



# Electronics & ICT Academy IIT Guwahati



## Faculty Development Programme On

### “Machine Learning Algorithms and Applications with Python”

Venue: Sastra University, Thanjavur

Date: 26 April- 02 May, 2019

Date	Time	Topic	Contents
26-04-2019 (Day 1)	09:00 am - 9:30 am	Registration & Reporting	Python Data Types Control Statements Loops, Functions, Classes Imports and Modules
	9:30 am - 10:00 am	Inauguration	
	10:00 am -10:15 am	Tea Break	
	10:15 am - 01:15 pm	Expert Talk by <b>Prof. M.K. Bhuyan</b> , Professor, Department of Electronics & Electrical Engineering, IIT Guwahati	
	01:15 pm - 02:00 pm	Lunch Break	
	02:00 pm - 04:00 pm	Module 1: Introduction to Python	
		Module 2: Python Data Types	
		Module 3: Introduction to Control Statements	
	04:00 pm - 04:15 pm	Tea Break	
04:15 pm - 04:30 pm	MCQ-1		
27-04-2019 (Day 2)	09:30 am - 10:00 am	Module 5: Introduction to Python Programming	NumPy, SciPy and Pandas Working with Data Splitting Data
	10:00 am -10:15 am	Tea Break	
	10:15 am – 12:15 pm	Module 6: Introduction to Python Packages	
	12:15 pm - 01:30 pm	Module 7: Python Programming (with Hands-on)	
	01:30 pm - 02:15 pm	Lunch Break	
	02:15 pm - 03:45 pm	Module 8: Python Packages (with Hands-on)	
	03:45 pm - 04:00 pm	Tea Break	
	04:00 pm - 04:30 pm	MCQ-2	
29-04-2019 (Day 3)	09:30 am - 10:00 am	Module 9: Data Analytics I	Data Analytics workflow Data Pre-processing Mini Project
	10:00 am - 10:15 am	Tea Break	
	10:15 am - 01:30 pm	Module 10: Data Analytics II	
	01:30 pm - 02:15 pm	Lunch Break	
	02:15 pm - 03:45 pm	Module 11: Data Analytics (Mini-Project)	
	03:45 pm - 04:00 pm	Tea Break	
	04:00 pm - 04:30 pm	MCQ-3	



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Date: 26 April- 02 May, 2019

30-04-2019 (Day 4)	09:30 am - 10:00 am	Module 12: Introduction to Machine Learning I	Supervised Learning Linear Regression Logistic Regression Classification-Techniques
	10:00 am - 10:15 am	Tea Break	
	10:15 am - 11:30 pm	Module 13: Introduction to Machine Learning II	
	11:30 pm – 01:30 pm	Module 14: Introduction to Machine Learning III	
	01:30 pm - 02:15 pm	Lunch Break	
	02:15 pm - 03:45 pm	Module 15: Machine Learning Techniques (with Hands-on)	
	03:45 pm - 04:00 pm	Tea Break	
	04:00 pm - 04:30 pm	MCQ-4	
01-05-2019 (Day 5)	09:30 am - 10:00 am	Module 16: Introduction to Unsupervised Learning Algorithms	Unsupervised Learning Algorithms Semi Supervised Algorithms
	10:00 am -10:15 am	Tea Break	
	10:15 am - 11:30 pm	Module 17: Introduction to Semi supervised Learning Algorithms	
	11:30 pm – 01:30 pm	Module 18: Introduction to Unsupervised Learning Algorithms (with Hands-on)	
	01:30 pm - 02:15 pm	Lunch Break	
	02:15 pm - 03:45 pm	Module 19: Introduction to Semi supervised Learning Algorithms (with Hands-on)	
	03:45 pm - 04:00 pm	Tea Break	
	04:00 pm - 04:30 pm	MCQ-5	
02-05-2019 (Day 6)	09:00 am - 10:00 am	Module 20: Case Study Assignment (Project)	Project Assignment
	10:00 am - 10:15 am	Tea Break	
	10:15 am - 12:30 pm	Module 20: Case Study Assignment (Project)	
	12:30 pm - 01:30 pm	Lunch Break	
	01:30 pm - 02:30 pm	Module 20: Case Study Assignment (Project)	
	02:30 pm - 03:00 pm	Closing ceremony & Certificate Distribution.	Valedictory

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