



nonthly Report: February,2018



REPORT BY:

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OVERVIEW OF ACTIVITIES

This is the monthly report of Envision Lab, detailing the events, workshops, projects and progress of the month, expenses and plans for upcoming month.

From Oscki Labs the following resource people were present at the Envision Lab.

| Resource Person Log | | | | |
|---------------------|--------------------|--------------------------|---------------------------|--|
| SI.No | OL_Employee Name | Log in Date | Log out Date | |
| 1. | Louis Christopher | 10 th Feb | 24 th Feb | |
| 2. | Raghava S | 2 nd Feb | 26 th Feb | |
| 3. | Himanshu Rangadhol | 10 th January | 20 th February | |

Experimental open Courses: Python Course

This course was conducted by our developer Mr. Louis Christopher for a period of one week after class hours. Only selected and interested 10 students were part of the course and they really did well during the course.

The course used to start at 5.30PM and end at 8PM on weekdays and on weekend the course would start bit earlier. Whole intention of the course was to make the students experience the Python language at the industrial standards and application.

Day wise breakdown of the Course

13/2/17 Tuesday

The first day started off with getting to know the students. The students were from both EC and CSE and had already started learning python as part of their regular curriculum. The plan for the day was to introduce Python to the students and cover some of the areas relating to Object Oriented Programming in Python. All teaching was done using the projector with live coding. The day ended with the students getting a lot of resources from where they can learn Python effectively with a real world/practical focus.

14/2/17 Wednesday

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The goal for the day was to install the necessary software and get the students familiarised with the using the Pycharm IDE. The students were introduced to

using external API to create a simple currency converter app. By building this simple application the students were introduced to a range of new topics including HTTP verbs, querying external API's and using a framework for building web applications.

15/2/17 Thursday

The goal for the day was to build the first half of the web application. The app is a simple library application which allows authenticated users to add new books to the catalog while the regular users only see the catalog of books.

We began by creating the database and getting comfortable with SQL queries. After that the idea of using logic based templates to build the UI of the web application was demonstrated. All the students followed along with the instructor live coding the same application they were building so they understand the flow of the code. At all stages of the session the students who faced any bugs or technical difficulty were troubleshooted and fixed on the spot in front of them so they can learn their mistakes in real-time.

16/2/17 Friday

The next day our goal was to create a HTML form where you could input data into the database. GET and POST requests were discussed and appropriate code relating to storing and viewing the data was introduced. Now on loading the site wyou had an area to input new books into the catalog and just below it a template generated list of all the books currently present.

17/2/17 Saturday

The only thing left was to add authentication to the site and allow only signed in users to see the input box to enter new data. The students learnt how to add if conditions to their HTML templates to allow python to programmatically change the look of the website based on if their logged in or not. All students had a new perspective regarding the many intricacies involved in building a simple web application.

II. Project Dreamworks After the procurement of the Hexiwear kit for Rahul Pillai's project the initial phase testing was undertaken by the Oscki Team to develop

action plan modules for interns to further the develop in the Envision Lab

FINANCIAL DETIALS

| | P | February | 2018 | |
|-------|--|-----------------|----------------|----------|
| - | The second secon | Particul | ars | |
| SI.No | Components | Quantity | Cost per Piece | Amount |
| | Hexiwear for Rahul Pillai's project | 1 | 1 | 14,810 |
| 2 | Text-to-speech (Hexiwear) | 1 | 1 | 1,500 |
| 3 | Components for Bio-gas project | _ | - | 600 |
| 4 | Arduino Uno | 1 | 1 | 550 |
| 5 | Arduino Cable | 1 | 1 | 100 |
| 6 | i IR Module | 1 | -1 | 120 |
| 7 | Relay Module | 1 | 1 | 150 |
| | To | otal: | | 17,830/- |

STUDENT PROJECT DETAILS

I. Envision Lab Projects

| SL No | Project Name | Details | Team members | Progress for paper publishing | Progress |
|----------|----------------------------|--|---|-------------------------------|---|
| 1 | Speed Humps Detector | To Detect humps on the roads and automatically controlling the speed of the vehicle. | A Shabaz Khan Akash O Chethan M N Rakesh | Draft of paper is pending | Next stage upgradation for improving quality |



| 2 | Vehicle Monitoring System | A digital method to monitor moving in and out of the gate. | Mukesh H M Jyothi Akash O | NA | Halted |
|---|---------------------------------|---|---|-----------------------------|--|
| 3 | Smart Helmet | A smart helmet which detects whether the rider is wearing it or not | Joel Crasta Sheethal Kumara Swamy Ganesh | Draft of paper is pending | Documentation for Provisional patent |
| 4 | KidZ | A teaching kit of special children | Mayur Sikhare Joel Crasta | Draft of paper is pending | Documentation for Provisional patent |
| 5 | Smart Iron Box | A smart iron box avoiding burning of clothes | Chandan Shastry | Documentation for patenting | Documentation for Provisional patent |

II. IOT Workshop Projects

| SI.No | Name | Name Project Title | | |
|-------|-----------------------------|----------------------------|---------------------------------|--|
| 1 | Kiran N | 4 | | |
| 2 | Madhu K R | Automated Street light | Prototype completed, ready. To | |
| 3 | Ashish Shanbhag | control system | start implementation | |
| 4 | Rahul Jattennavar | | | |
| 5 | Revanth V | Non- | Prototype completed, to start | |
| 6 | Karegowda K N study an plan | Green House Craft | study on plant health and | |
| 7 | Heema Rubab | 110- | implementation | |
| . 8 | Ramanath Vishwanath Naik | and altervisit | Prototype completed, site vis | |
| 9 | Safiya Banu | IOT based poultry farm | to be done for implementation | |
| 10 | Sangamesh Kajagar | act has a | 1 1 100 | |
| 11 | Bhuvanesh M | Automated food feeding | Prototype completed, site visit | |
| 12 | Viveka | system | to be done for implementation | |
| 13 | Raziya Banu | | | |
| 14 | Akshatha S Patil | Utility dispensing machine | Practical implementation to be | |
| 15 | Chaitanya A | | done | |
| 16 | Yogyashree | | | |
| 17 | Anand Kumar K | Smart ATM | Terminated | |
| 18 | Niranjan S J | Sillercation | | |

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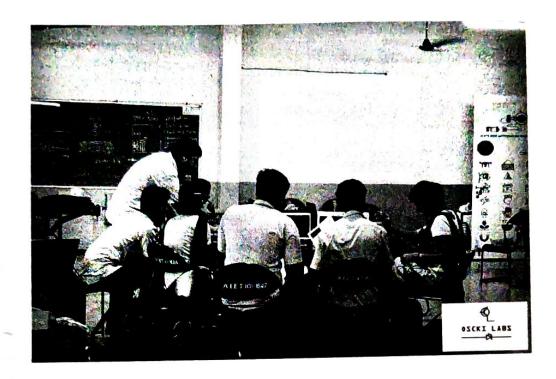
| 19 | Karthik J | | | |
|----|-----------------|----------------------------|--|--|
| 20 | Sooraj | | | |
| 21 | Ganesh Palekar | | basic prototype ready, research | |
| 22 | Vishruth K | Automated Pollution | | |
| 23 | Kumarswamy V S | Monitoring System | going on for further testing | |
| 24 | Sameeksh Hegde | | | |
| 25 | Shruthi I T | | Basic prototype ready, | |
| 26 | Vasanth Kumar M | 1 | | |
| 27 | Divyashree A K | Sparsh Gloves | application will be changed from blind to SPM | |
| 28 | Nikkil Aarya M | | ITOTTI DIIITO LO SE WI | |
| 29 | Bharath Santosh | | further testing to be | |
| 30 | Melvin George M | Land drone for irrigation | conducted in filed | |
| 31 | Rahul Itnal | | ************************************** | |
| 32 | Thirtha A L | Automatic Assistive System | Project halted temporary for issues. | |
| 33 | Pradeep Kumar R | | issues. | |

GALLERY SECTION

A glimpse of python course



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ACTION PLAN FOR THE NEXT MONTH

Experimental Courses:

These courses are done on any one specific technology for members and interested students. Courses will be after college hours and main goal is prepare the students for industrial standard.

PCB making course:

This course will take the students through all the steps involved in manufacturing of a PCB. Here students will be involving in step wise designs and final etching. Batches will be made and they will have to work towards a common goal.

Students' Learning Platform: Taking forward.

This will be a unique course for senior students to teach their juniors on any specialization. Most of the senior students will be getting together to chalk out a course after college hours.

Main intention of this program is create a new research culture in college and set the tone of shared learning among students

Special tasks and challenges will be thrown to all the students as competitions. Also a small reward will be given to take it further.

CONCLUSION

Students were exposed to industrial standards through open courses. Best part is they have responded really well. Next step will be making these students to work in some great projects to create higher impact.

Also the projects in the lab will be pushed to make case studies on the actual problems. Where in students have to go outside the lab and interact with actual clients, understand the actual problem and present all the different iterations of possible solutions.



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