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ORGANISED BY: SHAHEED SUKHDEV COLLEGE OF BUSINESS STUDIES, UNIVERSITY OF DELHI, NEW DELHI IN ASSOCIATION WITH NATIONAL INSTITUTE OF TECHNOLOGY, PATNA & UNIVERSITY OF VALLADOLID SPAIN

On

14-15th FEBRUARY 2025

********** CALL FOR PAPERS **********

SPECIAL SESSION ON

Artificial Intelligence and its Impact on Emerging Technology

SESSION ORGANIZERS:

Dr. Uzzal Sharma, Department of Computer Science, Associate Professor, Birangana Sati Sadhani Rajyik Viswavidyalaya, India, druzzalsharma@gmail.com

TECHNICAL COMMITTEE:

Dr. Brajen Kumar Deka, Department of Computer Science, North Eastern Regional Institute of Management, India

SESSION DESCRIPTION:

Artificial Intelligence (AI) stands at the forefront of revolutionizing emerging technologies across various domains, promising unprecedented advancements and transformative impacts. As AI continues to evolve, its integration with emerging technologies such as robotics, healthcare, autonomous vehicles, and smart devices reshapes industries and societies worldwide. One of the most profound impacts of AI lies in automation and efficiency improvements. AI-powered systems and algorithms can analyze vast amounts of data at speeds beyond human capability, facilitating quicker and more accurate decision-making processes. In manufacturing, AI-driven robotics optimize production lines, enhance precision, reduce errors, and increase productivity. This not only lowers operational costs but also improves product quality and consistency. Healthcare is another sector experiencing a profound AI-driven transformation. AI applications in diagnostics, personalized medicine, and drug discovery are revolutionizing patient care. Machine learning algorithms can analyze medical images, detect patterns, and assist in diagnosing diseases earlier and more accurately than traditional methods. Furthermore, AI-driven predictive analytics are helping healthcare providers anticipate patient needs and optimize resource allocation. In transportation, AI is driving the development of autonomous vehicles, promising safer and more efficient transportation systems. AI algorithms enable vehicles to perceive their environment, make decisions in real time, and navigate complex traffic scenarios autonomously. Beyond

automobiles, AI is also enhancing logistics and supply chain management through predictive analytics, optimizing routes, and minimizing delivery times. The consumer electronics industry is witnessing the proliferation of smart devices powered by AI. Virtual assistants like Siri, Alexa, and Google Assistant leverage AI to understand and respond to natural language commands, personalize user experiences, and anticipate user preferences. AI-driven recommendation systems in streaming platforms and e-commerce sites analyze user behavior to provide personalized content and product recommendations, enhancing user satisfaction and engagement. Ethical considerations surrounding AI's impact on emerging technologies are crucial. Issues such as data privacy, algorithmic bias, and the ethical use of AI in decision-making processes require careful consideration and regulation to ensure AI technologies benefit society as a whole.

Looking forward, AI's synergy with emerging technologies holds immense promise for addressing global challenges across various sectors. From climate change mitigation to enhancing cybersecurity and advancing scientific research, AI's potential to innovate and disrupt remains unparalleled. However, harnessing AI's full potential requires collaboration between researchers, policymakers, and industry stakeholders to navigate its complexities responsibly and ethically.

RECOMMENDED TOPICS:

Topics to be discussed in this special session include (but are not limited to) the following:

- **Computational Theories of Learning**
- **Computational Resource Constrained Speech**
- **Cognitive Science**
- **Generative Adverse Network**
- **Robotics**
- **Assistive Technologies**
- **Applications of ML and Deep Learning**
- **Internet of Things**
- **Federated learning: the next generation machine learning for regulated domains- Healthcare, Agriculture and Banking**
- **Compressed Sensing (for Speech and/or Image Processing)**
- **Computer Vision and Speech Recognition**
- **Natural Language Processing based tools and Applications**
- **Chatbots**
- **Text extraction and Topic classification**
- **Speech Analysis, Representation and Models**
- **Spoken Language Recognition and Understanding**
- **Speech and Language Resources – Data Collection, Transcription and Annotation**
- **Cyber Security**
- **Forensic Speech Investigations and Security Systems**
- **Speech Interface Design and Human Factors Engineering**
- **Text to speech synthesis**
- **Affective Speech Recognition, Interpretation and Synthesis**
- **Speaker Recognition in Biometric Systems and Security**

SUBMISSION PROCEDURE:

Researchers and practitioners are invited to submit papers for this special theme session on **Artificial Intelligence and its Impact on Emerging Technology *on or before* 30th September 2024**. All submissions must be original and may not be under review by another publication.

INTERESTED AUTHORS SHOULD CONSULT THE CONFERENCE'S GUIDELINES FOR MANUSCRIPT SUBMISSIONS at https://cmt3.research.microsoft.com/User/Login?ReturnUrl=%2FICICC2025.

All submitted papers will be reviewed on a double-blind, peer-review basis.

NOTE: While submitting a paper in this special session, please specify "**Artificial Intelligence and its Impact on Emerging Technology**" at the top (above the paper title) of the first page of your paper.

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