



Electronics & ICT Academy

(Under Ministry of Electronics and Information Technology (MeitY), Govt. of India)



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Faculty Development Programme

on

“Matlab & Scilab: Applications (17 – 22 February, 2020)”

Venue: Birjhora Mahavidyalaya, Bongaigaon

Date: 17 – 22 February, 2020

Date	Time	Topic
Day – 1 17/02/2020	09:00 am – 09:30 am	Reporting & Registration
	09:30 am – 10:00 am	Inauguration
	10:00 am – 10:15 am	Tea Break
	10:15am – 01:00 am	Session Contd... Matlab/Octave basics <ul style="list-style-type: none"> • Expressions & statements • commenting • Variables • Commands
	01:00 pm -01:45 pm	Lunch Break
	01:45 pm - 03:45 pm	Session Contd... <ul style="list-style-type: none"> • Lab Session
	03:45 pm - 04:00 pm	Tea Break
	04:00 pm - 05:00 pm	➤ M-Files/Script Files <ul style="list-style-type: none"> • Intro Creating and running script files
	05:00 pm - 05:30 pm	MCQ-1
Day-2 18/02/2020	09:30 am - 11:00 am	➤ Data Types <ul style="list-style-type: none"> • What are data types • Why do we need data types? ➤ Operators <ul style="list-style-type: none"> • Different operators and its usage Lab Session
	11:00 am-11:15 am	Tea Break
	11:15 am - 01:00 pm	➤ Decision Control/Flow Control <ul style="list-style-type: none"> • Decision control statements • Decision values and operations
	01:00 pm-01:45 pm	Lunch Break
	01:45 pm-03:45 pm	➤ Loops & breaks <ul style="list-style-type: none"> • Loops statements • Different types of loops • How to break a loop
	03:45 pm - 04:00 pm	Tea Break
	04:00 pm - 05:00 pm	➤ Lab Session
	05:00 pm - 05:30 pm	MCQ-2

Date	Time	Topic
Day-3 19/02/2020	09:30 am - 11:00 am	➤ Vectors and Matrix <ul style="list-style-type: none"> • Vectors and matrix data types • Vectors and matrix operations ➤ Arrays <ul style="list-style-type: none"> • Arrays and its types • Array functions and operations ➤ Special operator <ul style="list-style-type: none"> • Colon operator
	11:00 am-11:15 am	Tea Break
	11:15 am - 01:00 pm	➤ Strings and things <ul style="list-style-type: none"> • What is strings • Strings and its operations ➤ Functions <ul style="list-style-type: none"> • What is it? • Function creation and manipulation • Different types of functions Lab Session
	01:00 pm-01:45 pm	Lunch Break
	01:45 pm-03:45 pm	➤ Data Import and Export <ul style="list-style-type: none"> • Introduction to file handling • Reading from a file (data import) • Writing to a file(data export)
	03:45 pm – 04:00 pm	Tea Break
	04:00 pm – 05:00 pm	➤ Lab Session
	05:00 pm – 05:30 pm	MCQ-2
Day-4 20/02/2020	09:30 am – 11:00 am	➤ Plotting and Graphics <ul style="list-style-type: none"> • What is plotting and graphics • Why to plot • How to perform plotting
	11:00 am-11:15 am	Tea Break
	11:15 am – 01:00 pm	➤ Solving mathematics <ul style="list-style-type: none"> • Solving algebras • Solving calculus • Solving Differentiation • Solving Integration • Solving Polynomials
	01:00 pm – 01:45 pm	Lunch Break
	01:45 pm - 03:45 pm	Session Contd... ➤ What's next with Matlab/Octave <ul style="list-style-type: none"> • Overview • Conclusion
	03:45 pm - 04:00 pm	Tea Break
	04:00 pm - 05:00 pm	➤ Project/Assignment
	05:00 pm - 05:30 pm	MCQ-3

Date	Time	Topic
Day-5 21/02/2020	09:30 am – 11:00 am	Getting Started with Scilab: <ul style="list-style-type: none"> • Introduction, Development (History, features & applications) • What is the difference of MATLAB and SCILAB • Installation of SCILAB
	11:00 am-11:15 am	Tea Break
	11:15 am – 01:00 pm	Session Contd... <ul style="list-style-type: none"> • Work directory and important menus in Scilab • Basic Operations and Input/Output with Scilab • Error handling • Math built-in-functions • Working on Console
	01:00 pm – 01:45 pm	Lunch Break
	01:45 pm - 03:45 pm	Session Contd... <ul style="list-style-type: none"> • Plotting and 2-D & 3-D Visualization • Programming - Loops - Conditional statements
	03:45 pm - 04:00 pm	Tea Break
	04:00 pm - 05:00 pm	➤ Lab Session
	05:00 pm - 05:30 pm	MCQ-5
Day-6 22/02/2020	09:30 am – 11:30 am	Valedictory session & Certificate Distribution