

ABOUT INSTITUTE

MGM's Polytechnic is offshoot institute which is established under the aegis of Jawaharlal Nehru Engineering College Aurangabad. It is approved by AICTE New Delhi and recognized by Government of Maharashtra, affiliated to MSBTE Mumbai. MGM's Polytechnic embarks its journey of success on the foot-prints of JNEC Aurangabad. This institute has carved a niche in Marathwada region for its quality-oriented technical education in a very short span. Also it is uniquely well known for infrastructure and standards of world class technical education. For the last several years the institute explored avenues in methods of teaching and training which enhanced the relationship between knowledge and its application.

ABOUT DEPARTMENT

The Mechanical Engineering Department was established during the year 2010. The department has qualified faculty members and well equipped laboratories. The Department of Mechanical Engineering is focused to create a professional with well-defined technical knowledge in the field of Design, Manufacturing and Industrial Engineering. It deals with interdisciplinary fields and projects that draw on fundamental sciences in pursuit of beneficial engineering solutions. The department aims to develop new, effective and sustainable alternatives in the field of mechanical engineering.

COURSE OBJECTIVES

- To update the participants with the state of the art technologies in 3D Printing.
- To enable the participants to have experiential learning in 3D modeling, build-setup preparation and 3D printing.
- To enable participants to learn the industrial, real life applications of 3D printing.
- To facilitate the participants to develop low-cost 3D printers to teach Additive Manufacturing.

CHIEF PATRON

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Hon. Dr. Abhay Wagh (Director, DTE, Mumbai)
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Dr. B.M. Patil (Principal, MGM's Polytechnic, Aurangabad)

ADVISORY COMMITTEE

Mr. J. A.Siddiqui (Dean Academics, MGM's Polytechnic)
Mr. B. D. Bhalekar (HOD, Mechanical Department)

ORGANIZING COMMITTEE

Co-ordinator

Mr. Lokawar V. L.

(Lecturer in Mechanical Department)

Co-Cordinator

Mr. Kakde D. V.

(Lecturer in Mechanical Department)

IMPORTANT DATES

Last date of Registration	19 Feb 2021
Intimation of selection	20 Feb 2021
Mode of Intimation	Through Email only

ABOUT ISTE

The Indian Society for Technical Education (ISTE) is the leading National Professional non-profit making Society for the Technical Education System in our country with the motto of Career Development of Teachers and Personality Development of Students and overall development of our Technical Education System.



Indian Society for Technical Education (ISTE)

Self Sponsored

Online Faculty Development Programme

on

“Additive Manufacturing”

22-27, February 2021



Department of Mechanical Engineering,
MGM's Polytechnic Aurangabad
MGM Campus, N6, CIDCO Aurangabad

www.mgmpoly.com

ABOUT THE COURSE

Primary objective of this course is to explore the fundamental and advances in 3D printing by providing a common platform to interact with the experts of the field. The contents include introduction to advanced techniques used in additive manufacturing, their end applications, and recent developments. This course will be a platform to provide clear cut ideas regarding 3D printing and its use in biomedical, automobile and aerospace to researchers who are working and planning to work in this field. The program also motivates research ideas with practical applications by the experts in this field of research.

COURSE CONTENTS

- Introduction to Additive Manufacturing
- CAD for Additive Manufacturing & 3D Printing
- STL file processing technique
- Advances in Additive Manufacturing
- Stereo lithography (SLA)
- Fused Deposition Modeling (FDM)
- Selective Laser Sintering (SLS)
- Direct Metal Laser Sintering (DMLS)
- Liquid Base - Multijet Process
- Liquid Base - Polyjet Process
- Materials used for 3D Printing
- Real-Time Applications of 3D Printing Technologies

KEY POINTS

- ◆ There is **no registration fee** from any participants
- ◆ Participants will be selected on first-come first-served basis
- ◆ Selected candidates will be intimated by e-mail

PROSPECTIVE PARTICIPANTS

This workshop is open for participants of Academicians, Research Scholars and PG Scholars from AICTE approved institutions & Central Government institutions

REGISTRATION

The interested candidates are required to register for the FDP through following link on or before the last date <https://forms.gle/sKdfd77UdD3YbQVt9>

The number of participants is limited to 200 and will be selected based on first come first serve basis. For any clarification, contact the FDP coordinator.

ADDRESS FOR COMMUNICATION

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Lecturer

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CERTIFICATE

The digital certificates shall be issued to the participants who have attended the program with minimum 80% attendance and scored minimum 60% marks in the test. The participants also have to provide compulsory online Feed-back on the last day of FDP.

RESOURCE PERSONS

Faculty from reputed Academic Institutions/ Industries/ R&D labs who are broadly working in the field of 3D printing and design at research and application level will deliver lectures.

EXPECTED OUTCOME

At the end of the program the participants shall be able to understand the following key factors in the field of 3D printing.

- State-of Art of 3D printing techniques
- Basic components and assembly of 3D printing equipment
- Selection of materials for 3D printing
- Need and real time applications of 3D printing technologies.





MGM's Polytechnic Aurangabad
 Department of Mechanical Engineering
Indian Society for Technical Education (ISTE)
 Faculty Development Program on
Additive Manufacturing



TENTATIVE SCHEDULE

(Sessions are only indicative and can be changed during the program)

Date/Timing	10.30 AM to 12: 00 PM		2 PM to 3:30 PM
22nd Feb 2021	Session 1 Introduction to Additive Manufacturing. by Dr. Ravi Kant, IIT Ropar	L U N C H	Session 2 CAD for Additive Manufacturing & 3D Printing. by Mr. Akash Kukade, IGTR Aurangabad
23rd Feb 2021	Session 3 STL file processing technique. by Mr. Rajkumar Waghmare, IGTR Aurangabad		Session 4 Advances in Additive Manufacturing. by Dr. Ravi Kant, IIT Ropar
24th Feb 2021	Session 5 Stereo lithography (SLA). by Mr. Akash Kukade, IGTR Aurangabad		Session 6 Fused Deposition Modeling (FDM). by Mr. Rajkumar Waghmare, IGTR Aurangabad
25th Feb 2021	Session 7 Selective Laser Sintering (SLS). by Mr . Aniket Deshmukh, IGTR Aurangabad		Session 8 Direct Metal Laser Sintering (DMLS). by Mr. Rajkumar Waghmare, IGTR Aurangabad
26th Feb 2021	Session 9 Liquid Base - Multijet Process. by Mr. Rajkumar Waghmare, IGTR Aurangabad		Session 10 Liquid Base - Polyjet Process. by Mr. Akash Kukade, IGTR Aurangabad
27th Feb 2021	Session 11 Materials used for 3D Priting. by Mr . Aniket Deshmukh, IGTR Aurangabad		Session 12 Real-Time Applications of 3D Printing Technologies. by Mr. Rajkumar Waghmare, IGTR Aurangabad
Inauguration: 10.10 AM, Monday, 22 Feb 2021			Valediction: 4.00PM Saturday, 27 Feb 2021

Note : A Test will be conducted on "Recent Application of 3D Printing" after session no 12