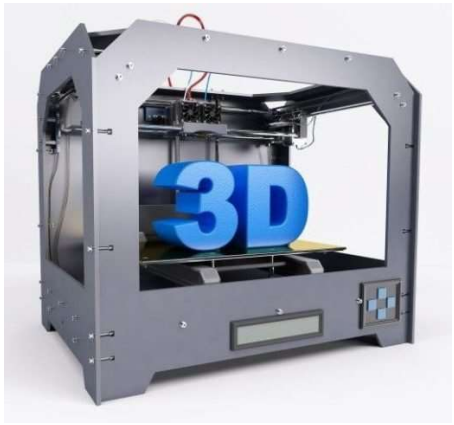
An Online Certificate Course
ON

APPLICATIONS OF 3D PRINTING METHODS IN INDUSTRIES

From 26th October 2020 to 31th October 2020

Join with the link: -http://meet.google.com/omz-mmsx-mcb



ORGANIZED BY

DEPARTMENT OF MECHANICAL ENGINEERING

AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY,

(Approved by AICTE, Permanently Affiliated to JNT University Kakinada,
ACCREDITED BY NAAC and Recognized under 2(f) &12 (b) by UGC, New Delhi)
Tamaram, Makavarapalem, Narsipatnam (RD), Visakhapatnam-531113

AVANTHI EDUCATIONAL SOCIETY

Avanthi Educational Society under the Leadership of Sri M. Srinivasa Rao garu as chairman was started in the Year 1991. Within a short span of its establishment, the group has made a remarkable stride in the field of education offering various courses at Under Graduate, Post Graduate, Pharmacy & Engineering levels. This milestone is achieved as the institution carved itself to impart quality and career-oriented education, countering the challenges of the modern world through planning, dedication, determination, and prompt execution and with the innovative ideas of our advisory board.

Today, Avanthi Educational Society is proud to have strength of over 16000 students with 15 institutions under its ambit. It is the path of glory towards the success during the last 19 years. The institution has been adjudged many times as the second-best educational institutions in the twin cities and 16th best in all over India through the impartial survey made by the renowned magazine "India Today".

AVANTHI INSTITUTE OF ENGINEERING & TECHNOLOGY

AIET started in the year 1999 and offers various courses at Engineering and PG level. The college is providing with rooms, computer centre, laboratories and seminar hall with audio-visual equipments. Industry Institute interaction is conducted regularly to emphasize on the latest trends in the present market.

It is very near to Narsipatnam. Frequent bus facilities are available both from and to Visakhapatnam and Narsipatnam. Very safe and secure hostel facility is available for Girl students. These are the additional facilities besides excellent academic atmosphere in the college campus.

DEPARTMENT OF MECHANICAL ENGINEERING

Mechanical Engineering department was started in the year 2005 with intake strength of 60 seats, this was increased to 120 students in 2012 and this was increased to 180 students in 2013. The department has well qualified and trained faculty members. It has well equipped laboratories and workshops and includes a CAD/CAM laboratory where students are imparted training in advanced production techniques and design and analysis of machine elements.

The department of Mechanical Engineering has been contributing its humble share of the Mechanical Engineering graduates for national needs. Several of the graduates who have passed out of this department are occupying responsible positions in various Engineering Industries like Hindustan Shipyard Limited, Renault Nissan, Varun Motors, Tata Consultancy Services, HP and IBM and holding responsible positions in the premier educational institutes in and outside India.

ABOUT WORKSHOP

This course will help you understand how 3D printing is being applied across a number of domains, including design, manufacturing, and retailing. It will also demonstrate the special capabilities of 3D printing such as customization, self-assembly, and the ability to print complex objects. In addition to business applications, this course will also examine how individuals, including those in developing countries, are using this technology to create solutions to the problems they face. This course will also provide an overview of design thinking and how you can use this framework to develop ideas that can be turned into objects. Learners who complete this course will obtain a rich understanding of the capabilities of 3D printing and how to think about designing objects for this new technology.

TOPICS TO BE COVERED

- Introduction to 3D Printing – A New Way of Making 3D Modelling in Blender
- Using the 3D print add-on to test and fix issues
- Exporting STL files
- Printing on a Prusa 3D printer
- Uploading to the Shape ways Print Service
- 3D reconstruction, photo scanning & Printing

For Registration please contact Mr.P. Ramakrishna, Assistant Professor, Department of Mechanical Engineering.

CHIEF PATRON
Smt .M.Gnaneswari
President,
Avanthi Educational Society

PATRON
Dr. C P V N J Mohan Rao
Principal,
Avanthi Institute of Engineering and Technology

CHAIRMAN
Sri. V. Harikiran
Head Of the Department
Mechanical Engineering

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DEPARTMENT OF MECHANICAL ENGINEERING

CIRCULAR

Date: 23/10/2020

We are happy to inform you that, Department of Mechanical Engineering, AIET is organizing six day certificate course on "Applications of 3D Printing Methods in Industries" from 26th October, 2020 to 31th October, 2020 in virtual mode for all II B. Tech students. Interested candidates are directed to enrol above course on or before 25/10/2020. For further details contact Course Coordinator Mr. P. Ramakrishna, Assistant Professor, Mechanical Engineering Department.

Resource Person Details:

1. Dr. K. S. Raghuram,
   Associate Professor,
   Department of Mechanical Engineering,
   Vignan's Institute of Information Technology,
   Duvada, Visakhapatnam.

2. Sri N. Rajendra,
   Associate Professor,
   Department of Mechanical Engineering,
   ASK College of Technology & Management,
   Anakapalli, Visakhapatnam.

V. Harikiran
HOD of Mechanical Engineering Department

Copy to: Principal, AIET

Head of the Department
Department of Mechanical Engg.
Avanthi Institute of Engg. & Tech.,
Makavarapalem, Visakhapatnam - 531113.

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DEPARTMENT OF MECHANICAL ENGINEERING

A Six-day workshop on

APPLICATIONS OF 3D PRINTING METHODS IN INDUSTRIES

From 26th October 2020 to 31st October 2020

Syllabus of the Workshop:

Chapter-1

• Introduction to 3D and Overview of Software Platforms, A New Way of Making 3D Modelling in Blender, 2D and 3D Meshing, Structured and Unstructured Meshing

Chapter-2

• Fixing Errors in profile by using 3D print add-on to test. The methods and techniques demonstration on this course to design, model and export your own unique 3D models for 3D printing.

Chapter-3

• 3D Printing Common Terms, Modelling the Grip with G-Code and 3D Printing, Modelling with Dimensions, Troubleshooting and Fixing errors with the 3D print add-on, Exporting the STL

Chapter-4

• Modelling, 3D printing the Vase at Shape ways

Chapter-5

- Boolean Modifier, 3D Print Checks, Slicing and 3D Printing

Chapter-6

- 3D Reconstruction, An Introduction to Mesh room and the Reconstruction process
- Cleaning up the 3D Reconstruction and 3D Printing

EXPECTED OUTCOMES

- Introduction to the latest trends in 3D Printing
- Case studies from real industrial problems and group discussions to enhance collaborative learning
- Various Materials and Shapes in 3D Printing
- Good multimedia content to help participants grasp the material easily

COORDINATOR

HOD

Head of the Department
Department of Mechanical Engg.
Avanthi Institute of Engg. & Tech.,
Makavarapalem, Visakhapatnam - 531113.

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DEPARTMENT OF MECHANICAL ENGINEERING

APPLICATIONS OF 3D PRINTING METHODS IN INDUSTRIES

From 26th October 2020 to 31st October 2020

Schedule

DAY - 1 (26.10.2020)

9.00 AM to 11.00 AM - Introduction to 3D and Overview of Software Platforms

11.00 AM to 11.15 AM – Tea Break

11.15 AM to 1.15 PM - A New Way of Making 3D Modelling in Blender

1.15 PM to 2.15 PM – Lunch Break

2.15 PM to 4.15 PM - 2D and 3D Meshing, Structured and Unstructured Meshing. (Hands-on training)

DAY – 2 (27.10.2020)

9.00 AM to 11.00 AM –Using 3D print add-on to test

11.00 AM to 11.15 AM – Tea Break

11.15 AM to 1.15 PM –Fixing Errors in profile

1.15 PM to 2.15 PM – Lunch Break

2.15 PM to 4.15 PM - The methods and techniques demonstration on this course to design, model and export your own unique 3D models for 3D printing.

DAY – 3 (28.10.2020)

9.00 AM to 11.00 AM - 3D Printing Common Terms

11.00 AM to 11.15 AM – Tea Break

11.15 AM to 1.15 PM –Modelling the Grip with G-Code and 3D Printing

1.15 PM to 2.15 PM – Lunch Break

2.15 PM to 4.15 PM – Modelling with Dimensions, Troubleshooting and fixing errors with the 3D print add-on, exporting the STL

DAY – 4 (29.10.2020)

9.00 AM to 11.00 AM – Modelling the vase, The Screw Modifier

11.00 AM to 11.15 AM – Tea Break

11.15 AM to 1.15 PM - 3D printing the Vase at Shape ways

1.15 PM to 2.15 PM – Lunch Break

2.15 PM to 4.15 PM - The Wireframe Modifier and Practice Session

DAY – 5 (30.10.2020)

9.00 AM to 11.00 AM –Modelling the Phone Stand by importing the FBX File

11.00 AM to 11.15 AM – Tea Break

11.15 AM to 1.15 PM –Boolean Modifier, 3D Print Checks, Slicing and 3D Printing

1.15 PM to 2.15 PM – Lunch Break

2.15 PM to 4.15 PM –Practice Session

DAY – 6 (31.10.2020)

9.00 AM to 11.00 AM – 3D Reconstruction, An Introduction to Mesh room and the Reconstruction process

11.00 AM to 11.15 AM – Tea Break

11.15 AM to 1.15 PM – Cleaning up the 3D Reconstruction and 3D Printing

1.15 PM to 2.15 PM – Lunch Break

2.15 PM to 4.15 PM – Practice Session and Valedictory Session.

COORDINATOR

HOD

Head of the Department
Department of Mechanical Engg.
Avanthi Institute of Engg. & Tech.,
Makavarapalem, Visakhapatnam - 531113.

AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY

TAMARAM (V), MAKAVAAPALEM (M),

VISAKHAPATNAM - 531113

DEPARTMENT OF MECHANICAL ENGINEERING

Applications of 3D Printing Methods in Industries

From 26-10-2020 to 31-10-2020

STUDENTS ATTENDANCE LISTS

S.NO	Roll Number	Name of the student	26.10.2020	27.10.2020	28.10.2020	29.10.2020	30.10.2020	31.10.2020
1	19811A0301	ADIGARLA GANGADHAR	✓	✓	✓	✓	✓	✓
2	19811A0302	BAGUDU SRINU	✗	✓	✓	✓	✓	✓
3	19811A0303	BANDHAM KUMAR	✓	✓	✓	✓	✓	✓
4	19811A0304	BANDHAM RAMESH	✓	✓	✓	✓	✓	✓
5	19811A0305	CHADARAM NAGESWARA RAO	✓	✓	✓	✓	✓	✓
6	19811A0306	CHIPURUPALLI BHANUPRAKASH	✓	✓	✓	✓	✓	✓
7	19811A0307	DHARMALA SIVA PRASAD	✓	✓	✓	✗	✓	✓
8	19811A0308	GADIYAKARI UDAY KIRAN	✓	✓	✓	✓	✓	✓
9	19811A0309	GUDEPU PRUDHVI	✓	✓	✓	✓	✓	✓
10	19811A0310	KALLA AJAY	✓	✓	✓	✓	✓	✓
11	19811A0311	MADDI SAI KIRAN	✓	✓	✓	✓	✓	✓
12	19811A0312	MADEM HARSHA SRI KANTA	✓	✓	✓	✓	✓	✓
13	19811A0313	MAJJI VASANTH	✓	✓	✓	✓	✓	✓
14	19811A0314	MANIKANTA NAGIREDDY	✓	✓	✓	✓	✓	✗
15	19811A0315	NADIPALLI N V G NITHIN	✓	✓	✓	✓	✓	✓
16	19811A0316	PINAPOTHULA SIVA KUMAR	✓	✓	✓	✓	✓	✓
17	19811A0317	PUDI VENKATA SAI DURGA PRASAD	✓	✗	✓	✓	✓	✓
18	19811A0318	VELUGULA GANESH	✓	✓	✓	✓	✓	✓
19	19811A0319	PRATHI CHANDU VINAY	✓	✓	✓	✓	✗	✓
20	19811A0320	LOKAVARAPU SIVASANKAR VARA PRASAD	✓	✓	✓	✓	✓	✓
21	20815A0301	AKKIREDDI LAKSHMANARAO	✓	✓	✓	✓	✓	✓
22	20815A0302	ALAMURI DINESH MANI KISHORE	✓	✓	✗	✓	✓	✓

23	20815A0303	ANIMIREDDI GANGA PRASAD	✓	✓	✓	✓	✓	✓
24	20815A0304	ARISHENKALA RAMESH	✓	✓	✓	✓	✓	✗
25	20815A0305	BACHALA TEJA	✓	✓	✓	✓	✓	✓
26	20815A0306	BANGARI LAXMANA	✓	✓	✓	✓	✓	✓
27	20815A0307	BANGARI RAMU	✓	✓	✓	✗	✓	✓
28	20815A0308	BATHULA CHANDU	✓	✓	✓	✓	✓	✓
29	20815A0309	BHEESETTI SRINU	✗	✓	✓	✓	✓	✓
30	20815A0310	BOBBILI SATISH	✓	✓	✓	✓	✓	✓
31	20815A0311	BODDEDA BALAJI RAO	✓	✓	✓	✓	✓	✓
32	20815A0312	BODDEDA PREM RAJU	✓	✓	✓	✓	✓	✓
33	20815A0313	BODDEDA VAMSI VINAY KUMAR	✓	✓	✓	✓	✓	✓
34	20815A0314	BOINA GOPI KRISHNA	✓	✓	✓	✓	✓	✓
35	20815A0315	CHALLA HARISH	✓	✓	✓	✓	✗	✓
36	20815A0316	CHIPURUPALLI GANGADHAR	✓	✓	✓	✓	✓	✓
37	20815A0317	CHONGALA LAXMAN	✓	✓	✓	✓	✓	✓
38	20815A0318	DADI BALAJI SAI RAM	✓	✓	✓	✓	✓	✓
39	20815A0319	DADI HEMA VENKATA PAVAN RAM	✓	✓	✓	✓	✓	✓
40	20815A0320	DANDU SAI BHARADWAJ	✓	✓	✓	✓	✓	✓
41	20815A0321	DOGGA PRAVEEN KUMAR	✓	✓	✓	✓	✓	✓
42	20815A0323	GANDI HARSHA VARDHAN	✓	✗	✓	✓	✓	✓
43	20815A0324	GANDIBOYANA SEKHAR	✓	✓	✓	✓	✓	✓
44	20815A0326	GOLAGANA Y V N BUTCHI BABU	✓	✓	✓	✓	✓	✓
45	20815A0327	GORLI SAIVARDHAN	✓	✓	✓	✓	✓	✓
46	20815A0328	GRANDHI KALYAN SAI	✓	✓	✓	✓	✓	✓
47	20815A0329	GUDDATI RAGHU	✓	✓	✓	✓	✓	✓
48	20815A0330	KARRI GANESH	✓	✓	✓	✓	✓	✓
49	20815A0332	KOMMOJU SRINIVASU	✓	✓	✓	✓	✓	✓
50	20815A0333	KONATHALA LAXMI GANESH	✓	✓	✓	✓	✓	✓
51	20815A0334	KONATHALA MOHAN SAI	✓	✓	✓	✓	✓	✓
52	20815A0335	KORUBILLI ASISDURGAPRASAD	✓	✓	✓	✓	✓	✓
53	20815A0336	KORUKONDA MANOJ KUMAR	✓	✓	✓	✓	✓	✓
54	20815A0337	KOVADA KRANTI KUMAR	✓	✓	✗	✓	✓	✓

55	20815A0339	LAGUDU GANESH	✓	✓	✓	✗	✓	✓	✓
56	20815A0340	LEKKALA ARAVIND KUMAR	✓	✓	✓	✓	✓	✓	✓
57	20815A0341	MADAKA NITHISH	✓	✓	✓	✓	✓	✓	✓
58	20815A0343	MAHAMAD ABDUL AZEEZ	✓	✓	✗	✓	✓	✓	✓
59	20815A0344	MAJHI ROHITH	✓	✓	✓	✓	✓	✓	✓
60	20815A0345	MAJJI SANTOSH KUMAR	✗	✓	✓	✓	✓	✓	✓
61	20815A0346	MALLA APPALA RAJU	✓	✓	✓	✓	✗	✓	✓
62	20815A0347	MARAPUREDDI CHINNARAO	✓	✓	✓	✓	✓	✓	✓
63	20815A0349	MUMMUDIVARAPU MANIKANTA	✓	✓	✓	✓	✓	✓	✓
64	20815A0350	NAGALLA SAIKUMAR	✓	✓	✓	✓	✓	✓	✓
65	20815A0351	NAKKA AKHILYADAV	✓	✗	✓	✓	✓	✓	✓
66	20815A0352	NAKKA SANJEEVA RAO	✓	✓	✓	✓	✓	✓	✓
67	20815A0353	NOOKALA RAJASEKHAR	✓	✓	✓	✗	✓	✓	✓
68	20815A0354	PAGADALA NEELIMA	✓	✓	✓	✓	✓	✓	✓
69	20815A0355	PENTAKOTA JAGAN MOHAN	✓	✓	✓	✓	✓	✓	✓
70	20815A0356	PENTAKOTA LOKESH	✓	✓	✓	✓	✓	✓	✓
71	20815A0357	PETLA DURGA SAI	✓	✓	✓	✓	✓	✓	✓
72	20815A0358	PILLA ADHI MURTHY	✓	✓	✗	✓	✓	✓	✓
73	20815A0359	PILLI SRINUVAS	✓	✓	✓	✓	✓	✓	✓
74	20815A0360	PITLA ASHOK BHASKARA RAO	✓	✓	✓	✓	✓	✓	✓
75	20815A0361	POLAMARASETTI NAGA SRINU	✓	✓	✓	✓	✗	✓	✗
76	20815A0363	POTHURAJU VENKATESH	✓	✓	✓	✓	✓	✓	✓
77	20815A0364	PULIGA YAMINI	✓	✓	✓	✓	✓	✓	✓
78	20815A0365	RAJANA MANIKANTA	✓	✓	✓	✓	✓	✓	✓
79	20815A0367	RAVADA LOKESH	✓	✓	✓	✓	✓	✓	✓
80	20815A0369	SIRISETTI BHANU PRAKASH	✗	✓	✓	✓	✓	✓	✓
81	20815A0370	TEKKALI GANGA VARSHITH	✓	✓	✓	✓	✓	✓	✓
82	20815A0371	VADAGA ROHIT	✓	✓	✓	✓	✓	✓	✓
83	20815A0372	VARADHI MANI KANTA	✓	✓	✓	✗	✓	✓	✓
84	20815A0373	VARRI KALYAN KUMAR	✓	✓	✓	✓	✓	✓	✓
85	20815A0374	VIJAY SINGAMPALLI	✓	✓	✓	✓	✓	✓	✓
86	20815A0375	VIYYAPU DILEEP KUMAR	✓	✗	✓	✓	✓	✗	✓
87	20815A0376	ALLU LOKESH	✓	✓	✓	✓	✓	✓	✓
88	20815A0377	BISAI BABURAO	✓	✓	✓	✓	✓	✓	✓

89	20815A0378	KEERTHI SAIBHARGAV	✓	✓	✗	✓	✓	✓	✓
90	20815A0379	SARAGADAM SRINIVASARAO	✓	✓	✓	✓	✗	✓	✓
91	20815A0380	VELLANKI NAGENDRA	✗	✓	✓	✓	✓	✓	✓
92	20815A0342	MADDALA DOCTOR JAGAN	✓	✓	✓	✓	✓	✓	✓

P. Rao
COORDINATOR

HOD

Head of the Department
Department of Mechanical Engg.
Avanthi Institute of Engg. & Tech.,
Makavarapalem, Visakhapatnam-531113.

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CERTIFICATE OF PARTICIPATION

This is to certify that Mr/Mrs_ _of _ has participated in the Certificate Course entitled on "APPLICATIONS OF 3D PRINTING METHODS IN INDUSTRIES" during from 26th October 2020 to 31st October 2020 in Department of Mechanical Engineering.

COORDINATOR HOD PRINCIPAL

AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY

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DEPARTMENT OF MECHANICAL ENGINEERING

DT: 02/11/2020

BRIEF REPORT

Department of Mechanical Engineering, Avanthi Institute of Engineering and Technology had organized a certificate course on **"APPLICATIOS OF 3D PRINTING METHODS IN INDUSTRIES"** from 26th October 2022 to 31st October 2020

We had Dr.K.S.Raghuram, Associate Professor, Mechanical Engineering Department, Vignan's Institute of Information Technology as our speaker, he started with Introduction of 3D printing methods. Explained what is the need for new way of making 3D modeling in Blender and extensively discussed the plus points of this technology. One of the major advantages, minimizing the waste and rapid prototyping. Then after he went on to explain Modeling dimensions, trouble shooting and fixing errors with 3D print add-on.

Sri N. Rajendra, Associate Professor, Mechanical Engineering Department, ASK College of Technology & Management as another speaker, he started with overview of software platforms. He explained about the limitations as restricted build size, post processing. They are generally used for manufacture moulds for making jewelry. Some of the topics are focused during the course modeling the phone stand by importing the FBX File, 3D reconstruction, and what are the screw modifier, trouble shooting and fixing errors. Later he concluded with the real time applications of 3D printing methods in industries studied from real industrial problems.

COORDINATOR

HOD
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