

2nd International Conference on Computing and Machine Learning (CML 2025)

Ms. Anila Gogineni

Talk Title:

AI-Driven Innovation in the Cloud: Transforming Industries with Scalable Intelligence

Abstract / Profile:

Abstract: Artificial Intelligence (AI) and Cloud computing together are instigating new technologies to the industries, for instance, scaled intelligence, automated tasks and data driven decisions making. By leveraging the power of AI in the cloud, businesses are able to make the best use of their data in order to be more efficient in business processes and to innovate in the areas such as healthcare, finance, retail, manufacturing and education. The cloud based AI services such as Machine Learning as a Service (MLaaS) and AI as a Service (AIaaS) offer organisations with their on demand access to the best of the AI powers without making huge investments in the infrastructure. AI-powered cloud platforms in health care can be used for medical diagnosis, personalized treatments as well as telehealth services. On the other hand, AI helps the financial sector in detecting and preventing fraud, algorithmic trading, and risk assessment as so. AI in retail makes inventory management more optimized, makes customers happy and pass along recommendations that are individualized. Other applications based smart manufacturing use AI for predictive maintenance and process automation, as did the education sector based on AI adaptive learning and virtual tutor. Yet, such strides have been taken despite the fact that there remain challenges such as data privacy, security risks, ethical AI concerns and integration problems. To tackle these issues, the needed robust governance, secure cloud architecture, and ethical AI framework cannot be achieved. The future of AI'd cloud innovation will be based on the rule of emerging technologies like quantum computing, edge AI, enhanced cybersecurity enforcements. In this presentation, the processes for how AI and cloud computing are changing industries, the key advantages as well as disadvantages are explored, and emerging AI-driven cloud trends are highlighted. Using AI organizations will need to use these technologies to compete and take advantage of the AI's possibilities in updating processes for generating efficiency, scaling and strategic growth in the increasingly digital world.