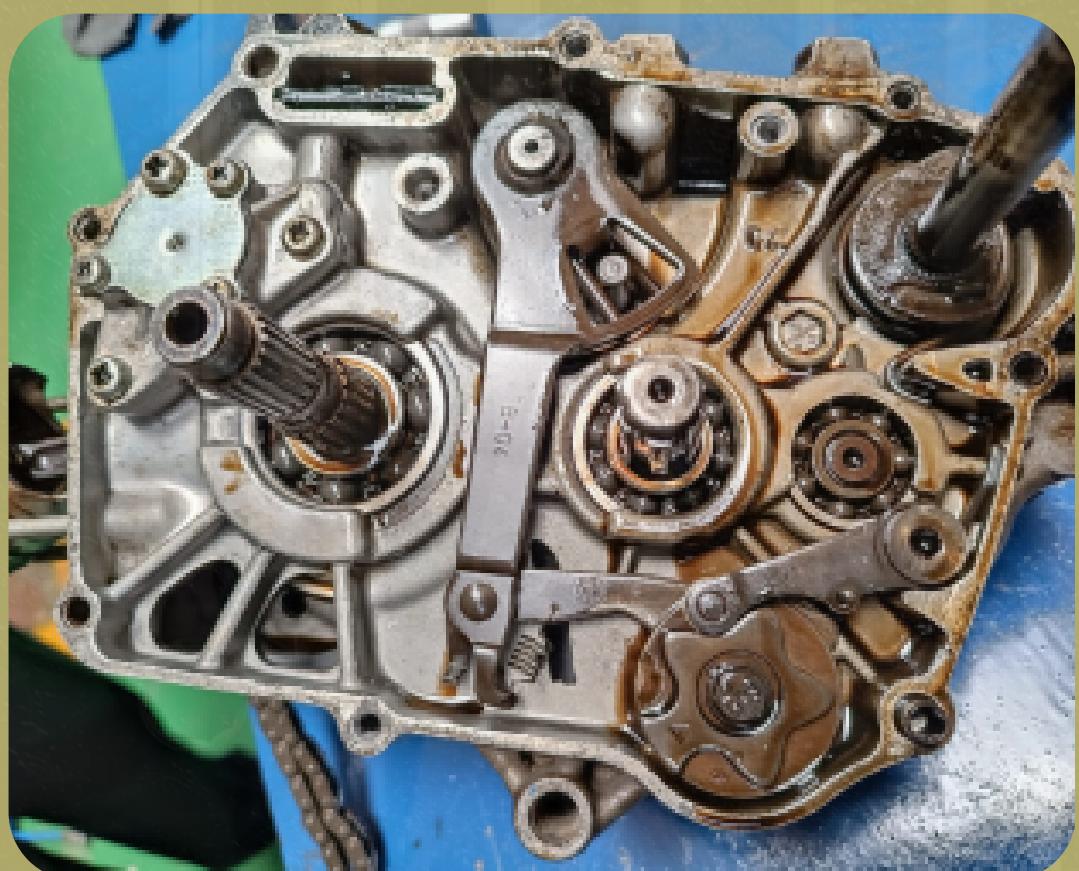


AGRI - CENTER OF EXCELLENCE

- Establishment Year: 2023, within a polyhouse.
- Technique: Hydroponics, a soil-less plant-growing method.
- Nutrient Use: Plants grown using mineral nutrients in inactive mediums like rock or coco coir fiber.
- Applications: Grows crops such as peas, artichokes, cucumbers, onions, radishes, and leeks.
- Benefits: Increases crop production in sterile soil areas, produces healthier crops, and effectively utilizes small spaces for cultivation.



MECH CENTER OF EXCELLENCE



- Establishment Year: 2021, dedicated to automobile engine assembly.
- Purpose: The lab supports the precise and safe assembly and dismantling of automobile engines.
- Equipment: Equipped with a comprehensive set of hand tools, including torque wrenches, screwdrivers, and various types of wrenches for detailed work.
- Precision Tools: Features precision measuring tools such as micrometers and calipers to ensure components meet exact specifications.
- Special Facilities: Includes a clean area specifically for handling delicate components like pistons, crankshafts, and camshafts, ensuring they remain free from contamination.



- **DUCEN LAB (Karuvarai Incubation Centre) :**

Inaugurated on 28th October 2016, the Ducen Incubation Centre, 'Karuvarai,' is a collaboration between SSIET and Ducen. It supports 2nd, 3rd, and 4th-year students in developing technical skills and enhancing employability through institution-industry collaboration.

- **VIRTUSA POLARIS CENTRE:**

Established in 2016 with an MoU signed in 2022, this center provides cutting-edge technology training to ensure students are industry-ready. Key figures such as Ms. Anuradha (VP & Global Head, ISQ Practice) and Mr. P. Arvind (Sr. Director & Global Head, EIM Practice) were involved in the inauguration.

- **ARTIFICIAL INTELLIGENCE LAB :**

Powered by INTEL UNNATI Inaugurated on 5th March 2024, SSIET's AI Lab, powered by Intel Unnati, addresses the skill gap with hands-on experiences in data-centric technologies, offering lab setups, faculty training, and ongoing support.

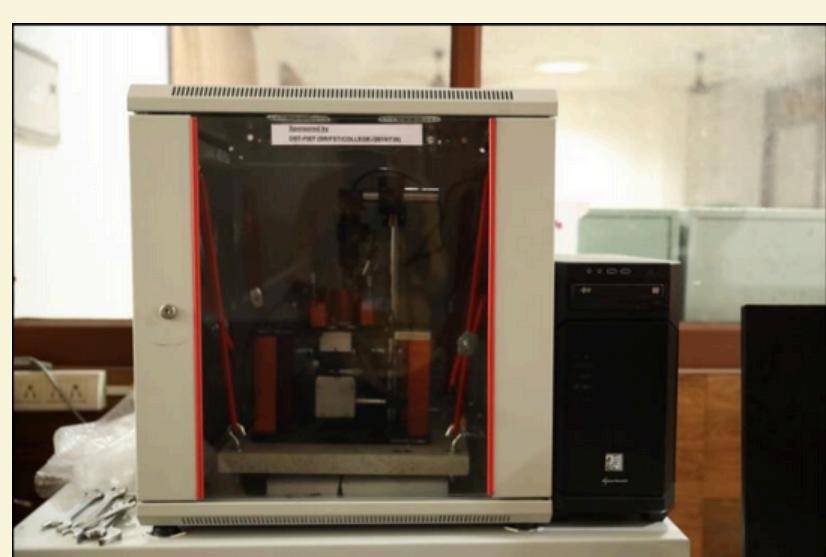
BME SPECIAL LABS



- Established in 2023 for continuous mass production of algae for wastewater treatment.
- Capacity: 1000 liters per day with a CFU count of $\sim 200 \times 10^9$ per ml/g.
- Primary Application: Uses Spirulina to reduce water hardness and produce protein through natural treatment methods.
- Student Involvement: Over seven batches of students participate in regular field trials and research on biofertilizers and biocontrol agents.
- Outcomes: The lab's work has resulted in patents, publications, and product developments.

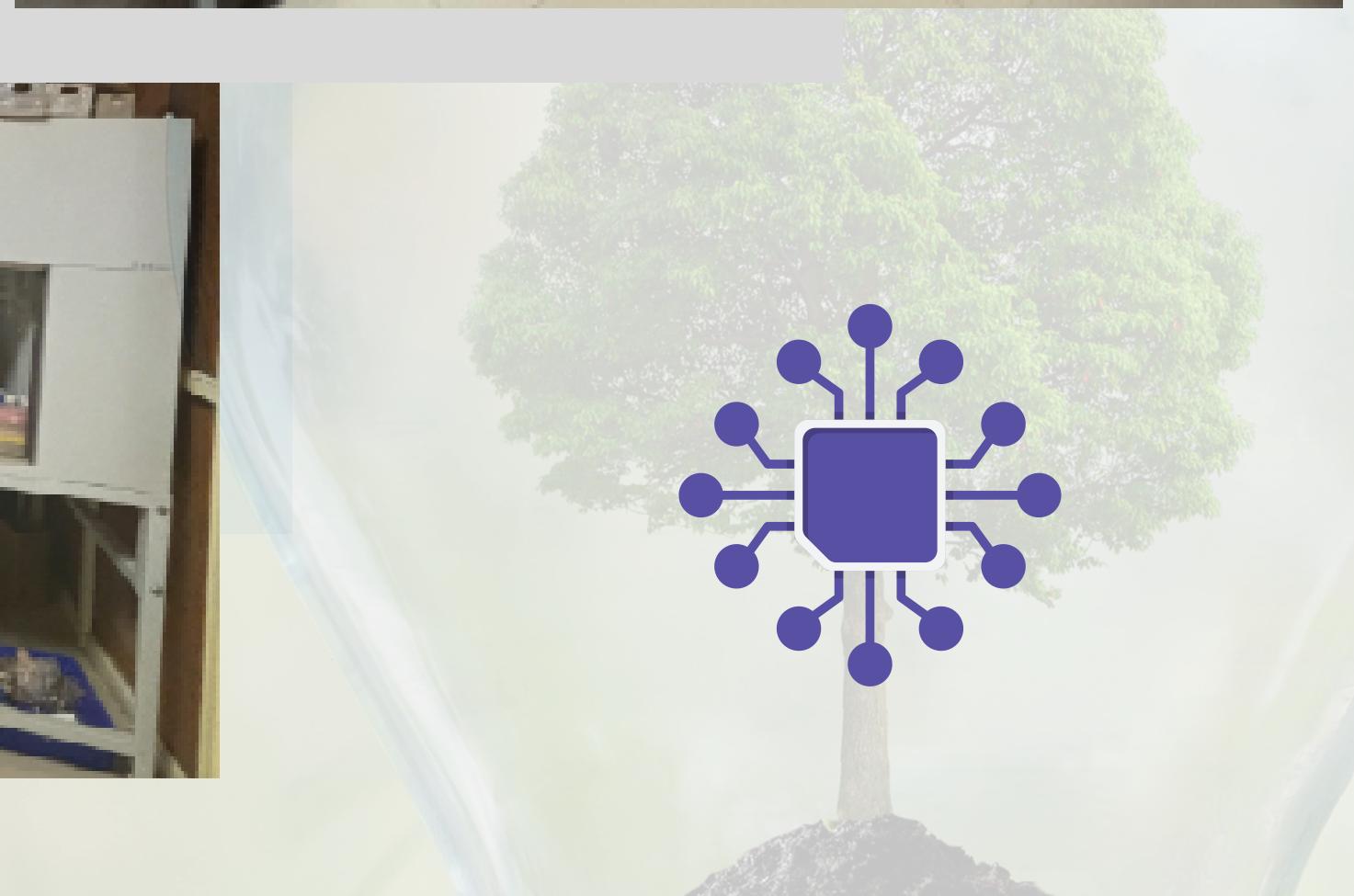


PHYSICS RESEARCH LAB



BT - CENTER

OF EXCELLENCE



- **Establishment Year:** 2023.
- **Purpose:** Continuous mass production of biofertilizers and biocontrol agents for our fields, particularly Mango farms.
- **Production Capacity:** 100 kg per month with a CFU count of $\sim 1 \times 10^9$ per ml/g.
- **Application:** Selective use of natural bioorganic fertilizers for enhanced nutrition, disease/pest prevention, and improved yield.
- **Bioagents Used:** *Bacillus* sp, *Pseudomonas* sp, *Streptomyces* sp, and *Trichoderma* sp are employed for plant growth promotion and disease prevention.
- **Student Involvement:** Year-round field trials and research by students, resulting in patents, publications, and product developments.
- **Educational Impact:** Over seven student batches actively engaged in projects related to sustainable agriculture, promoting innovation and practical learning.