



SRI VENKATESWARA COLLEGE OF ENGINEERING
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DEPARTMENT OF MECHANICAL ENGINEERING

30.09.2024

**REPORT ON ONE-DAY WORKSHOP & EXHIBITION ON 3D PRINTING: FROM
PRODUCT DESIGN TO DEVELOPMENT**

Date : 25.09.2024

Venue : PG CAD Lab (Room 4101)

Organized by : Department of Mechanical Engineering in association with Hydrotech 3D Ltd., Chennai

The Department of Mechanical Engineering organized a One-Day Workshop & Exhibition on 3D Printing: From Product Design to Development on 25th September 2024. The event aimed to expose undergraduate students to the latest advancements in additive manufacturing and provide practical insights into the world of 3D printing. The workshop was held in collaboration with Hydrotech 3D Ltd., Chennai, and was attended by faculty members, students, and a distinguished guest from the industry.



Inaugural Session

The workshop commenced with a traditional prayer song, setting a respectful tone for the day. Following this, Dr. S. Ramesh Babu, the Head of the Department of Mechanical

Engineering, delivered the welcome address, expressing gratitude to the guest speakers and participants for their enthusiasm. He emphasized the importance of integrating advanced technologies like 3D printing into the curriculum to enhance the practical knowledge of students.

Dr. M. Mohandass, the Assistant Head of the Department (AHOD) of Mechanical Engineering, delivered the presidential address, wherein he discussed the significance of additive manufacturing in the modern industrial landscape and its growing relevance in product design and development.



Contribution from Industry

The department was honored to host Mr. Aravind, a representative from Hydrotech 3D Ltd., Chennai, as the guest speaker for the event. Hydrotech 3D Ltd. has been at the forefront of 3D printing technology in India, and their participation greatly enriched the workshop. In a generous gesture, the company donated a cutting-edge Fused Deposition Modeling (FDM) 3D printer to the Mechanical Engineering Department, which will significantly bolster the department's research and prototyping capabilities.

Additionally, the company exhibited two FDM printers and two Stereolithography (SLA) printers at the venue, offering participants a firsthand experience of these technologies. These

demonstrations allowed students to observe and understand the operational dynamics of different 3D printing methodologies.

Guest Lecture on 3D Printing

The morning session of the workshop featured an insightful guest lecture by Mr. Aravind. The session focused on the nuances of 3D printing, covering both theoretical and practical aspects of the technology. Mr. Aravind provided a comprehensive overview of the different 3D printing processes, materials, and applications, with a special focus on FDM and SLA technologies.

The lecture was well-received by the audience, as it bridged the gap between academic knowledge and industrial application. Mr. Aravind also discussed the future trends in 3D printing, including its potential in various sectors such as healthcare, aerospace, and automotive industries. The session proved to be highly beneficial for the students, giving them a deep understanding of how 3D printing is transforming product development processes.

Exhibition and Student Interaction

In the afternoon session, students from various undergraduate programs visited the exhibition, which showcased the 3D printers donated and displayed by Hydrotech 3D Ltd. The exhibition provided students with a unique opportunity to engage with the latest 3D printing technologies up close. They could see the intricate details of how FDM and SLA printers operate and observe the rapid prototyping process in action.



The students actively interacted with Mr. Aravind, posing questions related to the practical applications of 3D printing in different industries. The resource person addressed their queries, offering valuable insights into the practical challenges and opportunities that exist in additive manufacturing. This interaction helped the students gain clarity on various technical aspects and sparked further interest in exploring this cutting-edge technology.



Conclusion

The One-Day Workshop & Exhibition on 3D Printing was a resounding success, providing students with not only theoretical knowledge but also practical exposure to one of the most transformative technologies of the modern era. The workshop enabled students to appreciate the versatility and potential of 3D printing in real-world applications. The department is especially grateful to Hydrotech 3D Ltd. for their generous contribution and active participation, which greatly enriched the event.

The event concluded with positive feedback from the participants, who expressed their eagerness to explore more hands-on opportunities related to additive manufacturing in the future.

Acknowledgments

The Department of Mechanical Engineering extends its heartfelt thanks to Mr. Aravind and Hydrotech 3D Ltd. for their valuable contribution and support. The department also thanks

the faculty members and students for their enthusiastic participation, making the event a memorable and fruitful learning experience.