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About us

Transportation and Urban Engineering Study Unit [Nakamura Lab. and Okamura Lab.] (TUE@YNU), one of the five Study Units of Civil Engineering group in YNU, has its unique characteristics. Unlike the other civil engineering areas, which mainly focus on principles of mechanics, transportation laboratory provides coursework and researches on various urban transportation issues and problems focusing on engineering, economic and social aspects.

TUE@YNU activities include student independent research work, group discussion, specific data collection and analysis. Besides the above mentioned activities, we cooperate in social experiments and various investigations on urban transportation and traffic problems conducted in many cities. In addition, the case studies on the urban transportation policy and planning good practices in foreign countries are also carried out.



Moreover, it is a study unit which organizes various activities such as workshop, seminars, the combination seminars with other universities, and study tours in various domestic as well as foreign places frequently.



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Major Research Areas

Transportation and people are mostly interacted and inseparable. Our laboratory conducts research on various areas such as: **movements of person and goods, urban transportation modes of automobile, bus, and bicycle, etc., and urban transportation facilities of road, rail, and terminals.**



The research, regarding transportation problems, in our laboratory is dealt under the point of view of **Traffic Engineering and Urban Transportation Planning**. The main theme considered in system planning is

“easy use of the system to all” .

Recent research topics done by graduate students are listed below.

Recent research topics :

- A Study on Planning Process for Bus Rapid Transit System
- A Study on Enhancing Bus Service Planning and Operation through Better Utilization of Dynamic Data
- Feasibility study on Demand Responsive Transport systems (DRTs) considering trip reservation systems
- Measuring of Levels of Service on Multi-Lane Expressway by Using Platoon Mechanism
- A Study on Effects of Vehicle Type on Urban Road Traffic Characteristics
- Evaluation of the Car Sharing in Commuter Railway Station Areas Based on Discrete Choice Models



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Interview with Students

Takuma Enomoto
D.Eng 3rd year

Research Topic
Revitalization of City Center



Q. What is your research area ?

A. Now a day, large numbers of people are migrating from downtown area in the local city centers like Niigata to suburbs due to rapid development of suburbs. The suburbs society has changed into automobile-dependent society, whereas the activities are declining in the local city center. Hence, I am performing research on factors of the phenomena and possible measures that could be undertaken for revitalization of the downtown areas of local cities from residents' points of view.

Pradeep K. Shrestha
D.Eng 3rd year

Research Topic
Integration of bus operation and traffic control



Q. Why did you choose YNU ?

A. As a student majored in Transportation engineering, I understood Japan as a good destination for PhD since it has advance transportation system. While I was studying Master degree at Asian Institute of Technology, I came to know about prof. NAKAMURA of YNU during IATSS seminar in Bangkok. I found Transportation laboratory of YNU, where both professors have specialized in public transportation, could be best option. Then, I applied for the special program in Civil Department of YNU.

Q. What is your research ?

A. My research focuses on the integrated approach of bus operation, infrastructure improvement and traffic control such as signal priority for analyzing bus performance through intersection considering volume capacity ratio, location of stop, and different cases of signal priority.