

# DRANACHARYA College of Engineering



# **ICTII**

2024

26-27 APRIL



# INTERNATIONAL CONFERENCE ON TECHNOLOGICAL TRASFORMATION TOWARDS INDUSTRY 5.0 (ICTT1)-2024

# Organized by:

Computer Science and Engineering Department Dronacharya College of Engineering, Khentawas, Farukkh Nagar, Affiliated to Gurugram University, Gurugram, (A NAAC Accredited College)



### **CHIEF PATRONS**

Prof. (Dr.) B.M.K. Prasad, Director, Dronacharya College of Engineering, Gurugram, Haryana, India Prof. (Dr.) Isha Malhotra Principal, Dronacharya College of Engineering, Gurugram, Haryana, India

# **CO-PATRONS**

Prof. Yashwardhan Soni, Academic Administrator, Dronacharya College of Engineering, Gurugram, Haryana, India

# **CHIEF PERSON**

Prof. (Dr.) Ghanshyam Singh, Professor, Department of Electrical and Electronics Engineering, Aukland Park, Kingsway Campus, University of Johannesburg, Johannesburg, South Africa

Prof. (Dr.) Shyam S. Pandey, Associate Professor, Division of Green Electronic, Graduate School of LSSE, Kyushu Institute of Technology, Japan

# **CONFERENCE GENERAL CHAIR**

Dr. Ashima Mehta, HOD, Computer Science and Engineering Department, Dronacharya College of Engineering, Gurugram

## CONVENOR

Dr. Shimpy Goyal, Assistant Professor, Computer Science and Engineering Department, Dronacharya College of Engineering, Gurugram

# CO-CONVENOR

Ms Renu Narwan, Assistant Professor, Computer Science and Engineering Department, Dronacharya College of Engineering, Gurugram

# ORGANIZING SECRETARY

Dr Hansraj Yadav, Registrar, Dronacharya College of Engineering, Gurugram

# **National Advisory Committee**

- Prof. (Dr) BMK Prasad, Director, Dronacharya College of Engineering
- Prof. (Dr) Isha Malhotra, Principal, Dronacharya College of Engineering
- Prof. (Dr) Saswata Bhattacharyya, Associate Professor, Department of Materials Science and Metallurgical Engineering, Indian Institute of Technology (IIT) Hyderabad, Kandi, Sangareddy – 502285, Telangana, India
- Prof.(Dr)Subhradeep Chatterjee, Assistant Professor at IITHyderabad
- Prof Dharmender Kumar, Dean, Faculty of Engg. &Tech, Gurugram University
- Dr Mukesh Kumar, Associate Professor, Gurugram University
- Prof N S Gill, MD University, Rohtak
- Prof R S Chiller, MD University, Rohtak
- Prof Suman, DCRUST, Murthal, Sonepat
- Prof Sukhdeep Singh, DCRUST Murthal, Sonepat
- Dr Narender Kumar, CSED, GJUST, Hissar
- Dr. Dheeraj Pawar Associate Professor and HOD, Department of Statistics, Amity Institute of Applied Sciences, Amity University, Noida
- Dr. Ashish Purohit Associate Professor, MED Thapar Institute of Engineering and Technology, Patiala

# **International Advisory Committee**

- Dr Rajkumar Singh Rathore, Cardiff Metropolitan University, United Kingdom
- Dr Ashutosh Sharma, Institute of Computer Technology and Information Security, Rostov-na-Donu, Russia
- Dr Niraj Kumar, NTU, Singapore
- Mr Pardeep Kumar, Technical Head, ION, USA

# **About the Conference (ICTTI2024)**

Industry 5.0 is the next industrial revolution to leverage the creativity of human experts in collaboration with efficient, intelligent and collaborative robots. It will obtain resource-efficient and user preferred manufacturing solutions. The potential applications of Industry 5.0 are intelligent healthcare, cloud manufacturing, supply chain management and manufacturing production. The supporting technologies for Industry 5.0 are edge computing, digital-twins collaborative robots, Internet of every things, blockchain, and 6G and beyond networks.

The aim of this conference is to highlight various state-of-art potential challenges to be addressed to researchers, academicians, and industry and with their prominent solutions. ICTITI 24 aims to bring the researchers, academicians, industry, and government personnel together to share and discuss the various challenges, research gaps towards innovations in industry 5.0. It will provide common platform of discussion to various research scholars and academicians to explore new challenges with their solutions. We hope that ICTITI 24 will lead to significant contributions to the knowledge base in these technologies.

# **About the College**

Dronacharya College of Engineering, Gurgaon is imparting technical education since 1998. The college is undoubtedly, a preferred choice of budding engineers where every aspirant gets an equal opportunity to think, wonder, visualize, explore experiment and design his career as per his interest and demands of the MNCs. Here, we promote the growth of entrepreneurs, technocrats and engineers who contribute to the services of the society and Nation. We, at Dronacharya College of Engineering, are absolutely committed to serve the society and improve the mode of life by imparting high quality education in the field of Engineering and Management catering to the explicit and implicit needs of the students, society, humanity and industry.

"Shiksha evam Sahayata" i.e. Education and Help are the two words etched on our banner soaring higher year after year. Our goal is to continuously improve the healthy learning environment and facilities being provided to the students to achieve academic excellence for employability as world class Technocrats and Managers, apart from making them noble human beings of a nation growing from strength to strength, dispelling the darkness of ignorance and ameliorating the society by means of philanthropic endeavors. The college offers Bachelor of Technology course in CSE, CSEIT, CSE (AI- ML), CSE (IoT), IT, ECE, ME, and Robotics and Automation and Master of Technology course in CSE, IT, ECE, and ME.

# **About the Department**

The Computer Science and Engineering department caters to the everlasting demand of the market. The extensive and laboratory facilities are one of the added advantages of the Department. The department is committed to provide quality, cutting-edge educational experiences that give students a holistic view of the engineering education and prepare them to take up their career in wide range of industries or establishing start-up companies. With this conference, the department is enhancing the research activities among students/faculty/researchers and their capabilities to explore for industry 5.0 requirements.

# **CONFERENCE TOPICS**

- Classification and Clustering
- Deep Learning
- Inductive Learning
- Inference Rule Learning
- Learning and Adaptive control
- Cloud Development and its Applications
- Edge Computing
- Cloud of Things (CoT)
- Fog-Cloud-Edge Infrastructures
- Automation in Cloud
- Sky Computing
- Bitcoin and Cryptocurrency
- Transaction and Security Awareness
- Public Vs. Private Blockchain
- Blockchain Application and Platforms
- Decentralized Autonomous Solutions
- Communication Network on Blockchain
- Cobots
- Machine to Machine Communication
- Machine to Human Communication
- Cobots in Manufacturing
- Cobots in Healthcare
- Training and Testing of Cobots

- Cobots in Transportation System
- Cobots in Agriculture
- Swarm Robots
- Bio inspired robotics
- Cognitive approach for robotics
- Medical and assistive robotics
- Humanoid robots
- Virtual Reality and Haptics

#### **Publication**

- All accepted & presented papers will be considered for publishing in prominent Book Series.
- Extended work of selected papers will be considered for publication in referred/Scopus/ESCI journals.

#### **Paper Submission**

Authors must ensure that their works are produced in a way that conceals their identities. Submitted paper should be original research work, which has not submitted elsewhere (conference or journal) or and undergoing review. Submitted paper should be follow the Springer conference template and reference. Kindly refer the Template link below:

https://resource-cms.springernature.com/springercms/rest/v1/content/22044/data/v1

#### Registration

At least one of the authors of the paper has to register for the conference. It is mandatory to present the paper in the conference for the inclusion of the paper in the conference proceedings.

conference proceedings.		
CONFERENCE	National	For Foreign Participants
Regular U.G./P. G. Students and Research Scholars Institutional Participants/ Faculty members	Rs. 8000/-	\$100
Participants from Industry	Rs. 10000/-	\$140
WORKSHOP ON IOT AND AI	Rs 500/	
Regular U.G./P. G. Students and Research Scholars Institutional Participants/ Faculty members	Rs. 1000/-	Rs. 1500
Participants from Industry	Rs. 2000/-	<del>-</del>
FOR WORKSHOP ON CYBERSECURITY		
Regular U.G./P. G. Students and Research Scholars Institutional Participants/ Faculty members	Rs. 1000/-	Rs.
Participants from Industry	Rs. 2000/-	-

# **Call for Papers**

Industrial Revolution 5.0 is the beginning of next industrial revolution having its roots in technologies like Cloud of Things, Cobots, Internet of Everything, Machine and Deep learning, Very Deep learning, 5G/6G wireless technologies. Papers are invited for followings tracks:

#### Track 1: Artificial Intelligence and Machine Learning for Industry 5.0

Classification and Clustering, Deep Learning, Inductive Learning, Inference Rule Learning, Learning and Adaptive control, Real Time Event Learning and Detection

Natural Language Processing, Statistical and Evolutionary Learning, Soft Computing Image Processing, Computer Vision, Internet of Things, Virtual Reality and Augmented Reality, Annotation of Media Content

#### Track 2: Next Generation Virtualization Technology: Cloud to Sky computing

Cloud Management and Operations, Cloud Security, Cloud Computing in Business Intelligence Cloud Performance, Scalability and Reliability, Data Analytics in Cloud Cloud Development and its Applications, Edge Computing, Cloud of Things (CoT), Fog-Cloud-Edge Infrastructures, Automation in Cloud, Sky Computing

#### Track 3: Block Chain, Cyber Security, and Digital Forensics for Industry 5.0

Bitcoin and Cryptocurrency, Transaction and Security Awareness Public Vs. Private Blockchain, Blockchain Application and Platforms, Decentralized Autonomous Solutions

Communication Network on Blockchain Access and Identity Management, Integrity Issues and Ethical Hacking, Emerging Threats Cyber Crime and its Solutions Data Privacy, Privacy exposures and violations Security and privacy in online social networks, Software Security and Secure Coding, Risk Assessment and Analysis

#### Track 4: Mechatronics and Nanotechnology in Industry 5.0

Cobots, Machine to Machine Communication, Machine to Human Communication Cobots in Manufacturing, Cobots in Healthcare, Training and Testing of Cobots, Cobots in Transportation System, Cobots in Agriculture, Robotics and Automation

#### Track 5: 5G/6G Smart Networks in Industry 5.0

Latency and QoS, AI integrated Handover, Smart mobility, Quantum communication, Energy management for smart devices, hybrid/ digital beamforming and Millimeter wave, 5G enabled IoT environment, Multi-excess edge computing, advanced service based architecture in 5G/6G.

#### Track 6: Advanced Robotics and Automation in Industry 5.0

Swarm Robots, Bio inspired robotics, Cognitive approach for robotics, Medical and assistive robotics Humanoid robots, Virtual Reality and Haptics, Man-Machine Interface and Integration, Artificial Intelligence and Machine Learning for Robotics Hands, Adaptive control system, Mobile and Autonomous System

Important Dates			
Full length Paper Submission	Feb 10, 2024		
Acceptance	Feb 20, 2024		
Registration	Feb 25, 2024		

The Link for Registration is  $\rightarrow$  (LINK)

Steps of making payment



# **Contact**

Location: Khentawas, Farrukh Nagar (122506), Gurugram, Haryana

Website: ggnindia.dronacharya.info

Email: <u>registrar@ggnindia.dronacharya.info</u> Call: 0124 – 2375502, 2375503, 2375504