# Transportation and Urban Design Studio (E) for Graduate School of Civil Engineering in 2022 Autumn Semester (A1)

### **Lecturers:**

Prof. Eiji Hato<sup>a</sup>, Prof. Takamasa Iryo<sup>a</sup>, Prof. Ryuichi Shibasaki<sup>b</sup>, Prof. Takahiko Kusakabe<sup>a</sup>, Prof. Junji Urata<sup>a</sup>, Dr. Muhammad Awais Shafique<sup>c</sup>, Prof. Risa Kobayashi<sup>a</sup>, Dr. Hajime Watanabe<sup>a</sup> Transport Research and Infrastructure Planning (TRIP) Lab., Department of Civil Engineering

## 1. Survey about your situation:

We want to know your current situation via this survey.

Survey: <a href="https://forms.gle/Sp5nVPjfo4X9aMHc8">https://forms.gle/Sp5nVPjfo4X9aMHc8</a>

#### 2. Place and Time:

Online, on Monday and Thursdays 13:00-14:45 JST, from Oct. 4 to November 24 Please check the online URL from ITC-LMS.

The class's URL: <a href="https://itc-lms.ecc.u-tokyo.ac.jp/lms/course?idnumber=20223713-0970C01">https://itc-lms.ecc.u-tokyo.ac.jp/lms/course?idnumber=20223713-0970C01</a>

# 3. Purpose and Contents of the Course:

This course focuses on learning some of methodologies to analyze transportations and regions, which are sometimes vulnerable to natural hazards. In addition to it, getting used to the essence of the basic way of theoretical and mathematical thinking in planning is another main target. For fulfilling these purposes, we choose four topics: a) Traffic flow modelling, b) Logistics management, c) Machine Learning, d) Data structure & Transport simulation, and e) Travel Behavior modelling.

## 4. Schedule of the Course:

- Topic 1: Transportation Modelling & Statistics, on Oct. 3, 6, 13, 17 by Prof. Urata, Prof. Kobayashi, Dr. Watanabe and Prof. Hato
- Topic 2: Traffic Flow Theory & Network Modelling, on Oct. 20, 27 by Prof. Iryo and Prof. Hato
- Topic 3: Data Structure & Transport Simulation, on Oct. 24, 31 by Prof. Kusakabe and Prof. Hato
- Topic 4: Global Logistics Modelling & Analysis, on Nov. 7, 14 by Prof. Shibasaki and Prof. Hato
- Topic 5: Statistics & Machine Learning, on Nov. 10, 21, 24 (from 4:50pm JST to 6:35pm JST) by Dr. Shafique and Prof. Hato
- 01) Oct. 3 Introduction & [Topic 1] Travel Behavior Modelling
- 02) Oct. 6 [Topic 1] Travel Behavior Modelling
- 03) Oct. 13 [Topic 1] Travel Behavior Modelling
- 04) Oct. 17 [Topic 1] Travel Behavior Modelling

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- 05) Oct. 20 [Topic 2] Traffic Flow Theory and Network Modelling
- 06) Oct. 24 [Topic 3] Data Structure & Transport Simulation
- 07) Oct. 27 [Topic 2] Traffic Flow Theory and Network Modelling
- 08) Oct. 31 [Topic 3] Data Structure & Transport Simulation
- 09) Nov. 7 [Topic 4] Global Logistics Modelling & Analysis
- 10) Nov. 10\* [Topic 5] Statistics & Machine Learning
- 11) Nov. 14 [Topic 4] Global Logistics Modelling & Analysis
- 12) Nov. 21\* [Topic 5] Statistics & Machine Learning
- 13) Nov. 24\* [Topic 5] Statistics & Machine Learning

## 5. Evaluation of the Achievement

Assignments in each of the five topics (20 points @ 5)

Please let Prof. Urata know if you cannot attend on-time because of covid-19-entry-problem. We share the lecture video.

## 6. Questions

Please ask Prof. Urata if you have a question about the class.

We can provide video which is recorded the talk when your attendance is interrupt by internet-connection problem. Please contact to Prof. Urata as soon as possible when you have a trouble.

Urata's e-mail address: urata {at} bin.t.u-tokyo.ac.jp Lecture website: http://bin.t.u-tokyo.ac.jp/tuds2022/

<sup>\*</sup> Start from 4:50pm to 6:30pm. We provide the lecture's video if you cannot attend.