
VSSUT, Burla



VICE PRESIDENT'S MESSAGE

When we think of education, we often imagine students learning from teachers, yet its scope goes beyond this traditional view. Our students must be equipped with 21st-century essentials like leadership, critical thinking, communication, and technical skills to become valuable global citizens.

Throughout the year, an array of academic and club activities have provided students with opportunities to showcase their intellectual and creative abilities. The contents of this newsletter stand as a testament to these capabilities. I applaud the editorial board for initiating this newsletter, serving as a platform for students to express their imaginative thoughts.

I extend my utmost appreciation to the entire community of Veer Surendra Sai University of Technology, Burla. With resolute determination, unwavering dedication, and unrelenting perseverance, I am confident that the university will continue to scale new heights and achieve remarkable milestones in all its future endeavors.

Dr. Bidyadhar Rout
Vice President
Technical Society
VSSUT, Burla



Ratan Kumar Tripathy



Adyashree Ipsita

Message from Editorial Team

We extend a warm welcome to the March to August edition of the Technical Society newsletter—a meticulously curated source of insights into the ever-evolving landscape of technology.

In the dynamic world of technology, the achievements of our young innovators are undeniably remarkable. Their unwavering dedication, relentless pursuit of excellence, and innovative ideas stand as a testament to the limitless potential of human ingenuity. As we embark on this journey together, our aim is to transport our readers to a realm of unadulterated knowledge, where the future of technology invites exploration of all its possibilities.

Our deepest appreciation goes to the entire Technical Society team for their steadfast support and valuable contributions. Each of these clubs has enriched this newsletter with their unique perspectives and contributions. We hope that your reading experience mirrors the enthusiasm and dedication we invested in bringing this magazine to you.

Ratan & Adyashree
Co-Editors-in-Chief
Technical Society Newsletter

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ACKNOWLEDGEMENT

The publishing of this newsletter of the technical society could not have been possible without the guidance, participation, and assistance of the people directly or indirectly involved in this. I extend my heartfelt thanks to our Honourable Vice-Chancellor **Prof. Banshidhar Majhi** Sir for the constant aid and the encouragement. I would be extremely delighted in extending my respect and thanks to the Dean, Students' Welfare **Prof. Sanjaya Kumar Patro** Sir and Vice President of Technical Societies **Prof. Bidyadhar Rout** Sir who has been a backbone to the entire Technical society, and it would have been impossible to pull this off without their guidance. I would also like to extend my heartfelt gratitude to all the Faculty advisors and Coordinators of all the technical clubs that are a part of the technical society because of their constant work and quick response in completing this newsletter. I convey my earnest appreciation to Literary Society, for editing, managing and preparing the contents for the newsletter in such a short notice and Pixels: The official photography club of our university for the immediate cooperation pictures. Last, but not least, I express my gratitude to all the students involved in the various technical clubs of our university who strive hard to uplift the name and honour of VSSUT.



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Blind-Code-

Enigma's BLIND-CODE event was conducted on 4th March. It tested participants' coding skills under pressure, requiring blindfolded coding with limited peeks. Winners were selected based on correctness, completeness, and minimal peeks, with no copy-pasting allowed. A challenging and engaging showcase of talent.

Debug Battle-

On 5th March, Debug Battle engaged participants in debugging code snippets. Top performers advanced based on fixed errors and incorrect submissions. Team Hero vs. Team Villain rounds featured 7-minute code error corrections. A winner was crowned after their face-off.



Escapeza-

Enigma's event, Escapeza, was held on 6th March. It tested participants' teamwork and problem-solving abilities. Tasks included password guessing, code-solving, and typing speed challenges. Participants showcased skills in brainstorming, typing, calculations, and coding. The fastest team to complete all tasks emerged as the winner.

Geekify-

Samavesh X Vassaunt, in collaboration with ENIGMA, organized 'GEEKIFY' on 6th March 2023, featuring ARSH GOYAL, Senior Software Engineer at Samsung India. With valuable insights and interactive discussions, the event inspired the attendees, leaving them motivated and engrossed.





Maker Fest-

Maker Fest, an extension of the global Maker Fair, brought innovators together. IIC hosted the 3rd edition in Odisha from 4th to 6th March, with booths showcasing invited makers' projects. The event concluded by announcing the best maker of this edition.

IQ Infinity-

On 4th March 2023, IQ Infinity took place at the EEE seminar hall. Students were presented with problem statements and given a stipulated time to develop solutions. The event garnered significant attention, with enthusiastic participation from many students.



Fly with VSLV-

On 5th March 2023, IIC hosted the 'Fly with VSLV' event at the E-Learning centre. The event aimed to educate students about ISRO's sounding rocket VSLV and foster interest in space and innovation. It attracted aspiring students and science enthusiasts alike.

Think Tank-

On 6th March 2023, Think Tank took place at the EEE seminar hall. Students were presented with problem statements and tasked to propose solutions utilizing the latest resources. This final event of the club was hosted with great enthusiasm and energy.





Trading Pro-
E-Cell VSSUT hosted Trading Pro, an exciting technical event during the annual techno-cultural fest. Exceptional traders from diverse backgrounds wowed the audience. With around 10 groups in two phases, experienced and novice participants competed enthusiastically to secure the top position.

Wanna Be Shark-
E-Cell, VSSUT's event "Wannabe Shark" became a resounding success. Students showcased their best negotiation skills to secure the winning deal. This event demonstrated expertise in distinct fields. The participants' thrill and eagerness to win made it an impressive spectacle.



The Flying Machine-
Team AeroTech organized a highly successful event, "The Flying Machine." Participants crafted aircraft components with precision, followed by engaging flight tests that showcased their enthusiasm for aviation. A fest highlight indeed

Hunt the Box-
Team AeroTech hosted the successful event "Hunt for the Box." VSSUT students showed overwhelming participation, decoding challenging clues, collaborating in teams, and completing tasks to reach the treasure. The active involvement, especially from the freshers, created a memorable experience.





KTM Bike Show-

VSSUT's VeerRacerss Electric Club collaborated with KTM, a leading motorbike company, to host a bike show during the annual techno-cultural fest. Their talent and enthusiasm earned them sponsorship from KTM for their project.

Tread O Quest-

Tread O Quest, held on 4th and 5th March. In this event, participants are required to build robots that can follow a pre-determined path which involved building line-following robots judged on speed, accuracy, and obstacle navigation. High participation, guided by Robotics Society members



Death Valley-

Death Valley, held on 4th and 5th March, featured semifinals on the first day and finals on the second. Autonomous bots competed in soccer rounds, with the top scorer advancing to face challenging obstacles like sand, soapy water, and fire in the Death Valley arena, sparking participants' energy.

Aeroflix-

Aeroflix, held on 6th March, showcases drone performance with captivating acrobatics and cinematic shots. The event highlights the versatility of drone cameras in capturing stunning visuals





Idea
Innovation
Cell
VSSUT



Students from the Idea Innovation Cell showcased their university's technical prowess at Odisha Skill Conclave 2023, a significant industrial event held from April 20 to April 22 at Bhubaneswar's Kalinga Stadium. Representing their institution's knowledge, young innovators from 2nd and 3rd years engaged with dignitaries, aligning with the conclave's mission to establish Odisha as a global skills hub, endorsed by Chief Minister Shri Naveen Patnaik.

International leaders, skill ambassadors, and experts graced the three-day event, emphasizing skill development

In a thrilling showcase of innovation and technical prowess, Team TECHNOVATE from the Idea Innovation Cell participated in the Technoxian World Robotics Championship 2023, organized by AICRA. With a total of 10 brilliant minds, the team competed fiercely in the RC Craft category, leaving a trail of inspiring performances that highlighted their dedication and expertise.



The Young Tinker Academy reached a significant milestone by establishing a Young Tinker Space at VSSUT Burla's Innovation and Incubation Centre through a signed MoU. Founded by VSSUT alumni Anil Pradhan and Vaishali Sharma, this initiative offers practical learning opportunities in fields like hand tools, 3D printing, design, and rapid prototyping. The state-of-the-art lab was inaugurated by Vice-Chancellor Prof. Dr. Bansidhar Majhi sir and Anil Pradhan, the CEO of Young Tinker Academy. The Young Tinker Team organized workshops to provide hands-on experience to students by encouraging practical thinking and problem solving.





Prof. Harish Kumar Sahoo
(Co-ordinator VSSSIC)



Ayushman Jena
(Student Co-ordinator VSSSIC)

ISRO collaborates with Veer Surendra Sai University of Technology (VSSUT), Burla, Odisha, establishing Veer Surendra Sai Space Innovation Centre (VSSSIC) to boost space tech R&D in academia and industry. VSLV (VSSUT Satellite Launching Vehicle), a student initiative, aims to develop an Indigenous Sounding Rocket and PicoSAT in ten missions, fostering hands-on experience in rocket science, design, flight, and space experiment analysis. As India's First Indigenous Multipurpose Reusable Student Rocketry Project, VSLV operates under VSSSIC's guidance at VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY, Burla. With 6 years of progress, it exemplifies dedication to space innovation.

Ongoing research:

New Solid Propellant Fuel

A dual propellant, furnishes a good burn-rate and is economically feasible, and is readily available. It produces non-toxic combustion products along with relatively high specific impulses, with values higher than those obtained by black gunpowder commonly used in model rockets. Current Milestones: Prior launches demonstrated efficient thrust and impulse, reaching 3.89 Km height with this successful dual propellant.

Indigenous Recovery System

The Indigenous parachute Recovery System was successfully tested using wired triggering and deployed at a height of 1 km later during a test launch. A new method of parachute ejection was experimented with by using a pneumatic piston which was operated by triggering a firebolt.

Vertical static test stand for rocket motors

A vertical stand for static test of solid propellant motors was manufactured and tested. For testing manufactured rocket motors and propellant, this static test vertical stand with a load cell is used to calculate the burn rate, burn time, etc. Current Milestones: Tested and operated for more than 20 static tests of various solid propellant rocket motors since 2017



Rocket science research and development has rapidly expanded, finding applications across various domains. The VSSUT Satellite Launch Vehicle's cutting-edge development has gained substantial recognition. Fueled by this momentum, Veer Surendra Sai Space Innovation Center (VSSSIC) under the University's Idea Innovation Cell is broadening its scope beyond launch vehicles. Alongside its official Payload and Extra-terrestrial tech divisions, VSSSIC aims to nurture young minds in diverse space technologies. As a key player in emerging university technologies, VSSSIC strives to continually ascend, delving into uncharted territories & pushing boundaries.

For the Indian academic institutes, offering post-graduate / under-graduate courses on physical sciences/ technology

START

An online Space Science & Technology Awareness Training



ISRO has launched a new introductory-level online training program called 'Space Science and Technology Awareness Training (START)' aimed at post-graduate and final-year undergraduate students of physical sciences and technology.

VSSSIC has taken a step into it and has applied on behalf of the University as an Indian technical Institute to be recognized as a Nodal centre to facilitate UG and PG students with new opportunities and experiences in space science and technology.



The 3rd Joint Management Committee (JMC) meeting of Veer Surendra Sai Space Innovation Center (VSSSIC) and Indian Space Research Organization was organized. The meet was successfully conducted in the presence of Director CBPO Sudheer Kumar N, Deputy Director Nishant Kumar, and a panel of revered ISRO Scientists.

The meeting was formally introduced by the Coordinator VSSSIC, Dr. Harish Kumar Sahoo, in the presence of Vice-Chancellor Dr. Prof. Bansidhar Majhi, Dean of Students' Welfare Dr. Sanjay Kumar Patro, and the VSSSIC faculty committee members. The meeting commenced with a formal presentation of the ongoing student activity by VSSSIC Student Coordinator Ayushman Jena. As stated in the MoU with ISRO, the student-based activities for VSLV, launch vehicle development, and other space-tech-related activities must continue as per the mentioned requirements, therefore a one-time-aid has been granted to set up advanced laboratories for the purpose of research and manufacturing of VSLV and related systems



ISRO CBPO event:

A wonderful and inspiring event took place on 10th of August as Team Idea Innovation Cell warmly welcomed Dr. N Sudhir Kumar, Director, CBPO, ISRO and various important dignitaries for the discussion on further aspects of technical progress and achievements on university's student built satellite the VSLV, the occasion was bestowed by Dr. Bansidhar Majhi, Vice-Chancellor, VSSUT and faculty members who actively decided to take a step further in space. The event also had the presence of growing space and agricultural start-ups as they showcased their products and its benefits

Chandrayan live stream:

A moment of pride for every Indian as we became the first country to land successfully on the South Pole of the Moon. The auspicious moment of Chandrayan 3's Vikram Lander's soft landing on the moon was broadcasted live in the E-learning Centre through ISRO'S LIVE stream. The entire auditorium was filled with excited students and university faculty members eager to witness the historic moment. The exact moment of the touchdown was celebrated with claps and cheers as everyone congratulated ISRO and the hardworking scientists for their valuable contribution to the country





INDIAN INSTITUTE OF SCIENCE
INSTITUTE COLLOQUIUM
DIVISION OF MECHANICAL SCIENCES

OPTIMAL GUIDANCE FOR NATIONAL SPACE MISSIONS

ABSTRACT:
In this presentation, two different optimal guidance methods are described in detail and compared to national space missions. The first method is based on the direct method and the second method is based on the indirect method. The results of the comparison are presented and discussed.

29 AUG. 2023
4:00 P.M.

FACULTY HALL
MAIN BUILDING

PROF. RADHAKANT PADHI
VSSUT, Bhubaneswar



ABOUT THE SPEAKER

Prof. Radhakant Padhi is currently working as an Asst. Prof. in the Department of Aerospace Engineering and also as an Associate Faculty in the Centre for Space Physical Sciences, Indian Institute of Space, Bangalore. He is a Fellow of Indian National Academy of Engineering, Astronautical Society of India, Astronautical Society of India, VSSUT, and Institute of Engineers India. He is an Associate Editor of AIAA and a Senior Member of Institute of IETE.

Prof. Padhi's research interest is in optimal and nonlinear control systems and their applications to challenging problems in aerospace, astronautical and astronautical engineering. He is a member of technical review committees for several missions of ISRO and ISAC.

Isro seminar:

A colloquium was held on August 29th at the E-learning centre. We were honored to host Prof. Radhakant Padhi, an esteemed alumnus and aerospace expert. He discussed optimal guidance techniques, including Chandrayaan-3's lunar soft-landing and Aditya L1 satellite station-keeping. His insights and alumni connection made this event exceptional. He delved into two proprietary optimal guidance systems: lunar soft-landing and satellite station-keeping/docking. This discourse highlighted the crucial relevance of optimal guidance in aerospace



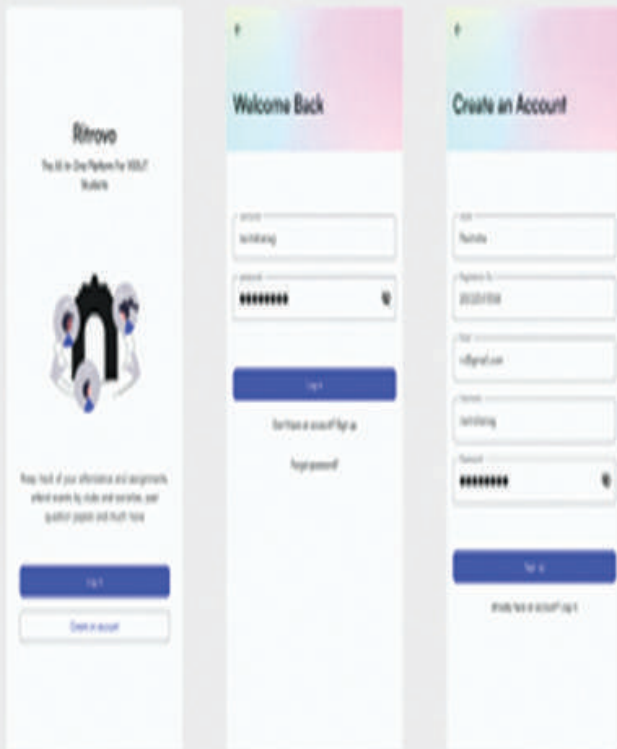
Enigma conducted a 3-week boot camp session called Lift off C. The event aimed to teach the basics of programming in the C language to students who had no prior knowledge. The boot camp was conducted online, and students were assigned mentors who helped them learn C by clearing doubts and teaching the language from scratch. The curriculum included topics such as data types, operators, control structures, functions, arrays, and pointers. The mentors taught the language from scratch, ensuring that students understood the fundamentals of programming in C.

Himanshu Sekhar Maharana, Nikhil Kumar Sahu, and Manas Kumar Panda emerged as frontrunners, securing their well-deserved spots in the upcoming ICPC Regionals. Their exceptional problem-solving skills and dedication have propelled them to this prestigious level of competition, promising an exhilarating showcase of talent.



Some other achievements by the club members:

- Ananya Mohapatra and Rohit Kumar were the winners of the Web hackathon, Webster organised by NMIMS and Unstop.
- 11 students from Enigma from a National wide total of 300 got selected for HWI which saw a participation of over 120k
- Pallav Kumar Patra and Debabrata Mohapatra qualified for the TVS EPIC Semi-final.
- Smruti Ranjan Rout became a Codeforces Expert.
- 10 Teams of the club qualified in the ongoing Flipkart Grid 5.0
- Smruti Smaranika Kar selected for the final round of All India Women's Hackathon.



RITROVO-

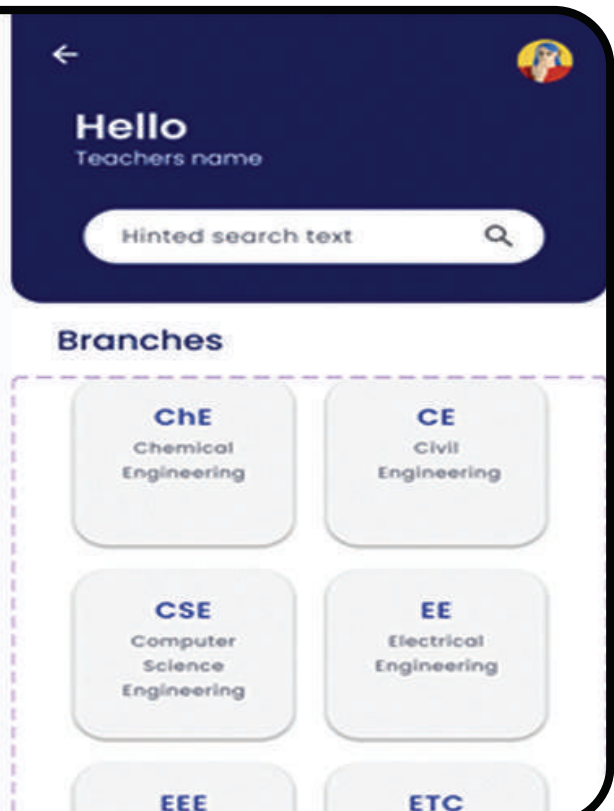
With a user-friendly interface, Ritrovo provides a centralised platform where all clubs can showcase their information and upcoming events, fostering a stronger sense of unity and engagement among students. But that's not all! Ritrovo goes beyond just club-related updates. It also keeps students in the loop with the latest news about our university and its exciting events, ensuring that no one misses out on any important happenings.

Web (Admin Panel) - Frontend-React ,
Material-UI
UI - Figma
Backend - Node.js
Database- MongoDB
App - Flutter

SMS-

The Student Management System app for VSSUT offers an efficient platform to access essential details of registered students. Users can select a branch and year to generate batch-specific student lists, fostering enhanced connectivity and administrative efficiency. With real-time updates and a user-friendly interface, the app transforms student information management, creating a more connected academic environment.

Web (Admin Panel) - Frontend - React
Backend - Django
Database- CockroachDB
App - Flutter





Home View Complain

Admin Login

Register Complain >

Complain Overview

Open

02

In Progress

06

Closed

18



Closed/InProgress

Open

COMPLAIN NO.	DUSTBIN NO.	LOCATION	DATE	STATUS	ISSUED BY
24566622	D-302	CANTEEN	24/04/23	OPEN	PRERIT
24566622	D-302	CANTEEN	24/04/23	OPEN	PRERIT
24566622	D-302	CANTEEN	24/04/23	OPEN	PRERIT
24566622	D-302	CANTEEN	24/04/23	OPEN	PRERIT
24566622	D-302	CANTEEN	24/04/23	OPEN	PRERIT
24566622	D-302	CANTEEN	24/04/23	OPEN	PRERIT

WASTE MANAGEMENT-

The proposed project is an innovative waste management system equipped with a user-friendly dustbin tracker website. This system will provide real-time updates on the status of all dustbins within the college campus, indicating whether they are empty or full. Additionally, it will include a dedicated user complaint section, empowering users to report any issues they encounter. By implementing this system, we aim to promote efficient waste disposal and ensure a cleaner and greener environment for our university community.

Web - Frontend - React , Material-UI

UI - Figma

Backend - Node.js

Database- MongoDB

App - Flutter



Home

Admin Login >

Login

Username
ex: AD002

Password
ex: Abcd00222

Submit





In a recent captivating webinar, the renowned Financial Research Analyst, Sunidhi Rathore, skillfully led an illuminating session on financial literacy, leaving participants intrigued by her ability to simplify complex financial concepts like budgeting, financial planning, and investment strategies. With practical examples and real-life case studies the webinar served as an eye-opening experience for the attendees, empowering them with essential knowledge to make informed financial decisions. The webinar left a lasting impact, inspiring individuals to take charge of their finances with newfound confidence.

STARTUPS BY E-CELL



wasper.in

Wasper Tech:

Launched in Sep 2021 by Rahul Krishna Nanda, Wasper transforms local businesses into e-commerce champions. With an intuitive platform, it streamlines online selling, inventory management, and viral marketing. Recognized for innovation in Startup Odisha, it boasts a clientele of 15+ D2C brands, 1,50,000 INR revenue in 3 quarters, and grants of 300K INR. The start-up has also emerged as finalists at IITs, IIMs, and AIC-BIMTECH Khoj 9.0, supported by esteemed institutions.

Fursphere:

Founded in January 2023 by Lalit Kumar, Fursphere is a groundbreaking pet care platform. Offering a spectrum of services including virtual consultations and emergency care, it's a one-stop solution for pet owners. Noteworthy achievements include being a finalist at GSEA Odisha Finals and IIT Rohtak E-Summit Startup Mela.



fursphere

fursphere.com

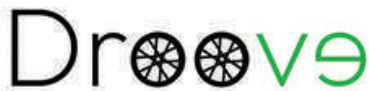
**WE ARE
LIVE NOW !**



Graphixi:

Established in 2021 by Kritiye Subhadarshini, Abantika Mohanty, Shrutipriya Sahoo, and Anisha Mishra, Graphixi is a versatile design studio serving MSMEs and startups. Offering graphic design, social media marketing, web development, content creation, and SEO writing, it empowers businesses in the digital realm. Achieving a revenue of 1 lakh within 9 months and serving over 50 clients, Graphixi stands as a creative force driving business.

STARTUPS BY E-CELL



Droove:

Founded in 2021 by Arpit Ansuman, Droove is a pioneering start-up revolutionizing commuting with affordable electric vehicle rentals. Prioritizing sustainability, it offers an array of eco-friendly cars, scooters, and bi-cycles. Achievements include 10 lakh revenue within a year, 5 lakh grant from Jharkhand's MSME department, and a top 5 spot at NIT Jamshedpur's e-submit 2022

Walking Pal:

Founded in 2021 by Junaid Ahmed, this innovative startup redefines last-mile travel by fostering walking camaraderie. Connecting like-minded individuals for eco-friendly journeys, it's a fun twist on traditional commuting. Achievements include an \$11,000 grant from the '1517 Fund,' an \$8000 'Emergent Ventures Grant' from George Mason University, and recognition by Google India, Global Student Entrepreneurship Awards, and Startup India's 'Together 2023.'





VSSUTROBOTICS

ROBOCAMP DAY 01 CODING



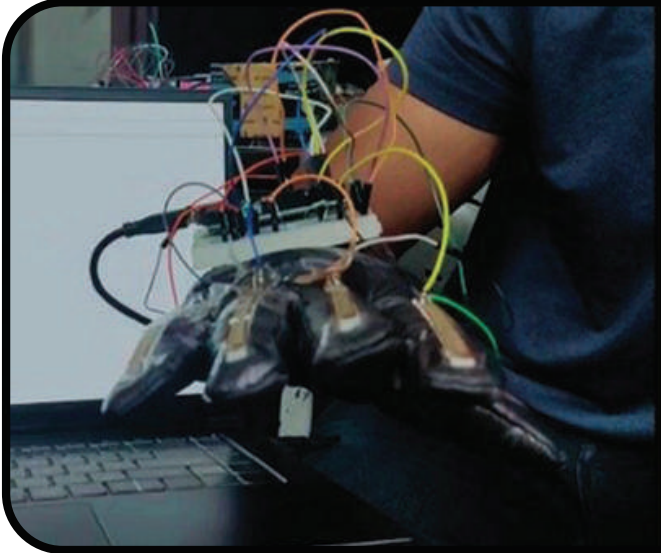
ROBOTICS BOOTCAMP

The Robotics Society orchestrated a comprehensive online series consisting of three informative sessions. Covering essential robotics domains, the series delved into Arduino programming, electronics fundamentals, and structural design. These sessions equipped participants with crucial skills and insights, empowering them for successful robotics projects. The society's commitment to fostering learning and innovation within the realm of robotics was evident throughout the series.

INNOVATION CHALLENGE

VSSUT Robotics' team, Robowizards, clinched 1st Runner-up in PMEC Berhampur's Innovation Challenge with their "Bomb Detection and Diffusion Vehicle." Atirijya Bhuyan and Govinda Dharmaraju's robot, operated remotely via NODEMCU and Wi-Fi, excels in safe bomb handling, emphasizing their technical prowess and dedication to impactful robotics.



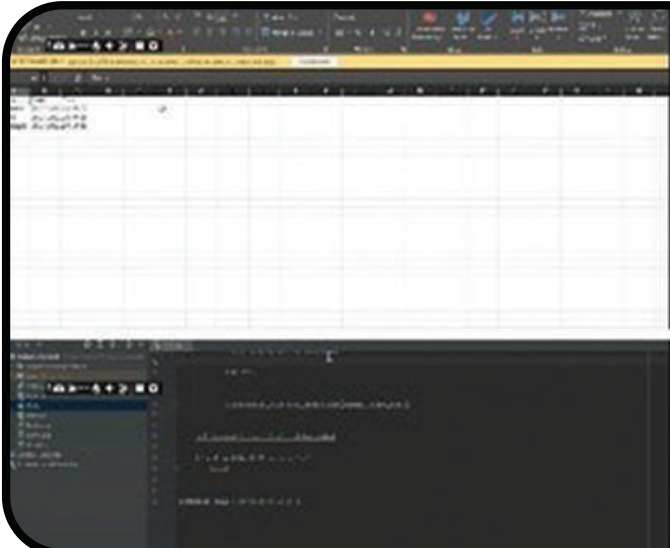
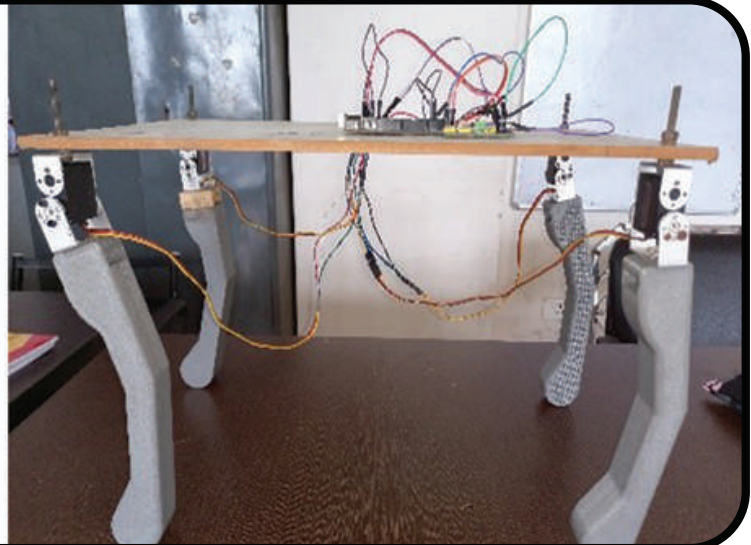


SMART GLOVES

Smart Gloves: A wearable tech breakthrough translating hand gestures into electrical signals, aiding communication for hearing and speech-impaired children. This innovation enables effortless sign language learning, enhancing interactions and life quality, and fostering connections between hearing and deaf individuals.

4 LEGGED ROBOT

A quadrupedal robot employs sensors like gyroscopes, accelerometers, and cameras to gather environmental data. Advanced control algorithms process these inputs, instructing actuators for precise leg movements. This enables versatile actions such as walking and running, sometimes enhanced through gait generation or machine learning.



ATTENDANCE SYSTEM USING OPENCV AND ML

Implementing an attendance system using ML and OpenCV involves integrating face recognition. OpenCV detects and recognizes faces, while deep learning aids person identification. The process includes image capture, feature extraction, model training, and real-time attendance monitoring. OpenCV, a computer vision library, offers image processing tools. ML enables systems to learn from data, making predictions without explicit programming.



ZEUS 1.0

In recent months, our dedicated team achieved key milestones in our project, Zeus 1.0. With unwavering precision, we've crafted essential components like the frame, steering system mountings, and wheel assemblies. Our commitment extends to powertrain tech, having acquired the motor and controller. These successes propel us towards integration and refinement. A climax awaits as we participate in the Formula Imperial event in October 2023, showcasing not just innovation but also interdisciplinary collaboration and technical prowess. Eagerly anticipating this opportunity, we're excited to unveil Zeus 1.0's capabilities, ushering in a new era of engineering excellence on a global stage

Sponsors and Collaborators

The team successfully secured sponsorship from KTM and Amec Mobility for their upcoming vehicle, Zeus 1.0. Additionally, they formed collaborations with renowned brands such as Hosier, Flauta Customs, 3brothers, MyPitCrew, Sensata, Motomanic, and Snap-on, acquiring sponsorships and essential parts for the vehicle



Representing VSSUT in Burla, India, Team VEERss Racing shone at the national-level ATV championship, E-BAJA SAE 2023. Held at Chitkara University, Himachal Pradesh, from April 5 to 10, 2023, this event showcased innovation. The team excelled in Design, Cost, and Sales presentations, displaying regenerative braking integration. With commitment, they navigated Preliminary Rounds, demonstrating academic prowess and practical skills. Team VEERss Racing's performance cements their university's excellence in automotive engineering nationally, merging theoretical knowledge and real-world application.

VSSUT's Team VEERss Racing proudly introduces their achievement: the e-IOKE 1 electric ATV, showcased at e-BAJA SAE 2023 India. This innovative single-seater features a 5-kW electric motor, reaching 60 km/h and a 150 km range. Crafted with care, Chromoly composite materials ensure durability in their 250 kg structure. Notable attributes include independent suspension, responsive disc brakes, and a regenerative braking system, showcasing sustainable engineering excellence.





WORKSHOPS

Over the extended summer recess, Team AeroTech orchestrated comprehensive aerodynamics and RC workshops, tailored for juniors. These curated sessions aimed to impart fundamental aerodynamic and cutting-edge RC insights while maintaining a professional British English ambiance. Attendees' enthusiastic response highlighted the workshops' effectiveness in inspiring intellectual engagement. Going beyond passive learning, these enlightening sessions sparked curiosity among juniors, potentially fostering future innovation and academic pursuits. This enduring intrigue cultivates appreciation for aerospace engineering and RC systems, potentially sowing seeds of transformative innovation and scholarly dedication in future generations.

RENOWNED SPONSORSHIPS

Proudly, Team AeroTech secured sponsorships from industry leaders SOLIDWORKS and PTC Creo, enhancing our preparations for the SAEISS Drone .Development Challenge 2023. This collaboration showcases our dedication to excellence and the industry's recognition of our innovative approach. SOLIDWORKS and PTC Creo's support empowers our team, positioning us as strong contenders, ready to make a transformative impact. These partnerships elevate aerospace engineering, setting new benchmarks and establishing a distinctive niche within this competitive arena.

FAB 3.0 AND XOR

Driven by an unwavering determination and a profound dedication to our craft, Team AeroTech proudly announces a significant milestone - the adept design and crafting of two distinct aircraft models tailored for the challenges of the competition. In the regular class category, our submission, 'FAB 3.0', stands as the embodiment of meticulous efforts, while in the micro class category, 'XOR' demonstrates our team's ingenuity in addressing specialized demands. These exceptional creations, borne from relentless pursuit of excellence and unwavering commitment to innovation, underscore our comprehensive capabilities and dedication to advancing aerospace engineering.



SAEISS DRONE DEVELOPMENT CHALLENGE

Team AeroTech's participation in the SAEISS Drone Development Challenge 2023 Final at Rajalakshmi Engineering College showcased our multifaceted prowess. Competing in both regular and micro categories, our teams impressed with technical inspections, presentations, and flight rounds. This experience reaffirms our commitment to excellence in aerospace engineering and brings pride to our university representation on esteemed platforms.

ASME VSSUT



Team ASME VSSUT achieved a remarkable feat by clinching the second runners-up position in a Student Design Competition, competing against 30 teams from across India. Additionally, another ASME VSSUT team secured the 4th position in the nationwide design hackathon ASME EFX 2023. These achievements showcase their exceptional talent and dedication to design and innovation.

The ASME VSSUT team, known as "Warm Defenders," successfully qualified in the Idea Design and Innovation Hackathon held at IIT Guwahati from June 26 to 28, 2023. The team members, Chinmaya Lenka and Anike Bhoi, showcased their innovative prowess. Their participation & achievement in the competition demonstrate their commitment to pushing the boundaries of creativity and problem-solving in the world of technology and innovation.

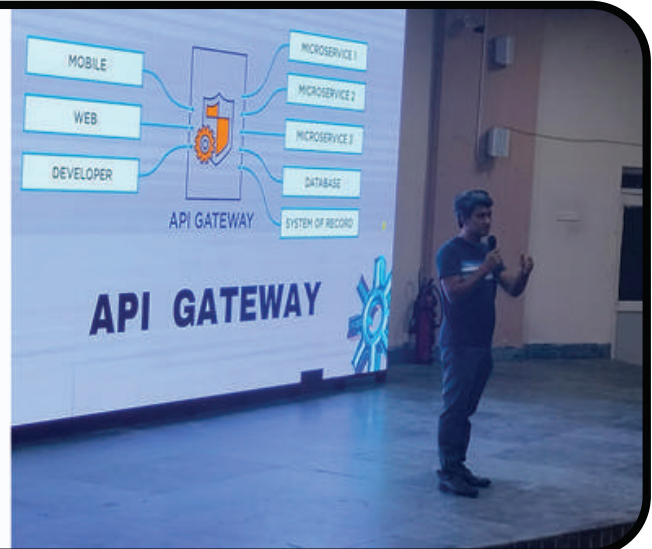


TECH TALKS



The GDSC VSSUT Info Session 2023 was an exciting, informative event, leaving guests buzzing with excitement. Distinguished dignitaries, including Vice Chancellor Dr. Bansidhar Majhi, participated. The event showcased GDSC as a vibrant group of digital pioneers, featuring a dynamic quiz for added fun. Former GDSC lead Rajat Kumar Nayak shared motivating life experiences. Current GDSC lead Ankita Panda unveiled the future vision. The event concluded with a vote of appreciation and a call for social media connectivity.

During a recent E-Learning Center seminar, IServeU's CTO, Sanjib Parida, simplified API Gateways using an Amazon app analogy. He portrayed them as central hubs, akin to Amazon Pay, product listings, and Prime Video, where microservices converge for a unified interface. Parida emphasized their role in swift error detection, acting as centralized entry points. This seminar provided valuable insights into API Gateways, making them accessible to tech experts and newcomers, underscoring their significance in complex digital ecosystems



Tata Group, in collaboration with TPWODL and SUIT, organized the Sir Dorabji Tata Memorial Lecture Series at SUIT's Biju Patnaik Auditorium on August 25, 2023. The event featured the release of an animated comic book highlighting Sir Dorabji Tata's contributions. His Excellency Gopal Krushna Naik, Director of IIIT Bhubaneswar, unveiled the book. Around 10-15 nearby colleges and schools attended, along with 40 students from Veer Surendra Sai University of Technology. The Director delivered an insightful speech on moral principles, concluding with a felicitation of school and college professors