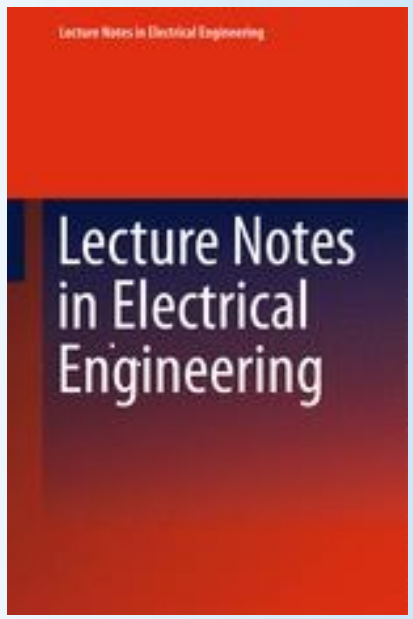
Objective of the workshop

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 focus on the following applications.

Mobile data analysis, Mobility analysis, Network control and security, Wireless sensor networks, User localization, Mobile Network and Signal processing. Also those applications are implemented using one or more of the following ML, DL and Computational intelligence algorithms like the following.

Machine learning: 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 (SEOA), Social Evolutionary Learning Algorithm (SELA).

The submissions are reviewed with Double review process and the selected papers are will be published as the book series Lecture Notes in Electrical Engineering, Springer publication (Confirmed). https://www.springer.com/series/7818



Topics covered:

- Machine Learning: Dimensionality reduction techniques, Multiple input , Multiple output Linear regression, Probabilistic discriminative model, Probabilistic generative model (HMM,GMM), Support Vector Machine
- 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, Ant colony techniques, Social Emotional Optimization Algorithm, Social Evolution and Learning Optimization
- 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

Tentative Schedule: Click here

Important details:

- Last date for pre-workshop registration: 5th September 2019
- Link to the online registration: Click here
- Registration fee : Rs.2500 (Including GST) in the form of DD in favor of "The Director, NIT Tiruchirappalli" (payable at Tiruchirappalli).
- Registration is complete once we receive the hard copy of the Demand Draft. FIRST COME FIRST SERVE BASIS
- Maximum number of participants is limited to 50.
- Registration will be closed once the count reaches the maximum limit. Hurry!!! (Registration Include Lunch and study material).

Contact details:

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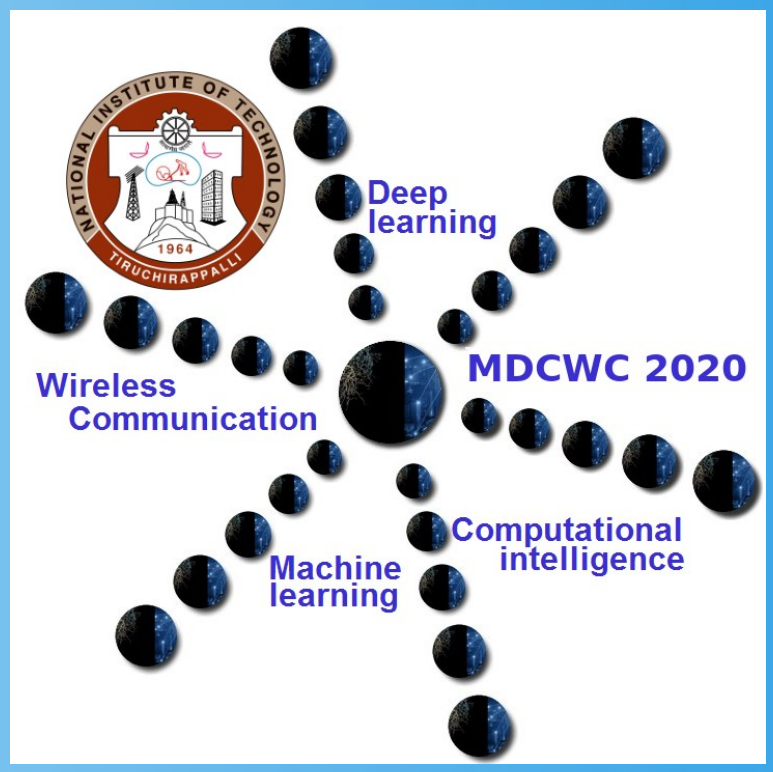
National Institute of Technology Tiruchirappalli-620015

Machine learning, Deep learning and Computational Intelligence for Wireless Communication (MDCWC2020)



Pre-workshop during 16th-20th September 2019

The pre-workshop focus on delivering the lectures in “Machine learning, Deep learning and the Computational intelligence for Wireless communication”. This acts as the platform for the participants (research scholars) to contribute the research outcomes towards the actual workshop to be conducted during May 11th to May 13th 2020. For further details: Click here.

Co-ordinators:

Dr. E S Gopi , Associate Professor
Dr. B Rebekka, Assistant Professor
Dr. G Thavasi Raja, Assistant Professor

Attractions

Newsletter
COMPSIGNITT

Publications