AGENDA FOR GIS-IDEAS 2026 INTERNATIONAL CONFERENCE

Date	Time		Content	Room	Chair/Speaker
Thursday 24, Sept, 2026	9:00	11:30	Workshop 1: Urban Land Cover Classification with the EnMAP-Box QGIS Plugin	Pho Yen	Prof. Maria Antonia Brovelli and Arch. Quang Huy Nguyen
	11:30	13:30	Lunch time		
	13:30	16:30	Workshop 2: Mapping Land Surface Temperature (LST) From Satellite Data Using QGIS Plugin	Pho Yen	Dr. Pham Thi Mai Thy
Friday, 25, Sept, 2026	8:00	8:30	Registration	HT300	
	8:30	9:00	Open Ceremony	HT300	
	9:00	9:20	Invited talk: Italy–Asia Scientific Cooperation: The Earth Observation Experience in Vietnam	HT300	Prof. Marco Abbiati
	9:20	9:50	Keynote 1: Multispectral geological-climatic-remote sensing- and GIS data compilation for effective vulnarability mapping and mitigation of geohazards in naturally prone hazardous environments: examples from Lào Cai Province, northern Vietnam	HT300	Prof. Tran Thanh Hai
	9:50	10:20	Keynote 2: Thought on Geospatial Foundation Model	HT300	Mr. Sanghee Shin
	10:20	10:50	Keynote 3: GeoInformatics : Research to Relevance The journey to find a Perfect Solution in an Imperfect World.	HT300	Mr. Sumit Khinvasara
	10:50	11:00	Break+Photo		
	11:00	12:00	Session 1:Innovations in Radar and Hyperspectral Remote Sensing Technology and Analysis	Pho Yen	
	11:00	12:00	Session 2: Web-GIS, Spatial Computing, and Area Informatics	Thuan Thanh	

	11:00	12:00	Session 3: GNSS and High-Precision Positioning in Earth Sciences	FPE Meeting Room	
	12:00	13:30	Lunch time		
	13:30	15:10	Session 4.1:GeoAI for Resource Assessment and Natural Hazard Management	Pho Yen	
	13:30	15:10	Session 5.1: Geospatial Approaches to Climate Change Adaptation and Resilience	Thuan Thanh	
	13:30	15:10	Session 6.1: Big Data Analytics and Predictive Modelling in Geoscience	FPE Meeting Room	
	15:10	15:20	Break		
	15:20	17:00	Session 4.2:GeoAI for Resource Assessment and Natural Hazard Management	Pho Yen	
	15:20	17:00	Session 5.2 : Geospatial Approaches to Climate Change Adaptation and Resilience	Thuan Thanh	
	15:20	17:00	Session 6.2: Big Data Analytics and Predictive Modelling in Geoscience	FPE Meeting Room	
	15:30	16:30	Special Session: Urban Thermal Environments: Linking Local Climate Zones and Heat Island Dynamics	GLA Meeting Room	
	18:00	21:00	Welcome Party	Trong Dong Palace	
Saturday, 26, Sept, 2026	8:30	10:10	Session 4.3:GeoAI for Resource Assessment and Natural Hazard Management	Pho Yen	
	8:30	10:10	Session 5.3 : Geospatial Approaches to Climate Change Adaptation and Resilience	Thuan Thanh	
	8:30	10:10	Session 7.1 GIS for Spatial Analysis, Planning, and Decision Support	FPE Meeting Room	
	10:10	10:20	Break		
	10:20	12:00	Session 5.4 : Geospatial Approaches to Climate Change Adaptation and Resilience	Thuan Thanh	
	10:20	12:00	Session 7.2 GIS for Spatial Analysis, Planning, and Decision Support	Pho Yen	

	10:20	12:00	Session 8: UAV and LiDAR Data Processing for High-Accuracy Mapping	FPE Meeting Room	
	12:00	13:30	Lunch time		
	13:30	15:00	Poster Session 1	Pho Yen	
	13:30	15:00	Poster Session 2	Thuan Thanh	
	15:00	15:10	Break		
	15:10	15:40	Keynote 4: Bridging the Knowledge Gap: Digital Transformation in Railway Infrastructure	HT300	Mr. Hayashi Hirofumi
	15:40	16:10	Keynote 5: Beyond Averages: Making Cities Measurable with Big Geospatial Data and AI.	HT300	Prof. Sarawut Ninsawat
	16:10	16:40	Keynote 6: Mapping the Stories in Stone: Awareness, Open-Source Infrastructure, and Open Standards for Geoheritage Sites	HT300	Prof. Natraj Vaddadi
	14:40	17:10	Closing Ceremony	HT300	GIS-IDEAS Chair
Sunday, 27, Sept, 2026	06:00	18:00	One-day fieldtrip: Tam Coc and Hoa Lu old Street, Ninh Binh		

AGENDA FOR INTERNATIONAL CONFERENCE GIS-IDEAS 2026

Conference name : Geo**I**nformatics for **S**patial-**I**nfrastructure **D**evelopment in **E**arth & **A**llied **S**ciences (GIS-IDEAS) 2026

Principal theme: Transitioning from Geoinformatics to Predictive Geodata Science

Venue: Hanoi University of Mining and Geology (HUMG), 18 Vien Street, Dong Ngac ward, Hanoi capital, Vietnam

Time : 24- 27, September 2026

+ 24, September 2026: Workshop
+ 25 - 26, September 2026: International Conference at HUMG
+ 27, September 2026 : One-day field trip

OVERVIEW OF THE CONFERENCE GIS IDEAS 2026

Date	Time	Content	Room
24, Septmber 2026	09:00 - 16:30	Workshop	Pho Yen(PY)
25, September 2026	08.30 – 09.00	Open Ceremony	HT300
	09.00 - 10.50	Plenary morning session	HT300
	10.50 – 11.00	Break + Photo	HT300
	11.00 - 12.00	Three oral parallel sessions	PY, TT, FPE Meeting Room
	12.00 - 13.30	Break & Lunch	
	13.30 - 17.00	Three oral parallel sessions	PY, TT, FPE Meeting Room
	15.30 - 16.30	Special sessions	GLA Meeting Room
	18.00 - 21.00	Welcome Party	
26, September 2026	08.30 - 12.00	Three oral parallel sessions	PY, TT, FPE Meeting Room
	12.00 - 13.30	Break & Lunch	
	13.30 - 15.00	Two Poster parallel sessions	PY, TT, FPE Meeting Room
	15:00 - 15:10	Coffee Break	
	15:10 - 16.40	Plenary afternoon session	HT300
	16.40 - 17.10	Closing Ceremony	HT300
27, September 2026	06.00 - 18.00	One-day fieldtrip	Hoa Lu, Ninh Binh

24th, September 2026 (Thursday)

Workshop Conference room: Pho Yen (3rd Floor, C12 Building) (Assoc.Prof. Nguyen Quang Minh)				
Time	**Title** (Click on title to see abstract)	**Speaker**	**Forms of present**	
9:00 - 11:30	Urban Land Cover Classification with the EnMAP-Box QGIS Plugin	Prof. Maria Antonia Brovelli and Arch. Quang Huy Nguyen	Presentation	Onsite
11:30 – 13:30	**Break time & Lunch**			
13:30 – 16:30	Mapping Land Surface Temperature (LST) From Satellite Data Using QGIS Plugin	Dr. Pham Thi Mai Thy	Presentation	Onsite

25th, September 2026 (Friday)

PLENARY MORNING SESSION Conference room: HT300		
Time	**Content**	**Speakers**
08:00 - 08:30	Registration	HUMG's staff
Chairpersons: A.Prof.Dr Nguyen Thi Hoai Nga (MC) Technical Assistant : Nguyen Danh Duc Room Assistant: Nguyen Thi Quynh Trang (student)		
08:30 - 9:00	Opening Ceremony	Introduction (MC) A.Prof. Dr. Tran Xuan Truong - Host HUMG Speech of VNSC Representative Speech of AGILE Representative
Chairpersons: 1. ***Prof. Natraj Vaddadi*** 2. ***Assoc.Prof. Dr Nguyen Quang Minh*** Technical Assistant : Nguyen Danh Duc Room Assistant: 2 Students.		
09:00 - 09:20	Invited talk: Italy–Asia scientific cooperation: the Earth observation experience in Vietnam	Prof. Marco Abbiati
09:20 - 9:50	Keynote 01: Multispectral geological-climatic-remote sensing- and GIS data compilation for effective vulnerability mapping and mitigation of geohazards in naturally prone hazardous environments:	Prof. Tran Thanh Hai

	examples from Lào Cai Province, northern Vietnam	
09:50 - 10:20	Keynote 02:Thought on Geospatial Foundation Model	Mr. Sanghee Shin
10:20 - 10:50	Keynote 03: GeoInformatics : Research to Relevance. The journey to find a Perfect Solution in an Imperfect World.	Mr. Sumit Khinvasara
10:50 - 11:00	**Photo session & Break time**	

THE INTERNATIONAL CONFERENCE PROGRAM (111: 6 key note + 72 oral+ 33 poster

Session 1: Innovations in Radar and Hyperspectral Remote Sensing Technology and Analysis

Conference room: Pho Yen (3rd floor, C12 Building)

Chairpersons:

1. ***Dr. Susumu Nonogaki***
2. ***Assoc. Prof. Dr. Tran Van Anh***

Technical Assistant : Le Ngoc Giang

Room Assistant: Student

Time	**Title** (Click on title to see abstract)	**Speaker**	**Forms of present**	
11.00 - 11.20	Estimation of Rice Leaf NPK Content Using UAV-Based Hyperspectral Imagery and Machine Learning Techniques	Tong Si Son	Presentation	Onsite
11.20 - 11.40	An Integration of Spatial-scale Decomposition Method and Gated Recurrent Unit approach for Three-Hour Mean Areal Precipitation Forecasting using Weather Radar Data	Phung Dai Khanh	Presentation	Onsite
11.40 - 12.00	Analyzing Coastal Erosion using Sentinel-1 SAR Change Detection: An Application on the Eastern Coast of Ca Mau Province, Vietnam	Nguyen Van Trung	Presentation	Onsite
12.00 - 13.30	**Break time & Lunch**			

Session 2: Web-GIS, Spatial Computing, and Area Informatics

Conference room: Thuan Thanh (3rd floor, C12 Building)

Chairpersons:

1. ***Prof. Go Yonezawa***
2. ***Dr. Truong Xuan Quang***

Technical Assistant : Truong Minh Hung

Room Assistant: Student

Time	Title (Click on title to see abstract)	Speaker	Forms of present	
11.00 - 11.20	An Inteligent IoT-Based Poultry Housing System for Real-Time Environmental Control and Precision Management	Sittichai Choosumrong, Rhutairat Hataitara, Kampanart Piyathamrongchai, Natima Udon	Presentation	Onsite
11.20 - 11.40	Development of "Machi Space®": An Urban Digital Twin Platform for Environment Numerical Analysis	Hirosawa Kunihiko	Presentation	Onsite
11.40 - 12.00	An Automated Approach to Hydrologic Network Generalization: A Case Study in a Selected Area of Tay Ninh Province, Vietnam	Hanh Nguyen-Thi-Hong	Presentation	Onsite
12.00 - 13.30	**Break time & Lunch**			

Session 3: GNSS and High-Precision Positioning in Earth Sciences

Conference room: FPE Meeting Room (9th Floor, C12 Building)

Chairpersons:

1. ***Dr. Sambuddha Dhar***
2. ***Dr. Duong Thanh Trung***

Technical Assistant : Nguyen Minh Hai

Room Assistant: Student

Time	Title (Click on title to see abstract)	Speaker	Forms of present	
11.00 - 11.20	Evaluation of New Global Gravity Models Using GNSS-Leveling Data in Viet Nam	Phung Trung Thanh	Presentation	Onsite
11.20 - 11.40	Optimization of a horizontal displacement monitoring network based on point position errors: a case study of the yaly hydropower dam	Pham Quoc Khanh	Presentation	Onsite
11.40 - 12.00	Integrated GNSS and GRACE Observations for Land Subsidence Analysis and AI-Based Prediction: Evidence from the Mekong Delta, Vietnam	Nguyen Gia Trong	Presentation	Onsite

12.00 - 13.30	**Break time & Lunch**			
AFTERNOON SESSION				
Session 4.1: GeoAI for Resource Assessment and Natural Hazard Management Conference room: Pho Yen (3rd Floor, C12 Building) ***Chairpersons:*** ***1. Prof. Venkatesh Raghavan*** ***2. Dr. Ho Dinh Duan*** Technical Assistant : Pham Ngoc Quang Room Assistant: Student				
Time	**Title** (Click on title to see abstract)	**Speaker**	**Forms of present**	
13:30 – 13:50	Assessing the robustness of AlphaEarth Foundation models for forest canopy height estimation in Karst and Earth-Mountain Ecosystems: A Google Earth Engine-based approach	Duc Anh Ngo	Presentation	Onsite
13:50 – 14:10	Integrating Multi-Sensor Satellite Imagery and Machine Learning to Assess the Impact of Urban Expansion on Air Quality and Surface Urban Heat Islands	Nguyen Manh Hung	Presentation	Onsite
14:10 – 14:30	Geostatistical Analysis and Variogram Simulation Techniques for Assessing Earthquake Risk between the Myanmar and Thailand Areas.	Chaiwiwat Vansarochana	Presentation	Onsite
14:30 – 14:50	Mapping Above-Ground Biomass and Carbon Stock of Melaleuca Forests (Melaleuca cajuputi Powell) Using PlanetScope Imagery in the Gao Giong Ecotourism Site/Nature Reserve, Vietnamese Mekong Delta	Nguyen Ho	Presentation	Onsite
14:50 - 15:10	Determining coseismic displacements from GNSS timeseries using physics-based regression model	Sambuddha Dhar	Presentation	Onsite
15:10 - 15:20	**Break time**			

Session 5.1: Geospatial Approaches to Climate Change Adaptation and Resilience Conference room: Thuan Thanh (3rd Floor, C12 Building) ***Chairpersons:***

1. ***Prof. Go Yonezawa***
2. ***Dr. Pham Trung Dung***

Technical Assistant : Tran Thi Thu Trang
Room Assistant: Student

Time	**Title** (Click on title to see abstract)	**Speaker**	**Forms of present**	
13:30 – 13:50	Factors Influencing Flood Occurrence and Their Integration into Dynamic Flood Simulation Using the ItzÃ¯ Model and GRASS GIS	Rhutairat Hataitara, Sittichai Choosumrong	Presentation	Onsite
13:50 – 14:10	Spatial Heterogeneity and Determinants of the MODIS AOD-PM2.5 Relationship in a Tropical Megacity: A Case Study of Hanoi, Vietnam	Le Thi Thu Hang	Presentation	Onsite
14:10 – 14:30	Integrating harmonized Land use dynamics and Biodiversity models for Global agricultural impacts	Can Trong Nguyen	Presentation	Onsite
14:30 – 14:50	Comparative Assessment of Landsat 8 Level 1 and Level 2 Data for Land Surface Temperature and Urban Heat Island Analysis in Ho Chi Minh City, Vietnam	Doan Thi Bich Ngoc, Pham Thi Mai Thy	Presentation	Onsite
14:50 – 15:10	Development of a Web-GIS Framework for Real-time PM2.5 Visualization and Monitoring via IoT Technology	Natima Udon	Presentation	Onsite
15:10 - 15:20	**Break time**			

Session 6.1: Big Data Analytics and Predictive Modelling in Geoscience
Conference room: FPE Meeting Room (9th Floor, C12 Building)

Chairpersons:

1. ***Prof. Sarawut Ninsawat***
2. ***Assoc. Prof. Dr. Nguyen Quoc Long***

Technical Assistant : Phung Minh Son
Room Assistant: Student

Time	**Title** (Click on title to see abstract)	**Speaker**	**Forms of present**	
13:30 – 13:50	Spatio-Temporal Deep Learning for Drifting Buoy Trajectory Forecasting: Multi-Dataset Evaluation and	Nguyen Gia Trong	Presentation	Onsite

	Operational Error Characterization			
13:50 – 14:10	Machine learning-based missing data imputation for hourly air quality monitoring data from automated stations in Vietnam	Vu Van Truong, Le Quang Tu, Van Ngo Nghiem , Van Tuan Nghiem , Hang Le Minh	Presentation	Onsite
14:10 – 14:30	A Bayesian Model Averaging Approach for $PM_{2.5}$ Concentration Assessment and Comparative Analysis across Land Cover Types	Tran Thi An	Presentation	Onsite
14:30 – 14:50	Constructing a High-Accuracy Mean Dynamic Topography Database from Multi-Mission Satellite Altimetry Using Machine Learning and GIS Technology: A Case Study of the Mekong Delta Coastal Zone	Pham Van Tuyen	Presentation	Onsite
14:50 – 15:10	Pavement crack detection and segmentation using lightweight deep learning models	Nguyen Hong Quang, Le Van Tinh	Presentation	Onsite
15:10 - 15:20	**Break time**			

Session 4.2: GeoAI for Resource Assessment and Natural Hazard Management

Conference room: Pho Yen (3rd Floor, C12 Building)

Chairpersons:

1. Dr. Sambuddha Dhar

2. Dr. Truong Xuan Quang

Technical Assistant : Nguyen Thi Phuong

Room Assistant: Student

Time	**Title** (Click on title to see abstract)	**Speaker**	**Forms of present**	
15:20 – 15:40	Application of Deep Learning for Automated Tree Extraction in Urban Environments Using Remote Sensing Data	Nguyen Quang Minh	Presentation	Onsite
15:40 – 16:00	Satellite-Based Assessment of Wildfire Risk Using Fuel Condition Indicators : A Case	Punnaporn Lueangworakit	Presentation	Onsite

	Study of Mae Yom National Park			
16:00 – 16:20	An Open-Source Tool for Mapping Landslide Susceptibility: Case Study in Nam Pam, Vietnam	Doan Huong-Giang, Trinh Thanh	Presentation	Onsite
16:20 – 16:40	Near-real-time landslide early warning based on open-access data: A case study of Mu Cang Chai, Lao Cai Province, Vietnam	Van Anh Tran	Presentation	Onsite
16:40 – 17:00	Detecting Spatiotemporal Changes in Plastic-covered Greenhouses Using Object-Based Machine Learning and Spatial Analysis	Nguyen Ngoc Tuyen	Presentation	Onsite
18:00 - 21:00	**Welcome Party**			

Session 5.2 : Geospatial Approaches to Climate Change Adaptation and Resilience

Conference room: Thuan Thanh (3rd Floor, C12 Building)

Chairpersons:

1. ***Assoc.Prof. Dr. Sittichai Choosumrong***
2. ***Dr. Pham Trung Dung***

Technical Assistant : Le Van Canh

Room Assistant: Student

Time	**Title** (Click on title to see abstract)	**Speaker**	**Forms of present**	
15:20 – 15:40	Climate Change Impacts On Robusta Coffee Suitability In Central Highland, Vietnam: Insights From Cmip6 Climate Projections	Nguyen Nu Kim Linh	Presentation	Onsite
15:40 – 16:00	Spatiotemporal Analysis of the Largest Wildfire in Japan Since the Heisei Era Using Sentinel-2 Imagery	Jieling Wu	Presentation	Onsite
16:00 – 16:20	Assessment of bias correction base on quantile method to extreme rainfall and temperature indices based on CMIP6 projections	Vo Thanh Nhan	Presentation	Onsite
16:20 – 16:40	Assessing changes of mangroves and tidal channel systems from multi-time satellite imagery in the coastal area of Kim Son, Ninh Binh	Dao Hoang Tung	Presentation	Onsite

16:20 – 17:00	Automated Surface Flatness and Levelness Control for Industrial Concrete Floors using Terrestrial Laser Scanning and ASTM E1155 Standard	Trung Dung Pham	Presentation	Onsite
18:00 - 21:00	**Welcome Party**			

Session 6.2: Big Data Analytics and Predictive Modelling in Geoscience

Conference room: FPE Meeting Room (9th Floor, C12 Building)

Chairpersons:

1. ***Assoc. Dr. Chaiwiwat Vansarochana***
2. ***Dr. Tran Hong Hanh***

Technical Assistant : Le Thanh Nghi

Room Assistant: Student

Time	**Title** (Click on title to see abstract)	**Speaker**	**Forms of present**	
15:20 – 15:40	Spatio-temporal Reconstruction of Chlorophyll-a Concentration in Nha Trang Bay using 4DVarNet based Multi-mission Satellite Data Fusion	Hoa Thi Tran	Presentation	Onsite
15:40 – 16:00	A Deep Learning Framework for Spatio-Temporal Wind Forecasting and Offshore Wind Potential Assessment in the Gulf of Tonkin	Nguyen Van Thai, Van Truong Vu, Hien Nguyen Thi	Presentation	Onsite
16:00 – 16:20	Satellite-Based PM2.5 Estimation Using Ensemble and Boosting Machine Learning Techniques	Piyatida Awichin	Presentation	Onsite
16:20 – 16:40	Quality Assessment for GlobalBuildingAtlas LoD1 Data in Vietnam	Dong Thi Bich Phuong	Presentation	Onsite
16:40 – 17:00	A hybrid geostatistical and machine learning approach for lithology prediction of cement limestone deposits	Vu Dinh Trong, Xuan-Nam Bui	Presentation	Onsite
18:00 - 21:00	**Welcome Party**			

Special Session: Urban Thermal Environments: Linking Local Climate Zones and Heat Island Dynamics

Conference room: GLA Meeting Room (10th Floor, C12 Building)

Chairpersons:

1. ***Prof. Maria Antonia Brovelli***
2. ***Dr. Pham Thi Mai Thy***

Technical Assistant : Le Thi Thanh Tam
- Room Assistant: Student

Time	Title (Click on title to see abstract)	Speaker	Forms of present	
15:30 – 16:00	Mapping Imperviousness Density Using Geospatial Foundation-Model AlphaEarth Embeddings	Maria Antonia Brovelli, Matej Žgela, Keerthana Kirubakaran and Xiao Tao	Presentation	Onsite
16:00 – 16:30	The Local Climate Zone effects to Land Surface Temperature and Urban Heat Island	Pham Thi Mai Thy	Presentation	Onsite
16:30 – 17:00	Leveraging Italian Earth Observation assets, novel algorithms and GIS-based solutions for enabling downstream applications for society	Deodato Tapete, Patrizia Sacco	Presentation	Onsite
18:00 - 21:00	**Welcome Party**			

26th September, 2026 (Saturday)

Session 4.3:GeoAI for Resource Assessment and Natural Hazard Management
Conference room: Pho Yen (3rd Floor, C12 Building)

Chairpersons:

1. ***Prof. Sarawut Ninsawat***
2. ***Assoc. Prof. Dr. Nguyen Quang Minh***

Technical Assistant : Pham Thi Thanh Hoa
Room Assistant: Student

Time	Title (Click on title to see abstract)	Speaker	Forms of present	
8:30 - 8:50	Analytic Hierarchy Process–Based Landslide Susceptibility Assessment in Dai Tu, Thai Nguyen, Vietnam	Thuong Tran, Pham Quang Khai	Presentation	Onsite
8:50 – 9:10	Extraction of Slope Failure Features by Topographic Surface Changes	Mitsunori Ueda	Presentation	Onsite
9:10 – 9:30	Multi-Sensor Integration and Geospatial Information for Landslide Early Warning	Duong Thanh Trung	Presentation	Onsite

9:30 – 9:50	Assessment of Spatial Relationships between Land Cover and Air Pollution in Ninh Binh Province, Vietnam, Using Remote Sensing and Machine Learning	Toan Dao	Presentation	Onsite
9:50 - 10:20	**Break time**			

Session 5.3 : Geospatial Approaches to Climate Change Adaptation and Resilience

Conference room: Thuan Thanh (3rd Floor, C12 Building)

Chairpersons:

1. ***Prof. Venkatesh Raghavan***
2. ***Dr. Ho Dinh Duan***

Technical Assistant : Doan Thi Nam Phuong

Room Assistant: Student

Time	**Title** (Click on title to see abstract)	**Speaker**	**Forms of present**	
8:30 - 8:50	Climate Change–Driven Shifts in Habitat Suitability of Rhizophora apiculata in Vietnam's Mekong Delta	Tran Dang Hung, Tran Hong Hanh	Presentation	Onsite
8:50 – 9:10	Quantifying the uncertainty of climate change impacts on hydrological regime of the Lo river basin, Vietnam	Nguyen Ba Thanh Son	Presentation	Onsite
9:10 – 9:30	Assessment of Seasonal Land Surface Temperature Variations in Hanoi Using Remote Sensing Imagery	Nguyen Trung Nghia	Presentation	Onsite
9:30 – 9:50	Application of GIS and Multi-Criteria Analysis for Forest Fire Susceptibility Mapping under Climate Change Conditions: A Case Study of Muong Chanh Commune, Son La Province, Vietnam	Cao Dinh Son, Dao Thi Tuyet Mai	Presentation	Onsite
9:50 – 10:10	Wildfire Susceptibility Mapping in the Context of Climate Change Using an MCDA-GIS Integrated Approach: A Case Study of Pu Nhung Commune	Cao Dinh Son	Presentation	Onsite
10:10 - 10:20	**Break time**			

Session 7.1 GIS for Spatial Analysis, Planning, and Decision Support

Conference room: FPE (9th Floor, C12 Building)

Chairpersons:

1. Dr. Andreas Keler

2. Assoc. Prof. Dr. Nguyen Van Trung

Technical Assistant : Duong Anh Quan

- Room Assistant: Student

Time	Title (Click on title to see abstract)	Speaker	Forms of present	
8:30 - 8:50	An integrated FAHP, machine learning, and GIS approach for hospital site selection: A case study of five wards in Tuyen Quang province, Vietnam	Bui Ngoc Tu	Presentation	Onsite
8:50 – 9:10	Integrating GIS and Machine Learning for Agricultural Crop Zoning and Suitability Assessment: A Case Study in Nong Truong Moc Chau Town, Son La Province, Vietnam	Bui Ngoc Tu, Doan Huong-Giang	Presentation	Onsite
9:10 – 9:30	Assessing Factor Effects on Land-Use Plan Implementation Using Explainable AI (XAI) in Son La Province, Vietnam	Bui Ngoc Tu	Presentation	Onsite
9:30 – 9:50	Analysis of the relationship between landscape structure and ecological functions as a basis for sustainable land use planning in the Quy Nhon â€“ Tuy Phuoc area	Vu Khac Hung	Presentation	Onsite
9:50 - 10:20	**Break time**			

Session 5.4 : Geospatial Approaches to Climate Change Adaptation and Resilience

Conference room: Pho Yen (3rd Floor, C12 Building)

Chairpersons:

1. Dr. Susumu Nonogaki

2. Assoc. Prof. Dr. Tran Van Anh

Technical Assistant : Vo Ngoc Dung

Room Assistant: Student

Time	Title (Click on title to see abstract)	Speaker	Forms of present	
10:20 - 10:40	Seasonal Variation Assessment of Land Surface Temperature Based on Land Cover Types in Gia Lai Province, Vietnam	Eaint Chit Phone	Presentation	Onsite

10:40 – 11:00	Assessing Heat Extremes in Central Vietnam in response to Solar Radiation Management	Nguyen Dang Xuan Hien	Presentation	Onsite
11:00 – 11:20	Spatiotemporal Assessment of Seasonal Vegetation Cover Dynamics in Hanoi	Le Thi Hong Nhung	Presentation	Onsite
11:20 – 11:40	High-resolution Seismic Data Analysis in Classification of Holocene Sediments at Bac Lieu Offshore, Vietnam	Cuong Le	Presentation	Onsite
11:40 - 13:30	**Lunch time**			

Session 7.2 GIS for Spatial Analysis, Planning, and Decision Support

Conference room: Thuan Thanh (3rd Floor, C12 Building)

Chairpersons:

1. Assoc.Prof. Dr. Sittichai Choosumrong

2. Assoc. Prof. Dr. Nguyen Quoc Long

Technical Assistant : Tran Thuy Linh

Room Assistant: Student

Time	**Title** (Click on title to see abstract)	**Speaker**	**Forms of present**	
10:20 - 10:40	A GIS-Based approach for prioritizing urban retention pond locations to mitigate flood risk: A case study of Hanoi, Vietnam	Chu Manh Hung, Nguyen Mai Chi	Presentation	Onsite
10:40 – 11:00	Applying a multi-criteria analysis method combined with a Geographic Information System (GIS) to assess land suitability for coffee cultivation in Chieng Ve, Son La province, Vietnam	Pham Thi Nguyet	Presentation	Onsite
11:00 – 11:20	A GIS-Based Framework for Evaluating Spatiotemporal Traffic Density in Hanoi	Nguyen Thi Minh Hien	Presentation	Onsite
11:20 – 11:40	Automated Evacuation Route Generation for Citywide Tephra-Fall Evacuation: An	Andreas Keler	Presentation	Onsite

	Imminent Eruption Scenario in Kagoshima City, Japan			
11:40 – 12:00	Comparative Evaluation of Urban Expansion Mapping Methods in Diriyah Using GHSL, NDBI, and Unsupervised Classification	Muhannad Mohammed Alfehaid	Presentation	Onsite
12:00 - 13:30	**Lunch time**			

Session 8: UAV and LiDAR Data Processing for High-Accuracy Mapping

Conference room: FPE Meeting Room (9th Floor, C12 Building)

Chairpersons:

1. ***Dr. Chaiwiwat Vansarochana***
2. ***Assoc. Prof. Dr. Nguyen Gia Trong***

Technical Assistant : Tran Anh Tuan

Room Assistant: Student

Time	**Title** (Click on title to see abstract)	**Speaker**	**Forms of present**	
10:20 - 10:40	Comparison of Sentinel Imagery Performance Using Continuous Wavelet Transform-based CNN model for Rice-Crop System Mapping in Suphan Buri, Thailand	Kritchayan Intarat, Nutcha Tuphimai, Phatsachon Kuankhamnuan, and Woraman Jangsawang	Presentation	Onsite
10:40 – 11:00	A uniform sampling and band combination method for land cover mapping	Trinh Thanh, Pham Duy Quang	Presentation	Onsite
11:00 – 11:20	An Integrated Geoinformatics and Machine Learning Framework for UAV-Based Forest Biomass and Carbon Assessment	Thinnakon Angkahad	Presentation	Onsite
11:20 – 11:40	Assessment of Rice Growth at Different Phenological Stages Based on UAV Multispectral and High-Resolution UAV RGB Imagery	Le Van Canh	Presentation	Onsite
11:40 – 12:00	Evaluation of Horizontal Positional Accuracy in UAV-Based Mapping: A Case Study in Flat Urban and Rural Areas of Southern Vietnam	Le Van Tinh	Presentation	Onsite

12:00 - 13:30	**Lunch time**

Poster Session 1: GeoAI for Resource Assessment and Natural Hazard Management

Conference room: Pho Yen (3th Floor, C12 Buiding)

Chairpersons:

1. ***Dr. Nemoto Tatsuya***
2. ***Dr. Duong Thanh Trung***

Technical Assistant : Nguyen Danh Duc

- Room Assistant: Student

Time	Title (Click on title to see abstract)	Speaker	Forms of present	
13:30 - 13:35	Application of GeoInformatics for Monitoring Agricultural Drought in Gia Lai Province, Vietnam Using MODIS Data and Google Earth Engine	Ngoc Anh Nguyen	Poster	Onsite
13:35 - 13:40	Evaluation of an H–α wishart-based land cover classification approach using dual-polarization Sentinel-1 data: a case study of Hanoi	Le Minh Hang	Poster	Onsite
13:40 – 13:45	Impact of Green Space Decline on Land Surface Temperature in Inner Hanoi Using Landsat Data (2004â€“2024)	Xuan Quang Truong	Poster	Onsite
13:45 – 13:50	Ensemble Tree-Based Machine Learning for Landslide Susceptibility Assessment in Cau River Watershed, Northern Vietnam	Thuong Tran	Poster	Onsite
13:50 – 13:55	Assessing the Relationship Between Groundwater Storage Variations and Land Subsidence Using GRACE and Sentinel-1 InSAR in Can Tho, Vietnam	Ha Trung Khien, Le Minh Hang	Poster	Onsite
13:55 – 14:00	Quantifying the contribution of topographic and spectral indices to LULC classification accuracy: a Random Forest-based feature selection study	Nguyen Manh Hung	Poster	Onsite
14:00 – 14:05	SAR-Based Mapping of flood inundation and associated impacts from extreme Typhoon-induced flooding	Pham Thi Thanh Hoa, Nguyen Tri Anh Khoa	Poster	Onsite

14:05 – 14:10	Vegetation Classification Using Time-Series Sentinel-1 Data Integrated with Sentinel-2 Imagery in a Mountainous Area of Northern Vietnam: A Case Study of Chieng Ken Commune, Lao Cai Province	Nguyen Thi Oanh	Poster	Onsite
14:10 – 14:15	Assessment of Forest Cover Dynamics and Fragmentation in the O Lau Basin Using Remote Sensing and Machine Learning over Two Decades	Hieu Huu Viet Nguyen	Poster	Onsite
14:15 – 14:20	Estimating carbon sequestration in urban trees using UAV-derived CHM and Deep Learning-based crown extraction: A climate-responsive greenery planning approach	Tran Ngoc Huyen Trang	Poster	Onsite
14:20 – 14:25	GIS-based floodwater depth mapping with FWDET: validation and DEM intercomparison for the 2025 Vu Gia-Thu Bon flood	Hang Ha	Poster	Onsite
14:25 - 14:30	An experiment on photogrammetry in determining distance from digital images	Truong Thanh Phi	Poster	Onsite
14:30 - 14:35	Stability Analysis of the Slope Surface according to Homogeneity Fracture, 3B Highway, from km 0 to Km 26, Thai Nguyen Province, Vietnam	Truong Thanh Phi	Poster	Onsite
14:35 – 14:40	Transformation of Charted Depth from Bathymetric Depth Based on Mean and Lowest Sea Surface Models: A Case Study of the Quang Ngai Coastal Area, Vietnam	Dang Thu Hang, Le Thi Thanh Tam	Poster	Onsite
14:40 – 14:45	Study of gravity variations over Vietnam and surrounding regions using Time-Variable Gravity models	Ngo Thi Men Thuong	Poster	Onsite
14:45 – 14:50	Determination of gravity potential values at national height reference points in the Indochina region for height system unification	Ngo Thi Men Thuong, Vu Hong Cuong and Hoang Ngoc Ha	Poster	Onsite

14:50 – 14:55	Research on the development of solutions for processing GPS network data for horizontal displacement monitoring of engineering structures	Tran Thuy Linh	Poster	Onsite
14:55-15:00	Green-Growth–Oriented Multi-Hazard Risk Mapping for the Gianh River Basin (Vietnam): Flood, Flash Flood, Landslide and Riverbank Erosion	Nguyen Thanh Binh	Poster	Onsite
15:00 - 15:10	**Break time**			

Poster Session 2: GIS for Spatial Analysis, Planning, and Decision Support

Conference room: Thuan Thanh (3th Floor, C12 Buiding)

Chairpersons:

1. ***Prof. Natraj Vaddadi***
2. ***Dr. Tran Hong Hanh***

Technical Assistant : Nguyen Minh Hai

Room Assistant: Student

Time	**Title** (Click on title to see abstract)	**Speaker**	**Forms of present**	
13:30 - 13:35	Application of GIS and Multi-Criteria Analysis in Land Suitability Assessment for Sustainable Agricultural Land Management in Thoi Binh District, Ca Mau Province	Xuan Dinh, Vu	Poster	Onsite
13:35 - 13:40	GIS Applications in Managing Cultural Heritage Tourism: A Case Study of Can Tho City, Vietnam	Nguyen Thanh Dat , Pham Thi Binh and Trong Dieu Hien Le	Poster	Onsite
13:40 – 13:45	Variations of Urban Ecosystem Service Value in Ho Chi Minh city due to Land Use and Land Cover Changes	Trong Dieu Hien Le, Nguyen Le Tan Dat	Poster	Onsite
13:45 – 13:50	Analyzing Urban Form Change in Tan An, Tay Ninh Province, Vietnam, from 2010 to 2025 Using Multi-temporal Satellite Data and Spatial Metrics	Nguyen Kim Hoa	Poster	Onsite
13:50 – 13:55	Application of WebGIS and 3D Technologies in Agricultural Digital Transformation: The Case Study on the Development of the Rice	Nguyen Van Trung	Poster	Onsite

	Product Brand in Hung Yen Province			
13:55 – 14:00	Evaluation of Relationship Between Land Surface Temperature and Urban Spatial Density in Hanoi, Vietnam	Takumi Dowaki	Poster	Onsite
14:00 – 14:05	Leveraging Geographic Information Systems (GIS) for Quantitative Assessment of Transit-Oriented Development (TOD) Parameters: A Case Study Approach	Nguyen Quang Minh, Nguyen Viet Hoa, Nguyen Thi Bich Phuong	Poster	Onsite
14:05 – 14:10	Evaluation of Urban Activity Distribution and Excursion Based on 3D City Models and Pseudo People Flow	Konno Momoka	Poster	Onsite
14:10 – 14:15	Integrating GIS in Climate Change Education: A Case Study at Hanoi University of Natural Resources and Environment	Ngoc_Anh_Nguyen, Bui Thi Phuong Thuy	Poster	Onsite
14:15 – 14:20	From 2D to 3D Cadastre: A Hybrid 3D Cadastral Database Model for Managing Complex Urban Spaces in Vietnam	Le Van Tinh	Poster	Onsite
14:20 – 14:25	International Cooperation for Climate Change Response under the SDGs Framework: Evidence from Vietnam	Doan Thi Xuan Huong	Poster	Onsite
14:25 - 14:30	Application of remote sensing radar in assessing the impact of flood-season water resources on rice cultivation areas over the Mekong Delta	Giang Thi Phương Thao	Poster	Onsite
14:30 - 14:35	Mission-Centric Task Planning for Heterogeneous UAV Swarms in Large-Scale Topographic Mapping	Luu Hai Au	Poster	Onsite
14:35 – 14:40	Development of a WebGL Tool for Visualizing Shallow Subsurface Geology in Urban Areas	Susumu NONOGAKI	Poster	Onsite

14:40 – 14:45	Quality Assessment of Airborne Gravity Data Based on Robust Cross-Over Analysis	Pham Ngoc Quang	Poster	Onsite
14:45 – 14:50	Lineament Extraction Based on Topographic Features Using Tensor Voting and Hough Transform	Tatsuya Nemoto, Kosuke Nakamura, Sambuddha Dhar and Venkatesh Raghavan	Poster	Onsite
14:50 – 14:55	Accuracy comparison of marine gravity anomalies derived from Saral/GM and CryoSat-2 altimetry data: a case study in the Gulf of Tonkin	Pham Van Tuyen	Poster	Onsite
15:00 - 15:10	**Break time**			

PLENARY AFTERNOON SESSION

Conference room: HT300

Chairpersons:

1. ***Prof. Venkatesh Raghavan***
2. ***Dr. Ho Dinh Duan***

Time	Contents	Speakers
15:10 - 15:40	Keynote 04: Bridging the Knowledge Gap: Digital Transformation in Railway Infrastructure	Mr. Hayashi Hirofumi
15:40 - 16:10	Keynote 05: Beyond Averages: Making Cities Measurable with Big Geospatial Data and AI.	Prof. Sarawut Ninsawat
16:10 - 16:40	Keynote 06: Mapping the Stories in Stone: Awareness, Open-Source Infrastructure, and Open Standards for Geoheritage Sites	Prof. Natraj Vaddadi
16:40 - 17:10	Closing Ceremony	Prof. Venkatesh Raghavan