

Dated: 30th May, 2024

Maharaja Surajmal Institute of Technology

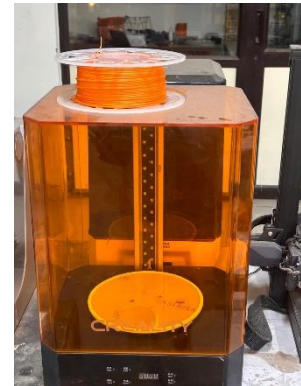
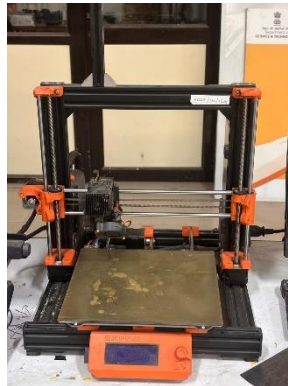
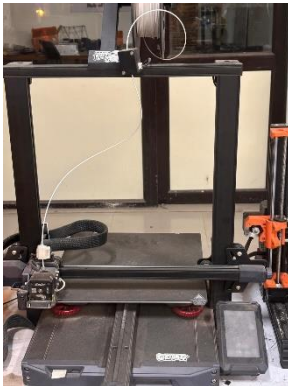
Department of ECE and IT

Report on Lab visit to MAKERSPACE Lab, IIT Delhi

Research and innovation labs play a crucial role in advancing knowledge, technology, and practices essential for multi-dimensional growth of the students. This lab can serve as the backbone of innovation and development, fostering an environment where new ideas can flourish and be translated into tangible benefits. To visualize and explore the equipment and machines required to set-up a research lab in MSIT, Prof. Puneet Azad and Dr. Deepshikha Yadav visited MAKERSPACE Lab of IIT Delhi, a DIY facility for people to make prototypes, or would like to learn new skills in tinkering on 28th May, 2024.

Ms. Rajni Badgular, Project Attendant at MAKERSPACE Lab gave a lab tour showing following machines and equipment available in the lab for students where they can design and materialize their projects/products.

- 1. 3D Printer:** 3D printer is a device in which a digital file is used to create a three-dimensional solid object. In the 3D printing process, sequential layers of material are laid down by the '3D printer' until object creation is completed.



- 2. Temperature Controlled Soldering Station:** A Soldering Station is an 'adjustable temperature' based soldering device designed for soldering through-hole and SMD electronic components.



- 3. PCB Prototyping Machine:** PCB Prototyping System helps to build fine, accurate and rapid prototypes designs during project or product designing and testing.



- 4. Laser Cutter Machine:** Laser cutter machines enables a completely digital process to convert a design to the finished workpiece. Materials such as wood, cardboard, paper, plastic and acrylic can be engraved and cut with laser machines.



Few finished job samples:



It was a highly informative and learning session. We had an opportunity to physically see the utility and working of these machines in a well-equipped lab of such a prestigious institution.



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Professor, ECE

Dr. Deepshikha Yadav
Assistant Professor, IT

Prof. Neeru Rathi
HOD, ECE

Prof. Prabhjot Kaur
HOD, IT