

(Established Under Gujarat Act No.: 20 of 2007

જરાત ટેકનોલોજીકલ યુનિવર્સિટી

**Date: 13th Aug 2018** 

(ગુજરાત અધિનિયમ ક્રમાંક : ૨૦/૨૦૦૭ દ્વારા સ્થાપિત)

Ref: GTU/CiC3/Workshop/6023

### Workshop on 3D Printer

3D Printing is an Additive Manufacturing technique that creates a physical object from a virtual 3D CAD model by depositing successive layers of material. They work like the traditional inkjet printers, but instead of ink, a 3D printer deposits desired material to manufacture an object from its digital format. 3D printing and rapid prototyping, in general, are widely claimed to have revolutionized not only the manufacturing industry but also many other walks of life like medicine, aerospace and automotive industry. This program on 3D Printing helps the participants understand the design, functioning and operation of a basic 3D Printer.

Printed circuit boards are used in almost all of the electronic products.

#### **OBJECTIVE OF THE WORKSHOP:**

The Main objective of this workshop is to make the students conceptually and practically aware about:

- Learn about the materials, designing of CAD models, working of a 3D Printer
- Understand how to build and calibrate a 3D printer
- Understand the basics of G code generation
- The participants will get 3D printed models that they design (Best Model Design)

#### Who Could Attend?

- College students seeking future in Core Electronics and Embedded System.
- B-Tech/M-Tech/Diploma college students of ECE/EE/EE field.
- Students who tried their hands-on basic electronics.
- College Faculty & Staff in Mechanical/Mechatronics/Automobile/ECE/EE/EE department.

#### **Student's Benefits**

- Receive an unparalleled training through best methodology from CiC3 Team Member with personal one-on-one attention.
- Learn and interact with GTU ROBOCON, GTU Mitsubishi Electric Cup Team
- Improve your career prospects and get an edge over your counterparts.
- Interactive Query sessions, Live Demos, PowerPoint Presentation.

Resource Person: Prof. Raj Hakani (Asst. Prof. CiC3) & Robotics Team

For any query contact us on: ap raj@gtu.edu.in, cic3@gtu.edu.in

-/Sd I/C Registrar

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Chandkheda: Nr. Campus of Vishwakarma Government Engineering College, Sabarmati - Koba Highway, Nr. Visat Three Roads,

Chandkheda, Ahmedabad - 382 424. Gujarat, India Ph.: 079 - 232 67 500

2nd Floor, ACPC Building, L. D. College of Engineering Campus, Navrangpura, Ahmedabad, (Gujarat) India - 380 015. Ahmedabad

Phone: +91 - 79 - 26 300 499 / 599 Fax: +91 - 79 - 26 30 1500

Gandhinagar : K-6 Circle, E-4 Electronic Estate G.I.D.C., Nr. Goverment Polytechnic, Sector-26, Gandhinagar - 382 028 Gujarat.

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#### **EVENT CALENDAR**

1st & 2nd Sept 2018 Date

10:00 AM **Reporting Time:** 

Time: 11:00 AM to 5:00 PM

Venue: **Gujarat Technological University** 

A2, Hall GTU

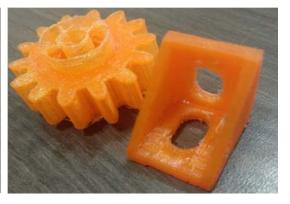
Nr. Vishwakarma Government Engineering College

Nr. Visat Three Roads, Visat - Gandhinagar Highway Chandkheda,

Ahmedabad – 382424 - Gujarat

#### **Developed 3D Model by Students**





#### TOPICS and HANDS-ON ACTIVITY IN THE WORKSHOP:

#### Day 1

- Introductory lecture on 3D printer and Rapid Prototyping 4hours
- Introduction to Rapid prototype
- Introduction to different types of 3D Printers
- Materials used for printing
- Introduction and Hand-on on Slicing Software
- Algorithms used in design

#### Day 2

- Design of Assembly (Spur gear, Helical screw, simple design)
- Introduction to G Code -
- Testing and calibration of 3D Printer
- Demonstration of 3D Printing

#### TRAVEL AND ACCOMMODATION

Participating faculties/students have to make necessary arrangement for their travel and accommodation and TA/DA will not be provided

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#### **REGISTRATION FEE**

Fees: 100/- Rs for Student from GTU affiliated Colleges (College ID Card is compulsory)

150/- Rs. for Non GTU Students.

Before Payment Kindly go through Registration Link and Check Registration Full or Not

#### **HOW TO REGISTER?**

Fill registration form online using below mentioned link on

Registration Link: <a href="https://goo.gl/forms/fco5RmyFMqqcKv7j2">https://goo.gl/forms/fco5RmyFMqqcKv7j2</a>

Step 1: Open Following Link in browser

Link: https://www.onlinesbi.com/prelogin/institutiontypedisplay.htm

Select: State of Corporate/Institution as Gujarat

Type of Corporate/Institution: Education Institutes

Press Go for Next Step

| State Bank Collect   |                    | 02-Jan-2018 [12:15 PM IST] |
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| Select State and Type of Corp                                | rate / Institution |                            |
| State of Corporate/Institution Type of Corporate/Institution |                    |                            |

Step 2: Educational Institutions Name: Gujarat Technological University Press Submit for Next Step

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### **Step 3: Select Payment Category: OTHER FEE GRANT**

### Fill up your Detail

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