International Summer School-Manipal University Jaipur [ISSMUJ]-2023

[Hybrid Mode]

Course Overview

Name of Course- Data visualisation techniques for Business optimisation

Name of instructor: Mr Mohit Jain and Dr Shambo Roy Chowdhury
Session: May-July 2023
Language of instruction: English
Number of contact hours: 36
Credit awarded: 03
Pre-requisite: Basics of python

Objective of Course/Project

Data management will be a huge task in upcoming days as the generation rate increases in many folds. Able to analyse the data generated will be a huge advantage for any business. This course introduces to techniques commonly used by leading business for data visualisation and analysis.

Syllabus:

Data Visualization and Its Importance
Getting to Know techniques for Data
Generate powerful reports and dashboards
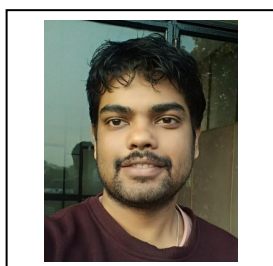Hands-on projects

Organization of Course

Total contact Hours: 36		
1st week:	10 hrs (classes)	2 hrs (self-study/project)
2nd week:	10 hrs (classes)	2 hrs (Mid-term exam/assessment/discussion)
3rd week:	10 hrs (classes)	2 hrs (self-study/project)
4th week:	6 hrs (Classes)	2hrs (End term exam)

Mode of lectures: Hybrid mode lecture/videos/case study/ discussion/ workshop/ hands-on

Course/Project Plan

Lecture no.	Topic	Lecture mode	Instructor
L: 1-3	Introduction to data visualisation	Online	Mr. Mohit Jain
L: 4-7	Tools for data visualisation	Online	Mr. Mohit Jain
L: 8-10	How Do We Make a Data Visualization?	Online	Dr Shambo Roy Chowdhury
L: 11-25	PowerBI	Online	Dr Shambo Roy Chowdhury
L: 25-36	Hands on projects	Online	Dr Shambo Roy Chowdhury and Mr. Mohit Jain

Brief profile of the instructor

A mechatronics engineer and researcher, with expertise on sensor data acquisition and signal processing on various embedded platforms. I have more than 4 years of research and development experience in CSIR-Central scientific instruments organisation and more than 4 years' full time teaching experience in Manipal University Jaipur. During these years, I have gained expertise in multi-disciplinary research and implementation of ML algorithms on embedded platforms.

Mr. Mohit Jain is an Assistant Professor in the Department of Mechatronics at Manipal University Jaipur. He received his master's from IIT Roorkee, in year 2012 in Hydro Energy Systems and has an industrial and academic experience of total 11 years. He takes courses such as Robotics Lab, Robot kinematics, CREO, MEMS, Mechanisms and machines, CAD and kinematics lab, etc. Presently, he is working on the design and development of gear test rig with data acquisition and analysis system for durability test of dynamic system.