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MECHANICAL ENGINEERING DEPARTMENT

A Report Of Workshop on

One Day Skill Development Workshop And Additive Manufacturing

> By Prof. A. R. Malekar Prof. V. G. Ambigar

From

A. G. Patil Institute of Technology, Solapur

Organized

A. G. Patil Institute of Technology, Solapur & The Institution of Engineers (Solapur)

Event Details

- Name of Workshop: One Day Skill Development Workshop and Additive Manufacturing
- Name of Resource Person: Prof. A. R. Malekar & Prof. V. G. Ambigar
- Date of Seminar: 4th March 2023
- Number of Participants: 101 students

• Objectives of Seminar:

To understand the concept & importance of Designing and 3D printing Technology.

• Outcome of Seminar:

Students will be able to;

- Understand the concepts of Design.
- Understand types of 3D Printing technology available in market and how it works.
- Understand the range of products that can be printed on 3D printers and type of Material used for it.

• Event description:

Mechanical Engineering department of A. G. Patil Institute of Technology, Solapur has organized One day Skill Development workshop on Additive

Manufacturing for mechanical engineering students of various institute along with The Institution of Engineers (Solapur). The aim of the workshop is to make students aware about concept & importance of Designing & 3D printing Technology. The workshop was also attended by the staff.

The workshop started with welcoming guest Prof. S.M.Shaikh (Chairman IEI) by Dr. S. B. Gadwal, Dean (Academics) & Head of the Department and few encouraging words about the current scenario in industry from Vice Principal Dr. V. V. Potdar. Principal, Dr. S. A. Patil has honoured the chief gueat and gave the guidance over the upcoming trends in Mechanical Engineering field.

The workshop was divided in two sessions, in first session Prof. A. R. Malekar has presented and explained the students about Designing and Solid Modeling part & about background of how 3D printing technology evolved. They also explained about the various types of 3D printing technology available in market and how they differ in printing object. Also it was shown the recent trends or developments in the world regarding 3D printing Technology. Apart from design, how 3D priming technology is used in range of areas like manufacturing, Health care & Medicines, Education, Fashion, construction industry and job creation is explained. Sir has also explained to students regardless of the specific application, 3D printers offer rapid turnaround times when it comes to taking a digital concept, and placing the physical results of that concept into a user's hand. As the technology surrounding it improves, 3D printers will become increasingly versatile. They'll be used for an ever growing number of tasks, in a manner similar to the last two decades of digital expansion via personal computers. Imagine third world village printing vital medical equipment on demand. Aid workers never being without the specific supplies they need, a result of carrying portable 3D printers with them into combat zones and disaster areas. Imagine hospitals being able to print organs on demand instead of waiting for a donor. 3D printers have virtually limitless potential as the technology driving them improves. They also offer typical consumers endless opportunity for product customization. They are capable of producing the type of customization that's unattainable through mass manufacturing. Imagine never needing to break in a new pair of shoes again. You also won't have to worry about selecting the shoe size that's the closest fit – instead, you'll be able to scan your feet and design a shoe that fits them perfectly.

In the Second session, Prof. V. G. Ambigar has demonstrated on 3D printer which Institution got under the scheme of MORDROBS by 3D printing a small component in printer. While demonstration was going on simultaneously sir has also explained about type of raw material required for 3D printing. Also sir has explained that depending upon the raw material how the product quality varies and also cost of the component.

We got a great support from Respected Principal Dr. S. A. Patil and Vice -Principal Dr. V. V. Potdar along with IEI, Solapur, HOD's and Teaching and Non Teaching staff of all the Departments to conduct this workshop successfully.

Glimpses of Workshop:











