



2011 SIS FIELD AND LABORATORY WORK REPORT



# **Field and laboratory work on spatial information science Research project - field work I / II**

**REPORT**

**November 26, 2011**

**Division of Spatial Information Science  
Graduate School of Life and Environmental Sciences  
University of Tsukuba**

# PARTICIPANTS

## FACULTY

Dr. Yuji Murayama (Professor)

Dr. Takehiro Morimoto (Assistant Professor)

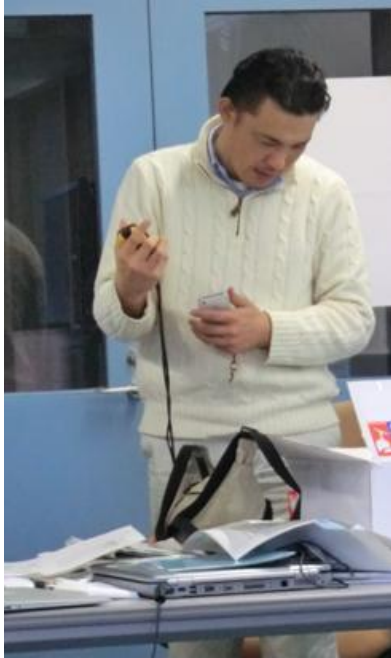
Dr. Hiroyuki Kusaka (Assistant Professor)

## STUDENTS

Total 20 students were participated.



## GPS Training



## Metrological Data Collection

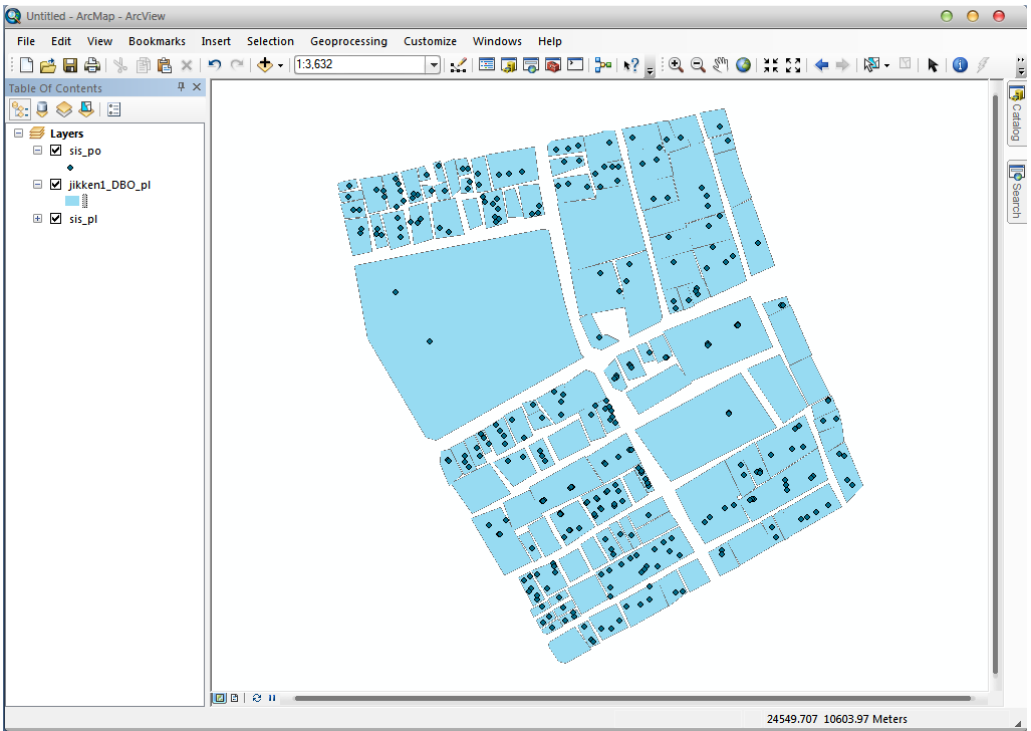
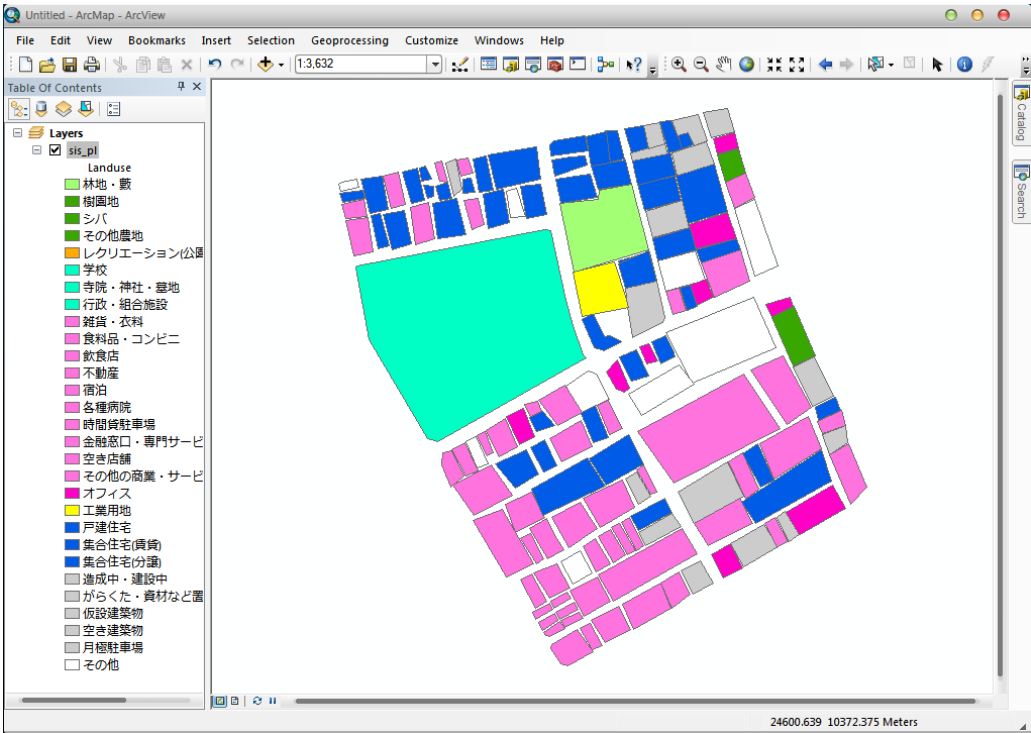




# Laboratory Work



# Polygon Based Land Use and Public Facility Information Collection with Smart Phone



# Mobile Field Data Collection

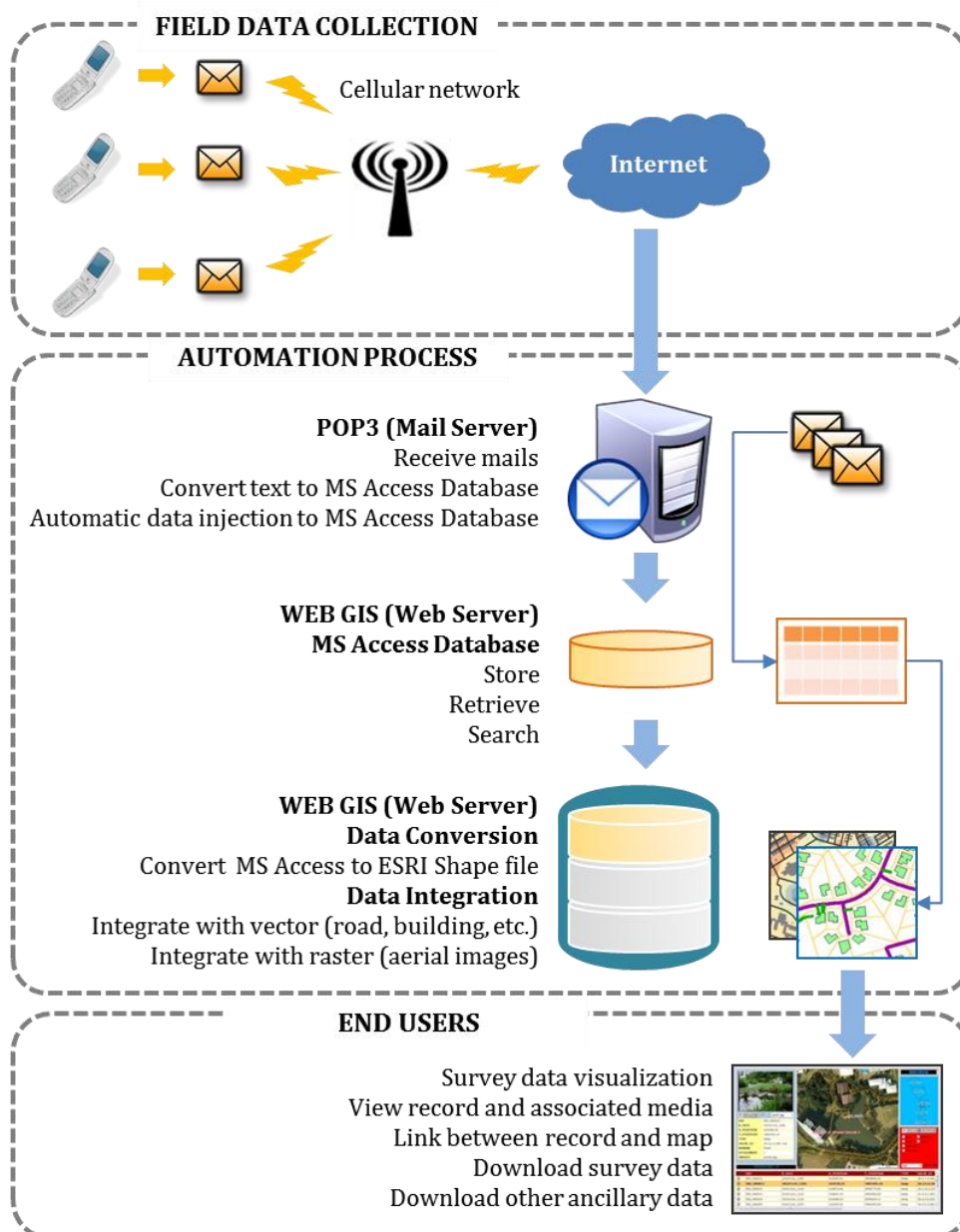
## OBJECTIVE

To collect real-time field data with personal Mobile Phone

## REQUIREMENT

GPS Embedded Mobile Phone (or)  
GPS + Mobile Phone

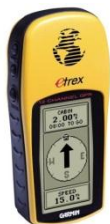
## OVERVIEW



# HOW IT WORKS

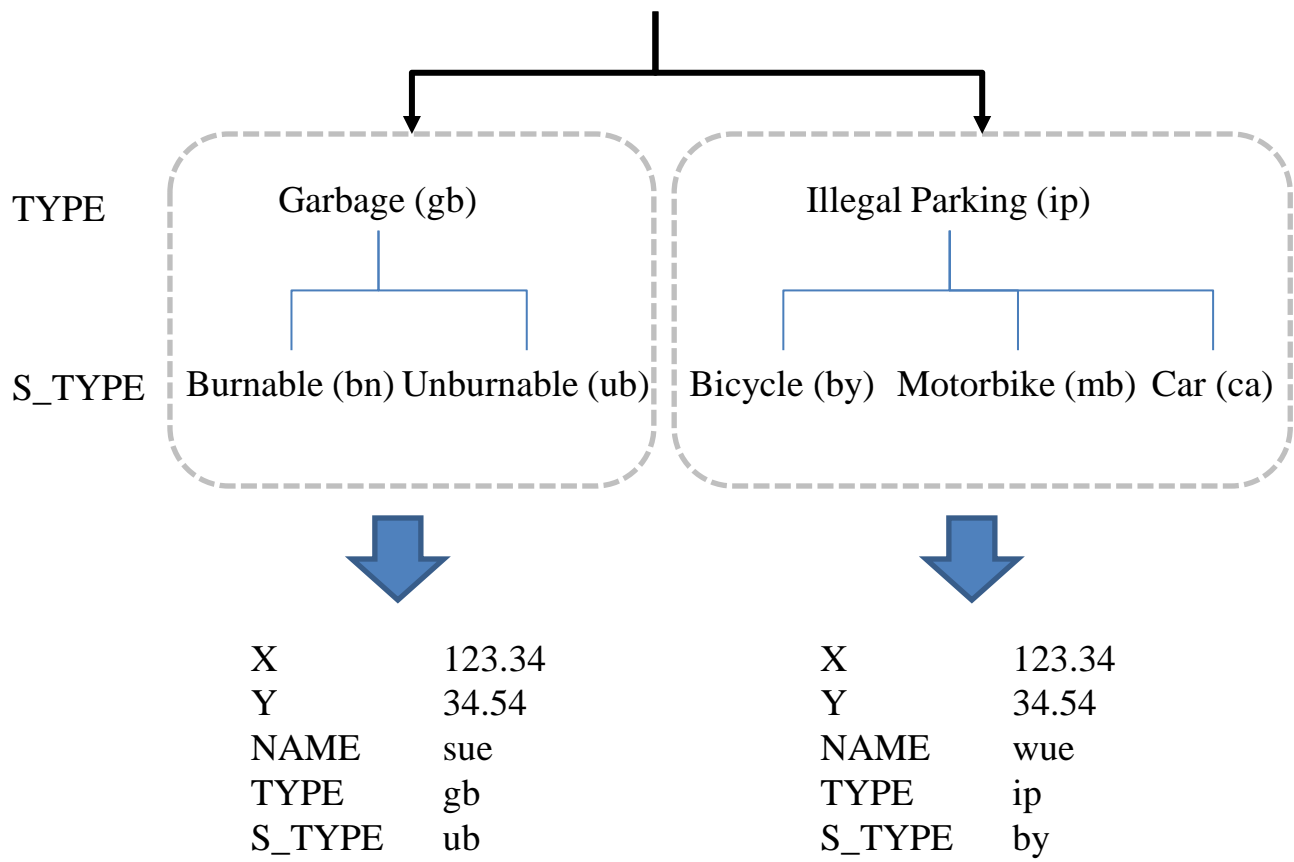
## GPS Preparation

- Set you GPS to Geographic (Longitude/Latitude)
- Decimal Degree
- E.g. X = 140.1155198, Y = 36.09667235



## In The Field

### SIS Mobile Phone Field Survey



### Example in your mail

123.34/34.54/sue/gb/ub

123.34/34.54/wue/ip/by

# FIELD SURVEY AREA

*Tsukuba University Campus*



**Total 224 locations were observed**

## **Illegal Garbage**

- Burnable Garbage: 47
- Unburnable Garbage: 47

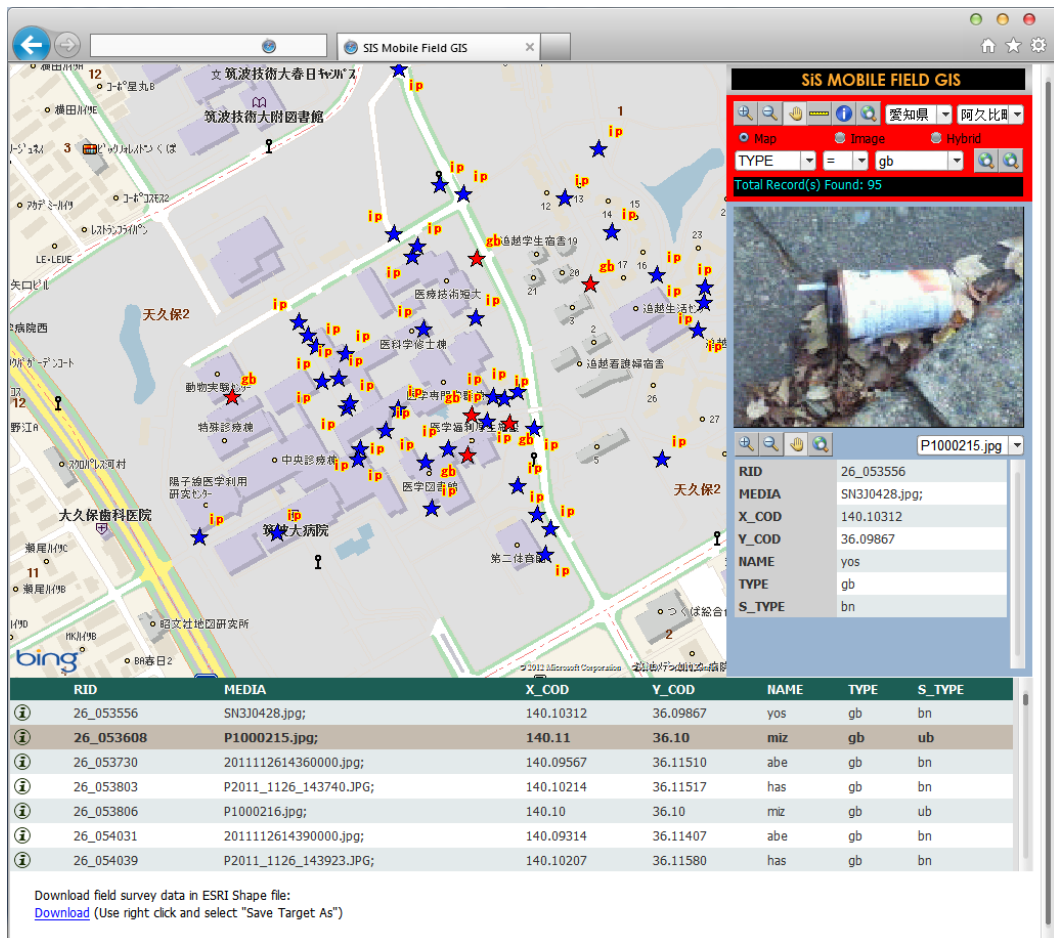
## **Illegal Parking**

- Bike: 91
- Motorbike: 15
- Car: 24





# Real-time Mobile Field Data Collection for University Campus Management with Personal Mobile Phone

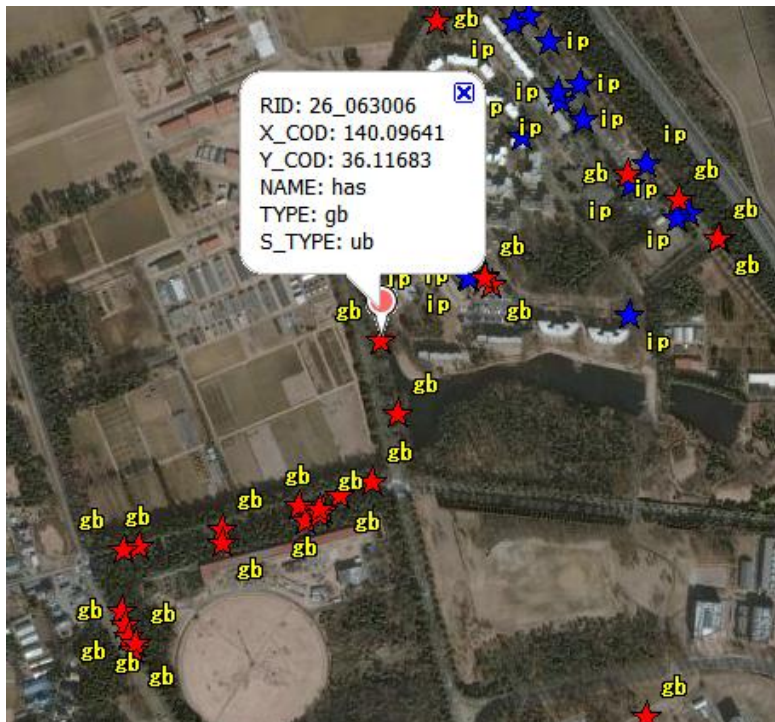


Download the data online ....

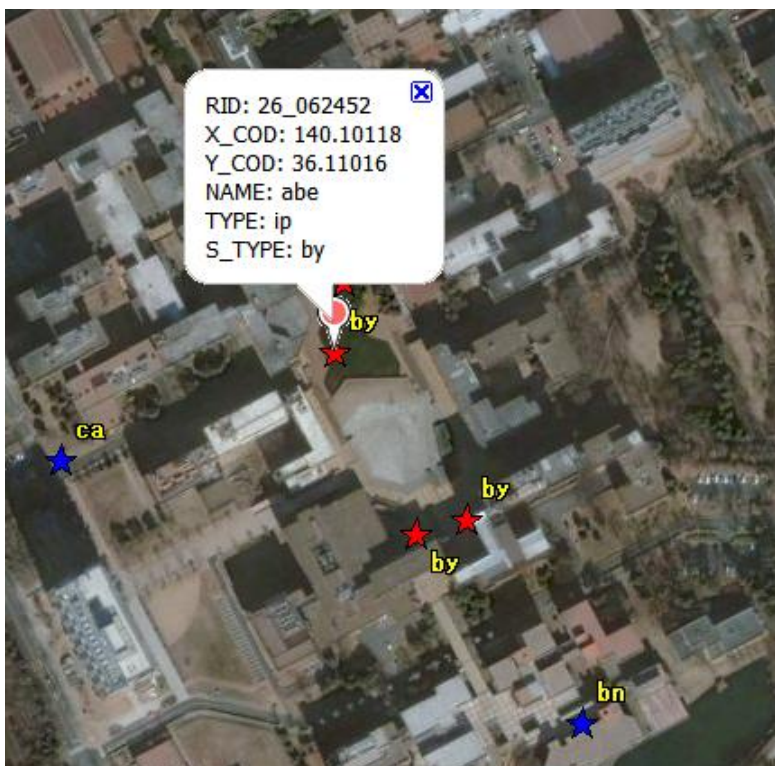
Web based GIS system for real-time field data collection with personal mobile phone.

<http://land.geo.tsukuba.ac.jp/sisfield/>

# Web Based Real-time GIS Data Visualization

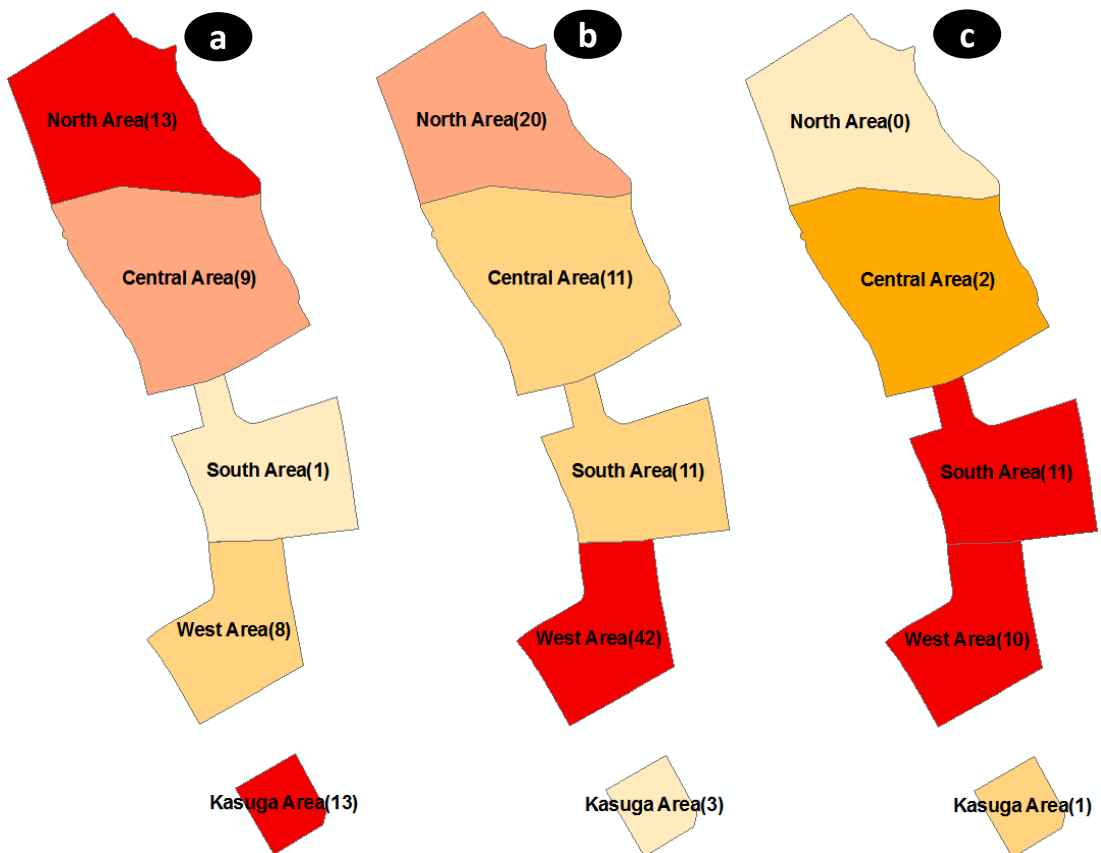
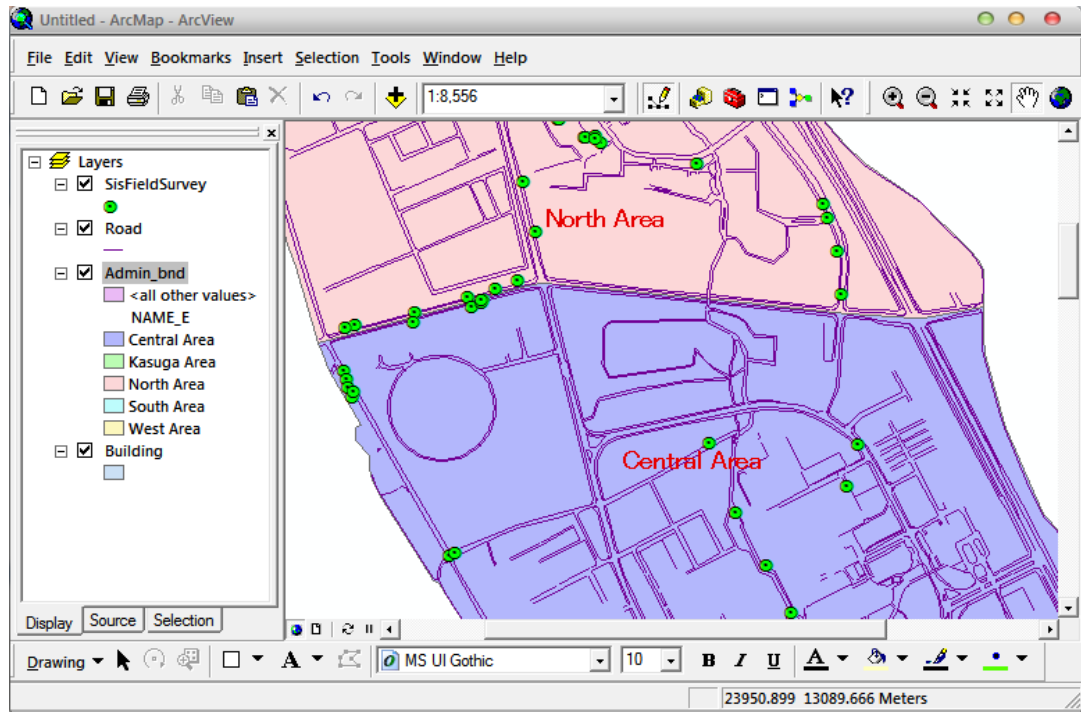


★ Illegal garbage locations and associated attribute information



★ Illegal bike parking locations

# Laboratory Work: Field Data Analysis in ArcGIS



## Illegal activities by administration zones

- (a) Illegal burnable garbage by administration unit
- (b) Illegal bike parking by administration unit
- (c) Illegal car parking by administration unit

Student Individual Work Report

<http://giswin.geo.tsukuba.ac.jp/sis/jp/jikken.html>

End of Report