

Shibasaki LAB.

Center for Spatial Information Science

<http://shiba.iis.u-tokyo.ac.jp>

Department of Civil Engineering
Department of Socio-Cultural
Environmental Studies

Spatial Information Science



To support solutions to problems in society and people, we study on a real-time integration of disaggregated information such as what/where happens and what's going to happen, a clarification of the overall picture for them to get a quick overview, and a prediction about the their situations.



Global Mapping using Satellite Images

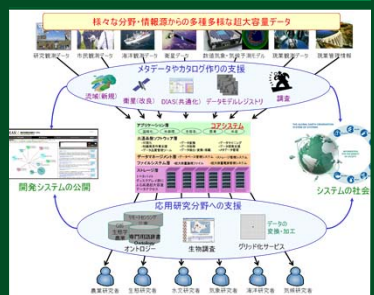
We develop methods for extracting and mapping man-made objects on the earth, such as roads and built-up area, from satellite images, and build system for applying the methods all over the cities of the world.

Know

Global yearly PAR by satellite (mol m⁻²)

Digital Landscape Modeling

We develop Digital Landscape Model, which predicts land cover, land use, supply and demand of food on the earth, with considering changes of landscapes, such as economic change, urban expansion, change of cropping system, growth, harvest, and forest. We also complement and assimilate it with continuous earth observation data from satellite.



Information Sharing and Interdisciplinary Integration

Our research focuses on the interdisciplinary and interoperability arrangement on earth observation data with ontology, terminology and geospatial information.

Measure



Understand

Urban and Regional Analysis using Micro Spatio-Temporal Data

We monitor time-series changes of shops, offices and restaurants all over Japan, and analyze the changing trends by integrating digital telephone directory, statistical data, web information etc. with digital maps.

Predict

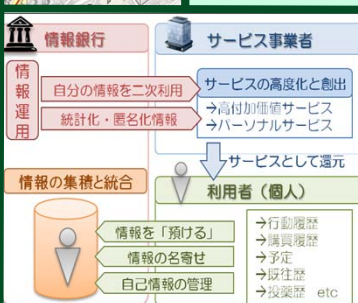
3D Mapping of People, Objects, and Events

We conduct real-time mapping of urban space, people, objects, and events by using various sensors and information sources such as digital cameras, laser scanners, Xbox Kinect devices and cell phone records.

Provide

Explanatory Meeting on Entrance Examination

Date: 14:00~16:00, 4 June 2011
Place: Ew601



Support

Assimilating Movement Data of People and Objects with Simulation Models

We develop systems that reconstructs and estimates distribution of people, objects, their activities and changes by collecting various traces of their movement, and assimilates them into simulation models.

Information Bank : Platform for Self-Management of Personal Information

We aims to implement information bank, a novel social infrastructure for circulation of personal information. Information bank aggregates personal information into bank account securely, and offers in order to enhance QOL of individual and society with protecting privacy under self-management.