



3rd INTERNATIONAL CONFERENCE ON MACHINE INTELLIGENCE AND SIGNAL PROCESSING

MISP-2021

(<https://www.misp.nitap.ac.in>)

Organized by

NATIONAL INSTITUTE OF TECHNOLOGY ARUNACHAL PRADESH, INDIA

SEPTEMBER 23-25, 2021

1. Title of the Special Session: *Biomedical Signal and Image Processing*

2. Details of Session Chair and Co-Chair:

- Dr. Pushendra Singh, Assistant Professor, NIT Hamirpur
- Dr. Amit Singhal, Assistant Professor, Bennett University, Greater Noida
- Dr. Binish Fatimah, Associate Professor, CMR Institute of Technology, Bengaluru

3. Aims & Scope (Theme of Session):

Biomedical signal and image processing is a dynamic area of research involving biomedical information and clinical medicine. It involves theory and application of digital signal processing for biological data acquisition, segmentation, imaging, filtering, feature extraction, modelling and representation. It can help the physicians in improving the time efficiency of the diagnosis and can also highlight the relevant information present in the biomedical signal. The popular biomedical signals are essentially of two types, known as action potential and event-related potential. The former class consists of electromyogram (EMG), electroneurogram (ENG), electrocardiogram (ECG) and electroencephalogram (EEG), whereas electrogastrogram (EGG), phonocardiogram (PCG), carotid pulse (CP), signals from catheter-tip sensors, speech signal, vibromyogram (VMG), vibroarthrogram (VAG), otoacoustic emission signal are event-related potentials. The commonly used biomedical image modalities include functional magnetic resonance imaging (fMRI), computed tomography (CT), x-ray, ultrasound imaging and positron emission tomography (PET). With the impetus in sensor technology and artificial intelligence, this field of specialization has gained momentum.

This session aims to provide an inter-disciplinary international forum for the interchange of information on research in the measurement and analysis of signals and images in clinical medicine and the biological sciences.

4. Subtopics:

Topics of interest include, but are not limited to the following:

1. Analysis and processing of biomedical signals
2. Automated disease detection from biomedical images
3. Computational Neuroscience
4. Denoising of biomedical images and/or signals
5. Human-Machine Interfaces
6. Identification of abnormalities from biomedical signals



7. Novel feature extraction techniques for biomedical images
8. Signal/Image acquisition methods

5. Technical Programme Committee(s):

- Dr. S. D. Joshi, Professor, IIT Delhi
- Dr. Brejesh Lall, Professor, IIT Delhi
- Dr. Anubha Gupta, Professor, IIIT Delhi
- Dr. Abhinav Kumar, Associate Professor, IIT Hyderabad
- Dr. Navin Kumar, Associate Professor, Amrita School of Engineering
- Dr. Megha Agarwal, Associate Professor, JIIT Noida
- Dr. Kapil Dev Tyagi, Associate Professor, JIIT Noida
- Dr. Manoj Sharma, Assistant Professor, Bennett University, Greater Noida

6. **Submission Procedure:** Researchers and practitioners are invited to submit papers through the below given easy chair link:

[Springer Author's Guidelines](#)

[EasyChair Submission](#)

All submissions must be original and may not be under review by another publication. The submitted papers will be reviewed on a double-blind and peer review basis.

7. Publications:

All accepted and registered papers under MISP 2021 will be considered for publication in Springer Book Series, "Advances in Intelligent Systems and Computing" (approval pending).

All inquiries should be directed to the attention of Session Chair/Co-Chair:

Name: Dr. Pushendra Singh

Email Id: pushendrasingh@iitkalumni.org

Designation: Assistant Professor

Contact Number: 8076508761

Name: Dr. Amit Singhal

Email Id: singhalamit.iitd@gmail.com

Designation: Assistant Professor

Contact Number: 9899736322

Name: Dr. Binish Fatimah

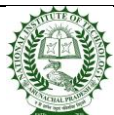
Email Id: binish.fatimah@gmail.com

Designation: Associate Professor

Contact Number: 80500 69919

Submission Guidelines for Authors

- ❖ Prospective authors are invited to submit original research work that falls within the scope of the session. All submissions will be thoroughly peer-reviewed by experts based on originality, significance and clarity.
- ❖ Only papers presenting novel research results or successful innovative applications will be considered for publication in the conference proceedings.



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- ❖ Authors are requested to submit their Manuscripts through the Easy Chair System. The paper must be in Springer AISC series format and of maximum 12 pages. Authors are requested to submit their Manuscripts through the Easy Chair System.
- ❖ Authors are requested to kindly strictly follow the paper format. Please visit conference webpage for paper format <https://www.misp.nitap.ac.in>.

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Special Session Timeline

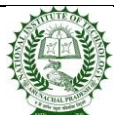
Paper Submission Deadline: 1st April 2021

Notice of Acceptance: 1st May 2021

Camera Ready Due: 10th May 2021

Registration Due: 15th May 2021

Conference Date: 23rd-25th September 2021



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