TEQIP - III Sponsored International Conference on
Instrumentation and Control Engineering
(ICECON-2019) 19th - 21st December 2019
PRE-CONFERENCE WORKSHOP ON

INTRODUCTION TO DEEP LEARNING – WITH APPLICATIONS TO ENGINEERING SYSTEM

19th December 2019

ABOUT THE WORKSHOP

Artificial Intelligence (AI), **Machine Learning** (ML), and **Deep Learning** (DL) are the buzz words in today's world, be it for working professionals, academicians or students. These fields of computational science, have made a spectacular impact in divergent areas, such as Advertising, Asset Management, Automobile, Aviation, Defence, Education, Energy, EPC, Finance, Healthcare, Human Resources & Recruitment, Manufacturing, Transportation, and Space.

IIT Bombay brings to the academia, industry and individuals an introductory one-day workshop on DL. The objective of the workshop is to provide a quick overview of the area. The emphasis is on providing insight and feel for some key DL networks. A good part of the course time is spent on the hands-on sessions. The hands-on sessions show how to program and implement deep learning techniques on a real-world application of DC Motor. MATLAB software is used in the hands-on sessions.

COURSE CONTENTS

The key topics of the course are:

- Introduction to Deep Learning
- Introduction to Artificial Neural Networks
- Classification and regression problems using Deep Networks
- Recurrent Neural Networks (RNN) – LSTM

WHO MAY BENEFIT FROM THE COURSE?

Faculty & Students from any branch of Engineering or Science, Researchers, and Industrial Practitioners can attend and benefit from this course. Familiarity with college level mathematics is desirable.

ABOUT THE SPEAKER

Paluri S. V. Nataraj is a Professor of Systems and Control Engg Group at IIT Bombay. He has been involved in teaching and research for about 28years at IIT Bombay. His current research interests are in the areas of Deep Learning, Modeling, Simulation, and Control of Gas turbines, Modeling, Simulation and Control of Boilers, Nonlinear System Analysis and Control, Reliable Computing using interval analysis techniques, Robust Stability and Control especially using quantitative feedback theory (QFT) techniques, SCADA and PLCs

Prof.Nataraj received the award from NVIDIA, USA for a "CUDA Centre of Excellence" (now renamedas GPU Centre for Excellence, or GCOE) at IIT Bombay in 2013. This is the first award for a Centre ofExcellence in GPU Computing in India. Earlier in 2012, he won the NVIDIA award for "Innovation withGPUs" for his work in Parallel Computing based Global Optimization. He is currently also the Chairmanof the NVIDIA Academic Program Committee for India.

The hands-on sessions will be conducted by PhD students and Research team from IIT Bombay.

VENUE

NIT, Trichy.

INSTRUCTIONS

All participants must bring their laptops with MS-Windows 10; these are required for all the hands-on sessions.

Registration Fee		Before 05.12.19	After 05.12.19
Pre Conference Workshop	Faculty / Industry / R&D Organization	Rs. 3000	Rs. 4000
	Research Scholar / Student	Rs. 2000	Rs. 3000

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