



# Urban Transportation Systems Planning

**PROF. BHARGAB MAITRA**

Department of Civil Engineering  
IIT Kharagpur

**TYPE OF COURSE** : Rerun | Core | PG**COURSE DURATION** : 12 Weeks (24 Jan' 22 - 15 Apr' 22)**EXAM DATE** : 24 Apr 2022

**INTENDED AUDIENCE** : M.E. / M.Tech. Students of Transportation Engineering or equivalent specialization

**INDUSTRIES APPLICABLE TO** : This is a core course in all IITs, NITs and universities offering M.E. / M.Tech in Transportation Engineering and therefore recognized by companies/industries in relevant areas

**COURSE OUTLINE :**

Urban transportation is an important issue in developing countries such as India. Transportation impact various aspects such as mobility, health of residents, economic and energy aspects in an Urban area. This course covers the challenging need for effective and efficient planning of urban transport addressing the growing travel demand in a sustainable and affordable way. This NPTEL course will help in capacity building amongst master students, policy makers, practitioners, etc. for urban transport planning and decision making, to understand urban transport in all relevant dimensions, and develop urban transport plans, programs and projects.

**ABOUT INSTRUCTOR :**

Prof. Bhargab Maitra is currently a Professor in Civil Engineering Department, Indian Institute of Technology Kharagpur, India. He completed his M. Tech from Indian Institute of Technology Kanpur and Ph.D. from Indian Institute of Technology Bombay with specialization in Transportation Engineering. He is an Alexander von Humboldt Fellow and DAAD Fellow. He also received Pt. Jawaharlal Nehru Birth Centenary Award from the Indian Roads Congress.

**COURSE PLAN :**

**Week 1:** Overview of Urban Transportation Planning Process

**Week 2:** Overview of Urban Transportation Planning Process (Continued)

**Week 3:** Trip Generation

**Week 4:** Trip Generation (Continued)

**Week 5:** Trip Distribution

**Week 6:** Trip Distribution (Continued)

**Week 7:** Modal Split

**Week 8:** Modal Split (Continued)

**Week 9:** Traffic Assignment

**Week 10:** Traffic Assignment (Continued)

**Week 11:** Land use and transport

**Week 12:** Urban Goods Movement