SCHEDULE FOR GIS-IDEAS 2016

Venue: Hanoi University of Mining and Geology (HUMG)

18 Vien Street, Duc Thang ward, Bac Tu Liem District, Hanoi, Vietnam

(Trường Đại học Mỏ – Địa chất, Số 18 Phố Viên – Phường Đức Thắng – Q. Bắc Từ Liêm – Hà Nội,)

12th November 2016:   Training Session

Workshop 1 *(Building C– 3rd floor, 309)*

09:00-12:00: Remote Sensing Using Open Source GIS and Open Data

Lecturers: Le Phuong, Ho Dinh Duan and Go Yonezawa, Venkatesh Raghavan

Workshop 2 *(Building C– 3rd floor, 310)*

09:00-12:00:Introduction to Quantum GIS

Lecturers: Pham Thi Mai Thy and Do Thi Hang

Workshop 3 *(Building C– 3rd floor, 309)*

14:00-17:00: Deploying Web applications for Monitoring and Evaluation using Open Source Software

Lecturers: Niroshan Bandara, Venkatesh Raghavan and Ho Dinh Duan

Workshop 4 *(Building C– 3rd floor, 310)*

14:00-17:00: Geospatial programming using Python

Lecturers: Truong Xuan Quang and Do Thi Hang

(Details about training sessions at http://gisws.media.osaka-cu.ac.jp/gisideas16/training.pdf)

13th November 2016:   8:00-9:30 Registration *(Building C– 3rd floor, 310)*

13th November 2016:   9:30-10:00 Opening Ceremony *(Building C– 3rd floor, 310)*

Speakers: *Le Hai An, Nghiem Vu Khai, Mamoru Shibayama, Venkatesh Raghavan, Truong Xuan Luan*

13th November 2016:   10:00-10:30 Coffee Break

13th November 2016:   10:30-12:00 Keynote Session *(Building C– 3rd floor, 310)*

1) Prof. Venkatesh Raghavan: 15 years of Japan-Vietnam collaborations in Geoinformatics: Activities of JVGC (Osaka City University)

2) Prof. Hiroyuki Miyazaki: Applications and solutions of space and geospatial technologies for sustainable development (Kyoto University)

13th November 2016:   12:00-13:30 Lunch break

13th November 2016:   13:30-14:50 Session 1: Web& Mobile GIS *(Building C– 3rd floor, 309)*

Chairpersons: Ho Dinh Duan and Go Yonezawa.

1) Trinh Dinh Vu *et al.*: A solution using a 3G mobile network for RTK positioning

2) Niroshan Bandara *et al.*: Simplifying integration of field data and GIS: A WPS approach

3) Chuyen Trung Tran *et al.*: Development of a mobile data collection and management system

4) Sittichai Choosumrong *et al.*: Development of the Real-Time Environment Monitoring System for Poultry Farm Based on IoT Technology

13th November 2016:   13:30-15:10 Session 2: Forest & Agriculture *(Building C– 3rd floor, 310)*

Chairpersons: Tran Van Anh and Venkatesh Raghavan

1) Khanh Chi Pham *et al.*: Using multi-sensor remote sensing and WebGIS to monitor deforestation in DakNong province during 2010 - 2016

2) Phuong Le *et al.*: Analysis of Sentinel-1 SAR data for mapping rice crop in the Mekong Delta, Vietnam

3) Tran Thi Van *et al.*: Spatial analysis to assess the trend of urban land conversion in the process of urbanization

4) Nguyen Hoang Khanh Linh *et al.*: Usage of LUCIA model in assessing the effects of climate change to main crops at slope areas: A case study at Phong Xuan commune, Phong Dien district, Thua Thien Hue province, Vietnam

5) Chinh Ke Luong *et al.*: Proposed empirical model of crop coefficient Kc from MODIS-NDVI for estimating actual land surface

13th November 2016:   15:10 -15:30 Coffee Break

13th November 2016:   15:30-16:50 Session 3: Software solution & Data analysis A *(Building C– 3rd floor, 309)*

Chairpersons: Truong Xuan Quang and Nemoto Tatsuya

1) Nguyen Ngoc Lau *et al.*: Validation of GNSS processing results from some commercial software packages under un-advantageous conditions

2) Amphawan Khamchiangngern *et al.:* The analysis of spatial distribution of disabled people in Thailand using Geographically Weighted Regression models

3) Yoshikatsu Nagata: Toward a diachronic digital gazetteer for historical studies: A case study of place names in Vietnam on Gaihozu

4) Nguyen Huu Nhat *et al.:* Improvement of the horizontal precision for images captured Unmanned Aerial Vehicles (UAV)

13th November 2016:   15:30-16:50 Session 4: Disaster Management & ModelingA *(Building C– 3rd floor, 310)*

Chairpersons: Truong Xuan Luan and Muneki Mitamura

1) Van Trung Nguyen *et al.:* Inundation extent and flood frequency mapping of Cuu long rivers delta using multi-temporal ERS-2 data

2) Quang Xuan Truong: Real-time impact estimation of large earthquake using USGS Shake Maps through Web Processing Service

3) Huong Bui Thi Thanh: Desertification and cultivation in Binh Thuan province – estimation of effects by SWOT-AHP and GIS

4) Le Thanh Van *et al.:* The temperature vegetation dryness index from satellite image support monitoring drought in a territory

14th November 2016:   8:30-10:00 Joint Session with HUMG Event

14th November 2016:   10:00-10:30 Coffee break

14th November 2016:   10:30-12:00 Poster session

Chairpersons: Pham Thi Mai Thy and Akira Taniguchi

1) Van Anh Tran *et al.:* Development of geographic information system (GIS) application on low-cost mobile for data collection using near real time synchronization technology

2) Lam Truong Ho: Bus route mapping by schematic for Ho Chi Minh city

3) Truong Xuan Nguyen *et al.:* A WebGIS system to support sustainable development in Tay Nguyen

4) Thi Thu Ha Le *et al.:* Predicting land use change affected by population growth by integrating Logistic regression, Markov chain and Cellular automata model

5) TrongDuc Tran: Developing of a geographic information system based on ArcGIS engine to manage a water supply network

6) Thu Trang Le *et al.:* Change detection in multitemporal SAR images based on statistical similarity measure

7) Van Trung Le *et al.:* GIS solution for the Mekong delta management

8) Thi Hang Ha: A review of the management of road corridors by using GIS over the world and in Vietnam

9) Susumu Nonogaki *et al.:* Development of GRASS GIS Modules to Generate DEM for Geological Modeling

10) Hai Nguyen *et al.:* Application of the InSAR technology for determining changes in surface topography

11) Tatsuya Nemoto *et al.:* Development of web-based visualization system for three dimensional geologic model

12) Shinji Masumoto *et al.:* Reliability evaluation of three dimensional geological model using borehole data

13) Tuan Tran *et al.:* Soil properties mapping using a Soil Land Inference Model (SoLIM) in South Vietnam: A case study in BinhPhuoc province

14) Huong Do Thi Viet *et al.:* Usage of indices for mapping built-up and open space areas from Landsat 8 OLI imagery: A case study of Da Nang city, Vietnam

15) Hoang Phuong Vu *et al.:* Application of INaSAFE for disaster preparedness : A case study in Yamato river area, Osaka, Japan

16) Go Yonezawa *et al.:* Utilization of Elevation and Borehole Data of Hanoi city, Vietnam -Construction of 3D Geological Model

17) Thanh Ngan Nguyen *et al.:* The use of Landsat image in monitoring the desertification in NinhPhuoc district

18) Binh Nguyen *et al.:* Enhancing classification result on multispectral images based on fractions of endmember

19) Tran Thi Van *et al.:* Application of remote sensing to detect changes in low-lying swamp water under the impact of urbanization

20) Tran Thi Van *et al.:* Remote sensing application for monitoring urban environment quality in case of dust in Ho Chi Minh City

21) Tran Thi Van *et al.:* Spatial analysis on urban heat island in Ho Chi Minh City

22) Muneki Mitamura: Assessment on potential area for Aquifer Thermal Energy Storage (ATES) in Osaka plain

23) Quynh An Tran *et al.:* Fixing the topology rule error of "Polygon Contains Point" in spatial data processing

24) Gia Tung Pham *et al.:* The soil erosion and nutrient losses in hilly area in central Vietnam

25) Van Tuan Nguyen *et al.:* Study, build the model for delivering products of survey and mapping on internet

26) Khuu Minh Canh *et al.:* Lidar data reduction for preparing map data at 1:2000 scales. A case study in Ho Chi Minh City

27) Khuu Minh Canh *et al.:* Building information system for alerting traffic accident in Ho Chi Minh City

28) Van Sang Nguyen: Determination of the Mean Dynamic Topography from satellite altimetry data in the East Sea

29) Thi Thanh Tam Le *et al.:* Determination of sea surface anomaly on the East Sea from Satellite altimetry data and DTU13MSS

30) Quan Dan Hanh *et al.:* Application of SWAT model to assess the impacts of land use changes on Dau Tieng reservoir discharge

31) Thanapong Thanutgit *et al.:* Modeling land use change using Cellular Automata model: A case study of Wangthong City, Phitsanulok province, Thailand

32) Ferdenant Mkrtchyan *et al.:* GIMS-technology in the water quality monitoring

33) Xuan Cuong Cao *et al.:* A comparison of fusion methods for SAR and Optical Imagery

34) Phongpat Sontamino *et al*: Preliminary Study on a Minimum Requirement to Make a 3D Object for Mine Surveying Using UAV and Photogrammetry

14ᵗʰ November 2016:   12:00-13:30 Lunch break

14ᵗʰ November 2016:   13:30-15:05 Session 5: Urbanization *(Building C– 3ʳᵈ floor, 310)*
Chairpersons: Truong Xuan Quang and Go Yonezawa
1) Van Trung Le *et al.*: Trend of The Impervious Surface Change in Ho Chi Minh City
2) Thanh Ngan Nguyen *et al.*: The use of Built-Up Index and supervised classification in monitoring the built-up land area change of Binh Duong Province with Landsat image
3) Khanh Chi Pham *et al.*: Integrating GIS and spatial statistics to study Hanoi's urban structure and housing market
4) Pavithra Jayasinghe *et al.*: Identifying the relationship between land cover change and land surface temperature increase in Colombo City, Sri Lanka – A remote sensing and GIS approach
5) Yen Nhi Huynh: An approach to analyze process of urbanization in Dong Nai – Sai Gon River Basin

14ᵗʰ November 2016:   13:30-15:05 Session 6: Landscape *(Building C– 3ʳᵈ floor, 309)*
Chairpersons: Truong Xuan Luan and Susumu Nonogaki
1) Do Thi Hang *et al.*: Combining pixel-based and object-based Fuzzy classification for LULC mapping using spectral indices of RapidEye imagery and FOSS4G
2) Nguyen Quang Minh: A qualitative assessment of algorithm for increasing Gridded DEM resolution using the Hopfield neural network
3) Gia Tung Pham *et al.*: Impact of power value in IDW interpolation method on accuracy of the soil organic matter (SOM) mapping
4) Thanh Phi Truong: The Analytical Results of Maximum Ancient Sea-level on Limestone Blocks in Ha Long Bay, QuangNinh, Viet Nam and It's Shoreline in Red River Delta
5) Nga Nguyen *et al.*: Potential of drought monitoring using Sentinel-2 data

14ᵗʰ November 2016:   15:05-15:30 Coffee break

14ᵗʰ November 2016:   15:30-16:30 Session 7: Software solution & Data analysis B *(Building C– 3ʳᵈ floor, 309)*

Chairpersons: <u>Ho Dinh Duan and Shinji Masumoto</u>

1) Thanh Trung Duong: The performance evaluation of the INS/GNSS integrated navigation system with Analytic constraints

2) Ngoc Dung Luong: First-order theory of Perturbed orbit calculating

3) Bach Viet Pham *et al.*: Evaluation of horizontal precision of satellite imagery acquired from VNREDSat-1

14th November 2016:   15:30-16:50 Session 8: Management & Modeling B *(Building C– 3rd floor, 309)*

<u>Chairpersons: Tran Van Anh and Venkatesh Raghavan</u>

1) Minh Nguyen Dinh *et al.*: Using GIS to assess natural hazards in HoaBinh, Son La and Dien Bien provinces, Vietnam

2) Kampanart Piyathamrongchai: Climate change and impact to tourism in Thailand: Flood and heat stress-risk scenarios

3) Tin Hoang Cong *et al.*: Decadal monitoring tropical estuary shoreline changes using multitemporal remote sensing analyses

4) Anujit Vansarochana *et al.*: Trend analysis of historical rainfall data comparison with probabilistic statistical rainfall surface and Bayesian flood phenomenon investigation

14th November 2016:   16:50-17:00 Coffee break

14th November 2016: 17:00-18:00 Session 9: Web & Mobile GIS B *(Building C– 3rd floor, 309)*

<u>Chairpersons: Pham Thy Mai Thi and Sittichai Choosamrong</u>

1) Trong Duc Tran: Developing of a WebGIS to exploit drainage network data via internet

2) Vu Phan Hien *et al.*: Locating bus rapid transit stops using GIS and AHP: The Vo Van Kiet - Mai Chi Tho route in Ho Chi Minh City

3) Nam Dang Van *et al.*: Development of a vehicle tracking system based on MapWindow GIS

14th November 2016:   17:00-18:00 Session 10: Disaster Management & Modeling B *(Building C– 3rd floor, 310)*

<u>Chairpersons: Ho Dinh Duan and Venkatesh Raghavan</u>

1) Van Anh Tran *et al.*: Application of   PSInSAR method for determining of land subsidence in Hanoi city by Cosmo-Skymed imagery

2) Korrawan Wongmetta *et al.*: Flood resilience based on GIS Analysis: The case study of Chum Saeng district, Thailand

3) Vo Duy Long *et al.*: Long-term correlations between sea surface height and sea surface temperature in the East sea

14th November 2016:   18:30~ Welcome Reception at HUMG

15th November 2016: 8:30-10:30 Joint Session with HUMG

15th November 2016: 10:30-11:00 Coffee break

15th November 2016: 11:00-12:00 Panel Discussion and Closing *(Building C– 3rd floor, 310)*

15th November 2016: 12:00-13:30 Lunch

16th November 2016: Field Visit (Details at *http://gisws.media.osaka-cu.ac.jp/gisideas16/travel_stay.pdf)*