

IEEE MJCET Student Branch presents Machine Learning Foundations -An Intuitive Approach By: Dr. Kiran Gunnam



Milpitas, CA, United States

On Saturday, 19 June, 2022 from 11.00 AM to 12.00Noon

Venue: Seminar Hall, Muffakham Jah College of Engineering and Technology, Road No 3, Banjara Hills

ABSTRACT:

This lecture offers an intuitive treatment of the important machine learning approaches. This lecture covers supervised Learning and unsupervised learning. Various classic machine learning as well as modern deep neural networks and deep belief networks are covered. How to build an end-to-end application is covered in depth focusing on selecting right machine learning algorithm, data preprocessing and evaluating model.

About the speaker:

Dr. Gunnam is an innovative technology leader with vision and passion who effectively connects with individuals and groups. His breakthrough contributions are in the areas of advanced error correction systems, storage-class memory systems, and computer vision-based localization & navigation systems. He has helped drive organizations to become industry leaders through groundbreaking technologies. He has 86 issued US patents and 100+ patent applications/invention disclosures on algorithms, architectures, and real-time low-cost implementations for computing, storage, computer vision and AI systems. He is the lead inventor/sole inventor for 90% of them. His patented work has been already incorporated in more than 3 billion data storage, Wi-Fi and 5G chips as of 2020 and is set to continue to be incorporated in more than 500 million chips per year. Dr. Gunnam is also a key contributor to the precise localization and navigation technology commercialized for autonomous aerial refueling and space docking applications. His recent patentpending inventions on low-complexity simultaneous localization and mapping (SLAM) and 3D convolutional neural network (CNN) for object detection, tracking, and classification are commercialized for LiDAR+ camera-based perception for autonomous driving and robotic systems. His more recent inventions on machine learning accelerators have $\sim 2x$ savings vs the state of the art.

Dr. Gunnam has been involved with the IEEE standards association (SA) since 2013. He is a member of IEEE Computer Society's Microprocessors Standards Committee and is the Chair of IEEE P3109 Standards Working Group for Arithmetic for Machine Learning. He is also the Chair of IEEE CASS Standard Activities Subdivision (SASD). He is also a member of the Board of Governors of the IEEE Circuits and Systems Society (CASS) for 2021-2022.

Dr. Gunnam served as IEEE Distinguished Speaker and Plenary Speaker for 30+ events and international conferences and more than 4000 attendees benefited from his talks. Dr. Gunnam also served as a lead Instructor for machine learning and deep learning workshops organized by ACM in collaboration with IEEE and ValleyML from 2018 to 2020.

Dr. Kiran Gunnam is a recipient of the ValleyML Distinguished Technical Achievement Award for long-lasting contributions to architectures and algorithms of real-time signal processing, communication, and machine learning systems that enabled ubiquitous computing.