**CENTURION UNIVERSITY OF TECHNOLOGY AND MANAGEMENT**

**Workshop**

**On**

**MATLAB**

**Resource Person:** Dr. Harish Chandra Mohanta

**Date: 25th september 2018**

**Number of Participants:** 28

**About the Resource Person**

He received M.Tech degree in 2015 from IIT, Kharagpur and a PhD degree from Deakin University, Australia. Now, he is working as an Associate Professor and HOD in the Department of Electronics and Communication Engineering, SoET, Bhubaneswar campus, CUTM.

**Research Interests:**

- Wireless Energy Harvesting System.
- Metamaterial Study.
- Printed Microstrip Antenna Design.
- Transceiver System Design.
- Biomedical Instrumentation.
- AI and Machine Learning
- Embedded System Design
- 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).

**Outcome of the workshop:**

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.

**Brochure of the session on MATLAB**



**Photograph taken during MATLAB Workshop**

# List of Participants:

| FDP: MATLAB | Date: 2/09/2018 | | Day: Till |
|---|---|---|---|
| Sl. No | Name | Branch | Signature |
| 1 | Ms. Debashree Debadatta Behera | (Mech) | Debashree.debadatta behera |
| 2 | Ms. Ranjita Behera | (Mech) | Ranjita Behera |
| 3 | Mr. Umakant Biswal | (Mech) | |
| 4 | Mr. Saumya kanta Sethi | (Mech) | Saumya kanta sethi |
| 5 | Mr. Chiranjibi Mohanty | (Mech) | |
| 6 | Ms. Mandakini Behari | (Mech) | |
| 7 | Mr. Smarajit Punayakanti | (Mech) | Smarajit Punayakanti |
| 8 | Mr. Shakya Singh Sahoo | (Mech) | Shakyasingha Sahoo |
| 9 | Ms. Prajna Paramita Debatable | (Mech) | |
| 10 | Mr. Subhanshu Bhusan Mohapatra | (Mech) | Subhanshum Mohapatra |
| 11 | Ms. Ipsita Mishra | (Mech) | |
| 12 | Mr. Mukundjee Pandey | (Mech) | Mukundjee Pandey |
| 13 | Mr. Manas Ranjan Padhi | (Mech) | |
| 14 | Dr. Ramesh Ch Mohanty | (Mech) | |
| 15 | Mr. Manas Ranjan Sahoo | (Mech) | Manas Ranjan Sahoo |
| 16 | Ms. Bhabani Dash | (ECE) | Bhabani Das |
| 17 | Mr. Nimay Ch. Giri | (ECE) | |
| 18 | Mr. Debraj Rana | (ECE) | Debraj Ra- |
| 19 | Mr. Rama Prasanna Dalai | (EEE) | Rama Prasanna Dalai |
| 18 | Mr. Saroj Kumar Panda | (EEE) | Saroj kumar Panda |
| 19 | Ms. Ritupanna Panda | (CIVIL) | Ritupanna Panda |
| 20 | Mrs. Sagarika Panda | civil | Sagarika Panda |
| 21 | Mr. Rashmi Ranjan Panti | Mech | Rashmi Ranjan Panda |
| 22 | Santanu kuman Sutar | Mech | Santanu ka Sutar |
| 23 | Rahul choudhury | EEE | Rahul choudhury (student 4th) |
| 24 | Udit Singh Atoyak | Mech. | Udit Singh ( ) |
| 25 | Abinash Dash | Mech. | Aninash ( ) |
| 26 | Sourav Kumar Mishra | (Mech) | Sm-( ) |
| 27 | Dr. O. R. Rath | (o)(csh) | Dc |
| 28 | Satya Prakash Sahoo | EEE | Satya ( Student) 4th yr |

<br>

Rpatnaik

**Prabhat K. Pattnaik**
FDP Coordinator

Parant

**Dr. Prasanta Ku. Mohanty**
Dean Academic