TECHNICAL CLUB "FLUX" :

FLUX is an official club at Samrat Ashok Technological Institute focused on enhancing students' technical knowledge and promoting a tech-friendly environment. It primarily specialises in robotics and has organised various technical events.

VISION :

Our vision is to create a dynamic learning platform that empowers students from all branches to explore, innovate, and excel in various technical fields while fostering interdisciplinary collaboration and advancing society through cutting-edge technologies.

EVENTS :

1. <u>Introduction to Programming Languages:</u> An Online Workshop Introducing Students to Programming Language Fundamentals, Applications, and Significance.



2. <u>Python Programming Workshop</u>: A five-day online workshop providing fundamental to advanced-level learning in Python.



3. <u>Technophilia</u>: A workshop addressing the roadmap for future technologies, targeting the fresher batch and covering various tech fields, coding platforms, connection building platforms, and the programming journey roadmap.



4. <u>Touch it:</u> A workshop on home automation utilising node mcu, showcasing a node mcu-based prototype, and educating students on IoT hardware and automation software.



5. <u>RoboRace Competition:</u> A thrilling competition, challenging teams to design and build robots capable of navigating a course and completing tasks efficiently, emphasising technical skills, strategy, and teamwork.



6. <u>Arduino Workshop:</u> A three-day workshop offering practical knowledge of Arduino and programming, covering robots, sensors with wireless data linkages, and control devices.

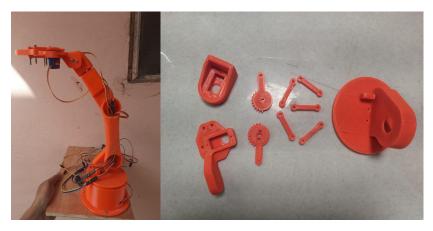


7. <u>Miniature Madness</u>: Technological games organised by FLUX, including Robowar, Hook the Ring, and Beat the Buzzer, in collaboration with the Institute Innovation Council, with cash awards for winners.

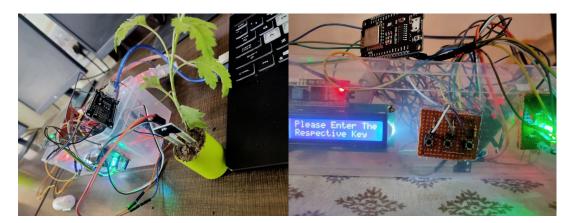


PROJECTS :

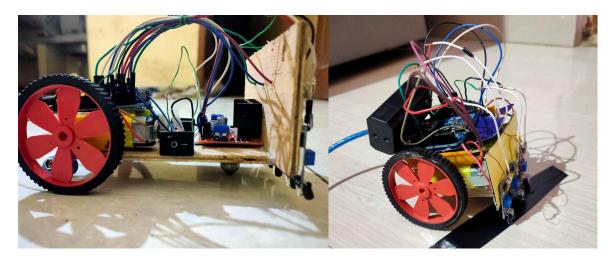
1. <u>Design and Fabrication of Robotic arm:</u> A robotic arm project was made. Under which design, fabrication & programming of the Robotic arm was done. In the robotic arm Arduino Uno was used as a control system, 3d printed parts as arms of robotic arm and GUI is built on MIT app inventor.



2. <u>IOT Based Plant Health Monitoring Device:</u> This device is used to tell the various conditions which are necessary for plant growth through the LED display. It can also share the information to the user via the internet. This device is useful in measuring soil moisture, temperature detection, Humidity measurement, etc.



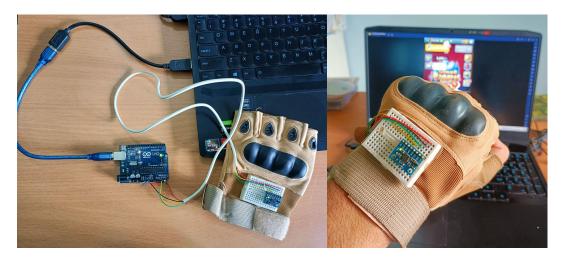
3. <u>Maze Solver Robot:</u> A maze solver robot is made to move through a complicated maze of paths and arrive at a predefined location. It can be planned to follow a predetermined set of guidelines or to employ artificial intelligence algorithms to make judgments instantly.



4. <u>Quadcopter Drone:</u> Quadcopter drone is built using KK-2.1.5 flight controller. With 2200kv BLDC motors. It has a range of 1km.



5. <u>Gaming Gloves Using Accelerometer Sensor:</u> Accelerometer sensors, Wireless technology, Microcontrollers, Rechargeable batteries are some technologies used in this.



HIGHLIGHTS :

1. <u>IIT Bombay Techfest</u>: Team Flux participated in the Rowboatics event, securing 16th rank and bringing glory to the institute and the club.



2. <u>Inauguration of the New Automated COE Lab:</u> FLUX automated lights, fans, and curtains over the internet in the new COE lab, providing convenience, safety, security, and time-saving benefits.



3. <u>Curtain opening Device</u>: On the occasion of the birthday of honourable Mr. Jyotiraditya Scindia this curtain opening device was created by us for the inauguration of the Aviation Club.



4. <u>Soccermania:</u> This event was organised to teach Arduino Programming to students. Under this event, Our club held a two day workshop and guided the students to make a robot as a project. Students got to know how to make and run the robots.



OUR MENTORS:

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