

## Invited Lecture



**Prof. Shekhar Verma**

**Title:** Machine Learning for Electronic Design Automation

**Abstract:** In EDA, the entire chip design process has a plethora of rule-of-thumb heuristics which have proved themselves over the years. This is no longer the case and we need higher accuracy. We need to enable modeling and simulation to provide greater levels of insight. Moreover, we need greater accuracy and efficiency from design tools and a shift toward broader automation. Machine Learning has just started to penetrate EDA and is expected to provide the answers. The opportunity for ML in EDA is to replace some of those heuristics with models that we learn from data. This lecture reviews the challenges that can benefit from ML, outline the key challenges, and discuss promising ML-based approaches.

**Biography:** Prof. Shekhar Verma has received his BTech, MTech and PhD from IIT BHU, Varanasi. He is currently working as professor in Information Technology at Indian Institute of Information Technology Allahabad. He has published more than 100 research papers in reputed refereed International Journals and more than 80 papers in international conferences. He has supervised 20 PhD scholars and handled many R&D projects. He is a member of the “Machine Learning and Optimization Group” at IIIT Allahabad. His research interests include dimensionality reduction, Manifold regularization, Privacy Preserving Machine Learning and Deep Learning techniques.