Transportation and Urban Design Studio (E)
for Graduate School of Civil Engineering in 2020Autumn Semester (A1)
Lecture website: http://bin.t.u-tokyo.ac.jp/tuds2020/

Lecturers: Prof. Eiji Hato*, Prof. Takamasa Iryo*, Prof. Ryuichi Shibasaki**, Prof. Muhammad Awais Shafique, Prof. Junji Urata****
* Professor, Transport Research and Infrastructure Planning (TRIP) Lab.
** Associate Professor, Department of Systems Innovation, School of Engineering,
*** Assistant Professor, University of Central Punjab.
**** Assistant Professor, Transport Research and Infrastructure Planning (TRIP) Lab.

2. Place and Time:
Online, on Monday and Thursdays 13:00-14:45 JST, from Sep. 28 to November 9
Please check the online URL from ITC-LMS.
The class's URL: https://itc-lms.ecc.u-tokyo.ac.jp/lms/course?idnumber=20203713-0970C01

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: 1) Traffic flow modelling, 2) Logistics management and analysis, 3) Statistics and Machine Learning, 4) Travel behavior modelling.

4. Schedule of the Course:
Topic 1: Transportation Modelling and Statistics, by Prof. Urata and Prof. Hato
Topic 2: Traffic Flow Theory and Network Modelling, by Prof. Iryo and Prof. Hato
Topic 3: Statistics and Machine Learning, by Prof. Shafique and Prof. Hato
Topic 4: Logistics Management and Analysis, by Prof. Shibasaki and Prof. Hato

01) Sep. 28 Introduction
02) Oct. 1 [Topic 1] Travel Behavior Modelling (1)
03) Oct. 5 [Topic 1] Travel Behavior Modelling (2)
04) Oct. 8 [Topic 2] Traffic Flow Theory and Network Modelling (1)
05) Oct. 12 [Topic 2] Traffic Flow Theory and Network Modelling (2)
06) Oct. 15 [Topic 2] Traffic Flow Theory and Network Modelling (3) and Final Exercise
07) Oct. 19 [Topic 1] Presentation from students
08) Oct. 22 [Topic 3] Introduction to Machine Learning
09) Oct. 26 [Topic 3] Machine Learning vs. Discrete Choice Modelling
10) Oct. 29 [Topic 3] Travel Mode Detection using Machine Learning
11) Nov. 2 [Topic 4] Global Logistics Modelling & Analysis (1)
12) Nov. 5 [Topic 4] Global Logistics Modelling & Analysis (2)
13) Nov. 9 [Topic 4] Presentation from students

5. Evaluation of the Achievement

Assignments in each of the four topics (22 points @ 4), and attendance points for classes (12 points)

* Your attendance is confirmed using the history function of zoom.

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.

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