[Your College Logo]

Industrial Internship Report on

”File Organiser”

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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 File Organizer 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

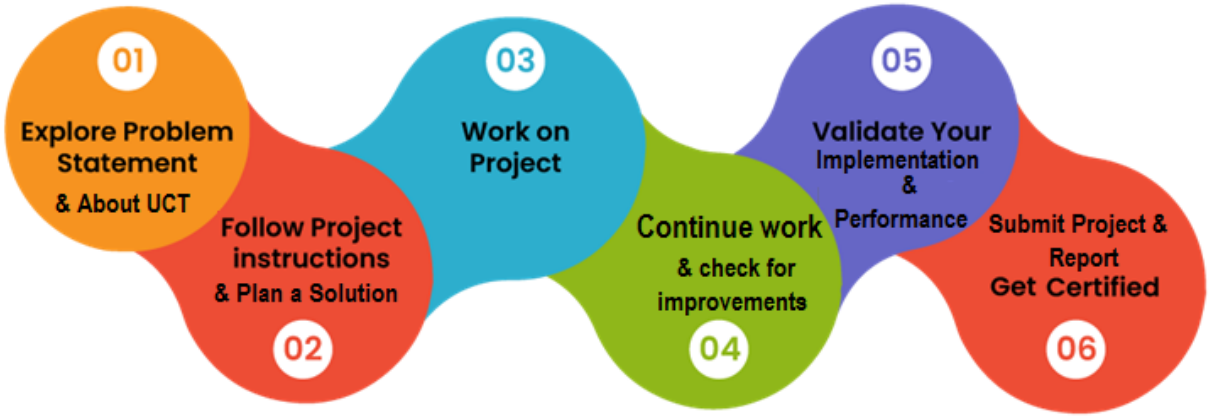
Summary of the whole 6 weeks' work.

About need of relevant Internship in career development.

Brief about Your project/problem statement.

Opportunity given by USC/UCT.

How Program was planned



Your Learnings and overall experience.

Thanks to all, who have helped you directly or indirectly.

Your message to your juniors and peers.

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.

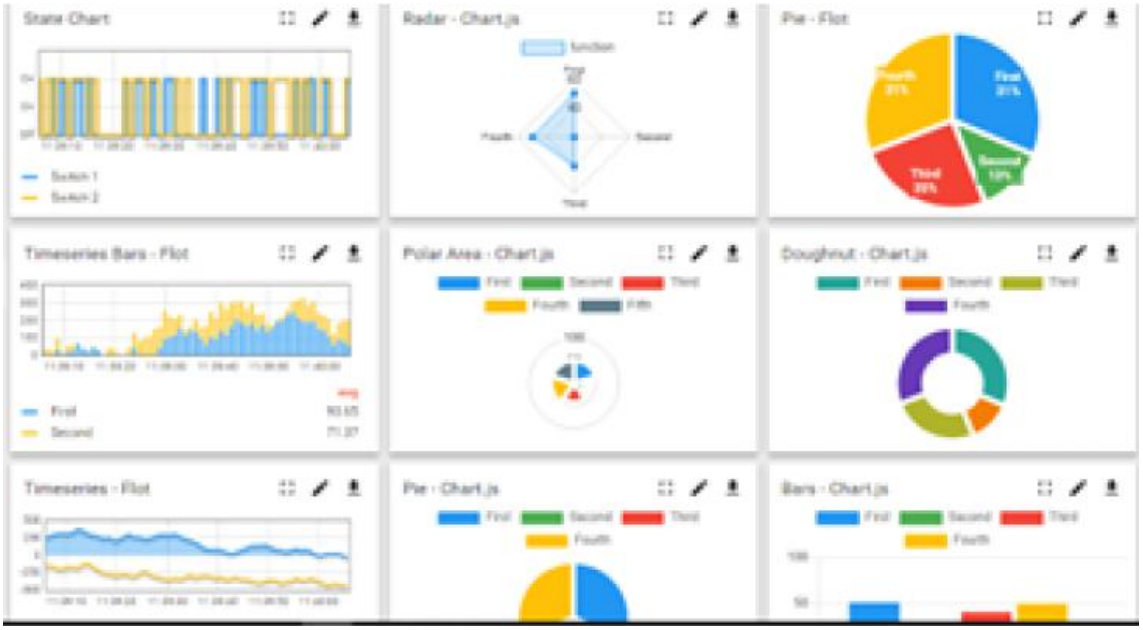
i. UCT IoT Platform (UCT Insight)

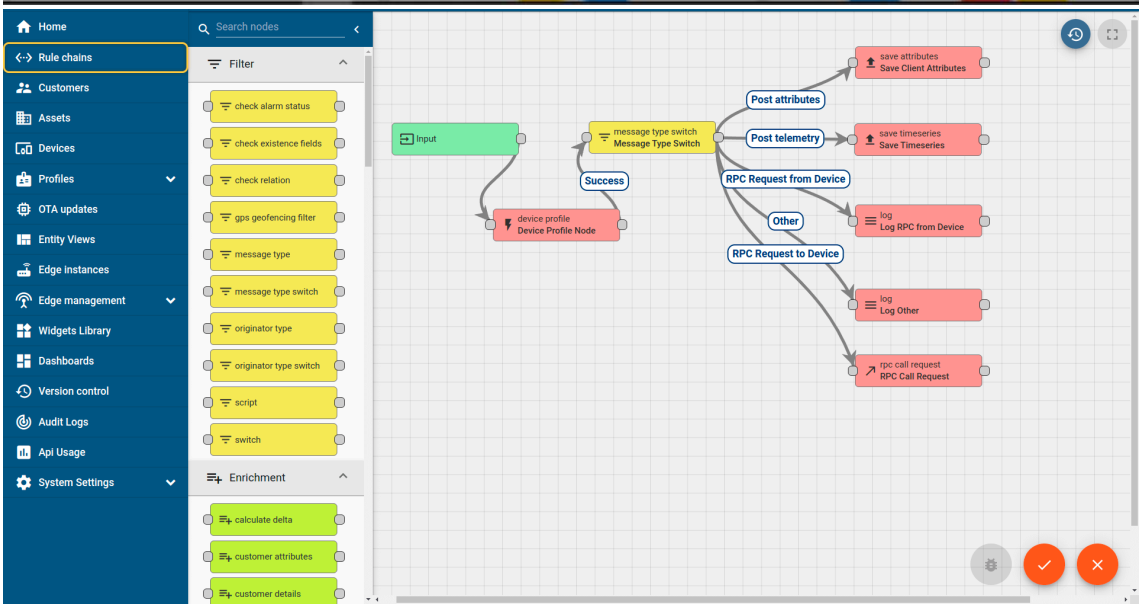
UCT Insight is an IOT platform designed for quick deployment of IOT applications on the same time providing valuable "insight" for your process/business. It has been built in Java for backend and ReactJS for Front end. It has support for MySQL and various NoSql Databases.

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

It has features to

- 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)

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 unleased 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.

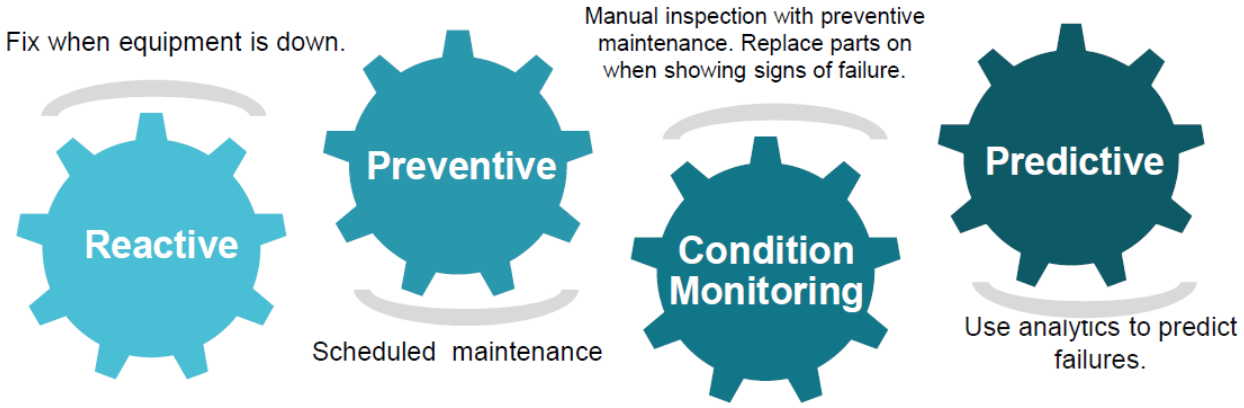
Machine	Operator	Work Order ID	Job ID	Job Performance	Job Progress		Output		Rejection	Time (mins)				Job Status	End Customer
					Start Time	End Time	Planned	Actual		Setup	Pred	Downtime	Idle		
CNC_S7_81	Operator 1	WO0405200001	4168	58%	10:30 AM		55	41	0	80	215	0	45	In Progress	i
CNC_S7_81	Operator 1	WO0405200001	4168	58%	10:30 AM		55	41	0	80	215	0	45	In Progress	i

iii. LoRaWAN based Solution

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

iv. Predictive Maintenance

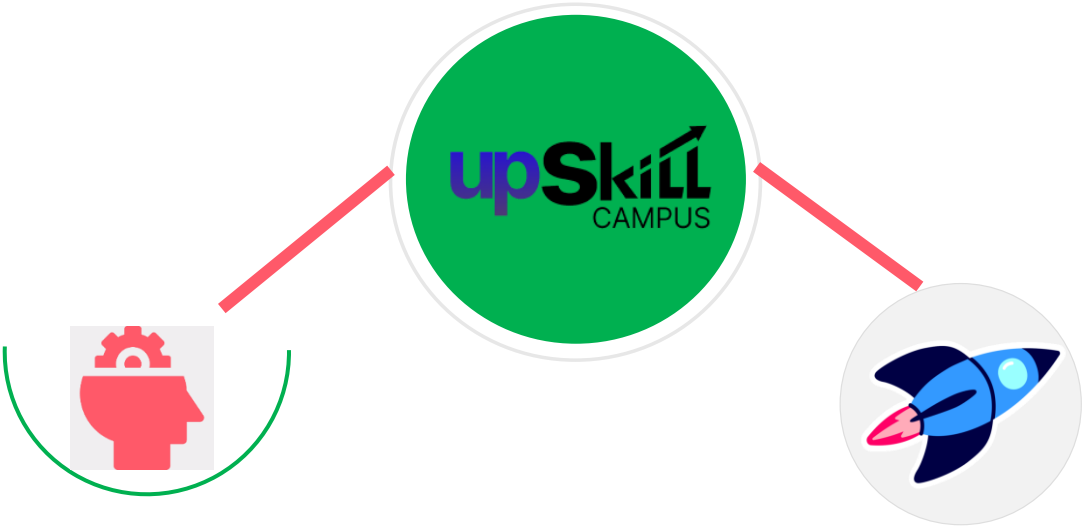
UCT is providing Industrial Machine health monitoring and Predictive maintenance solution leveraging Embedded system, Industrial IoT and Machine Learning Technologies by finding Remaining useful life time of various Machines used in production process.



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.

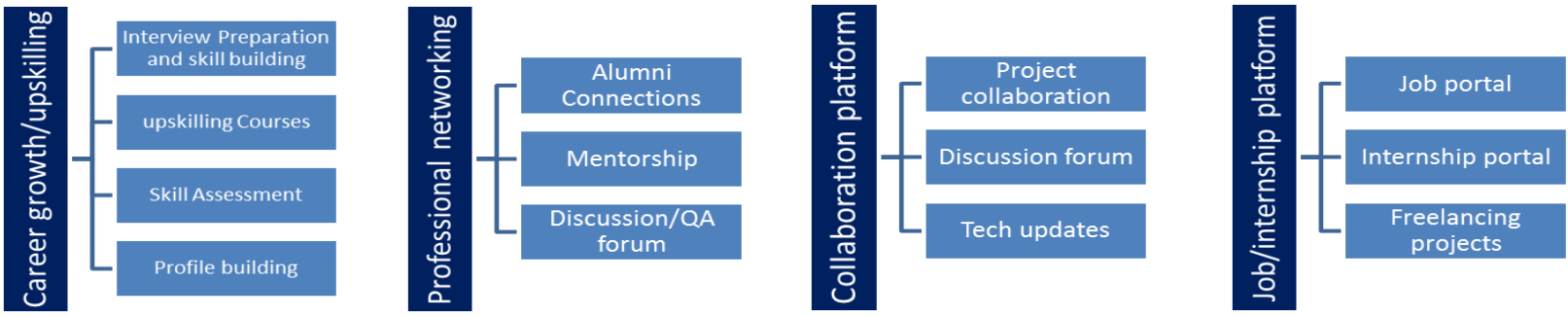
USC is a career development platform that delivers **personalized executive coaching** in a more affordable, scalable and measurable way.



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.

3. File Organizer

The File Organizer project is a simple Python script that automates the process of organizing files from a source directory into destination directories based on their file extensions. This project aims to demonstrate the use of the os and shutil modules in Python to work with files and directories. Users can place various files with different extensions in the source folder, and the script will automatically sort and move these files into corresponding subdirectories within the destination folder.

4. Proposed Solution

The project is organized into the following components:

file_organizer.py: The main Python script that contains the file organizing functionality.

source: The source folder where users can place files for organization.

destination: The destination folder where files will be organized based on their extensions.

Implementation

CODE

```
import os
import shutil

# Function to organize files
def organize_files(folder_path):
    # Get all files in the folder
    files = [f for f in os.listdir(folder_path) if
os.path.isfile(os.path.join(folder_path, f))]

    # Create folders for each file extension
    for file in files:
        file_extension = os.path.splitext(file)[1][1:]
        folder_name = file_extension.upper() + "_Files"

        # Create folder if it doesn't exist
        if not os.path.exists(os.path.join(folder_path, folder_name)):
            os.makedirs(os.path.join(folder_path, folder_name))

        # Move the file to the respective folder
        shutil.move(os.path.join(folder_path, file), os.path.join(folder_path,
folder_name, file))

    print("File organization complete.")

# Provide the folder path to organize
folder_path = "C:/Path/To/Folder"

# Call the organize_files function
organize_files(folder_path)
```

5. Usage

Download or create the file_organizer.py script.

Create a new directory for the project and place the script inside it.

Inside the project directory, create two folders named source and destination.

Place various files with different extensions in the source folder.

Run the Python script using the command python file_organizer.py.

The script will automatically organize the files into the destination folder based on their file extensions.

6. Features and Limitations

Features:

1. Automatically organizes files based on their file extensions.
2. Handles duplicate file names within each destination subdirectory.
3. Creates subdirectories in the destination folder for each unique file extension.

Limitations:

1. The basic version does not handle nested subdirectories within the source folder.
2. Files with no extensions or hidden files (e.g., starting with ".") are not organized.
3. The script moves files from the source to the destination, so ensure you have backups before testing.
4. As with any file manipulation, exercise caution and test thoroughly to avoid potential data loss.

7. Conclusion

The File Organizer project showcases a basic yet practical implementation of automating the organization of files based on their extensions. By utilizing Python's built-in os and shutil modules, the script provides a simple way to manage cluttered files and keep directories organized. However, this project is just a starting point, and developers can enhance its features by incorporating more advanced file management capabilities and handling additional edge cases. Always remember to thoroughly test the script before using it on valuable data to ensure proper functionality and to handle unexpected scenarios.