

# 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)

## Publication partner



MDCWC2023

mdcwc2023@nitt.edu

## Patron

Dr. G. Aghila, Director,  
NIT, Tiruchirappalli

## Organisers cum Editors

Dr. E.S. Gopi,  
Convener  
[esgopi@nitt.edu](mailto:esgopi@nitt.edu)  
Dr. P. Maheswaran,  
Co-ordinator  
[mahes@nitt.edu](mailto:mahes@nitt.edu)

## Past Event



## 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 of the four category namely (a)Tutorial papers (b)Survey papers (c) Research articles (d) Data publications on MDCWC.

### 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

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

### Paper Submission:

Download template [here](#)

Submit the paper through [easychair](#) through the following [link](#):

**Phase I:** Last date for paper submission: **30<sup>th</sup> March 2023**  
Review status notification: **30<sup>th</sup> April 2023**

**Phase II:** Last date for paper submission: **30<sup>th</sup> April 2023**  
(Hard deadline)  
Review status notification: **30<sup>st</sup> 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

### 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.

### 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 31<sup>st</sup> 2023).

### Recognized by

**IEEE COMSOC ETI-MLC**

**Machine Learning For Communications Emerging Technologies Initiative**

**Contact :** [esgopi@nitt.edu](mailto:esgopi@nitt.edu), [mahes@nitt.edu](mailto:mahes@nitt.edu) [mdcwc2023@nitt.edu](mailto:mdcwc2023@nitt.edu)

For complete details [click here](#)



### 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 EI 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<br>Day 2: 1.45 P.M. to 3.45 P.M.   |
| Workshop 2 Registration   | Hybrid                | Rs. 1000            | 15 USD               | Access to workshop<br>Day 3: 1.45 P.M. to 3.45 P.M.   |
| Limited free Registration for ONLINE participation (Registration portal will be opened few days before the event) | Hybrid                | NIL                 | NIL                  | Access to Key Note presentations, Invited talk and Paper presentation sessions.<br>Registration will be based on FCFS basis |

### TPC Members

Dr. A. Ananth, IIITK  
Dr. Amarjit Kumar, NITW  
Dr. Amit Agarwal, VNIT  
Dr. Anamika Singh, VNIT  
Dr. Aniruddha Kanhe, NITP  
Dr. Apangshu Das, NITA  
Dr. Aparna P, NITK  
Dr. Ashraf Hossain,NITS  
Dr. Avik Hati, NITT  
Dr. B Shameedha begum, NITT  
Dr. B. Chandrababu Naik, NITT  
Dr. B. Nithya, NITT  
Dr. Bibin, NITT  
Dr. Bindiya T. S, NITC  
Dr. C. Oswald, NITT  
Dr. Ch V Rama Rao, NITW  
Dr. Chayan Bhar, NITW  
Dr. Christopher Clement J, VIT, Vellore  
Dr. Deepthi P P, NITC  
Dr. Deepti Kakkar, NITJ  
Dr. Deivalakshmi, NITT  
Dr.Dheeraj Dubey,MNNIT  
Dr. Dibyendu Ghoshal, NITA  
Dr. E. S. Gopi, NITT  
Dr. G M Rather, NITS  
Dr. G Thavasi Raja, NITT  
Dr. Ganesh Prasad, NITS  
Dr. Hemanth kumar,NITT  
Dr. Ila sharma, MNITJ  
Dr. Jakkepalli Pavan Kumar,NITT

Dr. Lakshi Prosad Roy, NITR  
Dr. Lyla B Das, NITC  
Dr. Malaya Kumar Nath,NITP  
Dr. Malmathanraj, NITT,  
Dr. Milind Thomas, IIIT,Kottayam  
Dr. Naresh Reddy, NITT  
Dr. Nickolas S, NITT  
Dr. P. Maheswaran, NITT  
Dr. Poonam Singh, NITR  
Dr. Prabhat Sharma, VNIT,Nagpur  
Dr. Prabu K, NITK  
Dr. Prashant K Shah, SVNIT, Surat ,  
Dr. Priyanka, IIIT,Kancheepuram  
Dr. Pushpendra Singh, NITH  
Dr. R Murugan, NITS  
Dr. Rahul Meshram, IIITA  
Dr. Ravi Kumar Jatoth, NITW  
Dr. Reshmi Dhara, NITS  
Dr. Roshan Bodile, NITJ  
Dr. S. Usha Rani, VIT, Chennai  
Dr. S.Sangeetha, NITT  
Dr. S.Saroja, NITT  
Dr. E. S. Gopi, NITT  
Dr. Sagar Motdhare, IIIT,Nagpur  
Dr. Salam Shuleenda Devi, NITM  
Dr. Shravan Kumar Bandari, NITM  
Dr. Shrishail Hiremath, NITR

Dr. Shweta Shah, SVNIT,Surat  
Dr. Shyam Lal, NITK  
Dr. Siddhartha S. Borkotoky, IITB  
Dr. Smriti Agarwal, MNITA  
Dr. Sonam Maurya, IIIT, Pune  
Dr. Sreenath Reddy Thummalur, IIIT,Kancheepuram  
Dr. Sriharipriya KC, VIT, Vellore  
Dr. Srinivasulu Jogi, NITT  
Dr. Sudharsan, NITT  
Dr. Surendar, NITP  
Dr. Tushar Muratkar, IIITN  
Dr. Sreenath Reddy Thummalur, IIIT,Kancheepuram  
Dr. V V Mani, NITW  
Dr. V. Sakthivel, NITC,  
Dr. V. Sudha, NITT  
Dr. Vasundhara, NITW  
Dr. Vinay Raj, NITT  
Dr. Vipin Kamble, VNIT, Napur  
Dr. Vishal Ramesh Satpute,VNIT, Nagpur  
Dr. Vishnu Priya, NITT  
Dr. Wasim Arif., NITS

### External session chairs

Dr. Anamika singh, VNIT Nagpur  
Dr. Prabhat Kumar sharma, VNIT Nagpur  
Dr. Rahul mashram, , IIIT Allahabad  
Dr. Shyam lal, , NIT, Karnataka  
Dr. Swaminathan,, IIT Indore

### Tentative Programme schedule

| DAY 1                                      |                 |   |
|--|-----------------|---|
| 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 historical 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 Remarks |   |

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