

# **Organizing Committees:**

#### **Chief Patron:**

Prof. P K Jain, Director, N.I.T Patna, India

#### Patron:

Prof. S K Verma, Deputy Director, N.I.T Patna, India

### **Organizing Chairman(s)**:

- Dr. Bikash Ch. Sahana, HOD (ECE), N.I.T Patna, India
- Dr. Ritesh K. Mishra, Assoc. Professor (ECE), N.I.T Patna, India

### **Organizing Co-Chairman:**

Dr. Javanta Ghosh, Assoc. Professor (ECE), N.I.T Patna, India

## **Organizing Secretary(s):**

- Dr. Subodh Srivastava, Asstt. Professor (ECE), N.I.T Patna, India
- Dr. Sangeeta Singh, Asstt. Professor (ECE), N.I.T Patna, India

### **Joint Organising Secretary(s):**

- Dr. Rajeev Arva, Asstt. Professor (ECE), N.I.T Patna, India
- Dr. Bambam Kumar, Asstt. Professor (ECE), N.I.T Patna, India
- Dr. Richa Agarwal, Asstt. Professor (ECE), N.I.T Patna, India

# International Conference on Artificial Intelligence: Theory and **Applications (AITA 2021)**

**Date: 23<sup>rd</sup> – 24<sup>th</sup> December 2021** 

# National Institute of Technology Patna, Bihar, India

About the Conference: International Conference on Artificial Intelligence: Theory and Applications (AITA-2021) will be a leading conference for bringing students, researchers, faculty members and industry experts under one umbrella for betterment of society through innovation in interdisciplinary area. It provides interactive platform for presenting new advances and innovative research results in the fields of Artificial Intelligence and its applications. Various tracks will cover both application and current research trends in the field of artificial intelligence.

About NIT Patna: National Institute of Technology Patna is the 18th National Institute of Technology created by the Ministry of H.R.D. Government of India after rechristening the erstwhile Bihar College of Engineering Patna on 28. 01. 2004. NIT Patna marked its humble beginning in 1886 with the establishment of pleaders survey training school which was subsequently promoted to Bihar College of Engineering Patna in 1924. This made this institute the 6th Oldest Engineering Institute of India. The institute is situated on the south bank of holy river Ganges behind Gandhi Ghat, one of the most important and reverential place of Patna. The Gandhi Ghat is associated with the immersion of ashes of father of the Nation Mahatma Gandhi in the river Ganges. The campus has a picturesque river view with historic building presenting a spectacle of architectural delight and natural beauty.

# **Call for Papers**

The conference program will also include high level talks from invited speakers. Supplemented by contributed talks highlighting new research and perspective in Al domain. The conference chairpersons, along with the entire team cordially invite you to submit your latest original and unpublished research work/results in the field of Artificial intelligence and Applications. The upcoming conference to be held on December 23-24, 2021 at National Institute of Technology Patna, Bihar (India).

# **Important Dates**

Paper Submission Dead Line	15 May, 2021
Acceptance	05 September, 2021
Final Submission	25 September, 2021
Registration	26 September, 2021



### **Registration Fees:**

Indian Participants (INR)	Foreign Participants (USD)
6000/-	\$150
8000/-	\$250
10, 000/-	\$300
5000/-	\$100
1000/-	\$25
2000/-	\$50
	Participants (INR) 6000/- 8000/- 10,000/- 5000/- 1000/-

### General Queries:

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Original and unpublished research papers are invited in the field of following current tracks and sub-tracks, but not limited to:		
1. Artificial Intelligence and Embedded Systems	3. Application of Al in Advanced Communication Networks	Free Space Optical Communication
Artificial Intelligence	Machine Learning and AI in Networking	Hybrid RF/FSO System
Machine Learning /Deep Learning	Network and System Security	.,,
Humanitarian Technology	Network Management and Traffic Engineering	5. IoT Based Applications
Neural Networks	Opportunistic Networks	Internet of Things
Fuzzy Logic	P2P Networks	Block chain
Expert Systems	Pervasive Sensing and Socio-Technical Networks	Big Data Analytics in Networking, including IoT Analytics
Agents and Multi-agent Systems	Cyber Physical Systems	Deep learning
Natural Language Processing	5G Communication	Datamining
Data Mining	Physical Layer Communication	Data Analytics
Computational Optimization	Heterogeneous networks (Het-Nets)	Mobile Applications
Robotics, Control and Automation	Cognitive radio and white-space networking	Digital Transformation
Sentiment Analysis	Cloud computing	Social Computing
Quantum Computing	Information/Content centric networks (ICN)	Smart Cities
High Performance Computing	Wireless Ad-hoc and sensor networks	Smart Grids and Energy Networks
Distributed and parallel systems	Systems and networks for smarter energy and sustainability	Sensing and Sensor Networks
Cognitive Computing	Vehicular communications	Ambient Assisted Living
Grid Computing	Smart Grid communications and networking	Smart Healthcare
Optimization	Cognition and Cognitive Computing in Networking	Intelligent Transportation
Embedded Computing	Online social networks	Data Science
Scalable Computing	Overlay communications, content distribution	Affective computing
Human-centered Computing	Microwave communication devices	Agents and Multi-agent Systems
Mobile computing	Millimeter wave communication devices	Context-aware pervasive systems
Computer Architecture and Systems	Photonic antennas	
Language Technologies and Information Retrieval	Satellite communications	6. AI in VLSI Applications
Computational Intelligence System	Wireless communications	VLSI Design,
	Underwater communications	Fabrication and characterization
2. Computer Vision and Applications	Cross layer design	Nanostructure and Nano electronics
Machine Vision		Analog and Mixed Signal IC Design
Soft-computing	4. Application of AI in Microwave and Optical Fiber Communication	Design of Signal Processing Circuits using Analog Building Blocks
Human Computer Interaction	High Power RF	FPGA based System Design
Pattern Recognition	Microwave Devices,	Beyond CMOS Devices
Computer Vision	Circuits and Systems.	Green Electronics
Image Processing	RF MEMs,	Steep switching transistors
Action Recognition	Metamaterial devices	Low Power High Performance Robust Circuit Design
Geographic Information Systems (GIS)	Microwave Imaging and Remote Sensing	System on Chip (SOC) and Semiconductor Technology
Video Analysis	Antenna design	
Medical Diagnosis	Microwave communication devices	7. Signal Processing and Applications
Segmentation Techniques	Millimeter wave communication devices	Biomedical Signal Processing
Augmented Reality	Filters	Speech Analysis
Virtual Reality	Dielectric resonator antennas	Speech Enhancement
Bioinformatics and Machine Learning	THz devices	Speech Recognition
Datasets and Evaluation	Microwave Absorber	Keyword Spotting
Medical, Biological and Cell Microscopy	Microwave Integrated Circuits	Speaker and Language Recognition
	Computational Electromagnetics	Efficient Hardware Architectures for Speech Processing Algorithms
	Photonics	RADAR Signal Processing
	Waveguides and Devices	Adaptive filters.
	Optical Fiber and optical networks	Geophysical Signal Processing