INTENDED AUDIENCE: Bachelor in Architecture, Bachelor in Planning, Bachelor in Technology (Civil Engineering), Bachelor in Social Science, Master in (Civil Engineering, City/Urban Planning, Urban Engineering, Transportation Planning, Spatial Data Science, Social science, Technology).

PRE-REQUISITES: Basic knowledge in Urban Planning.

INDUSTRIES APPLICABLE TO: All Architecture, Urban Planning, Infrastructure, IT/ITeS and Consultancy Services firms providing solutions for urban and transportation planning.

COURSE OUTLINE: This course provides the basic concepts and skill sets to undertake urban land use and transportation planning and to analyze the impact of various policies either related to infrastructure development, environmental regulation and urban expansion.

ABOUT INSTRUCTOR: Dr. Debapratim Pandit is currently an Associate Professor at the Department of Architecture and Regional Planning, Indian Institute of Technology Kharagpur. He has completed his PhD from the Department of Urban Engineering, University of Tokyo in the area of land use transportation modeling and has more than twelve years of teaching and professional experience. He currently teaches Urban informatics, Advance Transportation Planning, Urban utilities and Services and Development Plans for Post Graduate and Research students.

COURSE PLAN:

Week 1: Introduction and Overview of Land Use Transportation Planning
Week 2: Land Use Transportation Models and Frameworks
Week 3: Data Collection and Survey Techniques
Week 4: Microsimulation and Population Synthesis
Week 5: Urban Growth, Land suitability, Accessibility and Land price
Week 6: Residential Location Choice
Week 7: Trip Generation and Distribution
Week 8: Mode Choice
Week 9: Trip Assignment
Week 10: Transportation Demand Modeling using software (Part 1-5)
Week 11: Urban Freight
Week 12: Other Models