3D Bioprinting Demonstration at MSU Vadodara

Date & Venue

- The one-day workshop was held on 22 September 2025.
- Organized at the Department of Zoology, Faculty of Science, Maharaja Sayajirao University (MSU), Vadodara, Gujarat.

Organisers & Partners

- Conducted by the Department of Zoology, Faculty of Science, MSU.
- In collaboration with HiMedia, a Mumbai-based biological products company.

@ Purpose & Theme

- The event acted as an academia-industry interface, bridging research and practical applications.
- Main focus: 3D bioprinting and 3D cell culture technologies, which allow construction of tissues layer by layer using live cells and biomaterials.



Demonstrations & Sessions

- Live demonstration of printing bone tissue using a 3D bioprinter.
- Technical sessions and lectures were delivered by experts from both academia and industry.
- Key speakers included Dr. Sanskrita Das, Dr. Giriraj Acharya (HiMedia), Prof. V. A. Kalamkar, and Prof. B. Suresh from MSU.



Potential Applications Highlighted

- Organ regeneration and repair developing replacement tissues for damaged organs.
- Medical implants creating biocompatible printed implants.
- Drug discovery and testing using printed tissues and organoids to assess drug safety and efficacy.
- Disease modelling creating lab-based models of diseases for research and therapy development.

- A major benefit discussed was the potential to reduce the use of experimental animals.
- India currently uses an estimated 1.15 million animals annually in research; bioprinted organoids and tissues could replace many of these, reducing ethical concerns.