#### About us:

In 1957, the Bharatiya Vidya Bhavan conceived the idea of establishing an engineering college in Mumbai. It was on the 19th August 1962 that there was a huge gathering at the Bhavan's Campus in Andheri to inaugurate Sardar Patel College of Engineering (SPCE). In 1995 Self Financed Engineering Course were added to it and it functioned as SPCE (Unaided-wing) conducting Electronics Engineering, Computer Engineering and Information Technology courses and Masters course in Electronics since 2005 till 2008. These courses have earned a great reputation in the field of engineering education, as well as industry. Bharatiya Vidya Bhavan's Sardar Patel College of Engineering, Unaided Wing from year 2005-2006 was established in its new building under the name and style of Bharatiya Vidya Bhavan's Sardar Patel Institute of Technology and is affiliated to Mumbai University. Subsequently Electronics and Telecommunication course was started at graduate and post graduate level in the years 2006 and 2010 respectively. In addition to these programs Electronics and Telecommunication, Computer Engineering started Ph.D. program from 2012, MCA from 2016 and Electronics from 2017. University of Mumbai has conferred Autonomous Status to S.P.I.T. for a period of five years from the academic year 2017-18 to 2021-22.

# About ISTE Faculty Chapter

The objective of ISTE faculty chapter is to assist and contribute towards the development of faculty. With the strong vision; our chapter is consistently striving to expose academicians with current industry trends and sensitizing them with the social issues.

#### Convener:

Dr. Prachi Gharpure, Principal, Chairman, ISTE Faculty Chapter Dr. Y.S. Rao, Vice-Principal

#### Coordinators:

Mrs. Swapnali Kurhade (I.T. Department)
Assistant Professor
Mobile: 8879637221
Email: swapnali.kurhade@spit.ac.in

Ms. Reeta Koshy (Computer Dept)
Assistant Professor
Mob:9821453223 Extn: 374
Email: reeta\_koshy@spit.ac.in

# **Organizing Committee:**

Mr. P. V. Kasambe (Electronics Department)
Ms. Pallavi Malame (Electronics & Comm.
Department)
Mr. Hemant Vasaikar (ASH Dept)
Ms. Sakina Shaikh (MCA Dept.)

# **Contact for Registration:**

Ms. Pallavi Malame Assistant professor Electronics & Comm. Department

Mob:9892277738 Extn:385 Email: pallavi\_malame@spit.ac.in







ISTE Faculty Chapter - MH286

Bharatiya Vidya Bhavan's

Sardar Patel Institute of Technology

Presents

AICTE-ISTE Approved One Week STTP under Career Advancement Scheme(CAS) on 
"Hands on MACHINE LEARNING & DEEP LEARNING"

13th to 18th May, 2019

# Organised by

ISTE Faculty Chapter
Sardar Patel Institute Of Technology
Munshi Nagar, Andheri (W),
Mumbai 400 058
Phone: 26707440/26708520 Extn.355
www.spit.ac.in

# **Objectives of STTP:**

- To provide the participants with a strong background on Machine Learning and Deep Learning.
- To understand applications of CNN and RNN using various case studies.
- To solve problems of Deep Learning using Tensorflow/ Keras.

## **Expected outcomes:**

After the completion of this course the Participants will be able to apply Deep Learning Techniques to solve various real life problems.

## Course Schedule (Monday to Saturday)

Day	Content
Day – 1	Hands on session using Python for data Science and Machine Learning
Day – 2	Hands on session on Classification, Regression Techniques, Principal Component Analysis
Day - 3	Introduction Neural Network & Deep Learning. Hands on session using Tensorflow/ Keras/ Theano.
Day – 4	Hands on session on Convolutional Neural Network, Recurrent Neural Networks
Day - 5	Industry Visit, Data Lake Architecture
Day - 6	Applications of Deep Learning, Test on the topics covered in last five days

#### **Resource Persons:**

Resource persons from Industry and various engineering disciplines.

#### Registration:

Please fill online registration at https://forms.gle/N88xJDdJZDatTRUf9

#### Course fees:

Registration charges including GST:

Rs. 8000/-- (Industry Personnel)

Rs. 6500/-- (Non-ISTE MEMBER)

Rs. 5000/-- (PG/PhD students & ISTE Members)

in the form of Cash/Demand Draft in favor of "S.P.I.T. Allied Division" payable at Mumbai should reach to us on or before **10 May, 2019** along with registration form.

Charges will not be returned if candidate is selected and does not attend the course. Charges include registration kit, course fees, lunch, tea & snacks. Travelling, lodging, boarding and other expenses are to be borne by the candidates.

# Limited Seats available. Confirm your seat by 10 May 2019

#### Venue:

Sardar Patel Institute of Technology, Munshi Nagar, Andheri (W), Mumbai-400058

#### Who should attend:

Research Scholars, PG students, Faculty from engineering, MCA, Management and delegates from industry can attend the program

# AICTE-ISTE Approved One Week STTP under Career Advancement Scheme(CAS)

"Hands on MACHINE LEARNING & DEEP LEARNING" 13th to 18th May, 2019

Name:			
Designation:			
Qualification:			
Experience:			
Institution:			
Email:	<del></del>		
Tel: (O)(Extn.) (M)			
Payment by Cash/DD drawn in the favor of "S.P.I.T. Allied Division" payable at Mumbai of Rs.			
DD No:Dated:	_		
Bank:	-		
Date: Signature			

**Sponsoring Authority** 

College Seal







# ISTE Faculty Chapter - MH286 Bharatiya Vidya Bhavan's Sardar Patel Institute of Technology Presents

AICTE-ISTE Approved One Week STTP under Career Advancement Scheme(CAS)

on

"Hands on MACHINE LEARNING & DEEP LEARNING"
13th to 18th May, 2019

# **SCHEDULE**

Day1 (13/05/19)	Day2 (14/05/19)
9-9.30: Registration & Breakfast 9.30 - 10: Inauguration 10-11: Trends in Machine Learning (Mr. Rahul Iyer, Reliance Industries limited.) 11-11.15: Tea Break 11.15 - 12.15: ML Tasks 1. Quick review on Classification, Regression, Clustering and more. 2. How Maths and Statistics related to ML? 3. ML Methods: Supervised, Un-Supervised, Reinforcement 4. Supervised and Unsupervised Machine Learning Pipeline 5. Case Study – Would the student get Research Grant?  11.45-1: Hands on- Python Ecosystem for ML and DL 1. NumPy basics for Data Science 2. Pandas for Data Analysis 1-2: Lunch Break 2-5.30: Hands on- Python Ecosystem for ML and DL 1. Matplotlib for Data Visualization 2. Scikit-Learn for Data Science Resource Person: Mr. Rocky Jagtiani, Suven Consultants & Technology Pvt Ltd.	9-9.30: Breakfast 9.30 - 11: Regression Techniques for Information Retrieval 1. Linear Regression 2. Logistic Regression 11-11.15: Tea Break 11.15-1: Principal Component Analysis 1-2: Lunch Break 2-5.30: Hands on- Regression algorithms, PCA  Resource Person: Mr. Santosh Chapaneri, Assistant Professor, St Francis Institute of Technology, University of Mumbai

Day3 (15/05/19)	Day4 (16/05/19)
9-9.30: Breakfast 9.30-11: Artificial Neural Network: Structure, Working, Applications 1. How does Artificial Neural Network works? 2. Difference between ML & DL  11-11.15: Tea Break 11.15-1: Use of Activation/ Transfer Function 1. Hands on in Python: Activation/ Transfer Function 2. Basics of Convolutional Neural Network 1-2: Lunch Break 2-5.30: Transfer Learning 1. Transfer learning for Deep Learning 2. Common Architectures of CNN 3. Hands on: CNN implementation with VGG16 & VGG19  Resource Persons: 1) Dr. D. R. Kalbande, Dean (Industry Relations), Professor & Head of Computer Engineering Department, S.P.I.T 2) Dr. Aarti Karande, Assistant Professor, MCA Department, S.P.I.T	9-9.30: Breakfast 9.30-11: Recurrent Neural Network (RNN)  1. What for RNN good for? 2. RNN Architecture 3. Hands on: Applications using RNN  11-11.15: Tea Break  11.15-1: Long short-term memory (LSTM)  1. Advantage of LSTM over RNNs 2. LSTM Architecture 3. Hands on: Implementing LSTM  1-2: Lunch Break 2-5.30: Gated Recurrent Unit(GRU) 1. How GRU works? 2. GRU Vs LSTM 3. Hands on: Implementing GRU  Resource Person: Mr. Lokesh Singh, Eureka Mobile Ads Pvt Ltd
Day5 (17/05/19)	Day6 (18/05/19)
9 – 9.30 : Breakfast 9.30 - 11 : Data Lake 1. Data Lake Architecture 2. Need of Data Lake 11 – 11.15 : Tea Break 11.15 – 1 : Research topics In ML and DL	9-9.30: Breakfast 9.30-11.30: 6 Disciplines for teaching learning effectiveness 1. Importance of Teaching vs Learning 2. Concepts of 6D's 3. Application of 6D's in Teaching Learning process 11.30-11.45: Tea Break
1- 2: Lunch Break 2 - 5.30: Industrial Visit (Industrial case studies)  Resource Person: Dr. Radha Shankarmani, Dean Quality Assurance, Professor and Head of Information Technology Department, S.P.I.T	11.45 – 12.45: Test on the topics covered in STTP 12.45- 2: Lunch Break 2 - 5.30: Valedictory Function and Certificate Distribution  Resource Person: Dr. Ravikumar Kurhade, GM, Schindler India Pvt Ltd

Note: Pre reads will be provided to the registered participants.