

HashInclude Progress Report 2016 - 2017

The computer science society of CIC, HashInclude, hosts a number of workshops for students. The highlight of the society is that it promotes peer learning amongst the students in a fun way. The students share their learnings with their peer in an interactive way that leads to learning beyond classrooms

Projects:

01)

Name: Knot-Out

Description: Students are working on a project that involves game-based and aesthetic visualisations of mathematical problems using advanced languages such as TypeScript and viewing engines. These visualisations will be interactive and will also serve as standalone animations.

Status: Ongoing. The first step, which includes developing the framework and visualisation of one Dijkstra based problem, will be completed by the end of April 2017 and further work will be continued after that.

02)

Name: SleepMore (Alarm application)

Description: Students are working on an android application that dynamically sets an alarm on the basis of predicted traffic on the usual route of the user utilising Google APIs.

Status: Ongoing.

03)

Name: Home Automation System

Description: Collaborated with Autonomi to develop a speech-recognition based Home Automation System that has been implemented in the Robotics Lab.

Status: 1st Phase implemented. As a next step, aim to make the system more intelligent such that it works even without explicit instructions on the basis of user profiling.

Link: <https://www.youtube.com/watch?v=j2n5zNgveUE&t>

04)

Name: Find Us

Description: Students are working on a solution to the social problem of human trafficking by crowdsourcing image data from citizens and then creating a readily accessible database of geolocation-tagged images that can be used by law enforcement authorities as well as other people to track missing persons.

Status: Ongoing. Currently in talks with various NGOs, one of which is "Ek Kaam Desh Ke Naam".

Events Organized:

- 1) **Blitzkreig 2.0:** HashInclude collaborated with Autonomi to organise an IT and robotics event at CIC. It was a big success and the event witnessed much bigger crowd participating in the events. The events within Blitzkreig included:
 - a) HashHacks: 24 hour software development hackathon.
 - b) RoboLineae: Line following competition with an exciting mystery level.
 - c) RoboCup: One-on-one football match between robots.

- 2) **Brainstorming Session:** Organised an idea-discussion session for all the students of CIC. The students and the faculty had an interactive discussion with each other and many wonderful ideas came up which were then analysed.

- 3) **Clusters:** HashInclude has adopted the methodology of group-based self learning instead of regular workshops and sessions. To apply this, groups of students interested in the same fields have been formed. Regular meetings of these groups are held in which students come together to learn, discuss ideas and work on projects. These sessions are facilitated by seniors. Currently, web-development and android clusters are functioning and other clusters- open source, DS & Algo (competitive) and ML are being formulated.