Workshop on Machine Learning, Deep Learning and Computational Intelligence for Wireless Communication (MDCWC2020)

May 11-13, 2020
National Institute of Technology Tiruchirappalli

Important Dates

Paper Submission:
31 January 2020
Acceptance notification:
1 March 2020
Camera ready submission and Registration:
15 March 2020
Registration Fee:
₹ 6000/-(For Authors)
₹3000/-(For participants)
(Payment through SBI i collect)

Objective of the workshop

Due to the feasibility of collecting huge data from mobile and wireless networks, there are many possibilities of using Machine learning, Deep-learning and the Computational Intelligence to interpret and to hunt knowledge from the collected data. The workshop aims in consolidating the experimental results integrating the Machine Learning, Deep Learning and Computational Intelligence for Wireless Communication.

The workshop invites **original research contributions** in the following data driven wireless communication applications (Not limited to) implemented using one or more of the following ML, DL and Computational intelligence algorithms. **Review and Survey papers** on the related topics are also considered. Workshop supports virtual participation.

Wireless Communication	Machine Learning
• Network prediction, Traffic classification, Call detail record mining • Mobile health care, Mobile pattern recognition, Natural language processing, Automatic Speech processing • Mobility Analysis, Indoor Localization • Wireless Sensor Networks (WSN) • Energy minimization, Routing, Scheduling, Resource allocation, Multiple access, Power control • Malware detection, Cyber security, Flooding attacks detection, Mobile apps sniffing • MIMO detection, Signal detection in MIMO-OFDM, Modulation recognition, • Channel Estimation, MIMO nonlinear equalization, • Super-resolution channel and direction of arrival estimation, • NOMA, mm-Wave channel model, Full duplex, OFDM/FBMC, NB-IOT	• Multiple input multiple output regression • Probabilistic discriminative approach • Multi-class logistic Regression • Probabilistic generative model • Support Vector Machine • Dimensionality reduction techniques
	Deep Learning
	• Multilayer perceptron • Boltzmann Machine • Auto-Encoders • Convolutional Neural Network • Recurrent Neural Network • Generative Adversarial Network • Deep Reinforcement Learning
	Computational Intelligence
	• Particle Swarm Optimization • Bacterial Foraging • Simulated Annealing • Ant colony technique • Genetic algorithm • Social Emotional Optimization Algorithm • Social Evolutionary Learning Algorithm

Publication

Researchers are invited to submit their original research findings. Submitted papers are subjected to Double review process and the selected papers will be published as the book series **Lecture Notes in Electrical Engineering (Confirmed). ISI Proceedings, EI-Compendex, Scopus, Meta press, Web of science and Springer link.** Detailed information on paper submission, accommodation and travel will be posted on the workshop website. Papers can be submitted via Easy Chair through this link. Paper template is given here

Patron	Professor. Dr. Mini Shaji Thomas , Director, National Institute of Technology Tiruchirappalli

Technical Program committee (External members)(Complete list will be released shortly)

K K Biswas Retired Professor, Indian Institute of Technology Delhi Currently at IndraPrastha Institute of Information Technology Delhi	**Anand Kulkarni** Symbiosis Institute of Technology, Pune
Jithin Jagannath Director, Marconi-Rosenblatt AI/ML Innovation Lab, Research scientist, Andro computational solutions, New York	**Lakshmanan** Senior Research scientist, Mayachitra, Inc. Deep learning data solutions, California
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Organized by

Pattern Recognition and Computational Intelligence Laboratory, Department of Electronics and Communication Engineering, National Institute of Technology Tiruchirappalli

COMPSIG NITT

Reference for related works and Links to the dataset

[1] CRAWDAD dataset   UMass Trace Repository

[2] Machine Learning pardigms for Next-Generation Wireless Networks

[3] Machine learning for communications

[4] Pattern recognition and computational intelligence using Matlab

Lecture Notes in Electrical Engineering