# Second International Conference on Machine Learning, Deep Learning and Computational Intelligence for Wireless Communication **MDCWC 2023**

22<sup>nd</sup> June to 24<sup>th</sup> **June 2023** (Hybrid Event)



Signals and Communication Technology



mdcwc2023@nitt.edu

Dr. G. Aghila, Director, NIT, Tiruchirappalli

**Organisers cum Editors** 

Dr. E.S. Gopi, Convener esgopi@nitt.edu Dr. P. Maheswaran, **Co-ordinator** mahes@nitt.edu





**Nearby Tourist Attractions** 





## Pattern recognition and Computational Intelligence group, Department of Electronics and Communication Engineering National Institute of Technology Tiruchirappalli



#### Motivation

Due to the availability of high speed computing system, there is the huge scope to still raise the standard of wireless communication in terms of massive connectivity, capacity enhancement, ultra-high reliability, low latency using Machine learning (ML), Deep learning (DL) and Computational intelligence (CI) algorithms. The conference aims in bringing out the wireless research community and machine learning research community to submit their findings integrating ML, DL and CI for wireless communication. About 50 top quality papers are expected to be presented in the Hybrid mode and is planned to publish the presented papers as the book in the series of Signals and communication technology (published by springer). The papers are grouped under one

#### Key Note Speakers

#### Prof. Arumugam Nallanathan

Professor of Wireless Communications, FIEEE, FIET, CEng, Web of Science Highly Cited Researcher Founding Head of Communication Systems Research (CSR) Group School of Electronic Engineering and Computer Science Queen Mary University of London

#### Paper Submission:

Download template here

Submit the paper through easychair through the following link:

Phase I: Last date for paper submission: 30th March 2023 Review status notification: 30th April 2023

Phase II: Last date for paper submission: 21st April 2023 Review status notification: 21st May 2023

Number of pages restricted to 12 pages.

Attach the covering letter as the additional page at the beginning of the paper indicating contributing author's name, affiliation, type of paper (Tutorial paper, Survey paper, Research articles and Data publications)

Track 1: Machine learning, Deep learning and Computational intelligence algorithms

Track 2: Wireless Communication Systems

Track 3: Mobile data applications

Track 4: Hardware Realizations

#### Dr. Jithin Jagannath

Chief Scientist of Technology, ANDRO Computational Solutions, LLC,

Founding Director of Marconi-Rosenblatt AI/ML Innovation Lab,

Adjunct Assistant Professor, Department of Electrical Engineering at the University

IEEE Senior Member | IEEE Region 1 Technological Innovation Awardee, AFCEA International Meritorious Rising Star Awardee, AFCEA 40 Under 40

#### **Invited Talks**

Dr. Narayanan C Krishnan, Head, Department of Data science, IIT Palakkad

Dr. Prabhat Kumar sharma, Department of ECE, VNIT Nagpur

Dr. Rahul mashram, Department of ECE, IIIT Allahabad

Dr. Swaminathan, Department of ECE, IIT Indore

#### Workshop 1:

#### Mathematical foundations for Wireless communication and Machine Learning.

Speakers: 1.Dr. E. S. Gopi and Dr. P. Maheswaran.

Though this session is inclusive for Author registration and participant registration, exclusive registrations are floated for this session. Rs.1000/will be charged for exclusive registration of this session.

#### Workshop 2:

# Deep Learning based RF Signal Classification:

Hands-on (Will be launched based on the count of exclusive registrations for this workshop as on May 31st 2023). **Rs.1000**/- will be Charged to attend

#### Review and Publication details (Link for registration):

Every submitted papers will be subjected to review by three reviewers (Single-blind review process will be executed) and all the accepted papers will be published as the proceedings published by Springer (Signals and Communication Technology (series is indexed by El Compendex and Scopus databases).

Registration Type	Mode of Participation	Indian Registration	Foreign Registration	Benefits
Full Author Registration	Hybrid	Rs.8000	150 USD	Access to all the events of the conference +
				Paper presentation + Publications
Participant Registraion	Hybrid	Rs.3000	50 USD	Access to all the events of the conference
Workshop 1 Registration	Hybrid	Rs. 1000	15 USD	Access to workshop
				Day 2: 1.45 P.M. to 3.45 P.M.
Workshop 2 Registration	Hybrid	Rs. 1000	15 USD	Access to workshop
				Day 3: 1.45 P.M. to 3.45 P.M.
Limited free Registration	Hybrid	NIL	NIL	Access to Key Note presentations, Invited
for ONLINE participation				talk and Paper presentation sessions.
(Registration portal will be				Registration will be based on FCFS basis
opened few days before				
the event)				
		l		1

#### **TPC External Members**

Dr.A.Ananth, IIIT Kottayam

Dr. Amarjit Kumar, NIT Warangal

Dr. Amit Agarwal, VNIT Nagpur

Dr. Anamika Singh, NIT, Nagpur

Dr. Aniruddha Kanhe, NIT Pondicherry

Dr. Apangshu Das, NIT Agartala Dr. Ashraf Hossain, NIT Silchar

Dr. Biniya T. S, NIT, Calicut

Dr. ChV Rama Rao, NIT, Warangal

Dr. Chayan Bhar, NIT, Warangal

Dr. Deepthi P.P., NIT Calicut

Dr. Deepti Kakkar NIT, Jalandhar

Dr. Dheeraj Dubey, NIT Allahabad

Dr. Dibyendu Ghoshal, NIT Agartala

Dr.Ganesh Prasad, NIT Silchar

Dr. Ila sharma, NIT, Allahabad

Dr. Lyla B Das, NIT, Calicut

Dr. Malaya Kumar Kumarnath, NIT Pondicherry

Dr. Milind Thomas, IIIT, Kottayam

Dr. Poonam Singh, NIT, Rourkela

Dr. Prabhat Sharma, NIT Nagpur

Dr. Prashant K Shah, NIT Surat

Dr. Pushpendra Singh, NIT, Hamirpur

Dr. R Murugan, NIT, Silchar

Dr. Rahul Meshram, IIIT Allahabad

Dr. Ravi Kumar Jatoth, NIT Warangal

Dr. Reshmi Dhara, NIT, Sikkim

Dr. Roshan Bodile, NIT Jalandar

Dr. Salam Shuleenda Devi, NIT, Meghalaya

Dr. Shravan Kumar Bandari, NIT, Meghalaya

Dr. Shrishailavva M Hiremath, NIT Rourkela

Dr. Shweta shah, NIT, Surat

Dr. Smriti Agarwal, NIT, Allahabad

Dr .Sreenath Reddy Thummaluru, IIITDM, Kancheepuram

Dr. Umesh Chandra Pati, NIT, Rourkela

Dr. V. Sakthivel.NIT Calicut

Dr.V.V.Mani, NIT, Warangal

Dr. Vasundhara, NIT, Warangal

Dr. Vipin Kamble, VNIT Nagpur Dr. Vishal Ramesh Satpute, NIT Nagpur

Dr. Wasim Arif, NIT, Silchar

#### External session chairs

Dr. Anamika singh,

Department of ECE, VNIT Nagpur

Dr. Prabhat Kumar sharma,

Department of ECE, VNIT Nagpur Dr. Rahul mashram,

Department of ECE, IIIT Allahabad

Dr. Shyam lal,

Department of ECE, NIT, Karnataka

Dr. Swaminathan,

Department of ECE, IIT Indore

**Internal TPC Members and session chairs** 

Faculty from the Department of ECE, NIT Tiruchirappalli Link

Contact: esgopi@nitt.edu mahes@nitt.edu mdcwc2023@nitt.edu

For complete details click here

### **Tentative Programme schedule**

Start	End	Event		
9.30 A.M.	10.00 A.M.	Inauguration		
10.00 A.M.	11.00 A.M.	Key Note presentation 1		
11.15 A.M.	12.30 P.M.	Technical paper presentations 1 (Two parallel sessions)		
1.30 P.M.	2.30 P.M.	Invited Talk 1		
2.30 P.M.	3.45 P.M.	Technical paper presentations 2 (Two parallel sessions)		
3.45 P.M. Visit	to local historica	al places		
DAY 2				
9.00 A.M.	10.00 A.M.	Invited Talk 2		
10.00 A.M.	11.30 A.M.	Technical paper presentations 3 (Two parallel sessions)		
11.45 A.M.	12.45 P.M.	Invited Talk 3		
1.45 P.M.	3.45 P.M.	Workshop I		
4.00 P.M.	5.15 P.M.	Technical paper presentations 4 (Two parallel sessions)		
DAY 3				
9.00 A.M.	10.00 A.M.	Key Note presentation 1		
10.15 A.M.	12.15 P.M.	Workshop II		
1.15 P.M.	2.15 P.M.	Invited Talk 4		
2.30 P.M.	3.45 P.M.	Technical paper presentations 5 (Two parallel sessions)		
3.45 P.M.	Closing Rem	arks		

Supporting Team members: Rajasekhar reddy poreddy, Vinodha K, Kiruthika C, Neema M, Simy M Baby, Hariganesh.E.G., K.M.Deepika Rajpoot (Research scholars) Kotturi Sai Harshita, Tushar Agnibhoj, Bhatnagar Dhruv Bhagwanswaroop, Sourav bhaktha (M.Tech students)