

**REPORT OF  
SIS FIELD WORK 2014**

# **Smart Tracking Experiment**

February 2014



by  
Professor Dr. Yuji Murayama and Dr. Ko Ko Lwin

Division of Spatial Information Science  
Faculty of Life and Environmental Sciences  
University of Tsukuba

# Field Work in Action





## Field Work in Action

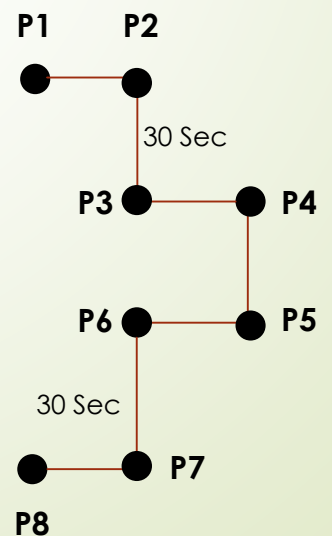
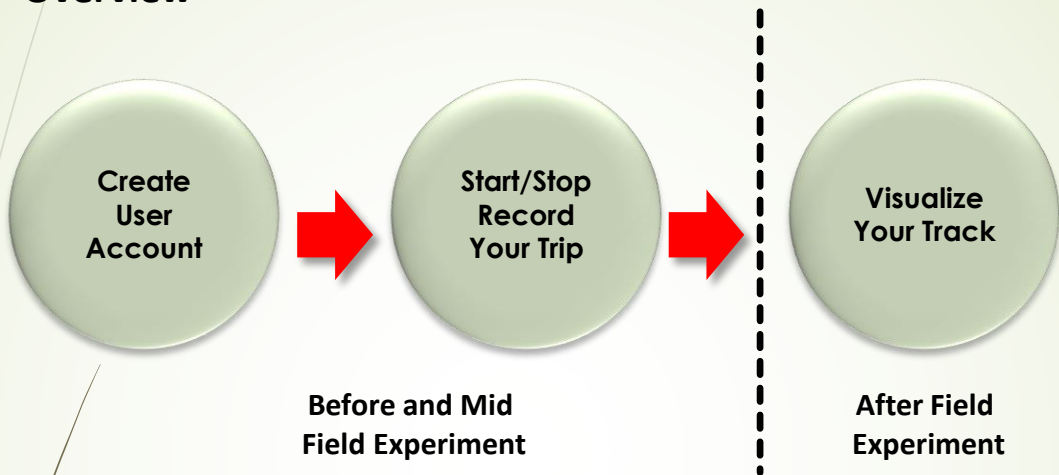


# Smart Tracking Experiment

## Objective

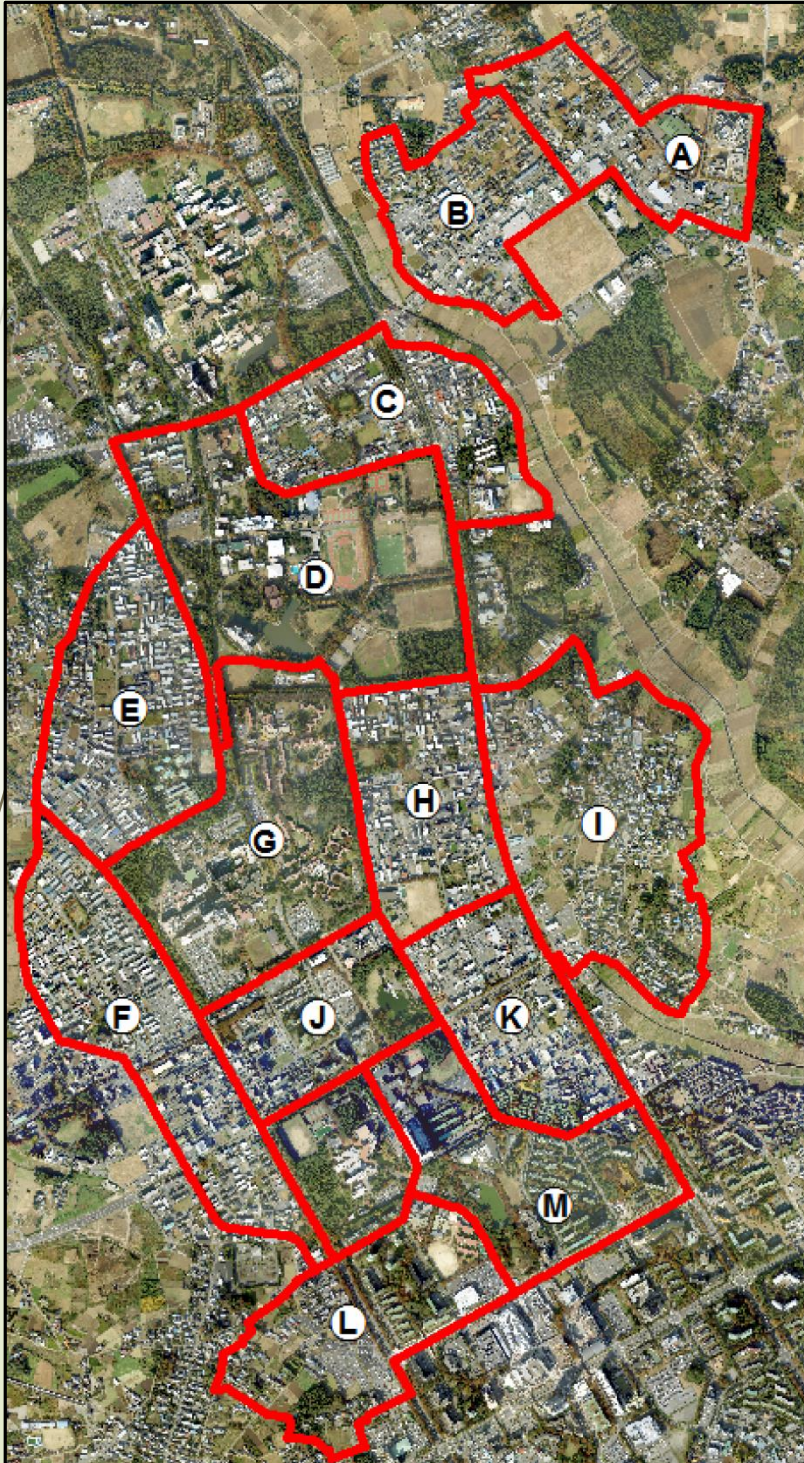
To record a person trip with Smart Phone

## Overview





## Experiment Area



Ⓕ Residential dense

Ⓖ Residential low

Ⓒ Mixed land use

Tsukuba University and surrounding area

# User Account Creation and Log-In

URL: <http://land.geo.tsukuba.ac.jp/fieldgis2014>

## User Account Creation

**Smart Tracking User Account Creation**

User Name:

Password:

Confirm Password:

© 2014 Division of Spatial Information Science  
Faculty of Life and Environmental Sciences  
University of Tsukuba

## Log-In

**Smart Tracking User Account Creation**

User Name:

Password:

☐ Remember me next time.

© 2014 Division of Spatial Information Science  
Faculty of Life and Environmental Sciences  
University of Tsukuba

# Start Walking and Recording



Click to start recording



Click to stop recording

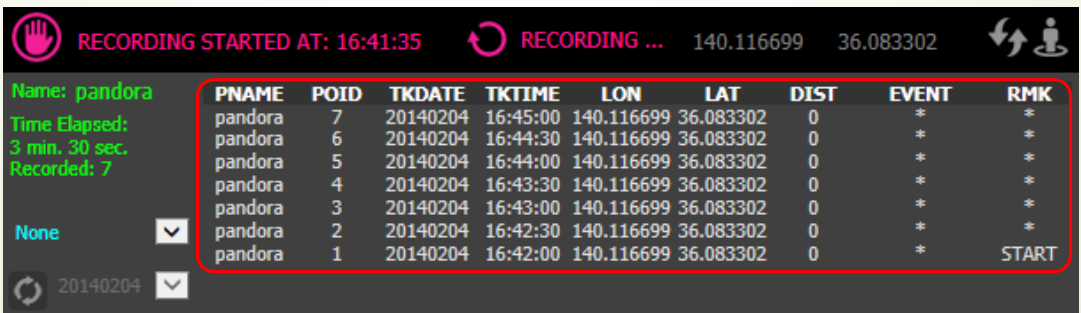
## Stop Mode



## Recording Mode



## Tracking every 30 seconds



Check your records (It will record every 30 seconds)




## Check Illegal Events Along the Track

Select appropriate event in dropdown list

- \* None
-  Burnable
-  Unburnable
-  Illegal Car
-  Illegal Bicycle
-  Illegal Motorbike

### Event Selector

Name: pandora  
Time Elapsed:  
8 min. 30 sec.  
Recorded: 17

Burnable 

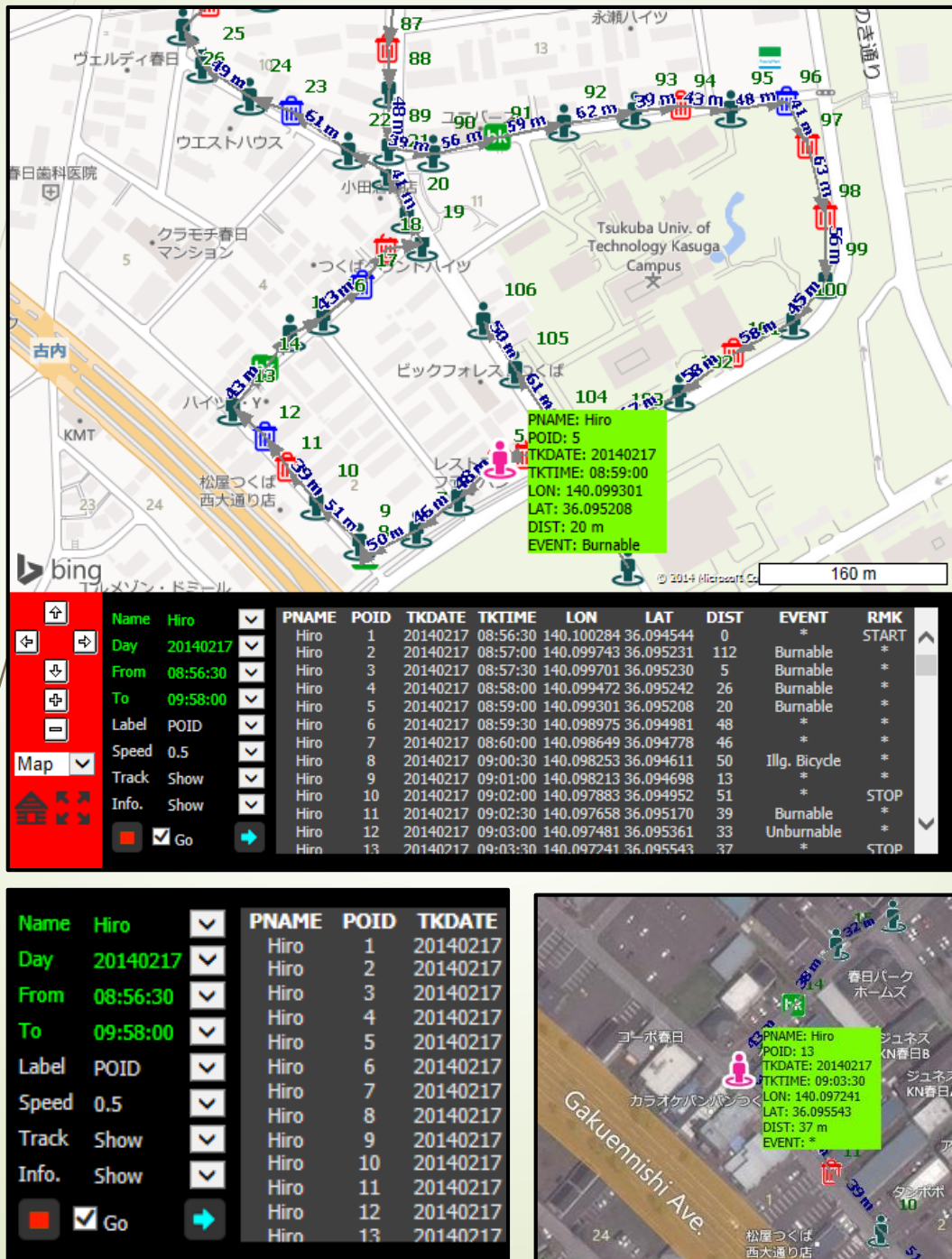
Make sure selected event is recorded or not

pandora	18	20140204	16:51:00	140.116699	36.083302	0	Burnable	*
pandora	17	20140204	16:50:30	140.116699	36.083302	0	*	*
pandora	16	20140204	16:50:00	140.116699	36.083302	0	*	*
pandora	15	20140204	16:49:30	140.116699	36.083302	0	*	*
pandora	14	20140204	16:49:00	140.116699	36.083302	0	*	*



# Results

## Person Trip Visualization



Track Control

Aerial View (BingMap)

# Results





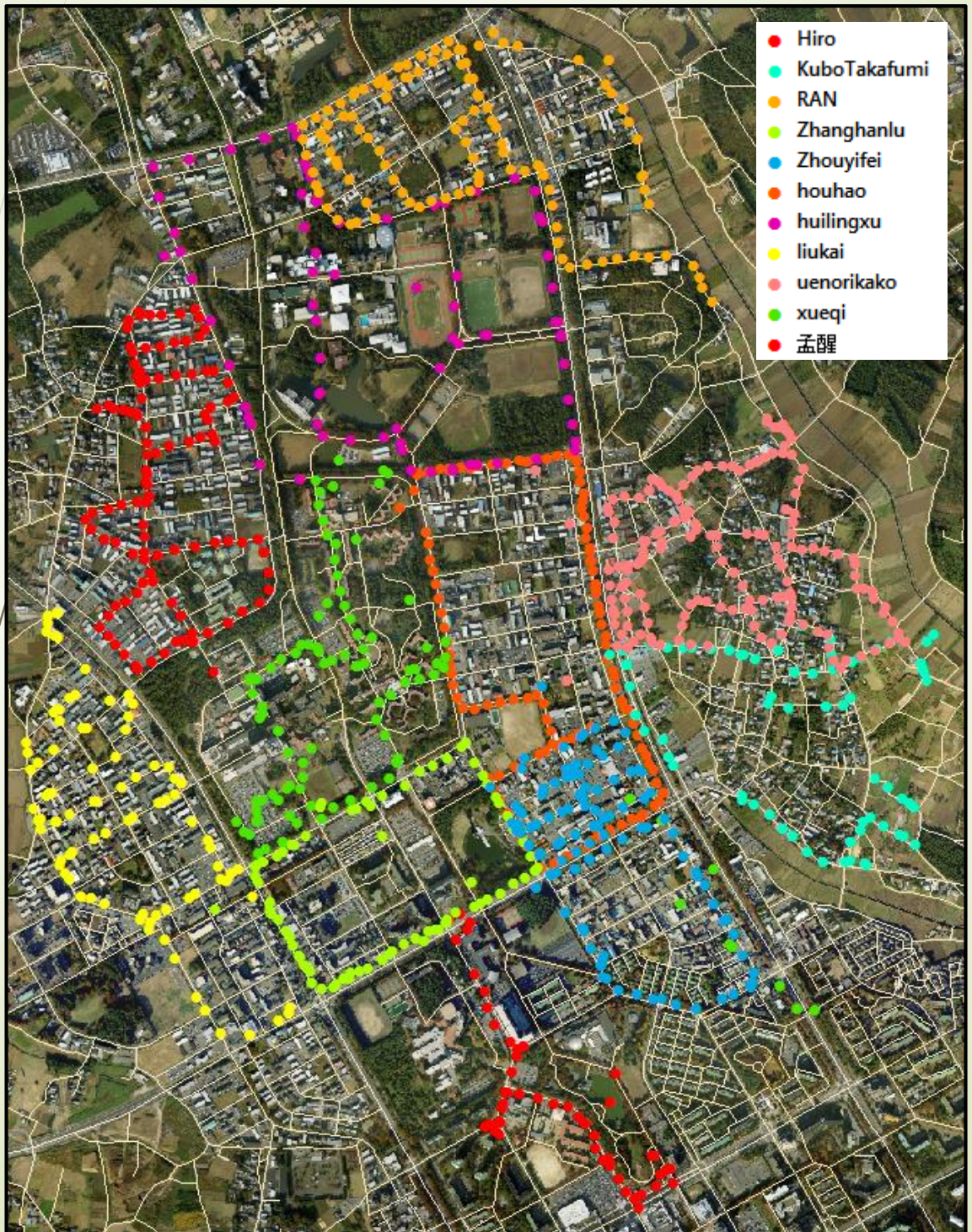
## Results





## Import to ArcGIS

Individual tracking points in various colors





## Import to ArcGIS

Spatial distribution of various illegal events along the track

