

# 6<sup>th</sup> International Conference On Data Engineering and Communication Technology

12<sup>th</sup> & 13<sup>th</sup> AUG, 2022

Organized by

Department of Computer Science and Engineering,

**Aditya Engineering College (A)**

**SPECIAL SESSION**

ON

## ***Advanced Deep Learning Models for Interdisciplinary Research (ADLIR)***

### **Theme of the Session:**

Machine learning and deep learning paradigms are accelerating digital revolutions in a wide range of research fields, including computer vision, natural language processing, speech processing, precision agriculture, business and economics, material science, transportation systems, internet of things, and so on. Recent developments in the field of Deep Learning such as Deep Transfer Learning, Self-Supervised Learning, Deep Diving Using Convolutional Neural Networks, Vision Transformers, Multimodal multitasking transformers and Explainable AI hold tremendous potential in bringing about radical changes in interdisciplinary research. Despite the extraordinary rapid progress and significant successes of Deep Learning architectures in a wide range of applications as mentioned, Deep learning Models are frequently perceived as black boxes with deep, computationally expensive layers, and have recently been found vulnerable to spoofing with well-designed input samples in a number of safety critical applications. There has recently been a surge of interest in related research areas, such as a) interpreting learned models and their decisions, and b) regularizing and updating neural network architecture for reliable and stable prediction. This encouraging progress has far-reaching implications for research on the subject of this special session: Advanced Deep Learning Models for Interdisciplinary Research.

### **Scope and Interest:**

- Advanced DL (Deep Learning) models for Computer vision.
- Advanced DL models for NLP.
- Advanced DL models for Agriculture.
- Advanced DL models for Material Science.
- Advanced DL models for Biology.
- Advanced DL models for healthcare.
- Advanced DL models for Business and Economics
- Advanced DL models for intelligent Transport System.
- Advanced DL models for Internet of things
- Optimization algorithms for DL
- Explainable & Interpretable DL Models for interdisciplinary applications.
- Explanation of black box models
- Interpretation of neural networks and ensemble-based methods
- Deep generative models.
- Deep reinforcement learning.
- Zero shot/ few shot learning
- Continual learning, learning with humans in the loop.
- New datasets and benchmarks for advanced DL applications and their interpretability.
- Deep learning architecture for big data.
- ML/DL perspective on social network analysis

### **Publication:**

All accepted and registered paper will be published in Springer proceedings



### Important Dates:

Deadline for Paper Submission	<b>10<sup>th</sup> May , 2022</b>	Paper Acceptance Notification	<b>10<sup>th</sup> July, 2022</b>
Registration of manuscript	<b>20<sup>th</sup> July, 2022</b>	Last date of Registration	<b>30<sup>th</sup> July, 2022</b>

**Paper can be submitted via an email to [ok\\_sikha@cb.amrita.edu](mailto:ok_sikha@cb.amrita.edu)** with ‘Name of Special Session:’ mentioned in the subject line.

### Session Chair(s):

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