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Vidyayāmruthamashnuthe

Special Session

Title of the Special Session: Application of Artificial Intelligence in Healthcare Industry

Objective of the Special Session: Artificial Intelligence and data science are the hot topics of this century. These techniques come in handy at solving many ever-lasting unsolved problems in industry such as education, healthcare, science, and technology. It's exciting to know that in a hard time like a pandemic, the technology not only helped in medical screening but also bolstered other areas like predicting the spread of infection, helping the government in identifying critical hotspots and suggesting counteractive methods. Recently, many algorithms developed for image segmentation, signal classification, and generation are used in critical medical cases like capturing a cancer tissue segment in a lunge CT scan image, finding tumors in a Brain MRI, 1st degree AV block from ECG signal, etc., Now it's evident that these techniques are part of various medical studies and areas such as cardiology, dentistry, dermatology, neurology, etc.,

The aim of this special session will be a kick start for any research scholar to define their research area to explains the usage of Machine Learning techniques and architecture used in the various medical industry and throws light on future implementation and developments. **Segment 1:** The need for ML in healthcare, **segment 2:** states the previous research and development carried out in this industry, and **segment 3:** Detail analysis of companies working in this technology with respect to medical areas and their impact.

Topics of the Special Session

- Advanced Machine learning architectures in healthcare.
- Application of Machine learning in healthcare text documents.
- Intelligent Assessment of Dysarthric Speech using Excitation source information and Deep Neural Networks.
- Machine Learning algorithms used in the Healthcare industry
- Modulated Learning Rate scheduler
- Implementation of CNN and LSTM to find criticalities in ECG signals.
- Signal representation of Biomedical signals for CNN.
- Application of Optimisation techniques in healthcare systems.
- AI/ML for Speech Disorders
- Speech Processing Algorithm
- Application of AI in child healthcare.
- Biomedical Signal Analysis
- DSP Architectures

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