



**GUJARAT TECHNOLOGICAL UNIVERSITY**

**Community Innovation & Co-Creation Centre**

**Report**

On

**Arduino Day**

*Organized on 30<sup>th</sup> August 2014, Saturday (10:00 am - 5:00 pm)*

**&**

**GIT-HUB Day**

*Organized on 31<sup>th</sup> August 2014, Sunday (10:00 am - 5:00 pm)*

at



**Community Innovation & Co-Creation Centre**

Room No: 128, Gujarat Technological University, ACPC Building, L.D. Engineering College Campus,

Navrangpura, Ahmedabad



### Report

## Arduino Day on 30<sup>th</sup> August 2014

Gujarat Technological University's Community Innovation Co-Creation Centre (C-i-C3) organized a workshop "Arduino Day" on Arduino - an open-source physical computing platform on 30th August 2014.

The aim of this workshop was, to provide brief knowledge about Arduino Board and introduce Arduino Community to students and let them learn Arduino in Hands-on session.

The workshop was begun with introduction of CiC3 LAB to students.



**Mr Sohil Patel** from JaysoLab and **Mr Pratik Parmar** from SmartLogic carried joint session on Arduino board.

They gave introduction of different open source boards and briefed about open source community. The journey of Microprocessor and Microcontroller was explained to students with different examples of application and assembling of programs of processors and controllers.

Mr Pratik introduced Arduino board to students, which included different components of Arduino and different Types of Arduino. He demonstrated the Arduino software installation and described how the software works with Arduino board.



In the afternoon session Arduino boards were provided to students for Hands-on practical.

The experts taught basic Arduino programming and modification of program to students. Students learnt to perform basic sketching called 'hellocode' and how to compile and upload the sketch book on Arduino.

Groups of students performed programming over the Arduino circuit for motion sensor successfully.

A total of 72 students from various colleges of Gujarat participated in the workshop.



### Report

## **GIT-HUB Day** on 31<sup>th</sup> August 2014

GitHub is a social network that has completely changed the way coders work. Having started as a developer's collaborative platform, GitHub is now the largest online storage space of collaborative works that exists in the world. Before GitHub existed, major companies created their knowledge mainly in private. But when someone accesses his GitHub account, he is free to download, study, and build upon anything he adds to the network.

To introduce students to this repository/ web-based hosting service, Gujarat Technological University's Community Innovation Co-Creation Centre (C-i-C3) organised a workshop "GIT-HUB Day" on 31<sup>st</sup> August 2014.



Mr. Sohil Patel from Jaysolab started with introduction of Github as one of the great and indispensable tools for any community driven project. He explained how projects can be community driven like Fedora, Debian, OpenSUSE, Python, Linux Kernel etc. All have their own contributors or developers who edit the code, solving a bug or an issue.

He added that time has gone where people would stay nearby and discuss about the edits of code and the improvements. Now the developers live across the world. To solve the problem of communication and conflicts, that may occur while using the same code by different developers, GIT and/or SVN introduced the Version Control Systems (VCS).

Expert gave demo of Github website which has integrated Git and helps to host code for projects. He explained Git tools for projects like issue tracking, adding collaborators to a



project, pull requests, branching support and most of the other tools which are useful for any project.

The talk then switched to open-source and then students were introduced to its importance and disadvantages. Ideas about what open-source means and how someone can contribute to it, some licenses like GPL, Apache, MIT etc. which protect the open source technologies, saying the product or software is an innovation of an individual, use of it having his/her name included in the software contributors etc were discussed.

Google Summer-of-Code was introduced. It was quite interesting to the computer science students and students are excited about participating in it this year. This includes almost all the big open source projects available in the world.



The following websites were introduced to the students -

- Codecademy.com (For learning to code PHP, Python, HTML/CSS, JavaScript, etc.)
- madewithcode.com
- topcoder.com
- hacerrank.com
- codechef.com
- elance.com

In each case, the students were informed about how they could get benefit from it.

At the end there was a practical session for Github.com. The session was having four programs to be written and pushed or committed to a repository on GITHUB website and the task was performed by all the students in various teams.