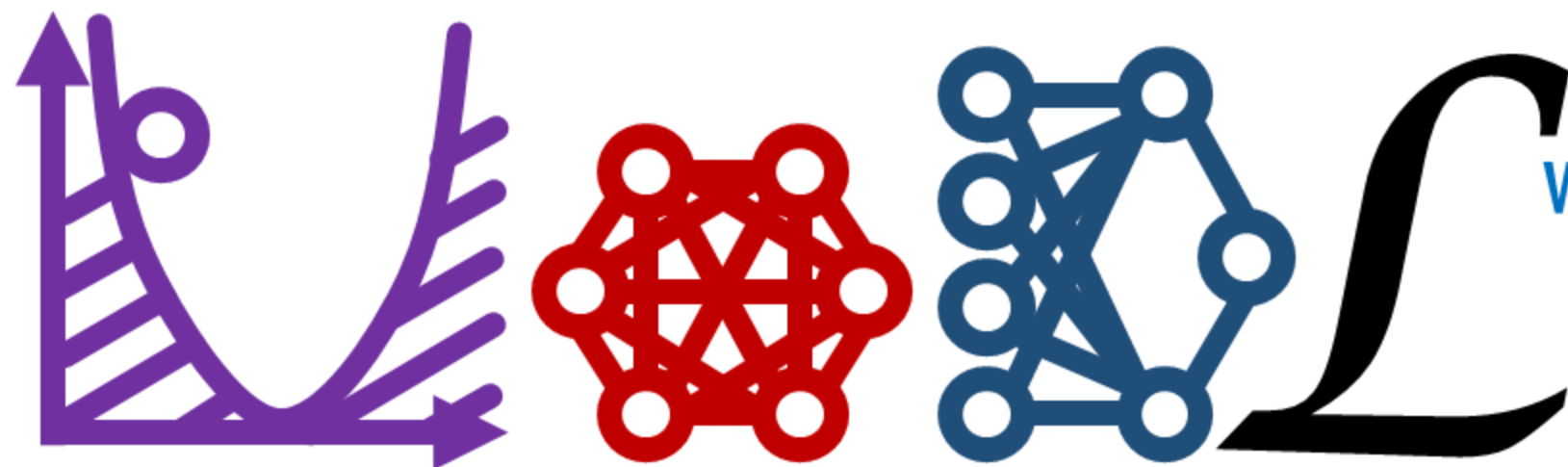# Indian Institute of Technology Kharagpur

Centre of Excellence in Artificial Intelligence

www.ai.iitkgp.ac.in/modl

Mathematics of Deep Learning

TEQIP-FDP / Advanced School
19–23 February 2020, Kolkata

Mathematical perspectives and objectives of deep learning Optimization and solvers
Linear algebra, probability and information theory Guaranteeing learnability
Adversarial and multitask learning Reasoning and explainability
Numeric precision of computations Data privacy preserving Federated learning

Debdoot Sheet
Multitask Learning, Tensor Computation, Federated Learning

Swanand R. Khare
Tensor Analysis, Multilinear Algebra

Abir Das
Explainable AI, Optimization and Solvers, Reinforcement Learning

Buddhananda Banerjee
Probability and Statistics, Information Theory