

# IWAML 2018

www.nittrkol.ac.in/iwaml2018

# International Workshop on APPLIED MACHINE LEARNING



February 19-23, 2018

NITTR Kolkata, Block-FC, Sector-III, Salt Lake, Kolkata



Smart systems are the need of modern society. We wish to develop systems that are intelligent enough to automatically take decisions in complex real-life situations. Thanks to the advancement in processing power, availability of enough training data, and development of statistical tools that have now enabled us to build such systems. Machine learning is a matured terminology today. We all know its possible power, ability, and usefulness in designing artificial intelligent systems. This workshop will provide an opportunity to learn ML from the perspective of mathematical basics to unfold the magic it manifests. We are bringing leading experts from the industry and academia to jointly teach basic and advanced ML. Aim is to provide in-depth training on modern machine learning tools & techniques along with theoretical aspects. Every lecture would be complimented with lab sessions to expose the attendees to appropriate tools (including Microsoft Azure).

### Workshop Topics:

Data Mining, Statistics, Feature, Curse of Dimensionality, Dimensionality Reduction and PCA, ROC Curve, FAR, FRR, CRR, F Measure, Classification: KNN, Decision Tree, Linear Model for regression and classification, Gradient descent and its variants, Regression with basis functions, SVM.

Bayesian Inference using graphical models, Bayesian Belief Networks, Generative models, MAP/ML Hypothesis, Bias Variance decomposition, Expectation Maximization, PAC learner, Hidden Markov Model, Monte Carlo Simulations, Learning Theory, VC-Dimension, Model Selection and Evaluation, Decision Theory, Information Theory.

Mixture model and expectation maximization, Clustering K-Means, Kernel Methods, Dual representation, Radial Basis functions network (RBFN), Constructing Kernels, Reinforcement Learning, Q-Learning, Cognitive Computing, Causality.

Convex Optimizations, Lagrangian Multiplier, Duality, Social media analytics, knowledge graph, hotlink assignment, Neural Networks, Backpropagation, RNN, Training and Hyper parameter tuning, SOM.

Deep Learning, Autoencoder, CNN, GAN, Dropout, LSTM, Familiarity with existing deep networks. Future perspective in Machine Learning.

### Registration Fee:

Only limited seats are available. Registration fee is as below.

| Category                   | Without Accommodation | With Accommodation |
|----------------------------|-----------------------|--------------------|
| Industry Participants      | Rs. 14000             | Rs. 20000          |
| Faculty Member             | Rs. 10000             | Rs. 15000          |
| Regular Students           | Rs. 8000              | Rs. 12000          |
| International Participants | USD 250               | USD 300            |

Early registration would fetch a discount of Rs. 2000.

Accommodation would be on shared basis. Registration link is available on workshop website [www.nittrkol.ac.in/iwaml2018](http://www.nittrkol.ac.in/iwaml2018)

### Important Dates and Deadlines:

|                           |                |
|---------------------------|----------------|
| Registration Starts       | 10 Dec 2017    |
| Early Registration        | 20 Jan 2018    |
| Late Registration         | 30 Jan 2018    |
| Shortlist of Participants | 31 Jan 2018    |
| Workshop Dates            | 19-23 Feb 2018 |

### CONTACT:

Dr. Kamlesh Tiwari, Convener, IWAML 2018  
Dept. of CSIS Engineering, BITS, Pilani  
Vidya Vihar Campus, Rajasthan  
PIN-333031, INDIA, Phone: +91 159 651 5734  
Email: iwaml2018@nittrkol.ac.in

Dr. Indrajit Saha, Local Co-ordinator, IWAML 2018  
Dept. of Computer Science Engg., NITTR, Kolkata  
Block-FC, Sec-3, Salt Lake City, Kolkata  
PIN-700 106, INDIA, Phone: +91 33 6625 1930  
Email: iwaml2018@nittrkol.ac.in

### Call for Participation

NITTR Kolkata in association with BITS Pilani invites participants to join IWAML2018 from February 19-23, 2018 at NITTR Kolkata.

### Call for Proposal

IWAML call proposals from distinguished researchers to deliver a lecture on emerging AI/ML topics. Proposals could be send through mail to the Convener.

### ORGANIZERS

**Dr. Phalguni Gupta**  
Chief, Patron  
NITTR Kolkata

**Dr. Kamlesh Tiwari**  
Convener  
BITS Pilani

**Dr. Indrajit Saha**  
Local Co-ordinator  
NITTR, Kolkata

### SPEAKERS:

**Dr. Phalguni Gupta**  
NITTR Kolkata

**Dr. Vinay Namboodiri**  
IIT Kanpur

**Dr. Aditya Nigam**  
IIT Mandi

**Dr. Badrinath GS**  
Amazon, Hyderabad

**Dr. A K Bhateja**  
DRDO Delhi

**Dr. Sudhir Rawat**  
Microsoft Hyderabad

**Dr. Indrajit Saha**  
NITTR Kolkata

**Dr. Arun Chauhan**  
IIIT Dharwad

**Dr. Kamlesh Tiwari**  
BITS Pilani

Some more experts, from other premier institutions may also join.

