

“GTU WINTER CAMP 2016”

1st -11th February, 2016

Objectives:

Gujarat Technological University Community Innovation & Co-Creation Centre invites students for GTU winter camp 2016.

1. 1st to 5th Feb 2016 - Hardware Winter Feb 2016 Camp

1st & 2^{ed} Feb 2016 – Arduino

3rd & 4th Feb 2016 - RASBERRY PI

5th Feb 2016 – MSP 430 Launchpad

2. 6th Feb 2016 to 11th Feb 2016 - Software Winter Camp

6th & 7th Feb 2016 - Python

8th Feb 2016 - Octave

9th Feb 2016 – SCILAB

10th Feb 2016 - NG- SPICE

11th Feb 2016 - KI- CAD

GUJARAT TECHNOLOGICAL UNIVERSITY

Community Innovation



Co-Creation Centre

Chief Patron

Dr. A. K. Aggarwal
Vice Chancellor
Gujarat Technological University

Co – Patrons

Mr. J.C. LILANI
Registrar
Gujarat Technological University

Conveners

Mr. Hemal Nayak
Mr.Mitesh Solanki
Mr. Raj Hakani
Ms Rutika Ghariya
Miss.Tosha Shukla
Ms.Krutika paradkar
(Assistant Professor,CiC3, GTU)
Miss. Dhvani Sanghavi
(Research Asst. CIC3 , GTU)
Miss. Toral vandara
(OSTC ,GTU)



Gujarat Technical University

CiC3

“GTU WINTER CAMP 2016”
1st -11th February, 2016



CiC3, Second Floor,
Gujarat Technological University, ACPC
Building, Nr. L.D. Engineering College
Campus, Navrangpura, Ahmedabad

For registrations or any other support please
contact:

Prof. Mitesh Solanki
Email: ap_mitesh@gtu.edu.in
7574801054

Contents of the Winter Camp:

Day 1 (1st Feb 2016) – Arduino
<ul style="list-style-type: none">• Basic• Interfacing of LED• LED Pattern• LCD• Sensor Interfacing• IR• LM35• Ultrasonic
Day 2 (2^{ed} Feb 2016) – Arduino
<ul style="list-style-type: none">• 7-Segment• DC Motor• Matlab Arduino Interfacing• Labview Arduino Interfacing• Mini Project 3hr• Obstacle avoidance• Line Following• wall following
Day 3 (3rd Feb 2016 - RASBERRY PI
<ul style="list-style-type: none">• Introduction to R - PI• Hardware Description & Interfacing Components• ARM 11 Controller• Introduction about Linux Operating System• Installing the OS on SD card for PI• Logging in to Raspberry Pi-Linux LX - Terminal• Shell Scripting• GPIO understanding• LED interfacing with R- PI

Day 4 (4th Feb 2016 - RASBERRY PI
<ul style="list-style-type: none">• interfacing of Motor• Install OPENCV installed• Image capture• Motion Detection using OPEN CV
Day 5 (5th Feb 2016 – MSP 430 Launchpad)
<ul style="list-style-type: none">• Basic• Interfacing of LED• Seven segment• LCD• Sensor Interfacing• DC Motor• Mini project 2hrs
Day 6 (6th Feb 2016 - Python)
<ul style="list-style-type: none">• Introduction• Why use Python and Where it is used ?• Python Features• Install Python• Setting up PATH• Running Python• Interactive mode programming• Script Mode Programming• Comments in Python• Python Lists, Python Tuples• Operators in Python• Python Decision Making• Python Loops• Python Functions

Day 7 (7th Feb 2016 - Python)
<ul style="list-style-type: none">• Python Files I/O• Python Exceptions Handling• Hands on Python Programming
Day 8 (8th Feb 2016 – Octave)
<ul style="list-style-type: none">• Basic Introduction of Octave• Arithmetic & Logical Operators• Matrix Manipulation• Plotting• Image Processing
Day 9 (9th Feb 2016 – SCILAB)
<ul style="list-style-type: none">• Basic Introduction of Scilab• Variables, assignment and display• Operators• Loops• 2-D and 3-D Plots
Day 10 (10th Feb 2016 - NG- SPICE)
<ul style="list-style-type: none">• Introduction to NGSPICE• NGSPICE environment• RC filter design and response• Diode and BJT transient response
Day 11 (11th Feb 2016 - NG- SPICE)
<ul style="list-style-type: none">• Basic Introduction• KiCAD-The Project Manager• The schematic capture editor• The PCB layout program

About Gujarat Technological University

Gujarat Technological University (International Innovative University), commonly referred as GTU, is a statewide institution affiliating many engineering, pharmacy, and management colleges and varsities across the western Indian Districts of Gujarat .GTU has been working jointly with industries through GTU Innovation Sankuls (Every College is a Member of the Sankul in its area.). It has been working with the students through the GTU Innovation Clubs, Open Source Technology Clubs, Mobile & Wireless Technology Clubs, S4 Extension Centers etc. (Students at every College are required to have these active forums.)

About CiC3

Born in the heart of Gujarat, Maker Labs aims to foster innovation, research and entrepreneurship among students. This is the perfect platform for all you hackers/makers/developers/students to showcase your skills, ideas, passion and connect with the visionaries, industry experts who can mentor you and help transform your ideas/projects into realities.

Venue - 1st to 5 th Feb 2016 - Hardware Winter Feb 2016 Camp

**Room No. 131 CiC3, Second Floor,
Gujarat Technological University, ACPC
Building, Nr.L.D. Engineering College
Campus, Navrangpura, Ahmedabad**

Co-ordinator

Prof. **Hemal Nayak** - ap_hemal@gtu.edu.in

Prof. **Raj Hakani** – ap_raj@gtu.edu.in

Venue- 6 th Feb 2016 to 11 th Feb 2016 - Software Winter Camp

**First Floor, Computer Lab, Block-6, Near
Boys Hostel Gate, Gujarat Technological
University, L.D. Engineering College
Campus, Ahmedabad**

Co-ordinator

Prof. **Rutika Ghariya**- ap_rutika@gtu.edu.in

Prof. **Tosha Shukla**- ap_tosha@gtu.edu.in

Dhwani Sanghavi- ra_dhwani@gtu.edu.in



Registration details:

Please note we have very limited seats for the session, so kindly register by 12:00 PM on 29/1/2016. Selected students will be intimated via email by 5:00 PM on same date.

- All registered participants are requested to carry the laptop for the event. (IF YOU HAVE)
- Interested participants may register online at <http://goo.gl/forms/2B2FOy2AL5>

Last date for registration is **29th January 2016**.