



### Research workshop

**Monitoring sustainable development in the era of AI:  
Integrating satellite images with survey and administrative data**

#### Satellite images

To systematically monitor space-time patterns of **local development**.



#### Survey and administrative data

To monitor local **multidimensional development**

#### Spatial data science

To **model and predict** where development is likely to occur.



#### SDGs framework

To contribute to the achievement of **sustainable cities and communities**

**Dates:** December 14th and 15th, 2023

**Location:** Nagoya University, Graduate School of International Development, Conference Room 1 (8th Floor)

**Registration and information:** <https://lu.ma/gsid-isee2023>

The workshop aims to provide an overview of new methodologies and databases to monitor sustainable development. Specifically, participants will explore innovative approaches to enhance our understanding of sustainable development by integrating satellite images with socioeconomic surveys and administrative data.

### Schedule:

The workshop is organized into three sessions:

### Keynote presentations (Dec. 14th, 14:00-18:00)

[14:00-14:45] **Potential of Satellite EO Data to Address Socio-Economic Issues: Examples of JAXA's efforts in APAC**  
SUGITA Naoko, Japan Aerospace Exploration Agency (JAXA)

[14:45-15:30] **JAXA's Earth Observation Missions**  
MATSUO Naoko, Japan Aerospace Exploration Agency (JAXA)

[15:30-16:15] **Space Exploration and Satellite EO Data**  
ETOH Yuki, Japan Aerospace Exploration Agency (JAXA)

Coffee break and networking

[16:30-17:15] **Data Out of the Blue: Using Remote Sensing Data in Economics**  
KEOLA Souknilanh, Economic Geography Studies Group, Development Studies Center Deputy Director, Institute of Developing Economies

[17:15-18:00] **New Data in Economics**  
NAKAJIMA Kentaro, Professor, Institute of Innovation Research, Hitotsubashi University

Social gathering and networking

Registration and information



### Training sessions (Dec. 15th, 9:00-12:00)

[9:00-10:30] **Global satellite mapping of precipitation (GSMaP): Principles and data handling**

TAKAHASHI Nobuhiro, Professor, Institute for Space-Earth Environmental Research, Nagoya University

[10:30-12:00] **Exploring economic activity from outer space: How to use Python to process and analyze satellite nighttime lights**

MENDEZ Carlos, Associate Professor, Graduate School of International Development, Nagoya University

### Academic/project sessions (Dec. 15th, 13:30- 17:15)

[13:30-14:00] **Ocean Colors and the SDGs**

ISHIZAKA Joji, Institute for Space-Earth Environmental Research, Nagoya University

[14:00-14:30] **A Practical Guide to Generating Regional Time Series Data with Google Earth Engin**

KEOLA Souknilanh, Economic Geography Studies Group, Development Studies Center Deputy Director, Institute of Developing Economies

[14:30-15:30] **Satellite-Based Vehicle Flow Data to Assess Local Economic Activities**

NAKAJIMA Kentaro, Professor, Institute of Innovation Research, Hitotsubashi University

Coffee break and networking

[16:00-16:30] **Mapping multidimensional poverty in Cambodia: Integrating big data, socioeconomic surveys, and machine learning**

MENDEZ Carlos, Associate Professor, Nagoya University

[16:30-17:15] **Fostering interdisciplinary research: What can we do next? Panel discussion**