

[HTTPS://FOSS4G.ASIA/2024/](https://FOSS4G.ASIA/2024/)



15TH TO 18TH  
DECEMBER 2024

## FOSS4G - ASIA 2024

SRINAKHARINWIROT UNIVERSITY (SWU)  
BANGKOK, THAILAND



Re:Earth





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# FOSS4G-ASIA 2024

**FOSS4G FOR SUSTAINABLE AND RESILIENT URBAN FUTURES**

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**15<sup>TH</sup> to 18<sup>TH</sup> DECEMBER 2024**

**HOSTED BY**

**SRINAKHARINWIROT UNIVERSITY (SWU)**

**&**

**OSGeo - THAILAND LOCAL CHAPTER**



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## MESSAGE FROM THE CHAIRS

On behalf of the organizing committee, it is with immense enthusiasm that we extend a warm welcome to all stakeholders joining us for the **FOSS4G-Asia 2024 Conference** in Bangkok, hosted by Srinakharinwirot University (SWU) and the OSGeo Thailand Local Chapter, in collaboration with our valued partners.

This year's conference marks a significant milestone, bringing FOSS4G-Asia back to its origins in Bangkok, where it first launched in 2014. With the overarching theme, "**FOSS4G for Sustainable and Resilient Urban Futures**," the 2024 edition promises an engaging blend of keynote addresses, interactive sessions, academic presentations, and networking opportunities designed to inspire and foster collaboration among geospatial professionals, researchers, businesses, and government representatives.

Our program features diverse tracks, including the General Track for showcasing practical applications, projects, and case studies, and the Academic Track for research-focused discussions. With contributions spanning geospatial data science, IoT innovations, disaster preparedness, and spatial data infrastructures, the conference offers a vibrant platform for exchanging ideas and exploring solutions to pressing urban and environmental challenges. The Poster Session adds another dimension, enabling presenters to share their insights in a visually impactful format.

We are privileged to host keynote speakers who are global leaders in FOSS4G development and applications. Their expertise will illuminate pathways to harness the power of free and open-source geospatial tools in driving sustainable urban growth and resilience. This conference is not just an event; it is a celebration of the thriving FOSS4G community and a testament to its role in shaping the future of geoinformatics.

We sincerely thank all participants, organizers, supporters, and sponsors for your invaluable contributions, enthusiasm, and trust in making FOSS4G-Asia 2024 a reality. Your involvement is pivotal to the success of this event and to the collective advancement of FOSS4G technologies in academia, government, and business.

We look forward to welcoming you to Bangkok this December and to an enriching experience of learning, networking, and collaboration.

Warm regards,

Chomchanok ARUNPLOD

Sarawut NINSAWAT

Prasong PATHEEPPHOEMPHONG

Venkatesh RAGHAVAN

**Conference Chairs  
FOSS4G-Asia 2024**





## FOSS4G - ASIA 2024

The FOSS4G-Asia conference, launched in 2014 in Bangkok, is held biennially across Asian countries. Hosted by OSGeo Thailand Local Chapter, Srinakharinwirot University (SWU) and partners, the 2024 edition returns to Bangkok at SWU.

OSGeo.TH boasts a rich history, from organizing Asia's first "GIS-GRASS Users Conference" in 2004 to founding one of the earliest OSGeo Foundation local chapters in 2006. Over two decades, it has nurtured a thriving FOSS4G community through events like FOSS4-Thailand. It is now proud to host the FOSS4G-Asia 2024 as a major event to further promote the adoption of FOSS4G in the academia, government and businesses. The Thai FOSS4G community warmly welcomes your participation and patronage!

The overall theme for the 2024 FOSS4G-Asia conference is, "*FOSS4G for Sustainable and Resilient Urban Futures*". It features a General Track, an Academic Track and a poster session. In addition it also includes keynote addresses, and panel discussions from prominent practitioners of FOSS4G.

The FOSS4G-Asia 2024 **General Track** is an excellent platform to showcase new applications, projects, case studies, research, business perspectives, or training related to free and open-source geospatial software.

In addition to the General track, FOSS4G-Asia 2024 conference features a full-day **Academic Track** to foster collaboration between geospatial academia and practitioners. It invites research submissions across four key themes:

- ◆ **Geospatial Data Science:** Applications in environmental monitoring, urban modeling, precision agriculture, health geographics, and climate change resource management.
- ◆ **Spatial Data Infrastructures (SDI):** Case studies, cross-border data sharing, policy frameworks, and SDI integration with IoT and other data sources.
- ◆ **IoT and Emerging Geospatial Technologies:** Innovations in IoT, AI, and machine learning for predictive analytics and geospatial integration challenges.
- ◆ **Disaster Preparedness and Response:** Real-time mapping, spatial analysis, and community-driven mapping for disaster management.

The conference also includes a **Poster Session**, where authors present their research visually through graphs, diagrams, photos, and concise text. This format fosters active discussions and allows for deeper engagement with attendees.

Both talks and posters offer opportunities to explore the innovative uses of FOSS4G tools for addressing urban sustainability and resilience or other geospatial challenges.



## FOSS4G - ASIA 2024 - THE VENUE

The venue for this year's FOSS4G is the Professor Dr. Saroj Buasri SWU Innovation Building on the Prasarnmit campus of Srinakharinwirot University (SWU) in the heart of Bangkok. It has easy access by public transport including bus and metro.

Srinakharinwirot University, stands as a beacon of academic excellence and innovation in the heart of Thailand. Established in 1949, SWU has evolved over the decades into a prestigious institution dedicated to providing world-class education and fostering intellectual growth. Its name, "Srinakharinwirot," pays homage to two revered Thai monarchs: King Rama IV (King Mongkut) and King Rama VI (King Vajiravudh), underscoring the university's commitment to the advancement of knowledge and the betterment of society.



SWU (Srinakharinwirot University) has become a hub for learning, research, and cultural exchange. Starting as a teacher training college, its offerings now encompass a wide array of disciplines, including the arts and humanities, natural, social and health sciences, technology, and business administration.





## FOSS4G - ASIA

**FOSS4G-ASIA** conference series started in 2014. The first edition of FOSS4G-Asia in Bangkok, Thailand. Since then, it is being held every two years in different Asian countries. All work related to the hosting of the conference is done by the local organizing committee work that is formed by the local hosting institution / organizers. The conference has now become the main Asian FOSS4G event.

## FOSS4G - ASIA - THE HISTORY

The term FOSS4G was first coined in early 2004 as an acronym for Free and Open Source Software for Geoinformatics by a research group working on Internationalization of GRASS and MapServer. The first report defining and using the FOSS4G acronym was published in Japan in March 2004 in a paper entitled “Development of training material & internationalization of GRASS GIS and MapServer for advancing FOSS4G solutions” published

in the Bulletin of Osaka City University Media Center (ISSN: 1345-4145). It was later used at the Free/Libre and Open Source Software for Geoinformatics: GIS-GRASS Users Conference held between September 12 – 14, 2004 in Bangkok, Thailand in a publication entitled Implementation of Web Map Server Test-bed and Development of Training Material for Advancing FOSS4G Solutions and subsequently in several other international and national conferences and meetings.

The Free/Libre and Open Source Software (FOSS) for Geoinformatics: GIS – GRASS Users Conference held in Bangkok, Thailand from 12-14 September 2004 was an extended successor of the GRASS-GIS Users Conferences. The aim was to bring together GRASS developers and users worldwide and foster closer relations, and to share ideas for improving free software and applications. The Bangkok conference covered all aspects of FOSS for Geoinformatics, in addition to GRASS itself.





## FOSS4G - ASIA - PREVIOUS EDITIONS

### FOSS4G-ASIA 2023 – SEOUL



FOSS4G-Asia 2023” was hosted at Seoul in Korea at the [Seoul Hall of Urbanism and Architecture](#) (SHUA) in Seoul, South Korea. SHUA which was established and operated by SMG is a specialized exhibition and conference venue located at the heart of Seoul.

### FOSS4G-ASIA 2021 – KATHMANDU



The fourth FOSS4G-Asia was held at Dhulikhel in Nepal on the 1st and 2<sup>nd</sup> October 2021. It was hosted at Kathmandu University by the Department of Geomatics Engineering with support from the Department of Computer Science and Engineering and Land Management Training Centre. The overarching theme for the conference was ‘*FOSS4G in the era of Artificial Intelligence, IoT for Land Management and Sustainable Development*’.

### FOSS4G-ASIA 2018 – MORATUWA



The third FOSS4G-Asia was conducted at the Department of Town & Country Planning, University of Moratuwa, Sri Lanka from 2<sup>nd</sup> to 5<sup>th</sup> December 2018. The overall theme for the conference was ‘*Open Source for Sustainable Development*’

### FOSS4G-ASIA



### FOSS4G-ASIA 2017 – HYDERABAD

The second FOSS4G-ASIA Conference was held in 2017, Hyderabad, India from January 26-29, 2017, Hyderabad, India and hosted by IIIT-Hyderabad, India. The major theme of the conference was ‘*Empowering communities through open geospatial innovation*’.

### FOSS4G-ASIA



### FOSS4G-ASIA 2014 – BANGKOK

The first Free & Open Solutions for Geoinformatics-Asia conference was held in Bangkok, Thailand from the 2<sup>nd</sup> to 5th December 2014 at Asian Institute of Technology (AIT), Thailand. The major theme of the conference was ‘*Enabling Geospatial Asia through Open and Participatory ICT Ecosystem*’.





## ORGANISERS



Faculty of Social Sciences  
SRINAKHARINWIROT UNIVERSITY



## CO- ORGANISERS



Osaka  
Metropolitan  
University

## CONFERENCE CHAIRS

**Chomchanok ARUNPLOD**

Thailand

**Sarawut NINSAWAT**

Thailand

**Prasong PATHEEPPHOEMPHONG**

Thailand

**Prof. Venkatesh RAGHAVAN**

Japan

## ORGANISING SECRETARIES

**Junyong CHOI**

Korea

**Natraj VADDADI**

India

**Poom MOOLAILPA**

Thailand

**Sanit ARUNPLOD**

Thailand

**Sittichai CHOOSUMRONG**

Thailand

## CONFERENCE SECRETARIAT

**C/o Asian Institute of Technology**

Remote Sensing and GIS (RSGIS)

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Telephone: +66 (0) 2524-5577

email : [secretariat-2024@foss4g.asia](mailto:secretariat-2024@foss4g.asia)



## THE COMMITTEES

### ACADEMIC TRACK COMMITTEE

NAME	COUNTRY
Amila JAYASINGHE	Sri Lanka
Ben Hur PINTOR	Phillipines
Bu KUN	China
Chitrini MOZUMDER	Thailand
Chudech LOSIRI	Thailand
Daejong KIM	Korea
Filip BILJECKI	Singapore
Ho Dinh DUAN	Vietnam
Huidae CHO	United States
Impeyong LEE	Korea
Inhoi HEO	France
Jung Sup UM	Korea
K.S. RAJAN	India
Ki-Joune LI	Korea
Masoud MINAEI	Israel
Massimiliano CANNATA	Switzerland
Nimalika FERNANDO	Sri Lanka
Nitin TRIPATHI	Thailand
Nobuske IWASAKI	Japan
Reshma SHRESTA	Nepal
Seunghyun JEONG	Korea
Song XIANFENG	China
Taichi FURUHASHI	Japan
Uttam KUMAR	India
Vinayaraj POLIYAPRAM	Japan
Yann CHEMIN	Italy
Yun-Jae CHUONG	Korea

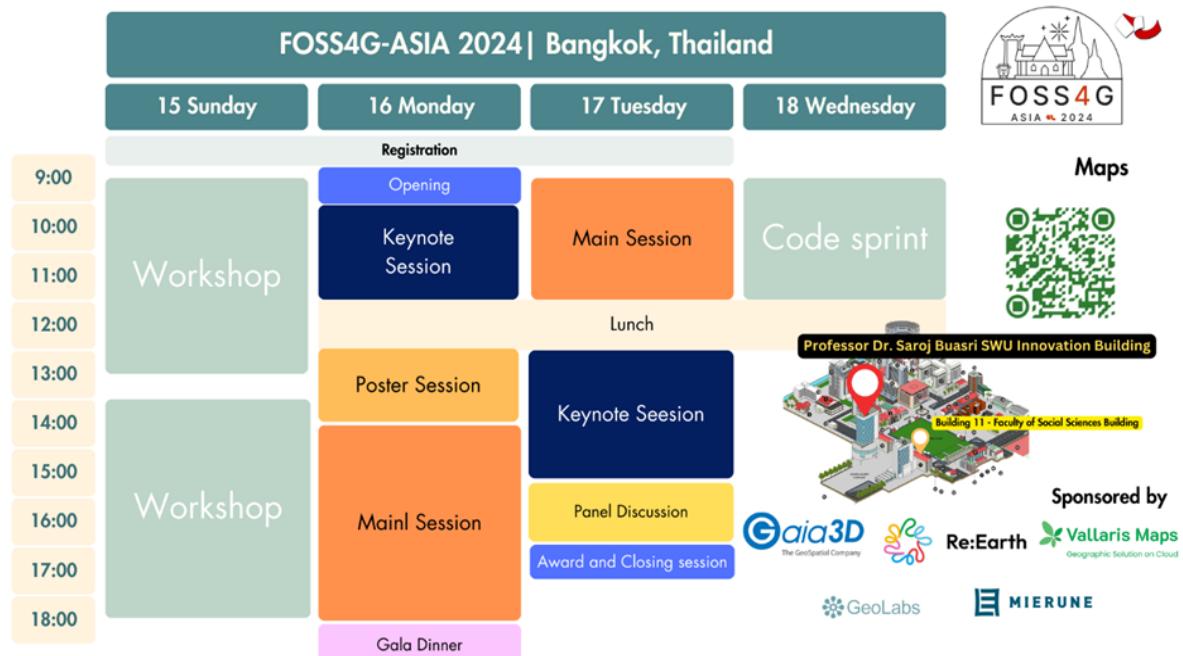
### GENERAL TRACK COMMITTEE

NAME	COUNTRY
Asamaporn SITTHI	Thailand
Eugenio REALINI	Italy
Gerald FENOY	France
Hirofumi HAYASHI	Japan
Jaehyuk LEE	Korea
Jeff McKENNA	Canada
Junho LEE	Korea
Kyoung-Sook KIM	Japan
Kyu-sung CHOI	Korea
Maning SAMBALE	Phillipines
Minpa LEE	Korea
Nicolas BOZON	France
Sanghee SHIN	Korea
Seunghoon CHA	Korea
Yoichi KAYAMA	Japan
Youngmin PARK	Korea





## PROGRAM AT A GLANCE



For detailed schedule refer to <https://talks.geoinfo-lab.org/foss4g-asia-2024/talk/> or scan the QR code given on the right.



## THE LOGO

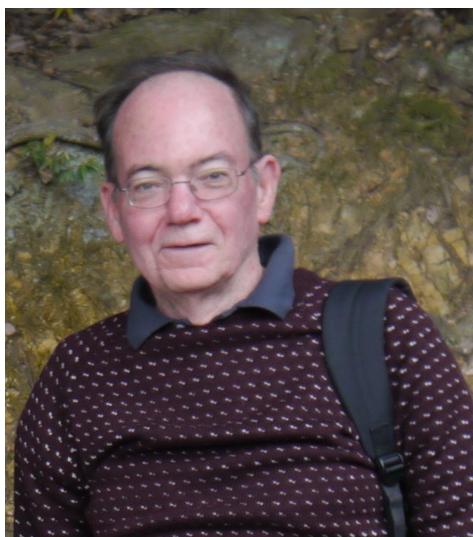


The FOSS4G Asia 2024 logo blends Thai cultural icons with modern design, featuring a Buddhist temple, pagoda, giant swing, tuk-tuk, and fireworks. These elements reflect Thailand's cultural richness, spiritual heritage, and vibrant energy. The tuk-tuk and sacred structures symbolize dynamism and innovation, while the fireworks highlight celebration and the transformative power of technology. The logo encapsulates the fusion of tradition and innovation, representing the essence of the Free & Open Source geoinformatics community.

The selected logo was submitted by Dr. Sanit Arunplod from Bangkok, Thailand, from the Asian Institute of Technology (AIT). Dr. Arunplod, who holds a Ph.D. in Remote Sensing and GIS is an affiliated faculty member with expertise in GNSS, space weather phenomena, UAV surveying, 3D modeling, and weather monitoring networks.



## THE DAVID A HASTINGS AWARD



The **David A. Hastings Award** is given for exceptional contributions to the Free and Open Source Solutions for Geoinformatics (FOSS4G) communities in Asia. Nominees must have contributed to the spread FOSS4G in academia, government and business and promoted the use of FOSS4G in projects in Asia.

The award is in the fond memory of David, who was an early pioneer of FOSS4G, having written a GRASS GIS How-to [1], as well as being actively involved in the first FOSS4G event at Chulalongkorn University in Bangkok Thailand in 2004, where he helped bring the future founders of

the annual FOSS4G event Jeff McKenna, Markus Neteler, and Venkatesh Raghavan, together; indeed, they shared many laughs and stories on that special trip together. He also led an “*Installfest*” at that FOSS4G 2004 event, which set the tone for training workshops and software packaging initiatives for subsequent FOSS4G events.

David would later go on to develop the global level measurement of human development and happiness, what he coined as the Human Security Index.

Dr. David A. Hastings left on his heavenly abode on the 13<sup>th</sup> of November, 2017. He leaves behind wonderful memories and deep sense of appreciation with all his friends and colleagues. His wisdom and wit and his contributions long remembered.

The award will be presented in the closing plenary of the FOSS4G-Asia 2024 event at Bangkok in December 2024. The hope is that this award helps in spreading David’s passion for serving the Free and Open Source communities in Asia now and into the future.

**Yoichi Kayama-san** was awarded the inaugural David A. Hastings Award (2018) for outstanding contributions to the Asian FOSS4G Communities at the FOSS4G Asia 2018 in Moratuwa, Sri Lanka for his invaluable contributions to the spread, localization and customization of FOSS4G tools in Asia and beyond. The other winners of the award have been **Martin Isenberg** (2021) and **Gerald Fenoy** (2023).





## NETWORKING

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### THE ICE BREAKER

**Date/time :** 15 December 2024

**Time:** 19:00 – 22:00

**Venue:** Baa Bar Bangkok on the 29th floor of Holiday Inn Bangkok Sukhumvit

Kick off **FOSS4G-Asia 2024** in style at the **Ice-Breaking Event** on the 29th floor of Holiday Inn Bangkok Sukhumvit at **Baa Bar Bangkok**, a venue known for stunning skyline views, exceptional service, and a vibrant ambiance. This exclusive gathering on the eve of the conference offers an ideal opportunity to connect with fellow attendees, network with sponsors, and set the tone for an engaging event.

The event is complimentary for full-registration attendees, with one drink ticket included. Sponsors also receive one ticket per person in appreciation of their support. Enjoy a curated drink selection and the lively atmosphere as the Bangkok skyline provides a dazzling backdrop. Come dressed in smart casual attire and prepare for an unforgettable evening of connection and inspiration!

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### THE GALA DINNER

**Date/time :** 16 December 2024

**Time:** 18:30 – 22:30

**Venue:** Grand Ballroom , 7th floor Holiday Inn Bangkok, Sukhumvit (+66 2 683 4888)

The **FOSS4G-Asia 2024 Gala Dinner** will take place on **16th December 2024** at the elegant **Grand Ballroom** of the **Holiday Inn Bangkok Sukhumvit**. This exclusive, invite-only event celebrates the innovation, collaboration, and community spirit of FOSS4G-Asia. Attendees, sponsors, organizers, and distinguished guests will gather for an evening of live entertainment, keynote addresses, and sponsor recognition.

The Grand Ballroom offers a sophisticated setting on the hotel's 7th floor, complementing the formal nature of this memorable evening. The hotel, located in Sukhumvit's vibrant district, is easily accessible and close to key attractions. **Full-registration attendees** and **invited guests** are encouraged to RSVP during the registration process. Join us for an unforgettable celebration of FOSS4G-Asia's achievements and future aspirations.





## PANEL DISCUSSION

**Panel Discussion :** Revisiting the “Seoul Declaration 2023” and Moving Beyond

**Date and Time :** 17 December 2024, 15:00-16:00

**Venue :** Main Plenary Hall (Floor4) , Professor Dr. Saroj Buasri SWU Innovation Building

### OVERVIEW

The panel discussion will revisit the **"Seoul Declaration 2023"** from FOSS4G-Asia 2023, analysing its influence on open-source geospatial solutions and societal impact. It will assess progress since the declaration, address new challenges, and explore opportunities for the FOSS4G -Asia community to advance in the future.

### FACILITATOR:

**Prof. Venkatesh Raghavan** – Osaka Metropolitan University, Japan

### PANELISTS

- ◆ **Prof. Massimiliano Cannata** – SUPSI, Switzerland
- ◆ **Dr. Junyong Choi** – Seoul Institute of Technology
- ◆ **Daniel Gilman** – UN OCHA
- ◆ **Feye Andal**, University of the Philippines
- ◆ **Prof. Xianfeng Song** – University of Chinese Academy of Sciences

### DISCUSSION POINTS

- ◆ **Updates on the Seoul Declaration 2023** - Progress on follow-up activities and initiatives since FOSS4G-Asia 2023.
- ◆ **Free and Open-Source Solutions and Geospatial Innovation** - Exploring the intersection of FOSS4G tools and technologies with societal and environmental challenges.
- ◆ **FOSS4G as a Driver for Social Business and Entrepreneurship** - Examining the role of FOSS4G in fostering economic opportunities and social entrepreneurship.
- ◆ **Future Challenges for the FOSS4G-Asia Community** - Addressing key challenges in advancing free and open-source geospatial technologies.

### FORMAT

**Two Rounds of Questions/Comments:** Each panelist will respond to two rounds of questions or comments, with **5 minutes per response** (total of **50 minutes**).

### FINAL WRAP-UP

A 10-minute session for concluding remarks and audience questions. This session is set to inspire thought-provoking conversations and provide valuable insights into the role of free and open-source solutions, geospatial innovation, and the broader societal impact of FOSS4G technologies.



## KEYNOTE ADDRESSES

**December 16th, 2024**

Time	Topic	Room
09:45	<b>HAMID MEHMOOD</b> FOSS4G and Sustainable Development Goals in Asia and the Pacific	Auditorium Hall 1
10:30	<b>DR.NAPHASINEE SUEBSUK</b> Resilient and Regenerative City Development in Response to the Global Climate Crisis	Auditorium Hall 1
11:00	<b>CANNATA MASSIMILIANO</b> Open or Perish	Auditorium Hall 1
11:30	<b>PRAPAPORN ROJSIRIRUCH</b> Thailand Dialogue on Open Data Governance, Privacy, and Legality	Auditorium Hall 1

**December 17th, 2024**

13:00	<b>SARAWUT NINSAWAT</b> Celebrating 20 Years of FOSS4G : The Journey of FOSS4G in Thailand	Auditorium Hall 1
13:15	<b>TORU MORI</b> Down the FOSS4G-Asia Memory Lane	Auditorium Hall 1
13:30	<b>MARKUS NETELER</b> Celebrating four decades of innovation: The GRASS GIS Project	Auditorium Hall 1
14:00	<b>J. INDU</b> Leveraging Geospatial data for tracking water from space using Python programming	Auditorium Hall 1
15:00	<b>KAMOLRATN CHUREESAMPANT</b> Powering the future grid : Intelligence transmission monitoring with SAR satellite imagery and LIDAR	Auditorium Hall 1



## KEYNOTE SPEAKERS

### DR. HAMID MEHMOOD

Economic Affairs Officer, UNESCAP



Hamid Mehmood is an Economic Affairs Officer at the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) in Bangkok, Thailand, focusing on the Space Applications Section. He develops and implements innovative uses of space technologies to foster sustainable development across the Asia-Pacific region. His research encompasses FOSS4G, AI for good, digital technologies, participatory modeling, citizen science, data cubes, analysis-ready data, big Earth data, and the application of distributed ledger technologies and smart contracts to achieve the Sustainable Development Goals (SDGs). He has contributed extensively through publications, reports, and strategic foresight on these topics.

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### DR. J. INDU

Department of Civil Engineering, Indian Institute of Technology, Bombay



J. Indu is an Associate Professor in the Remote Sensing division of the Civil Engineering Department at the Indian Institute of Technology (IIT) Bombay. Her research focuses on radar remote sensing and its applications in hydrometeorology. She leads India-centric research initiatives, collaborating on international projects such as BRICS and DST -CNRS. A prolific academic, she has published numerous papers in esteemed international journals and has received accolades like the C1973 Research Excellence Award from IIT Bombay and the Indo-US Fellowship for Women in STEMM (WISTEMM).

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### DR. KAMOLRATN CHUREESAMPANT

Head of GIS Section, Survey Division, Electricity Generating Authority of Thailand (EGAT)



Dr. Kamolratn Chureesampant, a GIS and remote sensing expert, holds a BS in Computer Science from Kasetsart University (2004), an MS in GIS and Remote Sensing from the Asian Institute of Technology (2006), and a Ph.D. in Urban and Environmental Engineering from Kyoto University (2012). With over a decade of experience at EGAT, she specializes in spatial database development, geoprocessing, GIS modeling, and application creation. Her research focuses on remote sensing image processing, especially synthetic aperture radar (SAR) and polarimetric SAR for classification and change detection.



## KEYNOTE SPEAKERS

### DR. MARKUS NETELER

Co-founder mundialis company based in Bonn, Germany



Markus Neteler, a physical geographer, is the co-founder of mundialis, a geospatial analysis and remote sensing firm based in Bonn, Germany. With 15 years of prior research experience in Italy focusing on health, biodiversity, GIS, and earth observation, he has led numerous EU and international projects. A core developer of GRASS GIS for over two decades, Neteler also supports business growth and Earth Observation projects. In 2024, he co-founded ESMERALDA SAS, which focuses on land degradation neutrality. Mundialis counts major clients such as Deutsche Telekom, ESA, and WHO among its collaborators.

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### PROF. MASSIMILIANO CANNATA

Geomatic Division, Institute of Earth Sciences, SUPSI



Massimiliano Cannata, a professor of geomatics at SUPSI, Switzerland, holds a PhD in Geodesy and Geomatics and a master's in environmental engineering from Politecnico di Milano. Since 2007, he has led the Geomatics Division at the Institute of Earth Sciences, engaging in teaching, research, and consulting. He teaches topography and geoinformatics, coordinates Swiss and international research projects, and collaborates with public and private sectors. His research spans mathematical modeling for natural resources and hazards, IoT-based environmental monitoring, and geospatial web services. A proponent of Open Science, he promotes technology democratization in low-income economies and actively contributes to the OSGeo community as project officer for istSOS software and co-chair of the Open Geoscience Committee.

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### DR. NAPHASINEE SUEBSUK

Assistant Vice President, Head of City Innovation,  
NEBULA CORPORATION LIMITED



Dr. Naphasinee Suebsuk, an urban planner and Assistant Vice President at Nebula by MQDC, specializes in Future City Protocols, Smart Cities frameworks, and urban-scale developments. With 20 years of experience, she has worked on urban regeneration, area management, and multicultural design projects, publishing internationally and excelling in academic exchanges. Fluent in English, Chinese, and Japanese, she has received awards like the Best Presentation Award from the Asia-Pacific Planning Societies. She is a member of the City Planning Institute of Japan (CPIJ), the Architectural Institute of Japan (AIJ), and Japan's Area Management Network.



## KEYNOTE SPEAKERS

### ASSIST.PROF.PRAPAPORN ROJSIRIRUCH



Acting Vice President for International Relations and Communications, Srinakharinwirot University

Prapaporn Rojsiriruch serves as the Deputy Dean of Plan and Strategy at the Faculty of Social Sciences, Srinakharinwirot University, a role she has held since 2021. She has been a full-time lecturer in the Bachelor of Laws Program at the same faculty since 2018. Previously, she was Assistant to the Dean for Student Affairs at Assumption University's School of Law (2014–2016) and a full-time lecturer there from 2012 to 2018. In addition to her academic roles, she has been an academic speaker on MCOT News FM 100.5 radio since 2018.

### DR. SARAWUT NINSAWAT



Department of ICT, School of Engineering and technology, Asian Institute of Technology

Dr. Sarawut Ninsawat received the Doctoral degree at Osaka City University (OCU), Japan. He was a Postdoctoral researcher at National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Japan. Currently, he is Associate Professor in Remote Sensing program, Department of ICT, School of Engineering and technology, Asian Institute of Technology. His research interests are application of Remote Sensing and GIS for natural resource management, developing Web Mapping Application especially focus on the implementation of standard OGC Web services (OWS) framework such as WCS, WFS, WPS and SOS using Open Source Software solutions. Additionally, the various Machine Learning were developed to utilize the location information and time series earth observation data for agriculture and environment.

### TORU MORI



Managing partner of CUNEMO LLC | External director at MIERUNE Inc.

Toru Mori is one of the early promoters of FOSS4G in Asia. He founded Orkney Inc. in 2002, promoting open-source GIS software like GRASS GIS and MapServer in Japan. From 2009 to 2014, he led projects to enhance QGIS for Japanese users. Mori worked as a cartographer for Apple's Maps division from 2017 to 2019, improving user experience for Japanese customers. Currently, he is the managing partner of CUNEMO LLC and an external director at MIERUNE Inc., also contributing to HERE Technologies. He was a key player in establishing the OSGeo Japan chapter and served as its representative from 2006 to 2018, now acting as an auditor. His extensive experience has significantly advanced open-source GIS and geospatial solutions in Japan.



## WORKSHOPS

### REGISTRATION

- ◆ **Time:** Registration opens at **8:30 AM** and will remain open throughout the day.
- ◆ **Location:** Professor Dr. Saroj Buasri SWU Innovation Building, **Floor 2**, at the **Conference Registration Desk**.
- ◆ **What to Bring:** Bring your event ticket/registration confirmation (digital or printed) ready for check-in.
- ◆ Arrive at least **15 minutes before** the session starts to ensure you have enough time to register and settle in.

**DECEMBER 15<sup>TH</sup>, 2024 - 9:30 TO 13:30**

WS Code	Topic	Building	Room	Authors
WS 04	Building a urban digital twin using open data, open source, and open standard, a mago3D way!	Prof. Dr. Saroj Buasri SWU Innovation Building (Floor 11)	Room 34 - 1104	Haneul Yoo, Yeonhwa Jeong, Sanghee Shin, SUNGJIN KANG, Dawoon KIM, Seungmin Kwon
WS 03	Introduction to istSOS4 and SensorThings API	Prof. Dr. Saroj Buasri SWU Innovation Building (Floor 11)	Room 34 - 1102	Massimiliano Cannata
WS 09	An introduction to OGC API–Moving Features with pygeoapi and MobilityDB	Prof. Dr. Saroj Buasri SWU Innovation Building (Floor 11)	Room 34 - 1101	Wijae Cho, Taehoon Kim, Tsubasa Shimizu, TRAN THUAN BANG, Hirofumi Hayashi, Kyoungsook KIM
WS 10	Basic Python for Geospatial	Faculty of Social Sciences Building (Floor 5)	Computer Room 503	Feye Andal, Fritz Dariel Andal
WS 05	Build an Object Snap to a Geometric Location on Web Application	Faculty of Social Sciences Building (Floor 5)	Computer Room 504	Siriwat Suttipanyo, Siriya Saenkhom-or

**DECEMBER 15<sup>TH</sup>, 2024 - 14:00 TO 18:00**

WS 06	LLM (Large Language Model) geospatial python for geospatial analysis in GDAL native environment	Prof. Dr. Saroj Buasri SWU Innovation Building (Floor 11)	Room 34 - 1104	Lawrence Xiao
WS 08	ZOO-Project - OGC API - Processes - Introduction	Prof. Dr. Saroj Buasri SWU Innovation Building (Floor 11)	Room 34 - 1102	Gérald Fenoy
WS 07	Developing a Web-Based Spatial Decision Support System (SDSS) Using Geoserver	Prof. Dr. Saroj Buasri SWU Innovation Building (Floor 11)	Room 34 - 1101	CHANDAN M C
WS 01	Battle of The Best Street-Level Imagery Collection Tool: A Workshop on KartaView and Mapillary using 360 cameras	Faculty of Social Sciences Building (Floor 5)	Computer Room 503	Janica Kylle De Guzman, Ceejay T. Abilay



## POSTER PRESENTATIONS

#	Topic	Author
1	An Assessment of Rainfall Induced Slope Failure Morphology using Change Vectors and Random Forest Model	Mitsunori Ueda
2	Flood Inundation model using itzi distributed hydrologic modeling tool: A case study in Phayao Province, Thailand	Rhutairat Hataitara
3	Using Opensource 3D geospatial In Large Scale Chemical Incident Assesment	Hakjoon Kim, Geonhee Jo, Jinhun Kim
4	Hazard Map Game: Learn and Play with Open Data for a New Approach to Disaster Preparedness for Kids	SUDA
5	Localization of FOSS4G Tools and Building an Open Knowledge Platform in Japanese University Education	Shiori Uehara, Aki Sato
6	Historical Analysis of Post-Monsoon Rice Fields in Myanmar with Optical and Radar Data	Hafsa Fatihul Ilmy, Sarah Kanee, Daniel Marc dela Torre
7	Advanced Development of GIS-Based Databases and Visualization Technologies for Marine Environment Impact Assessment	SuhyeonKim, KIM GUEN HA, JooYoung Park
8	Research on Sustainable Agricultural Management Using Agricultural Water Circulation Measurement Data	JiHyeon Lee, SuhyeonKim, Mijin Lee
9	Development of 3D Mapping Library to Facilitate Photo Alignment with 3D Models	Daisuke Yoshida
10	Regional Land Cover Monitoring System: A Modular Land Cover System for Environmental Monitoring and Sustainability Applications	Akkarapon Chaiyana
11	Optimizing Photovoltaic Energy Potential Analysis through Economic Modeling and Open Source GIS Data Integration	Changyeol Yun
12	Geographic object-based image analysis with Orfeo toolbox for detecting illegal cultivation on public land	Yong Huh
13	Measuring Compactness In Electoral Delimitation: An Open-Source GIS Application	Shailesh Chaure





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## VISITING BANGKOK

Welcome to Bangkok, Thailand's vibrant capital and the heart of Southeast Asia! Known for its dynamic mix of history, culture, and modernity, Bangkok offers visitors an unforgettable experience filled with rich traditions, culinary delights, and endless sights to explore. As the host city for **FOSS4G Asia 2024**, Bangkok provides an inspiring setting for our community to gather and collaborate.

### THAI CULTURAL ETIQUETTE

Bangkok is a safe and welcoming city, but like any large metropolis, it's best to stay aware of your surroundings, especially in crowded places. Respect local customs, such as removing shoes before entering homes or temples, and dress modestly when visiting sacred sites.

#### DO'S AND DON'TS IN THAILAND

Understanding Thai cultural norms is key to enjoying your stay. Here are some essential tips to ensure respectful and positive interactions. By following these simple guidelines, you'll ensure a comfortable and enjoyable visit to Thailand.

#### DO'S

- Dress Modestly at Temples:** Ensure your shoulders and knees are covered when visiting sacred sites.
- Remove Shoes :** Take off your shoes when entering temples, homes, or some shops.
- Smile Often:** Thailand is the “Land of Smiles,” so share a smile to express friendliness.
- Use Polite Language:** Add “krub” (for men) or “ka” (for women) to the end of sentences to sound polite.

#### DON'TS

- Don't Touch Someone's Head:** The head is sacred in Thai culture, so avoid touching it.
- Don't Point Your Feet:** Feet are considered the lowest part of the body; do not point them at people or at sacred objects.
- Don't Lose Your Temper:** Public displays of anger are frowned upon.
- Don't Disrespect National Symbols:** Stepping on money or criticizing the monarchy can lead to serious consequences.
- Don't Display Affection Publicly:** Hugging and kissing in public is generally discouraged.



## HIGHLIGHTS OF BANGKOK

### GETTING AROUND

Bangkok's extensive public transportation network includes the **BTS Skytrain**, **MRT Metro**, and a network of buses and river ferries. Taxis and ride-sharing services are also widely available and convenient. For a more local experience, hop on a colorful tuk-tuk for a thrilling ride through the city's bustling streets.

### MUST SEE PLACES

#### THE GRAND PALACE AND WAT PHRA KAEW (TEMPLE OF THE EMERALD BUDDHA)

This iconic site is a must-visit, showcasing intricate Thai architecture and revered religious sites. Visitors can marvel at the beauty of the Grand Palace and the spiritual essence of Wat Phra Kaew, Thailand's most sacred temple.



#### WAT PHO (TEMPLE OF THE RECLINING BUDDHA)

Home to the stunning, gold-plated reclining Buddha statue, Wat Pho also houses one of Thailand's earliest Thai massage schools. It's a peaceful spot to explore and appreciate the traditional architecture and artistry.

#### CHATUCHAK WEEKEND MARKET

Known as one of the world's largest markets, Chatuchak offers a vibrant shopping experience with over 15,000 stalls selling everything from clothing to Thai street food, handicrafts, antiques, and souvenirs.



## RIVER CRUISES ON THE CHAO PHRAYA

A boat cruise along the Chao Phraya River offers scenic views of the city's skyline and historic temples. Evening dinner cruises provide a unique way to experience the illuminated temples and Bangkok's lively riverside.



## ASIATIQUE THE RIVERFRONT

This open-air night market and shopping area combines Bangkok's heritage with modernity, featuring boutiques, restaurants, and a Ferris wheel with a view of the river. It's perfect for an evening outing.

## SPECIAL EXPERIENCE AT THE FLAT MARKET AT SWU

The **Flat Market** at **Srinakharinwirot University (SWU)**, conveniently located near the FOSS4G Asia 2024 venue, is a lively showcase of Bangkok's youthful and modern culture. This campus market features a vibrant mix of local goods, handmade items, trendy clothes, and student-run food stalls offering delicious Thai treats.

Visitors can enjoy street foods, refreshing drinks, and unique fashion and accessories crafted by young entrepreneurs. The market provides an authentic and casual Thai experience, perfect for exploring, snacking, and finding one-of-a-kind souvenirs.



## BANGKOK FOR FOOD LOVERS

Bangkok is a food lover's paradise, with a rich blend of street food stalls, bustling markets, and fine dining experiences. Savor iconic Thai dishes like **pad Thai**, **som tam** (green papaya salad), **tom yum goong** (spicy shrimp soup), and **mango sticky rice**. Don't miss the vibrant food scene at Yaowarat (Chinatown), or try Michelin-rated street food at stalls like Jay Fai.



## USEFUL INFORMATION

- ◆ **Currency:** Thai Baht (THB)
- ◆ **Language:** Thai, but English is widely spoken, especially in tourist areas.
- ◆ **Weather:** December in Bangkok is generally warm and pleasant, with average temperatures between 25°C and 30°C (77°F to 86°F). December marks the cool season, making it one of the best times to explore the city.

## TRAVEL TIPS

- ◆ **Tipping:** While not mandatory, tipping is appreciated in restaurants and hotels.
- ◆ **Transportation Etiquette:** Stand respectfully during the national anthem in public places in general at 8.00 and 18.00
- ◆ **Bargaining:** Common in markets, but always negotiate politely.





## CODE OF CONDUCT

The **FOSS4G-Asia 2024 Code of Conduct (CoC)** ensures a respectful, safe, and inclusive environment for all participants. It prohibits discrimination, harassment, hate speech, or any behavior jeopardizing participants' well-being, aligning with the **Berlin Code of Conduct** and the **Wikimedia Code**.

### Key Objectives:

- ◆ Promote diversity and inclusion, welcoming participants of all backgrounds.
- ◆ Foster a safe and collaborative environment, free from inappropriate or harmful behavior.
- ◆ Enhance community health by addressing societal inequalities and promoting respectful interactions.

### Expected Behavior:

- ◆ Act respectfully and authentically toward others and their experiences.
- ◆ Avoid degrading, discriminatory, or harassing actions or language.
- ◆ Be vigilant about the safety of participants and report concerns promptly.

### Unacceptable Behavior:

Harassment and other exclusionary behaviour are not acceptable in everyday life nor during the **FOSS4G-Asia 2024** event. This includes, but is not limited to:

- ◆ Personal insults or discriminatory language, especially those using racist or sexist terms.
- ◆ Offensive comments, excessive or unnecessary profanity.
- ◆ Intimidation, violent threats or demands.
- ◆ Sustained disruption of sessions or events.
- ◆ Stalking, harassing photography or recording.
- ◆ Unwelcome physical contact or sexual attention.

- ◆ Repeated harassment of others.
- ◆ Posting (or threatening to post) other people's personally identifying information ("doxing").
- ◆ Sharing private content, such as emails sent privately or non-publicly, or unlogged forums
- ◆ Advocating for, or encouraging, any of the above behaviour.

### Addressing Violations:

- ◆ Violations result in immediate corrective actions, such as bans or mediation, at the organizers' discretion.
- ◆ Complaints are handled confidentially to protect the complainant's identity.

### Support for Victims:

- ◆ A designated safe space will be available for addressing concerns.
- ◆ Organizers will assist with reporting incidents to local authorities and ensuring safety.

### Scope:

The CoC applies to all participants - contributors, sponsors, or guests - in event-related settings, both online and in person.

This CoC emphasizes accountability, respect, and proactive measures to maintain a welcoming community at FOSS4G-Asia 2024.

*Note: This code is not exhaustive or complete. It serves to distil our common understanding of a collaborative, shared environment and goals.*

*Detailed version of the code is available at <https://foss4g.asia/2024/code-of-conduct>*





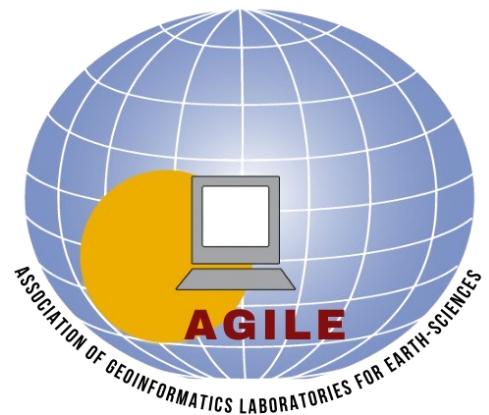
## AGILE

The **Association of GeoInformatics Laboratories for Earthsciences (AGILE)** is a professional organization focused on advancing education, research, and international collaboration in geoinformatics, particularly within the field of Earth sciences. Headquartered in Osaka City, AGILE fosters the development and dissemination of geoinformatics knowledge and technology through a variety of targeted activities.

### Objectives

AGILE seeks to:

1. Provide advanced professional education and promote the dissemination of geoinformatics technologies.
2. Enhance global and mutual collaboration among researchers in Earth sciences through the presentation and discussion of scientific research.
3. Promote the development and adoption of open-source software, open data, and related technologies.
4. Support the international growth of geoinformatics through partnerships with academic and professional institutions worldwide.



### Key Activities

To achieve its mission, AGILE engages in the following core activities:

1. **Academic Events:** Organizing and supporting conferences, research meetings, and symposiums to facilitate the exchange of ideas and research findings.
2. **Publications:** Producing academic journals and other materials to disseminate cutting-edge knowledge.
3. **Workshops:** Conducting hands-on workshops to promote skill development in geoinformatics.
4. **International Collaboration:** Building bridges with academic societies and institutions globally to foster innovation and shared learning.
5. **Auxiliary Activities:** Undertaking additional initiatives aligned with its primary goals, ensuring continuous progress in the field.

AGILE stands as a dynamic platform for advancing geoinformatics in Earth sciences, prioritizing open knowledge, international collaboration, and professional growth.



## THE GIS-IDEAS JOURNAL



The GeoInformatics for Spatial-Infrastructure Development in Earth & Allied Sciences (GIS-IDEAS) Journal, hereafter referred to as "The GIS-IDEAS Journal," traces its origins to the biennial international conference organized under the aegis of the Japan-Vietnam Geoinformatics Consortium (JVGC) since 2002.

In response to growing interest and continued patronage, we have undertaken the initiative to launch the Open Access GIS-IDEAS Journal under the tutelage of the Association of GeoInformatics Laboratories for Earthsciences (AGILE), the new name adopted by JVGC as of August 1, 2024.

The GIS-IDEAS Journal aims to promote academic exchanges through the publication of high-quality, peer-reviewed

research articles and review papers in the field of Geoinformatics. It will be managed by an International Editorial Board comprising scholars who have been closely involved in organizing the GIS-IDEAS Conference Series.

The inaugural issue (Vol. 1, No. 1) is scheduled for release in the first quarter of 2025, with subsequent issues to be published quarterly. Further details about the journal will be announced during the GIS-IDEAS 2024 event.

The GIS-IDEAS Journal (TGIJ) will be a peer reviewed journal published by the Association of GeoInformatics Laboratories for Earthsciences (AGILE). TGIJ is issued 4 times a year in electronic form, publishes Original Research Articles and Review Papers in all aspects of research in the field of GeoInformatics. We encourage all interested contributors to submit their work for consideration.

### Focus and Scope

Journal of GIS Ideas is dedicated to publishing high-quality research papers and reviews on terrestrial and marine topics, including geomatics, geophysics, geography, geology, geographic information systems, remote sensing, cartography, oceanography, hydrography, and marine science and technology.

The GIS-IDEAS Journal (TGIJ) focuses on theoretical, empirical, and applied research in geoinformatics and geosciences.

We look forward to your continued support in establishing the GIS-IDEAS Journal as a respected publication within the Geoinformatics community.



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15-18 DECEMBER 2024 – BANGKOK, THAILAND



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