



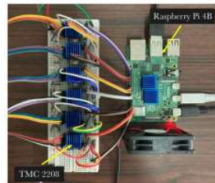
ROBO-YANTRIK

OCTOBER 2024-MARCH 2025

The Newsletter of

SCHOOL OF MECHATRONICS AND ROBOTICS

IIEST, Shibpur



The 6-RSS Parallel Manipulator designed and developed at the School

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E-Paper

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প্রথম পাতা কলকাতা পশ্চিমবঙ্গ দেশ বিদেশ সম্পাদকের পাতা খেলা বিদ্যমান জীবন + খবর ডিজিটো

Anandabazar / Education Career / IIEST Shibpur and IIFC, IIT Delhi inaugurated Co-Innovation Center to promote student entrepreneurship and start-ups in deep tech Dgtl

রোবোটিক্স চর্চায় গতি আনতে মউ স্বাক্ষর, চালু হল কো-ইনোভেশন সেন্টার

রোবোটিক্স, কৃত্রিম মেধা, মেশিন লার্নিংয়ের মতো ডিপ টেকের বিভিন্ন বিষয় চর্চার পাশাপাশি, পণ্যায়নের ব্যবসায়িক উদ্যোগ এবং স্টার্টআপ শুরু করার বিষয়েও বিশেষ ভাবে সহযোগিতা করা হবে।



ESTABLISHMENT OF CO-INNOVATION CENTRE IN DEEP TECH DOMAINS

January 31, 2025 marked the inauguration of the institute Co-Innovation Centre (CiC) in association with I-Hub Foundation for Cobotics (IHFC-IIT Delhi).

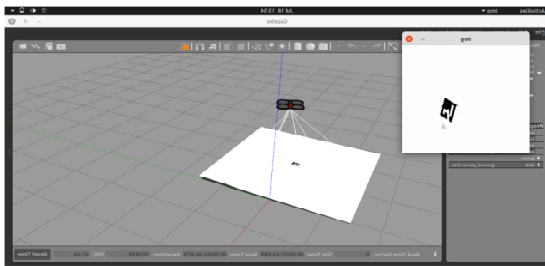
The centre would receive a grant of INR 25 Lakhs over a duration of three years with the aim of promoting product development and entrepreneurship programs in deep-tech domains for graduate and post-graduate students. The innovation centre will also provide opportunities for paid internship opportunities under the READY program of IIT Delhi.

The innovation centre activities will be held in association with TCGTBI and IIC with Professor Tanmay Pal acting as the Co-innovation mentor.

The occasion was graced by Dr. Amitabha Ghosh as the Chief guest. The MoU was exchanged between Prof. Debasis Datta (Director in-charge, IEST Shibpur) and Prof. Subir Kumar Sahar (Project Director, IHFC) in the presence of Prof. Pratik Dutta, Dean R&C, Prof. M.K. Sanyal, Prof. Anirban Gupta (acting-Registrar) and several other dignitaries.



IINVENTIV 2025 @ IIT MADRAS



Marker detection simulation in Gazebo. Credit: Monojit Sarkar, Subhasis Bhaumik

Student Achievements



Siddamala Harsavardhan from department of Mechanical Engineering presented our work on the workspace estimation of the **6-RSS parallel manipulator** developed in the **School of Mechatronics and Robotics** at NIT Jamshedpur. The first day of the conference, December 19, 2024, included an industrial visit to **RSB Transmission (I) Pvt. Limited**, where the student was offered a job opportunity following his project work and academic achievements.

Dr. Tanmay Pal and Dr. Anirban Nag participated in the IInventiv-2025 a mega R&D fair supported by the Government of India, where all IITs, NITs, IISERs and other top 50 ranked NIRF institutions of the country showcased their R&D activity.

It was a two-day event organised on February 28 and March 1, 2025 at IIT Madras.

Exhibit Title:

Effective landing of Unmanned Aerial Vehicles on moving platforms

The demonstration involved using a 6-RSS parallel manipulator as a stabilising platform for landing unmanned aerial vehicles (UAV). The platform can also be used as a motion simulator to replicate the motion of any kind of dynamic platform which can be tracked by an UAV with the help of fiducial markers.

REVIVAL AND UPGRADATION OF FACILITIES

The NAO Humanoid robot has been restored and made operational on the initiative of Prof. Tanmay Pal and Prof. Joydeep Bhaumik (AE &AM). The restoration of the battery pack which would have otherwise costed in Lakhs if procured from the company was done in-house within a few thousands only. Active efforts are being undertaken to restore other such equipments as well.



The School acquired a smart monitor to aid in the teaching activities as well as set-up facilities for efficient on-line meetings.



CII Visit to School of Mechatronics and Robotics



Delegates from the Confederation of Indian Industry (CII) visited the School of Mechatronics and Robotics on 20 March 2025, to explore potential collaborations and knowledge sharing. Key areas of discussion included:

1. Design Thinking and Social Thinking: Applying design thinking and social thinking approaches to develop innovative solutions for societal challenges.
2. Water Research: Collaborating on water research initiatives to address India's water management challenges.
3. Establishing CoE: Accelerating the development of Centres of Excellence (CoE) in Mechatronics and Robotics.
4. Industry-Grade Problem Solving: Collaborating on industry-grade problems to develop practical solutions and promote innovation, using Mechatronics approach.
5. Automation and Renewable Energy: Exploring applications of automation in renewable energy, particularly with companies like TATA Power Solar.