Online International Conference

WOMEN RESEARCHERS IN ELECTRONICS AND COMPUTING

WREC'21

22-24 April 2021

Department of Electronics and Communication Engineering

Dr B R Ambedkar National Institute of Technology, Jalandhar

Publishing partner

The conference proceedings will get published online in AIJR Proceedings Series (ISSN:2582-3922) with ISBN & DOI (Each article will get assigned a separate DOI

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Designed by: Srishty Banga, ICE 3rd yr

About the Conference

Though women are underrepresented in engineering, but the number has been growing consistently as more women are opting to pursue studies in this field and still there is a lot required to be done to encourage this trend. We would like to dedicate this conference so as to promote and encourage women engineers and motivate young girls to follow their academic interests to a career in engineering. With a view to inspire women engineers, pioneer and successful women achievers in the domains of VLSI design , wireless sensor networks, communication, image/ signal processing, machine learning, and emerging technologies have been identified from across the globe and invited to present their work and address the participants in this women oriented conference. All the keynote speakers, tutorial presenters, session chairs and the members of conference organizing team are women.

Our Speakers

KEYNOTE

Prof. Nilmini Wickramasinghe — Day 2, 10:30 AM IST
Swinburne University of Technology, Australia

Prof. Nilmini will discuss about innovative solutions that support management of chronic diseases by focussing on patient empowerment and prudent preventive measures. She will also focus on technology enabled superior wellness management.

Prof Maryam Shojaei Baghini — Day 3, 9:30 AM IST
IIT-Bombay, India

Prof. Maryam's talk will be focussed on Integrated circuits and system design with emerging devices. She will discuss various circuit design challenges and the design methodologies that enforce perfect designs.

TUTORIAL

Dr Gayatri Mehta — Day 2, 8:30 AM IST
University of North Texas, USA

Tutorial session by Dr Gayatri Mehta will be covering the system-level interconnection strategies for coarse-grained reconfigurable fabric with focus on the performance and power consumption challenges.

Dr Prabhjot Kaur — Day 1, 2:30 PM IST
Co-Founder and CEO at Esmito Solutions Pvt Ltd Chennai, TN, India

Dr Probhjot will conduct a tutorial session on Cognitive Radios. This tutorial session will be covering the Need, Capabilities, Standards, Applications and Research Challenges with regard to Cognitive Radio.

Conference Tracks

Track 1 : Signal and Image Processing
Chair : Prof Savita Gupta, UIET, Chandigarh
Prof Anamika Dubey, Washington State University, USA

- Signal Processing Algorithms and Architecture
- Pattern Recognition and Object Tracking
- Biomedical Signal and Image Processing
- Design and Implementation of Signal Processing
- Signal Processing for Communication and Networking
- Soft Computing and its Applications to Signal Processing
- Signal processing for Smart Systems
- Human-Computer Interface
- Signal Processing for Cyber Security
- Signal Processing for Big Data
- Internet of things and RFID
- Digital and Multirate Signal Processing
- Audio/Speech and Language Processing
- Machine Learning and Deep Learning for
- Signal Processing

Track 2 : Communication, Wireless Sensor Networks
Chair : Prof Neena Gupta, PEC Chandigarh
Prof Gurmeet Kaur, Punjabi University

- Wired, Wireless, Visual, and Acoustic Technologies
- Machine learning for 5G and beyond
- Machine learning and deep learning for all types of networks
- Wave Technology
- Massive MIMO
- MIMO-based networking
- Ultra-reliable low latency communications
- Massive Machine Type of Communication
- Cellular/cell-free massive MIMO
- Multiple Radio Access Technologies (M-RATs) interworking
- Next generation radio access networks (RAN)
- Mobile sensing and applications
- Mobility management and models
- Channel modelling and performance analysis

Track 3 : VLSI Design
Chair : Prof Rajeevan Chandel, NIT Hamirpur
Prof Alpana Aggarwal, Thapar University

- Analog, mixed-signal, and RF designs
- Low-power and thermal-aware design
- Logic and Physical synthesis
- FPGA prototyping
- Reconfigurable computing
- Electronic Design Automation (EDA)
- Hardware/software co-design
- Processor and memory design
- Multicore systems
- Design for Testability
- Embedded system design and IoT
- System-on-Chip (SoC)
- Circuits and systems for signal processing and communication
- Micro-architectural Design
- Challenges for advanced technology nodes
- Nanoelectronics
- Post-CMOS technologies and architectures

Track 4 : Emerging Technologies
Chair : Prof Arvinder Kaur, IPU Delhi
Dr Harpreet Kaur, Educator, Hacienda La Puente Unified School District, USA

- Soft Computing and Applications
- Natural Language Processing
- Feature Engineering
- Blockchain Technology and Applications
- Gamification
- Serious Games
- Learning Technologies and Applications
- Cloud, Fog and Edge Computing
- Deep Learning and Machine Learning Applications
- Geographic Info Systems and Applications
- Virtual/ Augmented Reality
- Information Security

Registration Fees

Registration Type	Indian	Foreign
Academicians/Researchers	INR 2000	USD 75
Students	INR 1000	USD 75
Industry	INR 3000	USD 75

* No separate fee for Conference Tutorials

Important Dates

Paper Submission deadline :	20 February, 2021
Intimation of acceptance :	20 March, 2021
Submission of camera-ready papers and start of registration :	1 April, 2021
Last date of Registration :	10 April, 2021

Paper Submission

Full papers can be submitted through **Easychair** link available on
nitj.ac.in/WREC21/rules.html

Author Guidelines

- Authors from India and abroad are invited to submit manuscripts reporting original unpublished research and recent developments in the topics related to the conference.
- All the papers submitted to the conference should be written in English with length four to six pages (4-6).
- Simultaneous submissions (papers already submitted to other conferences/ journals) are not allowed.
- Submission should strictly follow recommended IEEE conference template.
- Plagiarism Check using Turnitin.
- Papers having more than 20% plagiarism score will be examined and those that are deemed unacceptable will be rejected/withdrawn without a formal review.
- Accepted papers will be published in Scopus indexed (CRC Press, Taylor and Francis Group) Proceedings

Organizing Commitee

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PATRON
Dr Ramesh Kumar Sunkaria, Associate Professor and Head, ECE Dept, NIT Jalandhar

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Women Researchers in Electronics and Computing

Department of Electronics and Communication Engineering

For more details : *https://www.nitj.ac.in/WREC21/*   **Designed by :** Srishty Banga, ICE 3rd yr