

Industrial Internship Report on "Online Education Platform"

**Prepared by
[Keerthana Vodapelly]**

Executive Summary

This report provides details of the Industrial Internship provided by upskill Campus and The IoT Academy in collaboration with Industrial Partner UniConverge Technologies Pvt Ltd (UCT).

This internship was focused on a project/problem statement provided by UCT. We had to finish the project including the report in 6 weeks' time.

My project was (Online Education Platform using aws Cloud Computing)

This internship gave me a very good opportunity to get exposure to Industrial problems and design/implement solution for that. It was an overall great experience to have this internship.

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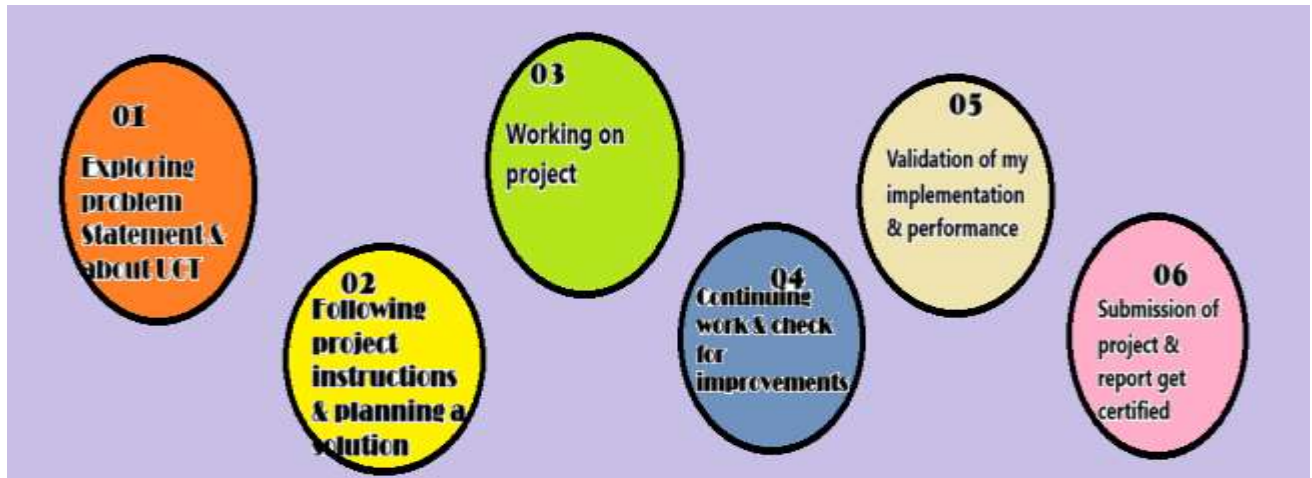
1 Preface

Summary of the whole 6 weeks' work.

Pursuing these type of internships is very useful for our bright future.

My project is Online Education Platform using Cloud Computing.

Opportunity given by USC/UCT.



Thankyou Upskill for providing this opportunity.

2 Introduction

2.1 About UniConverge Technologies Pvt Ltd

A company established in 2013 and working in Digital Transformation domain and providing Industrial solutions with prime focus on sustainability and RoI.

For developing its products and solutions it is leveraging various **Cutting Edge Technologies** e.g. **Internet of Things (IoT), Cyber Security, Cloud computing (AWS, Azure), Machine Learning, Communication Technologies (4G/5G/LoRaWAN), Java Full Stack, Python, Front end** etc.



i. UCT IoT Platform (uct Insight)

UCT Insight is an IOT platform designed for quick deployment of IOT applications on the same time providing valuable “insight” for your process/business. It has been built in Java for backend and ReactJS for Front end. It has support for MySQL and various NoSql Databases.

- It enables device connectivity via industry standard IoT protocols - MQTT, CoAP, HTTP, Modbus TCP, OPC UA
- It supports both cloud and on-premises deployments.

- Build Your own dashboard
- Analytics and Reporting
- Alert and Notification
- Integration with third party application(Power BI, SAP, ERP)
- Rule Engine



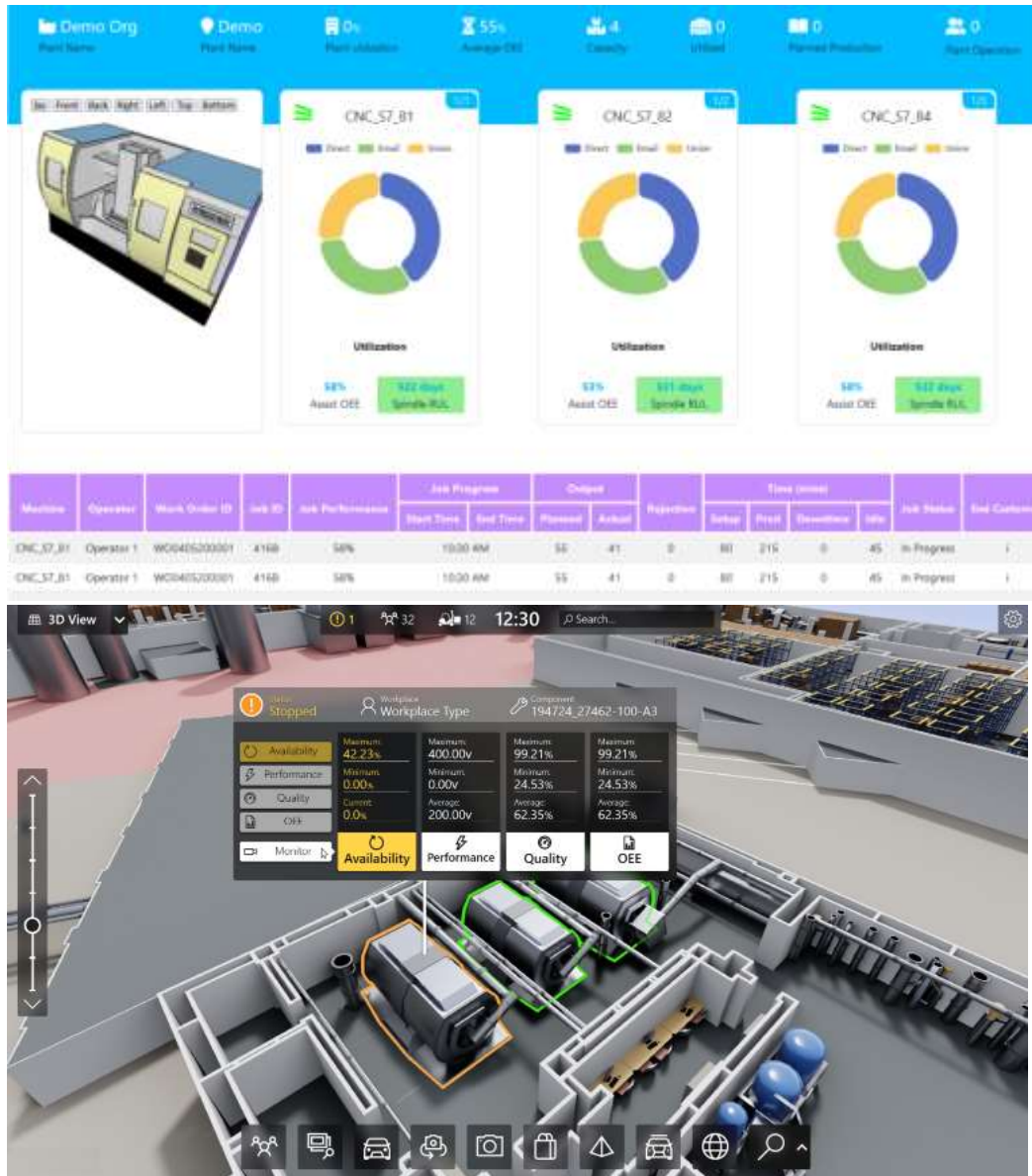
ii. Smart Factory Platform ()

Factory watch is a platform for smart factory needs.

It provides Users/ Factory

- with a scalable solution for their Production and asset monitoring
- OEE and predictive maintenance solution scaling up to digital twin for your assets.
- to unleashed the true potential of the data that their machines are generating and helps to identify the KPIs and also improve them.
- A modular architecture that allows users to choose the service that they what to start and then can scale to more complex solutions as per their demands.

Its unique SaaS model helps users to save time, cost and money.



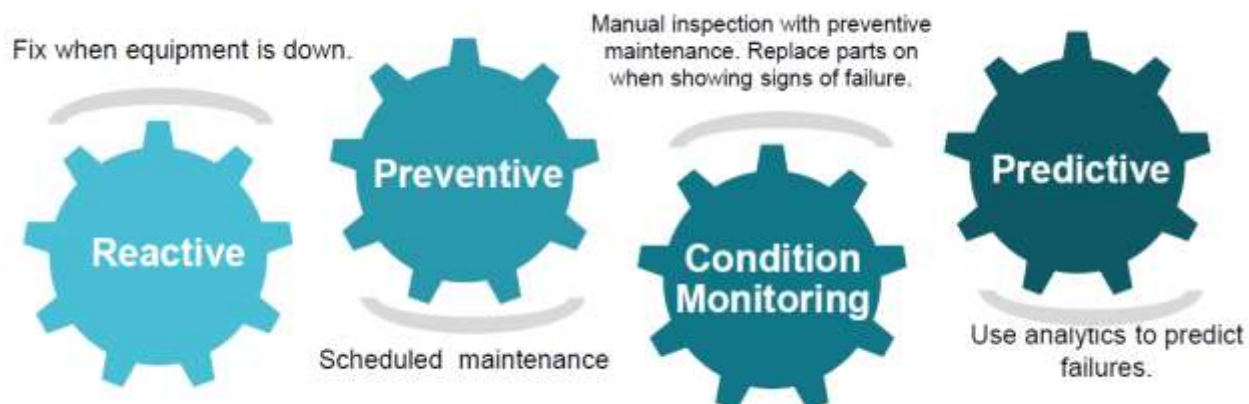


iii. based Solution

UCT is one of the early adopters of LoRAWAN technology and providing solution in Agritech, Smart cities, Industrial Monitoring, Smart Street Light, Smart Water/ Gas/ Electricity metering solutions etc.

iv. Predictive Maintenance

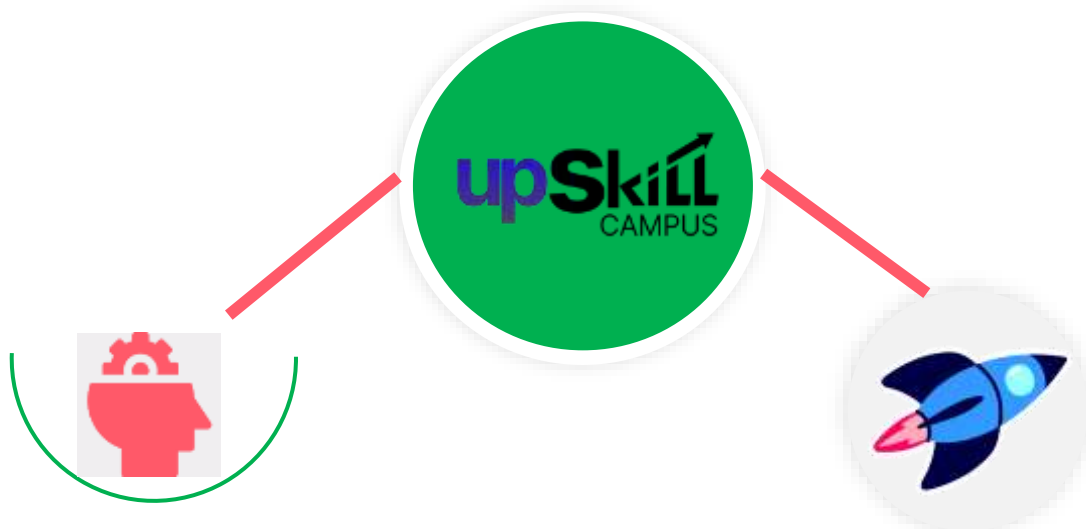
UCT is providing Industrial Machine health monitoring and Predictive maintenance solution leveraging Embedded system, Industrial IoT and Machine Learning Technologies by finding Remaining useful life time of various Machines used in production process.



2.2 About upskill Campus (USC)

upskill Campus along with The IoT Academy and in association with Uniconverge technologies has facilitated the smooth execution of the complete internship process.

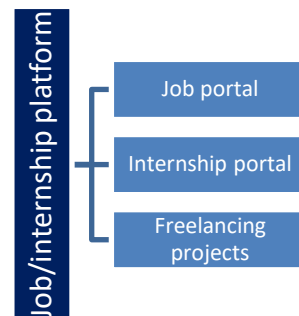
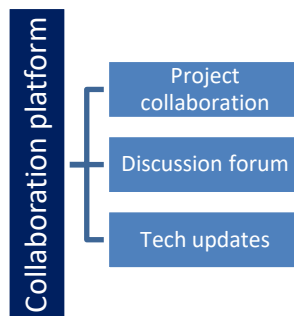
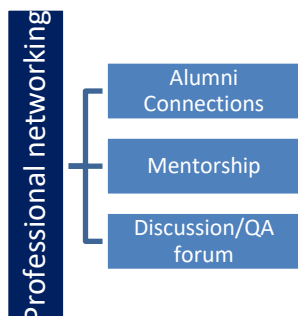
USC is a career development platform that delivers **personalized executive coaching** in a more affordable, scalable and measurable way.



Seeing need of upskilling in self paced manner along-with additional support services e.g. Internship, projects, interaction with Industry experts, Career growth Services

upSkill Campus aiming to upskill 1 million learners in next 5 year

<https://www.upskillcampus.com/>



2.3 The IoT Academy

The IoT academy is EdTech Division of UCT that is running long executive certification programs in collaboration with EICT Academy, IITK, IITR and IITG in multiple domains.

2.4 Objectives of this Internship program

The objective for this internship program was to

- get practical experience of working in the industry.
- to solve real world problems.
- to have improved job prospects.
- to have Improved understanding of our field and its applications.
- to have Personal growth like better communication and problem solving.

2.5 Reference

- [1] <https://www.upskillcampus.com>

3 Problem Statement

In the assigned problem statement

An online education platform is one of the trending cloud computing project which can provide students with access to high-quality education from anywhere in the world. This project can be built using platforms like AWS. In this project you can access the books of different subjects in online easily...which makes your work easy.

4 Existing and Proposed solution

My proposed Solution is:

Using aws s3 and github I have completed my project.

I have created a bucket and added my files into it.

And also I have created a repository in github and stored files into it.

I have tried aws EC2 service to make my project...but I am facing some security issues due to which I have completed my project using S3.

4.1 Code submission (Github link):

<https://github.com/keerthanaVodapelly/upskillcampus.git>

4.2 Code submission aws S3 service Link:

<http://edunetproject.s3-website-us-west-2.amazonaws.com>

4.3 Report submission (Github link) :

"C:\Users\keert\OneDrive\Desktop\httpsgithub.comkeerthanaVodapellyupskillcampus.git_Keerthana_USC_UCT.pdf"

5 Proposed Design/ Model

As the internship is very much useful..but I have learnt from this internship is that self working is important.

The internship at first provides the description of UCT and cloud computing. The services of cloud computing is explained and then it started explaining the basics of aws which is helpful to make my project successful. Even after completion of the internship course I went through some Youtube videos to complete my project successfully.

6 Performance Test

This is very important part and defines why this work is meant of Real industries, instead of being just academic project.

Here we need to first find the constraints.

How those constraints were taken care in your design?

What were test results around those constraints?

Constraints can be e.g. memory, MIPS (speed, operations per second), accuracy, durability, power consumption etc.

It took me long time to understand and complete my project...but the time is execution is fast.

7 My learnings

I learnt about Cloud Computing

I learnt few of the services which are provided by aws.

I even learnt that working individually will put more stress on us...anyhow due to the reference from some websites and youtube videos I have completed my project Successfully.

8 Future work scope

I can work through projects in aws services like EC2 and S3 easily after completion of this internship.
I can also make few projects in github without fail.