



Workshop on

Basics of MATLAB – Mathematics

Date: 13th June 2018

Number of participants: 13

Mr. Kaliprasad Rath and Dr. Goutam Kumar Mahato

About Resource Persons

Kali Prasad Rath received his M. Tech. in Computer Science and & M.Sc. in Mathematics from Berhampur University. This is his 14th year at Centurion University of Technology and Management and his 21th year in the teaching profession. He is associated with qualitative study on theory of difference equations.

Dr. Goutam Kumar Mahato, received M.Sc. (Mathematics) from Vinoba Bhave University, Hazaribag and B.Ed. from Ranchi University, Ranchi in the year of 2006 and 2008 respectively. Awarded PhD, in the year of 2013, from Indian School of Mines, Dhanbad. Published 22 research papers in different journals of international repute. Participated and presented 16 research papers in various National and International Conferences/Seminars. Started career in teaching as a part time faculty in BIT, Sindri, Dhanbad. Presently working in Centurion University since 2013.

Mathworks and ELMAX Systems and Solutions (MATLAB) team

About the workshop

Engineers and scientists need a programming language that lets them express matrix and array mathematics directly. Linear algebra in MATLAB is intuitive and concise. The same is true for data analytics, signal and image processing, control design, and other applications.

Technical agenda of Data Science using MATLAB:

- Introduction to Data Science
- Working with different data & data visualization.
- Exploratory data analysis.
- Pre-processing of data, Transformation, feature engineering.
- Concept of data warehousing and data mining.
- Interpretation and Evaluation.
- Classification of Data Mining methods.
- Predictive modeling.
- Supervised & Unsupervised Machine Learning.

- Classification, Regression, Clustering
- Extraction and Association Analysis
- Integration of Keras & TensorFlow library with MATLAB
- Applications of Data Science in Medicine, Finance, Telecommunications, etc.
- Computational Methods for Big Data Analysis

Objectives:

1. Describe, analyse and model CPH-NEW or other research datasets.
2. Use descriptive statistics and plots for exploratory data analysis (EDA).
3. Fit probability distributions to data.
4. Perform hypothesis testing.
5. Apply basic regression and classification algorithms.
6. Have the basic understanding on how to explore Statistics and Machine Learning Toolbox advanced methods (i.e. feature selection, regularization and other dimensionality methods).

Outcomes:

Able to use Matlab for interactive computations. Familiar with memory and file management in Matlab. Able to generate plots and export this for use in reports and presentations. Able to program scripts and functions using the Matlab development environment.



Discussion during the workshop Basics of MATLAB-Mathematics



Centurion
UNIVERSITY



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Organised by :

Centurion University of Technology and Management

RESOURCE PERSON

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centurion university of technology and management
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Brochure of the session



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Attendance Sheet

1	Mr. Pramod Saini	<i>Pramod Saini</i>
2	Dr. B. Narsimha Rao	<i>B. Narsimha Rao</i>
3	Mr. Sujit Mishra	
4	Dr. Gouranga Ch. Mishra	<i>Gouranga Ch. Mishra</i>
5	Dr. Tanmoy Shankar	<i>Tanmoy Shankar</i>
6	Dr. Ashirbachan Mohapatra	<i>As</i>
7	Dr. V. Narsimha Reddy	<i>V. Narsimha Reddy</i>
8	Dr. K. Krishnam Raju	
9	Dr. K. S. Krishna Prasad	<i>K. S. Krishna Prasad</i>
10	Dr. Sambid Swain	<i>Sambid Swain</i>
11	Mr. Avijit Biswas	<i>Avijit Biswas</i>
12	Dr. Amrutha Gupan	<i>Amrutha Gupan</i>
13	Dr. Sagarika Swain	<i>Sagarika Swain</i>

Prabhat K. Pattnaik
FDP Coordinator

Dr. Prasanta Ku. Mohanty
Dean Academic