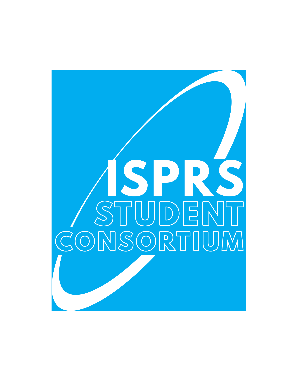
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**International Society for Photogrammetry and Remote Sensing (ISPRS)**

**Student Consortium and Technical Commission III**

**Summer School 2018**

**PROGRAMME**

**May 3-6, 2018**

**Beijing, China**

**Organized by:**

ISPRS Technical Commission III on Remote Sensing

ISPRS Student Consortium

**Hosted by:**

Beijing University of Civil Engineering and Architecture

## **BACKGROUND**

The summer school is an international event aims to provide an opportunity for students and young researchers to participate in a series of lectures and practical sessions at a minimum cost and interact in a more comfortable environment through social events and recreational tours, as well as experience the culture of the host country. It will also introduce ISPRS activities and potential opportunities to the participants, and widen their professional networks.

The summer school is jointly-organized by ISPRS Technical Commission III on remote sensing (ISPRS TC III) and Student Consortium (ISPRS SC). It is sponsored and hosted by Beijing University of Civil Engineering and Architecture (BUCEA).

It will be held from May 3 to 6, 2018, just before the ISPRS TC III Midterm Symposium on “Developments, Technologies and Applications in Remote Sensing”. It’s very convenient for the participants of the Summer School to attend the ISPRS TC.

## **PROGRAMME AT A GLANCE**

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| --- | --- |
| Thu, 3rd, May | Arrival and Registration |
| Fri, 4th, May | Open Ceremony & Lectures 1-5 |
| Sat, 5th, May | Lectures 6-10 |
| Sun, 6th, May | Excursion to Great Wall |
| 7th-10th,May | ISPRS TC III Symposium |



Campus of BUCEA

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| **Friday, 4 May**  Jianben Lecture Hall, Beijing University of Civil Engineering and Architecture (Daxing Campus) | |
| **Opening Ceremony**  (Moderator: Dr. ZHAO Xiaohong, Dean, School of International Education, BUCEA) | |
| 09:00-09:30 | **Welcome Addresses**  ***Dr. Ahmed Shaker,*** Vice President, ISPRS TC III  ***Ms. Angelica Kristina Monzon,*** *Newsletter Editor-In-Chief, ISPRS SC*  ***Prof. Su Wang,*** Vice President, BUCEA |
| 09:30-10:00 | **Group Photo and Tea Break** |
| **Session 1**  (Moderator: Dr. Ahmed Shaker, Vice President, ISPRS TC III) | |
| 10:00-10:40 | **Introduction to Synthetic Aperture Radar Systems**  ***Dr. Saygin Abdikan,*** Geomatics Engineering Department, Bulent Ecevit University, Turkey |
| 10:40-11:20 | **SAR-enhanced Disaster Risk Monitoring, Mapping and Assessment**  ***Batuhan Osmanoglu,*** NASA Goddard Space Flight Center, U.S.A. |
| 11:20-12:00 | **Remote Sensing for Forest Ecosystem Monitoring**  ***Dr. Mitsunori Yoshimura,*** Senior Research Scientist, PASCO Research Institute, Japan |
| 12:00-13:30 | **Lunch** (Zhenyuan Restaurant of the University) |
| **Session 2**  (Moderator: Dr. Ahmed Shaker, Vice President, ISPRS TC III ) | |
| 13:30-15:00 | **Frontier of Lidar for Forest Environment**  ***Dr. Xinlian Liang,*** Research Manager, National Land Survey of Finland, Finland  ***Yong Pang,*** Professor, Chinese Academy of Forestry, China |
| 15:00-15:30 | **Tea Break** |
| 15:30-16:10 | **Satellite radar observations in support of geo-disaster risk reduction**  ***Prof. Zhenhong Li,*** Centre for the Observation and Modelling of Earthquakes (COMET), Newcastle University, UK |
| 16:10-16:50 | **Remote Sensing and Public Health**  ***Prof. Fazlay S. Faruque,*** University of Mississippi Medical Center, U.S.A. |
| 16:50-17:30 | **Can we make indoor navigation smarter?**  ***Prof. Sisi Zlatanova,*** University of New South Wales, Australia |
| 18:00-20:00 | **Ice-breaking Reception**  Moderator: Dr. Liu Jinxiu, School of Geomatics & Urban Spatial Informatics, BUCEA  Dr. Ahmed Shaker, Vice President, ISPRS TC III |

## **AGENDA**

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| **Saturday, 5 May**  Jianben Lecture Hall, Beijing University of Civil Engineering and Architecture (Daxing Campus) | |
| **Session 3**  (Moderator: Dr. HUO Liang and Dr. LIU Xianglei, BUCEA ) | |
| 08:30-09:15 | **DEM Based Digital Terrain Analysis in the Loess Plateau of China**  ***Prof. Guoan Tang,*** Nanjing Normal University, China |
| 09:15-10:00 | **The Development of BeiDou Navigation Satellite System and Its Applications in Location-Based Service**  ***Prof. Weiping Jiang,*** GNSS Research Center, Wuhan University, China |
| 10:00-10:30 | **Tea Break** |
| 10:30-11:15 | **Accuracy Validation of Fine-resolution Global Land Cover Datasets**  ***Prof. Xiaohua Tong*,** Tongji University, China |
| 11:15-12:00 | **A low-cost mini-UAV laser scanning system-Kylin Cloud: design and performance**  ***Prof. Bisheng Yang,*** Wuhan University, China |
| 12:00-13:30 | **Lunch** (Zhenyuan Restaurant of the University) |
| **Session 4**  (Moderator: Dr. HUO Liang and Dr. LIU Xianglei, BUCEA ) | |
| 13:30-14:15 | **Remote Sensing of Coral Reefs in the South China Sea and their Future Evolution under Climate Change**  ***Prof. Fenzhen Su,*** Chinese Academy of Sciences, China |
| 14:15-15:00 | **Image data fusion and processing for high-precision mapping**  ***Prof. Peijun Du,*** Nanjing University, China |
| 15:00-15:30 | **Tea Break** |
| 15:30-16:15 | **Segmentation Scale Selection in geographic object-based image analysis (GEOBIA)**  ***Prof. Shihong Du,*** Peking University, China |
| 16:15-17:00 | **Urban sensors and sensing for Urban and infrastructure mapping**  ***Prof. Hongchao Fan*,** Wuhan University, China |
| 17:00-17:30 | **Policy to Support the Foreign Students Studying in Beijing**  ***Dr. Xianglei Liu*,** BUCEA, China |
| 18:30-20:30 | **Student Party**  Moderator: Dr, Chen Qiang, School of Geomatics & Urban Spatial Informatics, BUCEA  Ms. Angelica Kristina Monzon, Newsletter Editor-In-Chief, ISPRS SC |
| **Sunday, 6 May** | |
| 09:00 | **Gather at the Lobby of the Hotel and departure to Great Wall** |
| 10:00-15:00 | **Excursion to Great Wall** |
| 15:00-17:00 | **Back to City and Go to TC III Symposium venue** |
| **7-10 May** | |
| **Departure for home, or attending to ISPRS TC III Symposium** | |

## **PROFILE OF PRESENTATIONS**

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| --- | --- | --- | --- | --- |
| **Friday, 4 May** | | | | |
| **Opening Ceremony** | | | | |
| 08:30-09:00 | | Ahmed Shaker | **Dr. Ahmed Shaker*,*** Vice President, ISPRS TC III  Department of Civil Engineering  Faculty of Engineering and Architecture Science  Ryerson University, Canada  [ahmed.shaker@ryerson.ca](mailto:ahmed.shaker@ryerson.ca) | |
| Angelica Kristina Monzon | **Ms. Angelica Kristina Monzon,** Newsletter Editor-In-Chief, ISPRS SC  Center for Conservation Innovations  Philippines  [angelicakv.monzon@gmail.com](mailto:angelicakv.monzon@gmail.com) | |
| 20141230152318822646 | **Prof. Wang Su,**Vice President, BUCEA  wangsu@bucea.edu.cn | |
| **Session 1** | | | | |
| 10:00-10:40 | | H:\ASUS bilg\D\Documents\Pictures\tr-2013\IMG_20131201_175302.jpg | | **Dr. Saygin Abdikan**  Assistant Prfessor, Geomatics Engineering Department  Bulent Ecevit University, Turkey  [sabdikan@beun.edu.tr](mailto:sabdikan@beun.edu.tr) |
|  | | **Introduction to Synthetic Aperture Radar Systems**  Synthetic Aperture Radar (SAR) can be used to map land use/cover and changes on Earth surface utilizing both amplitude and phase information. The main motivation to use SAR systems over optical systems is that they acquire images both day and night, and they can acquire imagery under almost all air conditions. Monitoring Earth surface with SAR systems depend on system parameters of the sensor and the target parameters. In this context, system parameters such as radar geometry, resolution, wavelength and polarization can be very critical for the mapping purposes. Different wavelengths and polarizations provide different information corresponding surface and due to fact that a variety of satellites have been launched. Some of them have completed their missions and widely used. Last decade more new generation SAR sensors have been launched to monitor Earth surface such as natural resources monitoring, and natural hazard mapping. Target parameters such as backscatter from objects, topography, penetration, and roughness are other parameters which should also be considered when information is extracted for monitoring. Eventhough SAR systems have some advantages over optical sytems, they also have some drawbacks due to topography which could be essential during the acquisition.  In this lecture, he will give fundamentals of SAR systems and basics of imaging geometry. In addition to that, the basics of pre-processing steps such as calibration, multilooking, speckle noise filtering, terrain correction and geocoding will be introduced. Brief information about recent generation of radar sensors and applications will be provided. Multi-dimensional SAR systems and examples on hazard monitoring such as flooding, landslides monitoring, urban extraction, and forest degradation using amplitude information and coherence utilized from phase information will be presented. | | |
|  | | **Biography**  He received a BSC degree in Geodesy and Photogrammetry Engineering from Yıldız Technical University (YTU), Istanbul, in 2004, and MSC and PhD degrees in Remote Sensing and GIS programs of YTU, Istanbul, in 2007 and 2013, recpectively. From 2005 to 2010, he was a research assistant with the Geomatics engineering department, YTU Istanbul, Turkey.  He was awarded with Huygens Scholarship by Dutch Government and studied for two years from 2009 to 2011 in the radar group of Geoscience and Remote Sensing Department, Delft University of Technology, Delft, Netherlands. He has research experience on SAR remote sensing and currently having PI and Co-PI roles SAR and InSAR focused projects. He has investigated deformation phenomena regarding underground coal mining, water discharge and urbanization using different SAR sensor images. In addition to that, he is working on soil moisture modeling, image fusion and multi-temporal land use/cover analysis for agriculture monitoring and inventory. He is a reviewer for a number of remote sensing and geosciences related major international journals. His current research interests include InSAR analysis for deformation monitoring, SAR image analysis and land cover mapping, multi sensor and data fusion. During his research he was involved in organizing first ISPRS summer school and youth camp events. Currently, he is conducting secretary of ISPRS TC III/II since 2016. | | |
| 10:40-11:20 | |  | | **Dr. Batuhan Osmanoglu**  Biospheric Sciences Laboratory  NASA Goddard Space Flight Center, USA  [batuhan.osmanoglu@nasa.gov](mailto:batuhan.osmanoglu@nasa.gov) |
|  | | **SAR-enhanced Disaster Risk Monitoring, Mapping and Assessment**  Synthetic Aperture Radar (SAR) brings unique advantages to disaster response and assessment, thanks to its unique capabilities such as sunlight independent and through the clouds imaging. With over ten civilian SAR satellites in orbit, more often than not, the first medium resolution imagery is acquired from a SAR satellite after a major disaster. Furthermore, SAR’s unique capability to acquire imagery at different resolutions (1-100m) and its potential to cover large swaths (10-400km) make it a useful asset in space. NASA’s DISASTERS Program targets a spectrum of disasters, including floods, earthquakes, volcanoes, and landslides as well as combined hazards and cascading impacts, using any available remote sensing imagery, state-of-the-art techniques, and modelling.  In this lecture, he will go over some of the synthetic aperture radar techniques utilized in disaster risk monitoring, mapping and assessment. The techniques presented, will not only cover the SAR amplitude based applications but also other SAR observables (e.g. phase, coherence) as well as imagery acquired at different frequencies and polarizations. In terms of risk monitoring, we will touch on interferometric time series analysis as a method of detecting slow moving landslides, mapping interseismic fault motion, mining/boring related deformations and coastal subsidence exacerbated by sea-level rise. We will look into amplitude based techniques for oil spill, flood, tornado scar mapping. Amplitude and phase based change detection techniques will also be presented for large scale damage mapping (e.g. earthquake aftermath).  He will also investigate a few past disasters and NASA’s response to them. The distinction and relationship between hazard and risk will also be analyzed. These will highlight what SAR imagery brought to the table in each case. At the end of the lecture we will discuss the publicly available tools and imagery SAR analysis, so that interested attendees can work start working on their own. This lecture will build upon the lecture given by Saygin Abdikan titled “Introduction to Synthetic Aperture Radar Systems”. | | |
|  | | **Biography**  Batu holds a B.Sc. in telecommunications engineering and a Ph.D. in synthetic aperture radar interferometry time-series analysis. His dissertation was selected to be the most original research, and he is the winner of the University of Miami Rosenstiel School F.G. Walton Smith Prize for 2012. He worked on glacier remote sensing as a Post-Doc at the University of Alaska Fairbanks between 2011 and 2013. His primary area of expertise is radar remote sensing, and he has worked on applications for observing surface deformation, measuring target velocities, boosting signal-to-noise ratio in target detection algorithms, and radar design and instrumentation.  Since 2013 he has been working at the NASA Goddard Space Flight Center. He is working on the instrument and algorithm development of P- , L-, X- and Ku-band synthetic aperture radar systems. He received the NASA Goddard Heliophysics and Biospheric Sciences Award in 2015 for his contributions to the ongoing radar work at Biospheric Sciences Laboratory. He is currently working on development of a snow radar/radiometer sensor, and is one of the DISASTERS Program Coordinators at NASA Goddard.  He also works at International Association for Hydrogen Energy as an Internet editor. In his free time, he helps to create new features for Technical University of Delft's Interferometry software (DORIS), and he is the core developer of the Automated DORis Environment (ADORE).  He is a member of the IEEE and American Geophysical Union. He chairs the Microwave Remote Sensing workgroup under International Society for Photogrammetry and Remote-Sensing. He takes part in several remote sensing projects, for which he uses radar satellite imagery operated by European, German, Italian, Japanese and Canadian Space Agencies, NASA's airborne sensors DBSAR, ECOSAR and UAVSAR, and GAMMA's Ground Based Radar Interferometer. | | |
| 11:20-12:00 |  | | | **Dr. Mitsunori Yoshimura**  PASCO Research Institute  PASCO Corporation, Japan  [gr4m-ysmr@asahi-net.or.jp](mailto:gr4m-ysmr@asahi-net.or.jp) |
|  | **Remote Sensing for Forest Ecosystem Monitoring**  Most of the earth surface is covered with water and remaining 30% is land. Forests cover 30% of world’s land. However half size of England are lost every year. Especiallytropical rainforests are often referred to as the lungs of the earth and treasures of biodiversity. Most important tropical rainforest processes occur in the canopy layer, where the bulk of photosynthesis, transpiration and gas exchange between ecosystem and atmosphere take place. Recently, closer links have been forged between canopy physiological studies and remote sensing technology to allow up-scaling of canopy processes and mechanisms. Many plant ecophysiological mechanisms measured at the leaf or branch scale could be integrated at larger spatial scales to the individual or community level using remote sensing and other geospatial technologies.  In this lecture he introduce ‘Remote Sensing for Forest Ecosystem Monitoring’ based on his experiences at tropical rainforest canopy research in Sarawak, Boruneo Malaysia. In the lecture, he focuses on the ground based remote sensing measurements in order to estimate canopy processes such as plant physiological activities based on the forest light environment. Because the key link between canopy processes and remote sensing techniques is the forest light environment, which is defined as the light distribution and its interactions between the canopy surface and the below-canopy region, and which determines forest plant activities. In this case, we adopted the crane system as our canopy access tool. It is namely the canopy crane and is 80 m in height with a 75 m arm length, and provides us an effective access to any point within a cylinder-shaped volume of 75 m radius and 85 m height. He will show some unique research results and examples. | | | |
|  | **Biography**  He got his Bachelor and Master Degree from Hosei University in 1984 and 1986, PhD from University of Tokyo in 2008. He is Senior Research Scientist in PASCO Research Institute. He is Chair of ISPRS WG III/10onAgriculture and Natural Ecosystems Modelling and Monitoring. | | | |
| **Session 2** | | | | |
| 13:30-15:00 |  | | | **Dr. Xianlian Liang**  Finnish Geospatial Research Instittute  National Land Survey of Finland, Finland  [xinlian.liang@nls.fi](mailto:xinlian.liang@nls.fi) |
| **C:\Users\dell\AppData\Local\Temp\WeChat Files\132336274425880927.jpg** | | | **Prof. Peng Yong**  Department of Forest Application of Remote Sensing  Institute of Forest Resource Information Techniques  Chinese Academy of Forestry, China  caf.pang@gmail.com |
| **Frontier of Lidar for Forest Environment**  Forests is an essential provider of ecosystem services. To assess the amount and the distribution of forest resources, information is gathered at various scales and at different user levels. During the last two decades, LIDAR (LIght Detection And Ranging) remote sensing technology, which documents three-dimensional (3D) environment with millions to billions of 3D points (i.e., point cloud), has become more and more practically used in forest resource inventories and assessment. The major advantage of LIDAR technique lies in its capability to penetrate forest canopies and to digitize forest 3D structure accurately and automatically, thus automating the processing line, improving the cost efficiency and enabling time series monitoring. This course gives an overview of the latest advantages of the LIDAR technique in forest environment. LIDAR system from various platforms, e.g., terrestrial, mobile, personal, UAV, airborne and space-borne, are summarized and their technical advantage and disadvantages are discusses in applications contexts as well as by comparison studies. Meanwhile, point cloud data sources other than the LIDAR technique, e.g., structure from motion and structured light, are also discussed to give an overview of the study and application frontiers. | | | |
| **Biography**  **Dr. Xianlian Liang** got his Bachelor Degree on Geomatics from Wuhan University in 2002, Master Degree on photogrammetry and remote sensing from Chinese Academy of Surveying and Mapping in 2005, and PhD on geoinformatics with honors from Aalto University, Finland in 2013. He is now research manager in Finnish Geospatial Research Institute, National Land Survey of Finland. He is chair of ISPRS WG III/1 on thematic information extraction.  **Prof. Peng Yong** graduated from Anhui Agriculture University in 1997, got his Master Degree from Chinese Academy of Forestry in 2000, and PhD from Institute of Remote Sensing Application, Chinese Academy of Science in 2005. He is now deputy director of the department of forest application of remote sensing. | | | |
| 15:30-16:10 | |  | | **Prof. Zhenhong Li**  School of Civil Engineering and Geosciences  Newcastle University, UK  [Zhenhong.Li@newcastle.ac.uk](mailto:Zhenhong.Li@newcastle.ac.uk) |
|  | | **Satellite radar observations in support of geo-disaster risk reduction**  Earthquakes, together with landslides and other events that they trigger, are a significant proportion of the natural hazards faced by human societies. Earthquakes affect large areas and disrupt normal communications, and represent an increasing risk of human loss and severe economic damage as vulnerable populations grow in areas of seismic hazard. Observations of the seismic cycle not only give insight into the mechanics of a fault, but also play key roles in estimating the likelihood of future earthquakes.  In addition to large earthquakes, landslides can be triggered by other different mechanisms, such as monsoonal rainfall or storms. There are a range of factors that affect landslide motion, including topography, geology, vegetation, precipitation and anthropogenic factors (e.g. man-made roads, deforestation and agricultural terraces). Monitoring landslides is a crucial task to understand their mechanisms, adopt preventive measures and reduce casualties and infrastructure damage.  Interferometric Synthetic Aperture Radar (InSAR) can be used to map changes in the Earth’s surface from space, utilizing the phase differences in complex (magnitude and phase) Synthetic Aperture Radar (SAR) images acquired in similar geometric conditions, but at two different epochs, to measure range changes in the radar line of sight to the satellite. This can be done with sub-centimetre precision and metres of horizontal spatial resolution over large regions (e.g. 100 km × 100 km). With its global coverage and all-weather imaging capability, InSAR is revolutionizing our ability to image the Earth’s surface and the evolution of its shape over time. Using satellite radar data (SAR) we can pinpoint areas of greatest probable damage, map surface deformation, and determine earthquake and landslide mechanisms, all of which are critical to risk mitigation. This information can be gathered soon after a geo‑disaster event, but speed is essential in disaster response and we require new ways to accelerate data processing to provide crucial information to relief teams.  In this presentation, I will use a range of recent events to demonstrate how satellite radar observations can be employed (i) to rapidly respond to large earthquakes, (ii) map and monitor landslides, and (ii) assess future geohazards. | | |
|  | | **Biography**  He is Chair Professor of Imaging Geodesy in the School of Engineering at Newcastle University, United Kingdom. He received a BSc degree (with distinction) in geodesy from Wuhan Technical University of Surveying and Mapping (now Wuhan University), Wuhan, China, in 1997, and a PhD degree in GPS, geodesy, and navigation from University College London, London, UK, in 2005.  He has approximately twenty years of research experience in Space Geodesy and Remote Sensing (mainly SAR, InSAR and GNSS) and their application to geohazards (e.g., earthquakes, landslides and land subsidence), infrastructure stability and precision agriculture. He specializes in development of InSAR atmospheric corrections and time-series algorithms for precisely mapping surface movements, and has made several original contributions to the direct estimation and/or mitigation of atmospheric effects on InSAR measurements. His recent major achievements include (i) the generation of the first interferogram from Chinese Gaofen-3 mission together with some collaborators, which is also the first interferogram from Chinese civilian radar missions; and (ii) the release of Generic Atmospheric Correction Online Service for InSAR ([GACOS](http://ceg-research.ncl.ac.uk/v2/gacos)). He has investigated a series of large earthquakes (e.g. Sumatra (Indonesia, 2007), Wenchuan (China, 2008), Yushu (China, 2010), Van (Turkey, 2011), Tohoku (Japan, 2011), and Gorkha (Nepal, 2015)) and active landslides (e.g. Huangtupo, Shuping, and Daguangbao landslides, China). Being the lead PI of STFC Newton Agri-Tech [PAFiC](http://ceg-pafic.ncl.ac.uk/index.php/en/) project, he is also an investigator of the Centre for the Observation and Modelling of Earthquakes, Volcanoes and Tectonics ([COMET](http://comet.nerc.ac.uk/)), the consortium Looking Inside the Continents from Space ([LICS](http://comet.nerc.ac.uk/about/our-projects/)), and the [CBDRRiC](https://www.dur.ac.uk/geography/research/research_projects/?mode=project&id=967) project within IRNHiC.  He is a Fellow of the International Association of Geodesy (IAG), a Senior Member of the Institute of Electrical and Electronics Engineers (IEEE), an Associate Editor for Advances in Space Research and Remote Sensing, Editorial Board Member for Sensors, Survey Reviews, and Journal of Earthquake Science, and a Guest Editor for six Special Issues of Remote Sensing and one Special Issue of Sensors. | | |
| 16:10-16:50 | Fazlay S. Faruque | | | **Prof. Fazlay S. Faruque**  Department of Preventive Medicine, GIS & Remote Sensing Program, University of Mississippi Medical Center  USA  [FFaruque@umc.edu](mailto:FFaruque@umc.edu) |
|  | **Remote Sensing and Public Health**  The utilization of remote sensing and geospatial technologies has been instrumental to advance our understanding of environmental factors affecting our health and well-being. Earth-observing technologies and data are important elements of a comprehensive and multi-scaled public health response both at micro and macro levels identifying immediate and long-term impacts. Remote sensing and geospatial technologies have been successfully implemented for more than fifty years examining the role of environmental factors in air-borne, vector-borne, soil-borne and water-borne diseases. With the availability of new data and advanced technologies, more robust public health measures are being implemented to improve our health and well-being which can even be extended from public health to clinical healthcare settings. This presentation will cover the basics of remote sensing, earth observation resources, the concept of landscape epidemiology, and new opportunities in health research and clinical practices. | | | |
|  | **Biography**  Fazlay Shahid Faruque is a professor of Preventive Medicine and the founder Director of GIS & Remote Sensing program at the University of Mississippi Medical Center (UMMC), USA. Dr. Faruque received his educational training in Geology and Mining from the University of Rajshahi and later in Geological Engineering from the University of Mississippi. For almost thirty years, Dr. Faruque has been teaching and conducting research in geospatial science and technology with the main focus on environmental health. He has been providing leadership services to his professional field at national and international levels. He managed workshops at UMMC in 2003 for National Aeronautics and Space Administration (NASA) and Centers for Disease Control and Prevention (CDC) which resulted in a Memorandum of Understanding between these two US federal agencies “to explore the application of Earth system science, technology, and data to environmental public health”. He conducted several international workshops, symposiums and conferences with focus on geospatial applications in health. He also serves as editor for book volume and journal special issues. His research interests include different areas of population health including geographic health disparities, community assessment, environmental exposures, and community health improvements. As the Principal Investigator, he has been funded more than $3.5 million for projects related to these areas by several funding agencies including NASA and National Institutes of Health (NIH). | | | |
| 16:50-17:30 | https://3d.bk.tudelft.nl/szlatanova/index_files/image002.jpg | | | **Dr. Sisi Zlatanova**  UNSW Built Environment  University of New South Wales, Australia  [s.zlatanova@unsw.edu.au](mailto:s.zlatanova@unsw.edu.au) |
|  | **Can we make indoor navigation smarter?**  Indoor navigation relies on many different technologies such as indoor positioning (localisation) and tracking, indoor modelling, computation/selection of navigation paths and guidance/visualisation. Amongst all, the research on models (semantic, geometric and topological) is still very fragmented and application-oriented. Models and maps are created for specific buildings, user types or applications. Most of the commercially available spatial models rely on simplified indoor representations (2D maps), ignore indoor features (e.g. furniture) and overlook size and mode of movement of guided agents (robots and humans). This lecture will discuss all these issues and will present recent developments toward generic framework for 3D space identification and subdivision, which support indoor localisation and navigation.  The framework builds upon Poincare Duality and concepts of the OGC standard IndoorGML. The fundamental idea is that any object occupies a space. To be able to locate and navigate, the free of objects space need to be identified. Depending on the type of objects (static, semi-mobile and mobile), the framework distinguishes between object space, functional space and free space. Given a semantically-rich 3D model, these spaces can be created fully automatically. Applying Poincare duality and several agent-specified parameters, a context-aware path is then derived. The framework can consider any 3D indoor environment and static or dynamic activities it hosts. The benefit of this approach will be demonstrated for map-assisted localisation (wifi-based) and agent-adapted path computation | | | |
|  | **Biography**  Dr. Sisi Zlatanova is a Professor at the Faculty of Built Environment, UNSW, Sydney, Australia and Director of Geospatial, Research, Innovation and Development (GRID) cluster. She has graduated at the University of Architecture Civil Engineering and Geodesy (UACG), Sofia, Bulgaria and obtained het PhD on 3D GIS for urban development at Graz University of Technology, Graz, Austria. She has worked as surveyor at the Bulgarian National Cadastre, Sofia (1985-1990), assistant-professor at UACG (1990-1995), researcher at ITC, Enschede, Netherlands (1995-1999), visiting professor at SSUGIT (2015-2017) and associate professor at Delft University of Technology (2000-2018).  Her research interests are in 3D modelling (indoor and outdoor) and applying 3D technologies for crisis management. She gives courses on 3D Modelling and Spatial Decision Support Systems for professional and research students. She has been an invited lecturer in China, Italy, Czech Republic, Germany, Bulgaria, Austria, Russia and Spain. She is (co-)author of more than 350 scientific publications and (co-)editor of 22 books. She is editor-in-chief of the International Journal of 3D Information modelling. She has been actively involved in several national and international projects as project leader and WP leader. She is a President of the ISPRS Commission IV ‘Spatial Information Science’ (2016-2020) and co-chair of OGC SWG IndoorGML. She is principal organiser of the annual international conference Gi4DM and chair and co-chair of several other international conferences (3DGeoInfo, Gi4DM, UDMS, 3DIndoor). | | | |



Great Wall near Beijing

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| **Saturday, 5 May** | | | |
| **Session 3** | | | |
| 08:30-09:15 | C:\Users\Administrator\Desktop\汤国安1-4.jpg | | **Prof. Guoan Tang**  School of Geography，  Nanjing Normal University  [tangguoan@njnu.edu.cn](mailto:tangguoan@njnu.edu.cn) |
| **DEM Based Digital Terrain Analysis in the Loess Plateau of China**  Digital elevation models have found more and more applications in deep geographical information mining. The Loess Plateau of China is a complex, diverse but orderly differentiated combination of the loess landforms. Loess terrain is the core factor restricting the ecological environment of this region. DEM based digital terrain analysis of the loess landform is aimed to reveal the spatial structure and mechanism of loess landforms. A series of innovative digital terrain analysis methods are put forward and achieve good result in practice, which is hopeful in serving the local environmental management and ecological restoration. | | |
| Prof. Guoan Tang, born in June 1961, works at Nanjing Normal University and is the director of Jiangsu Provincial Key Laboratory on Geographical Information Sciences. TANG Guoan received his Ph.D. degree in Geography from Salzburg University, Austria, in 1998. He was a professor of department of urban and resource sciences in Northwest University from December 1998 to January 2004. He is now a professor of the School of Geography at Nanjing Normal University, council member of China Association of Geographic Information System (CAGIS), Chair of Education Committee of CAGIS, and co-chair of Cartography & GIS Committee of the Geographical Society of China.  His current research interests focus on the principles and methodologies of digital elevation model (DEM) and digital terrain analysis (DTA). In this study field, he has been in charge of many critical scientific research programs including Key Programs of National Nature Science Foundation of China, as well as High-technology Research and Development Program of China. He has published 17 monographs and teaching textbooks, as well as more than 200 articles. He was awarded 3 awards of Science and Technology at Provincial or Ministry level. In GIS higher education, he has been leading the National Teaching Team and in charge of Elaborate Sharing Course. In 2009, Ministry of Education rewarded him with Second National Prize for Teaching Achievement. In 2014, he was selected into “Ten Thousand Talent Program for Distinguished University Teacher” by the organization department of the central committee of the CPC. | | |
| 09:15-10:00 |  | **Prof. Jiang Weiping**  Director, GNSS Research Center,  Wuhan University, China  [wpjiang@whu.edu.cn](mailto:duxiao@ngcc.cn) | |
| **The Development of BeiDou Navigation Satellite System and Its Applications in Location-Based Service**  The BeiDou Navigation Satellite System (BDS) possesses the advantages of navigation, positioning, timing and short message communication, which opens a new era of autonomous satellite navigation business of China and extends the applications of navigation satellites. The presentation introduces the development of BDS and discusses its applications in location-based service (LBS). China upholds the principles of "independence, openness, compatibility and gradualness" in the BDS construction and development. BDS has been independently developed step by step with constant improvement, and a three-step strategy of development was gradually formulated. By 2020, BDS will consist of 5 GEOs, 27 MEOs and 3 IGSOs, totally 35 satellites to provide global service. At present, 29 satellites have been launched and BDS is providing Asia-Pacific region with full of capability. LBS is a software-level service that uses location data to control features. BDS could play important roles in LBS due to its positioning and timing features. Based on BDS, we discuss how to establish Ground-Based Augmentation Systems (GBAS) in this presentation. We also introduce the BDS-focused LBSs in Hubei province, Shanxi province, Zhuhai city of China, and so on. Along with the development of the BDS project and service ability, LBSs have been widely applied in communication and transportation, surveying, mapping and geographic information, time synchronization for communication systems, emergency search and rescue, and other fields. China applies the principle that "The BDS is developed by China, and dedicated to the world". BDS has been promoting global satellite navigation development and providing better services to the world and benefitting mankind. | | |
| **Biography**  Prof. Weiping Jiang, works at GNSS research center of Wuhan University and is the director of this center. He received his PhD degree in Wuhan University in 2001, and worked as post-doctoral research associate with Nordic Volcanlogical Center in Iceland from 2003 to 2004. He was a visiting Professor in Stuttgart University from March to December 2007. He has been a Professor of Wuhan University since 2005.  His current research interests are the theory of satellite geodesy and its applications. He gave the new algorithm of integrated large-scale GNSS network analysis, and made a precise environment loading model to correct the non-linear variations in coordinate time series. He established a new dynamic model to monitor the deformation of plate boundary using GNSS technology, determined firstly the velocity field of Iceland by GNSS, and discussed the coupling mechanism between post-glacial rebound and global warming in Iceland. He proposed a set of methods for processing multi-mission satellite altimetry data, and developed global mean sea surface height model. He also determined the rising velocity and acceleration of global mean sea level quantitatively over the last 60 years. He has published more than 150 papers, and is the Principal Investigator of 40 sponsored research projects. | | |
| 10:30-11:15 |  | Prof. Tong Xiaohua  Dean, College of Surveying and Geo-Informatics,  Tongji University, China  tongxhtj@yeah.net | |
| **Accuracy Validation of Fine-resolution Global Land Cover Datasets**  Global land cover (GLC) dataset is one of the most fundamental data in the study of geosciences, global changes and global geographical condition monitoring, and it is a critical challenge to ensure the quality and degree of trust in the utilized dataset. This lecture first addressed a comparative study of the validation methodology for the existing global land cover datasets with coarser resolutions, and then introduced a systematic validation scheme for finer-resolution GLC datasets, including validation strategy, sampling method, sample size determination and reference data. Afterwards, the proposed methodology was used in some practices on the validation of GLC datasets, and the results were discussed. | | |
| **Biography**  Prof Xiaohua Tong is Dean of College and Chair Professor in Geographic Information Science and remote sensing, for College of Surveying and Geo-Informatics, Tongji University. He received his B. Eng, M. Eng and Ph.D degree from Tongji University in 1993, 1996 and 1999 respectively. He has been a visiting scholar at the University of California, Santa Barbara, USA between 2008-2009, research fellow of The Hong Kong Polytechnic University in 2006, and postdoctoral position in photogrammetry and remote sensing in Wuhan University between 2001-2003. He is also the Cheung Kong Scholars Chair Professor by Ministry of Education, China, Distinguished Young Scholar by National Natural Science Foundation, China, Leading talent of Surveying and Mapping Science and Technology by National Administration of Surveying, Mapping and Geo-information, China.  Prof Tong's current research interests focus on quality and trust in spatial data and modelling, and high-resolution satellite sensor models and photogrammetric processing, with applications to lunar and deep space exploration, as well as global change. He served as vice Chair of Commission on Data Quality, International Cartography Association (2011-2015), ISPRS Co-Chair of Working Group on Spatial Statistics and Uncertainty Modelling. He also serves as an associate editor and editorial board member for a number of journals, including Marine Geodesy, Science in China (Earth Science). He has published more than 100 SCI journal articles. | | |
| 11:15-12:00 | https://gss1.bdstatic.com/9vo3dSag_xI4khGkpoWK1HF6hhy/baike/w%3D268%3Bg%3D0/sign=f49f8db93901213fcf3349da6cdc51ec/8b82b9014a90f6030a0225273912b31bb051ed24.jpg | **Prof. Yang Bisheng**  Director, State Key Laboratory of Information Engineering in Surveying, Mapping and Remote Sensing,  Wuhan University, China  bshyang@whu.edu.cn | |
| **A low-cost mini-UAV laser scanning system-Kylin Cloud: design and performance**  Mini-UAV laser scanning systems are receiving attractive attention for high-resolution earth observation applications. However, a compromise has to be determined between the costs, weights, and qualities of sensors because of limited payload and battery consumption of a mini-UAV (e.g., maximum payload < 5kg). Hence, a dilemma occurs to the price, accuracy, and weight of an IMU. To obtain a high quality and low-cost mini-UAV laser scanning system, this talk elaborates the design and performance a low cost mini-UAV laser scanning system—Kylin Cloud, consisting of cost-effective sensors: a MEMS-based IMU, a global shutter camera with wide angle lens, a 16-lines laser scanner, and a DJ MD 600 multi rotor UAV. On the one hand, the methods about the accurate states estimation of Kylin Cloud system and automated self-calibration of laser-IMU-camera are reported. On the other hand, the application studies of Kylin Cloud system are presented to evaluate its performance (e.g., the qualities of point clouds), showing a powerful means for typical applications, such as forest 3D mapping, power line corridor 3D mapping, and so on. | | |
| **Biography**  Dr. Bisheng Yang is a full Professor in GeoInformatics at Wuhan University, China. He obtained his Ph.D degree in Photogrammetry and Remote Sensing in 2002 from Wuhan University. He holds ‘Yangtze River Scholar’ Distinguished Professor and Distinguished Young Scholars Professor. His research expertise include mobile mapping, UAV mapping, point cloud processing, and GIS applications. Dr. Yang has so far published more than 100 papers in peer-review journal articles, conference and workshop proceedings, more than 40 of them are in SCI-indexed journal articles. He is Co-Chair of Point Cloud Processing Workgroup in Photogrammetry Commission of the International Society for Photogrammetry and Remote Sensing (ISPRS) from 2016-2020 and Editorial Boarding Member of ISPRS Journal of Photogrammetry and Remote Sensing from 2016-2020. He is the recipient of a lot of national and international academic awards including ESRI Best Scientific Paper in GIS awarded by ASPRS (2005), First order award from the Ministry of Education of China (2009), First order award from Bureau of Science and Technology of Hubei Province (2016). He organized and participated in organizing many national and international conferences and chaired many conferences, such as ISPRS Geospatial Week, Laser Scanning, MMT, and serves as program committee member of more than 10 international conferences, symposiums, and workshops in the field of GeoInformatics. He is also active in cooperation with industrial community. His technology in point cloud processing is working in Baidu Inc. for automated driving. | | |



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| 13:30-14:15 |  | | **Prof. Su Fenzhen**  Institute of Geographic Sciences and Natural Resources Research,  Chinese Academy of Sciences (CAS), China  sufz@lreis.ac.cn |
| **Remote Sensing of Coral Reefs in the South China Sea and their Future Evolution under Climate Change**  Coral reefs are constructed by the bones of dead stony corals in tropical ocean coral and other reef creatures living in the meantime or adhering to the reef, and algae et al. As a very special ecosystem in the ocean, coral reef maintains a high level of biodiversity and primary productivity. Sometimes it is known as “the rainforest in the ocean”, “the blue oasis in the desert”. However, as the effects of global change, coral bleaching is occurring more and more frequently and seriously worldwide. How to conduct the monitoring of coral reefs by satellite about their stressors and health draws intense interest. Our researches focus on China’s Coral Reefs in South China Sea (SCS), and have made progress in the following aspects. (1) Coral reef geomorphologic mapping by remote sensing. We proposed third-class of complete and hierarchical geomorphic scheme and established the offshore reef geomorphic type extraction model based on high resolution images. On this basis, a comprehensive and detailed geomorphologic map of coral reefs in SCS was given. (2) Coral cover extraction based on geomorphic zones. Model of coral cover based on geomorphic zones was proposed using field data and satellite images; and the accuracy was superior to models without geomorphic zones. Results of change detection from 1990 to 2014 showed that coral cover in Xisha Islands underwent the process from slightly increase to remarkable decrease. From 2005 to 2014, especially coral cover of the reef flat and the lagoon decreased severely compared to forereef. Yongle Qundao had a higher degree of human activities, and the coral cover area decreased more than other islands that had lower human disturbances. (3) Spa-temporal analysis of thermal stress to coral reef. The results from 1982 to 2009 indicated that, as a chronic thermal stress, mean sea surface temperature (SST) in SCS showed an average upward trend of 0.2℃/decade and the spatial pattern was heterogeneous. Waters of Xisha Islands and Dongsha Islands of the northern SCS were warming faster through time compared to Zhongsha Islands and Nansha Islands sea areas of the southern SCS. High frequency bleaching related thermal stress events for these reefs was seen in the area to the southeast of Dongsha Island. (4) Coral reef future evolution under climate change. Reef geomorphic evolution model in the SCS was constructed based on SST and sea level. Offshore reef geomorphic evolution under minimum and maximum sea level rise of RCP2.6, RCP4.5 and RCP8.5 scenarios were simulated and analyzed with temporal patterns. Under the RCP2.6 and RCP4.5 scenarios, unsustainable coral reefs were mainly located in Nansha Islands; almost all of the coral reefs in the SCS were unsustainable under the RCP8.5 scenario, showing a sinking trend. Coral reefs of Xisha Islands tended to have experienced lower thermal stress events in the past 30 years and will continue in the future, suggesting to be implemented fully protection to keep their natural status. | | |
| **Biography**  Dr. Fenzhen Su is a professor of the Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences (CAS). He is currently the director of the State Key Laboratory of Resource and Environmental Information System, team leader and chief expert for the Major Project Group of the National High-tech R&D Program of China (National 863 Program), chairperson of the Geographical Information Science Commission of the International Geographical Union (IGU), council member of the Chinese Society for Oceanography (CSO), associate director of the Marine Remote Sensing Professional Committee.  Dr. Su has built up a process-centric basic Geographic Information System, and published “Marine Geographic Information System”, which was China's first academic monograph in this field. He has organized the research and development of the information systems for the global marine fishery based on the unified grid, which opened up the new areas of the GIS research and provided significant technological support for the management development of marine fishery.Dr. Su has also constructed a model for coastal spatial mechanics analysis and completed a 30-year assessment of the changes on China’s coastal zone, and published academic monographs, including “The Coastal Zone Assessment based on Remote Sensing”.  In the research on the coastal zone with GIS and Remote Sensing, Dr. Su has published 182 academic papers, with 33 of them in journal indexed by SCI. He has published 10 academic monographs and won the Science and Technology Awards for Chinese Youth. He has mainly focused on the combination of scientific research and practice, and won the National Science and Technology Progress Awards for 5 times, the provincial and ministerial technology awards for 10 times. | | |
| 14:15-15:00 | DU PEIJUN | **Prof. Du Peijun**  School of Geography and Ocean Science,  Nanjing University, China  dupjrs@126.com | |
| **Image Data Fusion and processing for high-precision mapping**  In order to improve the accuracy of remote sensing image processing and mapping, multi-source data fusion and advanced image classification methods have attracted more and more interests. This talk consists of three parts. Part I focuses on image data fusion, including data, feature and decision level fusion methods and their applications to multi-source remote sensing image fusion. Part II summarize the progress of remote sensing image classification, covering such topics as introduction of novel classifiers (SVM, ELM), combination of multiple features (spatial, spectral, temporal and so on), and applications of classifier ensemble. Part III presents some recent outcomes on multi-temporal image change detection based on ensemble learning and feature fusion. Based on these three branches of image processing techniques, it is expected to promote the applications of advanced machine learning theories and methods to high-accuracy processing and high-precision mapping of remote sensing image. | | |
| **Biography**  Prof. Du Peijun is a Professor of Remote Sensing and Geographical Information Science with Nanjing University, China. He received his Ph.D. degree from China University of Mining and Technology in 2001, and was a senior visiting scholar at the University of Nottingham, UK and Grenoble Institute of Technology, France. His research interests focus on advanced image processing and machine learning techniques for environmental and urban remote sensing. He has published more than 80 articles in international peer-reviewed journals, including Remote Sensing of Environment, IEEE Transactions on Geoscience and Remote Sensing, ISPRS Journal of Photogrammetry and Remote Sensing, Scientific Reports and Information Fusion. Prof. Du is a senior member of IEEE, and has been an Associate Editor of IEEE Geoscience and Remote Sensing Letters (GRSL) since 2009. In the past years, he served as the Co-chair of the Technical Committee of URBAN 2009 (the 5th IEEE GRSS/ISPRS Joint Workshop on Remote Sensing and Data Fusion over Urban Areas), Co-chair of the Program Committee of 7th IAPR (International Association for Pattern Recognition) Workshop on Pattern Recognition in Remote Sensing (IAPR PRRS 2012), Co-chair of the Local Organizing Committee of JURSE 2009 (Joint Urban Remote Sensing Event 2009), WHISPERS 2012 (4th Workshop on Hyperspectral Image and Signal Processing: Evolution in Remote Sensing), and EORSA 2012, 2014 and 2016 (The Second/Third/Fourth International Workshop on Earth Observation and Remote Sensing Applications). He also severs as the member of scientific committee or local organizing committee of other international conferences, for example, Spatial Accuracy 2008, ACRS 2009, WHISPERS 2010/2011/2012/2013/2014/2015/2016, URBAN 2009/2011/2013/2015/2017, MultiTemp 2011/2015/2017, LiDAR/RADAR 2011, ISDIF 2011, CVRS 2012, and so on. | | |
| 15:30-16:15 |  | **Prof . Du Shihong**  Vice Director Institute of Remote Sensing and GIS,  Peking University, China  shdu@pku.edu.cn | |
| **Segmentation Scale Selection in geographic object-based image analysis (GEOBIA)** The recent several years have witnessed the rapid development of geographic object-based image analysis (GEOBIA), and its wide application in analyzing very-high-resolution (VHR) images. However, the chosen segmentation scale has great influences on the accuracy and reliability of GEOBIA results, e.g., object segmentations and classifications. Therefore, a scale-selection method is needed to choose the optimal scale for GEOBIA. This report will first analyze the factors influencing scale-selection, including categories, surrounding contrasts and internal heterogeneities of objects, which should be totally considered if we want to select the optimal scale. Second, the existing scale-selection methods including supervised and unsupervised methods will be reviewed. Since existing methods partly considered these three factors, but cannot resolve all of them, thus the issue is still open and needs further study. The report will compare the advantages and disadvantages of five kinds of scale-selection methods, and discuss the future direction of scale selections. We also will point out the advantages and limitations of each scale-selection method, and suggest that these methods should be utilized together to finally determine the optimal scales of objects so as to improve the accuracies of object segmentation and classification. Finally, the report will introduce a novel scale-selection method based on feature evaluation. In this strategy, scales are scored and ranked by reference to feature importance, and the optimal scale with the largest feature importance will be selected from multiple scales. | | |
| **Biography**  Dr. Shihong Du, born in June 1975, is currently Associate Professor of GIScience in the School of Earth and Space Sciences at Peking University, and the Vice Director of the Institute of Remote Sensing and GIS. He received his PhD degree in Chinese Academy of Science in June 2004. He was a visiting Scholar at University of Cambridge from 2009 to 2010 and at University of Technology Sydney in 2015. His research interests include spatial knowledge representation and reasoning, as well as intelligent mining and understanding of geospatial data including GIS and remote sensing data. He authored / co-authored over 100 journal articles and two books, and was awarded the New Century Excellent Talents in University and Second Place Award of National Science and Technology Progress in Surveying and Mapping. | | |
| 16:15-17:00 |  | **Prof. Fan Hongchao**  School of Remote Sensing and Information Engineering,  Wuhan University, China  hongchao.fan@whu.edu.cn | |
| **Urban sensors and sensing for urban and infrastructure mapping**  At the present, citizen participatory plays an important role as urban sensors and sensing in terms of volunteered geographic information data. In this lecture, an overview will be given to date back the history of VGI and crowdsourcing. Then a set of examples will be demonstrated for the applications of VGI data in the field of spatial analysis and data mining. The second part of the lecture is more about OpenStreetMap. Since 2010, OpenStreetMap (OSM) is considered one of the most successful and popular VGI projects, and it has attracted significant and sustained interest in academy, industry, and governmental agencies. Thanks to the openness and wide availability, there is increasing interest in using OSM data in projects of different application domains. Nevertheless, people are often skeptical about the usability of VGI due to its quality issues: heterogeneity, unpredictability, credibility, ambiguity, inaccuracy, incompleteness, because the data are collected through crowdsourcing. In this lecture, Dr. Fan is going to share the recent research findings and experiences about OpenStreetMap, especially about the spatiotemporal behaviors of the OSM contributors and the uncertainty in the data. | | |
|  | **Biography**  Dr. Hongchao Fan is a full professor of Geoinformatics at Wuhan University. Before he joined Wuhan University, Dr. Fan worked as Group Leader for 3D Geodata Infrastructure at Heidelberg University from 2012 to 2017. He is member of the Centre for Scientific Computing (IWR) and Heidelberg Centre for Environment (HCE) at Heidelberg University. Dr. Fan finished his PhD study in cartography and photogrammetry at the Technical University of Munich in 2010. He did his master study in surveying and geoinformatics at the University of Stuttgart from 2002 to 2006. He is scientific committee member of several international conferences and member of several working groups of international scientific society. His research focuses include spatial data mining and knowledge discovering by using crowdsourcing data. He received research funding for one project from NSFC and the other from DFG (the German Scientific Research Foundation). | | |

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| 17:00-17:30 | **cut** | **Dr. Liu Xianglei**  School of Geomatics and Urban Spatial Information,  Beijing University of Civil Engineering and Architecture, China  liuxianglei@bucea.edu.cn |
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|  | **Policy to Support the Foreign Students Studying in Beijing**  At present, more and more foreign students plan to study in Beijing, China. Therefore, take the BUCEA as an example, we will introduce the policy to support the foreign students studying in Beijing, including application procedure, accommodation, administrative regulations, cost, life guide, etc. With the Accreditation from the Foreign affairs office of Beijing people’s government, Beijing municipal commission of education, Beijing municipal public security bureau，BUCEA started to recruit international students from 2003. Hundreds of students from France, Ghana, Germany, Mongolia, Iran, Vietnam, the US, Italy and Russia, among other countries, study at BUCEA. All majors can accept international students. A system of short-term program, bachelor degree program, and master degree program has been formed. We provide China Scholarship Council “Outstanding undergraduate international exchange program” and “Beijing Government Scholarship” for Chinese and International Students. | |
|  | **Biography**  Dr. Xianglei Liu received the B.S. and M.S. degree in Geographic Information System from Shandong University of Science and Technology in 2005 and 2008, respectively. He received the Ph.D. degree in Photogrammetry and Remote Sensing from Tongji University in 2012. He is currently an associate professor with the Beijing University of Civil Engineering and Architecture. He has published more than 20 peer-reviewed papers, and he is the inventor of three patents. His research interests are deformation monitoring based on GBSAR and high-speed videogrammetric measurement. | |



BUCEA Campus (Daxing)

## **GENERAL INFORMATION**

**Summer School Venue:**

Beijing University of Civil Engineering and Architecture (Daxing Campus)

Address: No. 15, Yongyuan Road, Huangcun Town, Daxing Disctrict, Beijing

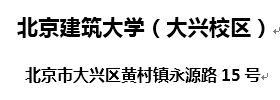
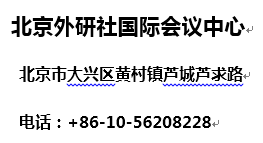
Room: Jianben Meeting Room of the Library Building.

**Summer School Hotel:**

FLTRP International Convention Centre

Address: No. 2, Luqiu Road, Huangcun Town, Daxing District, Beijing

Telephone: +86-010-56208228.

Name & Address of Venue in Chinese Name & Address of Hotel in Chinese

**Weather**

Average temperature in Beijing during September ranges from 15ºC to 26ºC (59ºF-78ºF).

**Currency**

The Chinese currency is RMB. Major foreign currencies can be exchanged at banks, hotels, and airports. Most hotels, restaurants and shops accept major international credit cards including Visa and MasterCard.

**Time**

The standard time used in all regions of China is 8 hours ahead of GMT.

**Seminar Secretariat**

**BUCEA:**

Mr. Xianglei Liu

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E-mail: [zhanghongping@ngcc.cn](mailto:zhanghongping@ngcc.cn)

**WeChat QR code for ISPRS SC and TC III Summer School 2018:**

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