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GURU NANAK INSTITUTE OF TECHNOLOGY

City Office: B2, 2nd Flr, Above Bata, Vikramपुरi Colony, Karkhana Road, Secunderabad-50009, Telangana, India.
Ph: +91-40-6632 3294, 6517 6117, Fax: +91-40-2789 2633

Campus: Ibrahimpatnam, R.R. District, Hyderabad-501506, Telangana, India. Ph: (0/95) 8414-20 21 20/21

Date: 24.01.2019

CIRCULAR

Technical Training for IV B. Tech students are starting from 4th Feb, 2019 onwards. All HODs and Placements coordinators have to manage the trainings and ensure 95% attendance all through the sessions.

All Mentors need to send the compiled feedback report to Dr.B.Vijaya Kumar, HOD at hodme.gnit@gniindia.org daily. Mentors are advised to take care of PNR (Students not participating in training).

Agenda:

Introduction to 3D-Printing.


HOD-ME



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3D Printing Syllabus

S.NO	TOPIC COVERED	DURATION (Hours)
1	Introduction to 3D Printing	3
2	Learning Objectives	3
3	What is a Mesh?	3
4	3D Printing Types	3
5	Why 3D Printing?	3
6	3D Printing Limitations Uses in Industry	3
7	Getting 3D Printable Files	3
8	Downloading Models Downloading Tips	3
9	Gear Systems Part I	3
10	Gear Systems Part II	3
11	Dynamic Surfaces and Chains	3
12	Preparing Files for 3D Printing Model	3
13	Orientation Support Material Print Bed	3
14	Prototype Printing	3
15	Prototype Printing & Testing	3
16	Final Presentations	3
17	Sound Printing	3
18	Fluid Dynamics	3
19	Post-Processing	3

[Signature]
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3D Printing Technical Training student list

Sl.No.	Roll No.	Name of the student	Year
1	15831A0301	ABHIJEET RAJ BHARGAW	IV
2	15831A0303	ALAKUNTLA RAJU	IV
3	15831A0304	AMAN RAJ	IV
4	15831A0305	AMITH G	IV
5	15831A0306	ANAVENA SHASHI KUMAR	IV
6	15831A0307	ANCHAL MOHANTY	IV
7	15831A0308	ANWAR PASHA	IV
8	15831A0309	ASAR FAYAZ BAIG	IV
9	15831A0310	BSHIVA DINESH	IV
10	15831A0312	BADISHA GOPI	IV
11	15831A0313	BAGARI ROHIT	IV
12	15831A0315	BANDA SURYA SAI	IV
13	15831A0316	BANOTH TEJAVATHI	IV
14	15831A0317	Anirudh	IV
15	15831A0318	BEESU MEGHANA	IV
16	15831A0319	BEJAWADA BHASKAR	IV
17	15831A0320	BELLAMKONDA THIRUPATHI	IV
18	15831A0321	BODA RAHUL	IV
19	15831A0322	BODA SUMANTH	IV
20	15831A0324	B PAVAN	IV
21	15831A0325	CH NAVEEN	IV
22	15831A0326	CHALAMALA TEJA	IV
23	15831A0329	CHANDRAPALAKA RICHIE RATHNAM	IV
24	15831A0330	CHELMINDLA AKHILESHWAR REDDY	IV
25	15831A0331	CHEMUDU SAIKRISHNA VAMSHI	IV
26	15831A0332	CHOUDARY BHAGRAJ	IV
27	15831A0333	CHOVA DEEKSHITH	IV
28	15831A0334	DEVULAPALLY VENKATA ANIRUDH	IV
29	15831A0335	DHANAVATH PRASHANTH	IV
30	15831A0336	DHARAVATH ASHOK KUMAR	IV


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Technical Training Exam on 3D Printing Technology (A.Y-2018-19)

Answer All the Questions

5x4=20 Marks

1. Compare the Third Industrial Revolution to the First Industrial Revolution. What are the differences and similarities?
2. Explain what design freedom means and how 3D printing contributes to it. Which technology would provide the best basis for food printing? Why?
3. Explain the following: "A mesh can never be smooth."
 - a) Describe the relationship between resolution and mesh smoothness.
 - b) Describe the relationship between mesh smoothness and file size.
 - c) What can be learned by studying the designs of others?
4. Describe the advantages of designing an object using 3D software instead of 2D software.
 - a) Describe the advantages of 2D software over hand sketches.
 - b) Explain the role of CAM software in the printing process. Why is it needed?
5. Describe the unique considerations involved when designing a gear system for 3D printing.


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3D Printing Technical Training Marks list

Sl.No.	Roll No.	Name of the student	Marks	Pass/Fail
1	15831A0301	ABHIJEET RAJ BHARGAW	16	PASS
2	15831A0303	ALAKUNTLA RAJU	17	PASS
3	15831A0304	AMAN RAJ	18	PASS
4	15831A0305	AMITH G	16	PASS
5	15831A0306	ANAVENA SHASHI KUMAR	16	PASS
6	15831A0307	ANCHAL MOHANTY	7	FAIL
7	15831A0308	ANWAR PASHA	18	PASS
8	15831A0309	ASAR FAYAZ BAIG	16	PASS
9	15831A0310	BSHIVA DINESH	16	PASS
10	15831A0312	BADISHA GOPI	15	PASS
11	15831A0313	BAGARI ROHIT	12	PASS
12	15831A0315	BANDA SURYA SAI	14	PASS
13	15831A0316	BANOTH TEJAVATHI	16	PASS
14	15831A0317	Anirudh	18	PASS
15	15831A0318	BEESU MEGHANA	18	PASS
16	15831A0319	BEJAWADA BHASKAR	6	FAIL
17	15831A0320	BELLAMKONDA THIRUPATHI	16	PASS
18	15831A0321	BODA RAHUL	16	PASS
19	15831A0322	BODA SUMANTH	16	PASS
20	15831A0324	B PAVAN	14	PASS
21	15831A0325	CH NAVEEN	15	PASS
22	15831A0326	CHALAMALA TEJA	15	PASS
23	15831A0329	CHANDRAPALAKA RICHIE RATHNAM	15	PASS
24	15831A0330	CHELMINDLA AKHILESHWAR REDDY	15	PASS
25	15831A0331	CHEMUDU SAIKRISHNA VAMSHI	7	FAIL
26	15831A0332	CHOUDARY BHAGRAJ	15	PASS
27	15831A0333	CHOVA DEEKSHITH	15	PASS
28	15831A0334	DEVULAPALLY VENKATA ANIRUDH	14	PASS
29	15831A0335	DHANAVATH PRASHANTH	15	PASS
30	15831A0336	DHARAVATH ASHOK KUMAR	15	PASS


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Department of Mechanical Engineering

3D PRINTING COURSE

Summery

- 3D Printing uses software that slices the 3D model into layers (0.01mm thick or less in most cases). Each layer is then traced onto the build plate by the printer, once the pattern is completed, the build plate is lowered and the next layer is added on top of the previous one.
- Layer by layer production allows for much greater flexibility and creativity in the design process. No longer do designers have to design for manufacture, but instead they can create a part that is lighter and stronger by means of better design. Parts can be completely re-designed so that they are stronger in the areas that they need to be and lighter overall.
- 3D Printing significantly speeds up the design and prototyping process. There is no problem with creating one part at a time, and changing the design each time it is produced. Parts can be created within hours. Bringing the design cycle down to a matter of days or weeks compared to months. Also, since the price of 3D printers has decreased over the years, some 3D printers are now within financial reach of the ordinary consumer or small company.
- Typical manufacturing techniques are known as 'Subtractive Manufacturing' because the process is one of removing material from a preformed block. Processes such as Milling and Cutting are subtractive manufacturing techniques. This type of process creates a lot of waste since; the material that is cut off generally cannot be used for anything else and is simply sent out as scrap.


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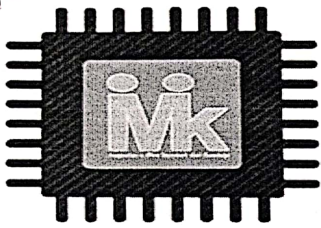
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IMIK Technologies

414-A, Tex Park Road, Nehru Nagar ,Coimbatore - 641 014, India

Certificate Of Course Completion

This certificate is presented to BANOTH TEJAVATHI Of GNIT, who has successfully completed Technical Training course on "3D PRINTING" held from 04.02.2019 to 14.02.2019 and found the student performance to be excellent.

Ms. Gomathi
Director of IMIK