

## Workshop on Prototype/Process Design, Development, and 3D printing.

### Objective:

- To sensitize students about prototyping/Process design & Development.
- To introduce 3D printing technology to Sathaye College students.

### Benefits:

- Students understood the meaning and importance of prototyping/Process design & Development.
- Students got a clear idea about the 3D printing technology.
- Students designed their own 3D models and printed their own 3D objects by themselves.

**Description:** On 06<sup>th</sup> December 2022 Workshop on Prototype/Process Design and Development and 3d printing for Sathaye college students. This workshop was a part of workshop series organized for PTVA's Start-up EXPO 2023.

## Report on Workshop on Prototype/Process Design and Development and 3D printing.

PTVAIM's COEI organised a Workshop on prototyping/Process design & Development' on 06<sup>th</sup> December 2022 from 09:30 AM to 12:00 PM. There were 72 students who attended the workshop. Mr. Mandar Salasakar started the session by explaining the meaning of prototyping. He briefed the importance and different types of prototyping. He gave an example of a musical instrument with tracking device, where he explained how that product should be, what would be the design and what would be the properties of that particular product. While explaining the types of prototyping he highlighted 3D printing technology. He also shared how 3D printing technology can be the most efficient and effective type of prototyping. After that Mr. Mandar Salasakar asked Mr. Mayur Khanvilkar to explain 3D printing technology.

Mr. Mayur Khanvilkar started with a concept of 3D printing in very simple language. He stated that 3D printing technology is an additive manufacturing process. It is a process of making a 3-Dimensional product with the help of digital files i.e., a soft copy of a 3D model. To make it simpler he distributed some prints and 3D printed objects with students and explained the differentiation between regular 2D printing and 3D printing. Students understood the basic concept behind the 3D printing technology. Mr. Mayur also discussed the sectors in which 3D printing technology is being used and what are the benefits of 3D printing technology.

After the theoretical part Mr. Mandar Salasakar took over the session and explained the actual 3D designing in softwares. He explained students how to create their 3D designs on Tinkercad website and he asked students to design their own 3D keychains & models. Accordingly, students started to design their models and Mr. Mayur & Mr. Mandar inspected each student's designs. Mr. Mandar Salasakar also taught students how to set the 3D printers for printing and also showed them functions of 3D printer.

Session successfully ended at 12:00 PM.

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