Data analysis & Interpretation

SWAYAM Prabha Course Code – M10

PROFESSOR'S NAME	Prof. M P Gururajan & Prof. Heena Gokhale
DEPARTMENT	Mechanical Department
INSTITUTE	Indian Institute of Technology, Bombay
COURSE OUTLINE	Besides course outline, it should also indicate if there are any pre-requisities (i.e, prior knowledge) required .
Brief outline	The objectives of the course is to introduce second year undergraduate students to data collection methods, and methods of data analysis and interpretation. There are two strands to this course; the first is the statistical and mathematical aspects. The second is the numerical and programming aspects.

The applications will tie together both these. Specifically, the students will be trained to pose problems, understand ways of collecting data and analysing them to answer the questions they have posed, and to present their results graphically in an effective manner. The students will be trained in R programming language to carry out some of the analysis and visualisation of data. The course will not only deal with materials data but also of data from many different fields. Hence, it will be useful to all undergraduate engineering and science students.
Slides for every lecture: We will share it in google drive -- along with the videos. The videos need a bit of editing -- such as trimming at the ends as well as stitching together the videos from the two of us by placing them at appropriate places. If you let me know the email ids of the persons in-charge of these slides and video editing, I will share the drive directory with them specifically along with the relevant instructions. By tomorrow, the videos and slides of the first two lectures will be ready; by this |

		weekend, four more videos will become available. After that, we expect material for about three videos per week

COURSE DETAILS

S. No	Module ID/ Lecture ID	Lecture Title/Topic
1	L1	Introduction to data analysis and interpretation
2	L2	A brief history of data analysis and interpretation and analysis
3	L3	Methods of data collection
4	L4	Descriptive statistics
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References if Any: