**Special Session Proposal - MRCN- 2023**

1. **Tentative Title of Session:** Artificial Intelligence and Machine Learning Algorithms for Signal, Speech and Image Processing applications
2. **Session Chair(s):**

### Name and affiliation : Dr. Shaveta Arora (shavetaarora@ncuindia.edu), Associate Professor at The NorthCap University, Gurgaon, Haryana, India.

1. Name and affiliation : Dr. Vikas Mittal (vikas.e14122@cumail.in), Associate Professor at Chandigarh University, Mohali, India.
2. **Aims and Objectives**

This special session focuses on Artificial Intelligence and Machine Learning utilization for signal, speech processing and image processing applications. It aims to provide solutions to real-world problems.

In the past decade, signal and image processing techniques, along with the advent of deep learning, have revolutionized the way of analysis with numerous applications in healthcare, Industries, workplaces, marketing, language learning, and education. With the rise of digital voice assistance, artificial intelligence for speech analysis is part of our daily lives. The topics of Interests include (but not limited to):

Artificial Intelligence of Things (AIoT) for Healthcare

Biomedical Imaging and Image Processing

Biomedical Signal Processing

Automatic techniques for the assessment of neurological disorders;

Diagnosis of speech and voice disorders

Natural language processing

Speech production and synthesis

Speech perception modelling

Speech analysis for human–computer interaction

Music Signal Processing

Imaging and neuro-imaging techniques for speech analysis

Emerging techniques and hardware for speech and voice analysis

AI for Industrial applications

Deep Learning

Explainable AI

AI for Human computer interface

1. **Expected number of articles to receive** - 6
2. **List of name, affiliation, email of 50 target researchers who can submit articles to this session**. would be shared to target researchers after approval.