

The 2nd Conference of Digital Belt and Road (DBAR 2017)

The 3rd International Conference on Remote Sensing Applications in Tropical and Subtropical Areas (RSATSA 2017)

第二届数字丝路国际会议暨 第三届热带与亚热带遥感应用会议



6-8 December 2017
Hong Kong, China 中国香港

GUIDEBOOK



Location Map

The Chinese University of Hong Kong



Conference Venue

鄭裕彤樓
Cheng Yu Tung Building



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Welcome Message



Dear Colleagues,

The 2nd Conference of the Digital Belt and Road (DBAR 2017) and the 3rd International Conference on Remote Sensing Applications in Tropical and Subtropical Areas (RSATSA 2017) will be held in Hong Kong, China, on December 6-8, 2017. Hosted by the Digital Belt and Road Program (DBAR) and the Chinese University of Hong Kong (CUHK), the event will provide an international platform for participants who are engaged in the Belt and Road's research and applications of Earth observation technology. We would like to welcome you to participate in this important and meaningful event.

The Belt and Road region covers a vast area and involves over sixty countries and a large population, facing numerous problems related to sustainable development. The combined pressure of climate variability, intensified use of land and marine resources, and the fragility of many ecosystems in the Belt and Road countries make it very challenging to achieve the UN Sustainable Development Goals (SDGs). Therefore, the DBAR was initiated in 2016 by the scientists from Chinese Academy of Sciences Institute of Remote Sensing and Digital Earth, aiming to promote cooperation with countries along the Belt and Road to demonstrate and foster the smart uses and applications of "Big Earth Data", in support of the sustainable development of people and economies at local, national and regional levels. Assessment and monitoring of terrestrial and marine ecosystems require observations that must be precise, accurate, and timely, and measure both objects and processes across a range of spatial and temporal scales. Earth observation technologies have the advantage of macro-level, rapid, accurate monitoring of global and regional environmental changes. They play a significant role in studying resources and the environment and are of great significance for the construction of the Belt and Road.

The DBAR vision is the promotion of international cooperation that integrates Earth observation science, data, technology, and applications to address environmental change and attain SDGs in the Belt and Road region. The uniqueness of DBAR is its goal of building upon the diverse Earth observation capacities in the Belt and Road countries in Asia, Europe, and Africa through comprehensive and well-funded action.

In May 2016, the International Symposium on Earth Observation for the Belt and Road (1st DBAR Conference), released the "Beijing Declaration on Earth Observation for the Belt and Road". The Declaration stated that the Belt and Road initiative is a crucial endeavor to meet the development challenges in the future for nations in the Belt and Road region, and called for the implementation of DBAR. Later in December 2016, the 1st DBAR Meeting was held in Beijing and officially established seven working groups on Big Earth Data, Agriculture and Food Security, Coastal Zones, Environmental Change, Natural and Cultural Heritage, Disaster Risk Reduction, and Water, and two task forces for Urban Environments and High Mountain and Cold Regions.

The joint event of DBAR 2017 and RSATSA 2017 is aimed to bridge the gap between the great successes of Earth observation technology and challenging applications in Belt and Road countries. The event could make progress towards the establishment of a platform for high-level exchange between academics, research scientists and resource management practitioners.

You are all cordially invited to attend DBAR 2017 and RSATSA 2017!

Finally, much appreciation is given to the Chinese University of Hong Kong and its Institute of Space and Earth Information Science for organizing the conference.

GUO Huadong
Chair of DBAR Program
Chair of International Steering Committee of RSATSA 2017



Welcome Message



Dear Colleagues,

The 2nd Conference of the Digital Belt and Road (DBAR 2017) and the 3rd International Conference on Remote Sensing Applications in Tropical and Subtropical Areas (RSATSA 2017) will be held in Hong Kong, China, on December 6-8, 2017. The event will be hosted by the Digital Belt and Road Program (DBAR) and the Chinese University of Hong Kong (CUHK), and organized by the Institute of Space and Earth Information Science (ISEIS), CUHK. ISEIS was established in 2005. It was developed on the base of the Joint Laboratory for GeoInformation Science (JLGIS) of Chinese Academy of Sciences & the Chinese University of Hong Kong. ISEIS is the Hong Kong Base of the National Remote Sensing Center of China (NRSCC), the contact point of working group on remote sensing (RS), geographic information system (GIS) and global positioning system (GPS) of the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP).

ISEIS consists of three major units: research, education and training, and technology development. The major objectives of ISEIS are: 1) To be a remote sensing centre in the tropical and sub-tropical region in conducting and promoting various researches, including tropical and subtropical remote sensing and Virtual Geographic Environments (VGE). Built upon Earth information science and technology, inter-disciplinary research and applications of social and natural science can be promoted to serve the needs of human society. 2) To be an academic exchange centre of GeoInformation Science at the both side of the Taiwan Strait in order to provide services with national culture characteristics for urban planning and management information system by collaborating with governments, universities and experts. 3) To be an international exchange and cooperation centre of GeoInformation Science in Hong Kong.

ISEIS's main research areas include tropical and subtropical remote sensing, VGE, emergency response and natural disaster monitoring and management, urban and metropolitan GIS, analysis and modeling of the urban settlement environment, public health and geographic information systems, Intelligent Transport System (ITS) and spatially integrated humanities and social science. The institute is equipped with middle-high resolution satellite remote sensing ground receiving stations, which provides a unique opportunity for researchers and students for carrying out earth observation related activities.

We are honored to co-host and organize the event of DBAR 2017 and RSATSA 2017. You are all cordially invited to join us in Hong Kong in December 2017. For details of the event, please visit our official website at http://www.iseis.cuhk.edu.hk/DBAR2017_RSATSA2017.



LIN Hui
Co-Chair of DBAR 2017 Program Committee
Chair of RSATSA 2017 Program Committee
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(RSATSA 2017)



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(DBAR 2017 & RSATSA 2017)



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Keynote Speakers



GUO Huadong

*Chair of DBAR Program,
Institute of Remote Sensing and Digital Earth (RADI), Chinese Academy of Sciences*

Title: Big Earth Data for Belt and Road Development



Abstract

The “Silk Road Economic Belt and the 21st-Century Maritime Silk Road” (abbreviated as “the Belt and Road”, or B&R for short) Initiative is a global breakthrough launched in 2013, which is a long-term, complicated, arduous systems engineering feat covering a wide geographical range and long time periods, and crossing into many fields of study. Big Earth Data, derived from but not limited to Earth Observation, having macro-level capabilities that enable rapid, accurate monitoring of Earth, can transform our approach to comprehensively understanding the challenges of sustainable development. Big Earth Data represents a new horizon for human beings to understand our planet with a new method for studying Earth's environment. It will also provide scientific decision-making support for construction in the countries and regions along the Belt and Road.

The “Digital Belt and Road” (DBAR) program was launched in 2016, and received support from more than 20 international organizations and countries along the Belt and Road. DBAR is an international research program promoting cooperation with countries along the Belt and Road. It advocates and demonstrates the smart use and application of Big Earth Data in support of the sustainable development at local, national and regional levels. DBAR would provide us a new measurement to discover new knowledge hidden behind the data so as to help us understand the sustainable development challenge and to guide humankind toward correct decisions and efficient performance in the Belt and Road.

About the Speaker

GUO Huadong is a Professor of the Chinese Academy of Sciences (CAS) Institute of Remote Sensing and Digital Earth (RADI), an Academician of CAS, a Foreign Member of Russian Academy of Sciences (RAS), and a Fellow of The World Academy of Sciences (TWAS). He presently serves as Chair of the Digital Belt and Road (DBAR) Program, President of the International Society for Digital Earth (ISDE), Director of the International Center on Space Technologies for Natural and Cultural Heritage (HIST) under the Auspices of UNESCO, Director of the CAS-TWAS Center of Excellence on Space Technology for Disaster Mitigation (SDIM), and Editor-in-Chief of the International Journal of Digital Earth. He served as President of ICSU Committee on Data for Science and Technology (CODATA). He has over 30 years of experience in Earth observation, specializing in radar remote sensing and Digital Earth science. He has been Principle Investigator for over 30 major national projects in China, and Principle Investigator for 7 international radar remote sensing projects. Prof. Guo has published more than 400 papers and sixteen books, and is the principal awardee of sixteen domestic and international prizes.



Andre (Alex) HELD

CSIRO, Australia



Title: Earth Observation Data Analytics for Global Challenges: The DataCube Solution

Abstract

This talk will cover recent advances in earth observation data analysis and in particular how under the Open DataCube initiative, several international agencies are developing very large EO data processing platform that can handle long-time series and up to petabyte scale data archives. World-wide the accumulation of valuable EO data has reached a point for many space agencies and data users where the data volumes are too large to move over the internet or to conduct large scale regional projects that require long-time series. The keynote will present the OpenDatacube initiative, plus several examples of its use on land and aquatic applications, for consideration in future applications to global change challenges and other DBAR-related projects and remote sensing data applications.

About the Speaker

Dr. Held the Director of the Australian remote sensing data facility of the Terrestrial Ecosystem Research Network (TERN), and the 2016 Chair of the “Committee on Earth Observation Satellites (CEOS). Alex also served as the Head of the CSIRO Office of Space Science and Applications (COSSA) from 2004 -2007. Dr. Held has 25 years of experience in terrestrial remote sensing in CSIRO, and has led several projects and research teams since then. His PhD is from the University of California, Davis in the area of plant physiology. Dr. Held has focused his work on designing ways for better use of satellite earth observation data in agriculture, disasters and ecosystem science. He currently leads multi-national teams in CEOS involved in designing future data architectures for earth observation, as well as on the use of EO data for achieving sustainable development goals. He is an active delegate for Australia on the Group on Earth Observation (GEO), and in particular has been part of the original leadership of the Global Forest Observation Initiative – GFOI, under GEO. Alex has been the lead since 2013 of “GEOGLAM RAPP” (<http://www.geo-rapp.org/>), a grassland and livestock monitoring system of GEO.



Valery BONDUR

*Institute for Scientific Research of Aerospace Monitoring "AEROCOSMOS"(ISR "AEROCOSMOS"),
Moscow, Russia*

Title: Remote Sensing of Seas and Oceans in Tropical and Subtropical Regions



Abstract

The development of modern oceanology is impossible without the use of satellite methods and technologies that provide the opportunity to monitor a wide range of oceanological parameters on a global and regional scale. This contributes to the solution of a number of pressing issues in following areas: study of the nature of the World Ocean; fundamental research in the field of physics, chemistry, biology and geology of the ocean; ocean resources development; protection of the environment of the seas and oceans; the study of the impact of the World Ocean on climate change; monitoring of emergency situations and ensuring safety in the ocean.

Modern methods of remote sensing of the ocean, forming huge data streams and allowing to create a wide range of information products, are analyzed in the processing of images obtained in various ranges of the electromagnetic wave spectrum using instruments installed aboard spacecrafts.

Examples of the use of methods and instruments of satellite monitoring for solving scientific and practical issues of modern oceanology are presented. Special attention is given to the monitoring of catastrophic processes formed at the interface of the atmosphere and the ocean in tropical and subtropical regions, monitoring of anthropogenic impacts on seas and oceans, as well as the development of remote sensing methods and building of a monitoring system for the shelf zone based on satellite and ground data. Results of application of such a system for monitoring of anthropogenic impacts on coastal water areas in various regions are provided.

About the Speaker

Vice-President of Russian Academy of Sciences, Academician of Russian Academy of Sciences, Foreign Member of Chinese Academy of Sciences. Professor Valery Bondur is a Director of State scientific Institution "Institute for Scientific Research of Aerospace Monitoring "AEROCOSMOS" (ISR "AEROCOSMOS") and a Presidium member of the Russian Academy of Sciences (RAS). He leads the Division of Oceanology, Atmospheric Physics, and Geography of the RAS Earth Sciences Department. His scientific activity is related to the Earth research from space, development of basic physics and system-wide principles for creation of aerospace systems for monitoring of ocean, atmosphere, land, geological environment, and near-Earth space in the context of the Earth sciences, environment protection, rational use of natural resources, prevention of dangerous natural and technogenic processes, etc. He has published more than 340 peer-reviewed research articles (more than 650 scientific works in total) with >11000 citations. His h-index is 63 in RSCI. He acted as a Principal Investigator of 50 national and 10 international research projects (EU, USA, and China). Academician Bondur has been twice awarded the Russian Government Award in the sphere of science and technology. He has various governmental awards of the Russian Federation. He has supervised 24 PhD theses and 10 doctoral theses, more than 30 times he acted as an opponent at PhD defenses. He reviewed 106 papers in 10 journals. He is an Editor-in-Chief of the "Issledovanie Zemli iz kosmosa" Journal / Izvestiya. Atmospheric and Oceanic Physics, a member of editorial board in "Oceanology", "Geodesy and Cartography", "Aerospace Research in Bulgaria", and "Marine Hydrophysical Journal".



Shusen TAN 谭述森

The Chinese Academy of Engineering 中国工程院



Title: The Innovation and Development of Beidou System and Its Application Prospect

北斗系统创新发展历程与应用前景展望

(The Lecture will be in Chinese)

Abstract

The speech consists of four parts: 1. Overview of the role of satellite navigation systems, including application requirements and trends. 2. Summary of the innovation and development process of Beidou and its main features, including the formation and evolution of three stages of development, the development concept, the main features of Beidou and the main characteristics of Beidou. 3. Applications of Beidou II system, including market size and typical application. 4. Futures of Beidou System, including development objectives, theme tasks, basic principles and global basic blueprint.

本报告包括四个部分：1、概述卫星导航系统的作用地位，应用需求变化和发展趋势。2、综述北斗创新发展历程与主要特点，包括三个发展阶段形成与演进，发展理念，北斗一号主要特点和北斗二号的主要特点。3、北斗二号系统应用现状，包括市场规模和典型应用情况。4、北斗系统未来展望，包括发展目标，主题任务，基本原则和走向世界的基本蓝图与思考。

About the Speaker

Prof. Shusen Tan, Academician of the Chinese Academy of Engineering, is an expert of satellite navigation system design. Having long been engaged in the field of Geodetic Survey equipment and satellite navigation engineering construction and applied research, he has successively served as operating system chief engineer of Beidou I, deputy chief engineer of Beidou II, deputy chief engineer of the major project in China second-generation satellite navigation system, who is the pioneer and builder in Satellite Navigation career of our country. In charge of top job in the new signal system design, navigation report system design, frequency design and International coordination of Beidou system, he makes outstanding contribution for the establishment and development of satellite navigation business. Besides, he has published two academic monograph and won one Grand prize, one First class award, and one Second class award of National Science and Technology Progress, four First class award of Provincial Science and Technology Progress. He was awarded Individual Merit in 2007 and was rated as Top Ten Outstanding Scientific and Technological Workers in 2014.

谭述森，卫星导航系统总体设计专家，中国工程院院士。长期从事大地测绘装备与卫星导航工程建设和应用研究，历任北斗一号应用系统总师、北斗二号工程副总师、中国第二代卫星导航系统重大专项工程副总师，是我国卫星导航事业的主要开拓者和建设者。负责主持北斗系统新型信号体制设计、定位报告体制设计、频率设计与国际协调等顶层工作，为我国卫星导航事业的建立和发展作出了突出贡献。出版学术专著两部。先后获国家科技进步特等奖1项、一等奖1项、二等奖1项，省部级科技进步一等奖4项。2007年荣立个人一等功，2014年被评为“十佳全国优秀科技工作者”。



Bettina BARUTH

European Commission, Joint Research Centre



Title: Contributing to Market Transparency - Challenges of Agricultural Monitoring Systems

Abstract

High fluctuations of agricultural production during the last decade depicted a scenario of volatility of agricultural prices, leading to food crises and social unrest in different parts of the world. In 2007/2008 the coupled scarcity of goods at world level, consequence of unfavourable conditions during the crop season, and the growing demand of food, resulted in high market tensions and a sharp increase of food prices. In the 2008/2009 prices at world level went down due to an abundant agricultural production thanks to favourable weather conditions in the main producing areas. This price decrease was observed until 2010/2011 when a severe drought in the Black Sea area severely constrained cereal production, increasing once more international food prices.

One answer of the international community to better monitor and forecast agricultural production fluctuations was the launch of the Agricultural Market Information System (AMIS) in 2011 by the G20 Ministers of Agriculture as an inter-agency platform to enhance food market transparency and policy response for food security. A second initiative in this context, endorsed by the G20 Head of States, is GEOGLAM. GEOGLAM provides a framework, which strengthens the international community's capacity to produce and disseminate relevant, timely and accurate forecasts of agricultural production at national, regional and global scales through the use of earth observations. This initiative is designed to build on existing agricultural monitoring programs and initiatives at national, regional and global levels and to enhance and strengthen them through international networking, operationally focused research, and data/method sharing.

One of these agricultural monitoring programs contributing to GEOGLAM as well as to AMIS is the MARS Crop Yield Forecasting System (MCYFS) from the European Commission.

The talk will highlight how information from the system is used for an informed decision making at the level of the European Commission and the Directorate for Agriculture and Rural Development. In the broadest but direct policy context, these crop monitoring and yield forecasting activities contribute to the implementation of the European Union's (EU) Common Agricultural Policy (CAP).

In addition future challenges for monitoring systems are discussed: firstly the methodological challenge to take optimal advantage of the new opportunities offered by big data and ever more, and more accessible satellite-based information (e.g. COPERNICUS); while at the same time providing the continuity required for benchmarking; secondly the resource challenge, to do more with less, and more specifically the cuts in many public administrations that deliver key statistical data needed for monitoring systems. Thirdly environmental challenges faced by agricultural systems, such as those associated with climate change and an increasing frequency of extreme weather events. Such challenges increase the demand for and relevance of accurate forecasts and analyses, but they also place further constraints to monitoring systems, which are not always well prepared to respond to unprecedented situations.

About the Speaker

Dr Bettina Baruth works since more than 15 years in the field of agricultural monitoring and crop yield forecasting. She graduated in Geography with a focus on Remote Sensing applications for landscape ecology and worked several years for the German Remote Sensing Data Centre (DLR/DFD) before joining the Joint Research Centre. Her Ph.D. dealt with the potential of landscape metrics derived from remote sensing to describe landscape patterns. Current activities are related to the usage of remote sensing for yield and production forecast and crop growth modelling. She is the editor of the European MARS Crop Monitoring Bulletin. Bettina holds the position as Deputy Head of the Food Security Unit and co-chairs the GEO Global Agricultural Monitoring Initiative (GEOGLAM).



K a m a l L A B B A S S I

Chouaib Doukkali University, Morocco



Title: The Major Challenges Related to Water Safety in the Northern Part of Africa; An Overview of Water Resources: Morocco as an Example

Abstract

Water is a source of conflicts and a peace-enabling commodity. It is currently and naturally not distributed uniform over the Globe in terms of its quantity and quality. Thus, a global and local improvement of its availability and related efficiency of water uses shall be done. In these regards, space-based technology could hugely help to handle the local watershed issues and from it a regional and global sustainable development can be pursued.

Northern Africa region is among the world's most endangered regions in terms of scarcity of resources. The area is approximately 7 049 591 km² mostly covered by the Sahara desert (more than 75% of the region). The population is around 190 million of inhabitants. Each of the 6 countries in the region have developed policies to face the challenges that will be faced in the coming years.

Due to its geographical location, Morocco is characterized by a climate strongly contrasted with a rainfall pattern dominated by a strong irregularity in space and time. Morocco's natural water resources are among the lowest in the world with the least water resources per inhabitant (730 m³ / inhabitant / year). More than half of these resources are concentrated in the north of the country covering nearly 7% of the national territory.

To consolidate the achievements and meet the challenges, a new strategy for strengthening the water policy, was elaborated in 2009. The main orientations and outlines of the strategy focus on six axes : (1) Management of water demand and water valuation, (2) Management and development of the offer, (3) La préservation et la protection des ressources en eau, du milieu naturel et des zones fragiles, (4) Reducing Vulnerability to Natural Hazards of Water and Adaptation to Climate Change, (5) continuation regulatory and institutional reforms and (6) Modernization of information systems and strengthening of means and skills.

About the Speaker

Kamal Labbassi is a Professor Head of Geosciences & Remote Sensing Group at the Chouaib Doukkali University (Morocco) and the Secretary General of the African Association of Remote sensing of the Environment (continental scope). Doctorate Es-Sciences (1998), PhD Thesis (1991). Visiting Professor at the University of Nantes, France (2004-2005). Scientific reviewer to some Journals (Remote sensing, RPTS, and Revue Télédétection AUF). Initiated and directed numerous research projects focused on remote sensing applications in geosciences and involving an extensive network of international partners. Supervised several dissertations of Engineers, Masters and PhD theses. Author and co- author of numerous publications and scientific papers. Peer Reviewer of international programs implemented under the coordination of the African Union Commission, with the support of the European Commission.



Gunnar SPREEN

University of Bremen, Germany



Title: Remote Sensing of Sea Ice in the Arctic: From Long Time Series to Recent Developments

Abstract

Air temperatures in the Arctic are increasing twice as fast as the global mean. As a consequence, the sea ice extent in the Arctic is declining (4%/decade). In summer the decline is strongest. In conjunction also ice thickness, volume, and age decrease while ice drift speed and melt season length increase. During the last decade almost all years showed exceptional low sea ice extent. In this "New Arctic" the before dominating older, multiyear ice cover largely disappeared and it now mainly consists of thinner, first-year sea ice. These changes have strong, and mainly negative impact on the Arctic climate system, biodiversity, and humans living in the Arctic but there can also be new opportunities for shipping and offshore industries.

Due to its vast size and inaccessibility satellite remote sensing is the method of choice to monitor the Arctic sea ice cover continuously and over longer time scales. The sea ice extent time series observed from space-borne microwave radiometers is now more than 40 years long and provides one of the most dramatic indicators of recent climate change. Observations in the microwave spectrum are ideally suited for polar regions because they are independent of clouds and daylight. Besides sea ice area methods have been developed to also monitor ice motion, ice type, snow thickness, ice thickness and many more. Especially the capability to observe ice thickness from satellite altimeters was a big step forward for sea ice remote sensing research in the recent decade. The larger number of Synthetic Aperture Radar (SAR) sensors launched during the last few years now allows to monitor the Arctic sea ice at much finer spatial scales in the order of 10-50 m. Lead coverage and ice types can be derived from SAR observations, which allow a better quantification of (a) energy and gas fluxes from the ocean to the atmosphere, (b) the impact on the pelagic ecosystem by regulating light availability, and (c) provide aid for ship navigation within the ice pack. The synergy of combined observations from multiple satellite sensors allow a better and comprehensive analysis of Arctic sea ice by, e.g., not only taking ice area but also ice thickness and drift into account.

Here we will provide an overview of different techniques to monitor the Arctic sea ice cover from space and show applications for climate science and ship navigation.

About the Speaker

Dr. Gunnar Spreen received his Diplom in physics and Ph.D. in oceanography from the University of Hamburg, Germany, in 2004 and 2008, respectively. Thereafter, until July 2012, he worked as a Caltech Postdoctoral Scholar in the Climate, Ocean, and Solid Earth Science Section at the NASA Jet Propulsion Laboratory, Pasadena, USA. From August 2012 until July 2015 Gunnar Spreen was employed as permanent research scientist for sea ice remote sensing at the Norwegian Polar Institute, Tromsø, Norway. Since August 2015 he leads the research group "Remote Sensing of Polar Regions" at the University of Bremen, Institute of Environmental Physics. His main research interests are remote sensing of sea ice properties with focus on monitoring changes of sea ice (extent, mass, and dynamics) and on understanding underlying climate processes in polar regions. Recent research is focused on improving estimates of the sea ice export out of the Arctic Basin combining sonar and satellite data. Conceptually, further work is based on the analysis of sea ice drift in comparison to atmospheric reanalyses, freeboard data from altimetry, and sea ice concentration using passive and active microwave remote sensing. Satellite measurements are validated using ground-based and airborne field observations. More information can be found at <https://www.seaice.uni-bremen.de>.



Mazlan HASHIM

Universiti Teknologi Malaysia (UTM)



Title: Remote Sensing for Integrated Coastal Zone Management: UAV interventions

Abstract

With an increasing level of anthropogenic pressures across the coastal zone, in particular for coastal development activities, but also for fishing, shipping, and sand mining, the need to delineate and conserve areas vulnerable to risks of marine biodiversity and habitat degradation has been repeatedly discussed in recent literatures. There is a conflicting interest between economic developments and/or with marine wildlife. This calls for producing remote sensing (RS) methods and techniques to identify risk areas, interaction between terrestrial, freshwater and marine organisms and the environment, current and future. Unmanned aerial vehicle (UAV) is a RS system that can be used to address these conflicts and ensure sustainable use of the coastal and marine resources. With the advancement of UAV device in combination with hyperspectral camera has now enabled to acquire medium to high spatial resolution spatial data. Application of UAV is enormous and therefore, can be used in monitoring marine ecosystem status and help decision makers in integrated coastal zone management. In decision makers' perspectives, for regulating, managing and protecting the marine organisms and environment, UAV would, therefore, guide them to undertake a balanced action with an aim to satisfy ecological, economic and social objectives at expected geographical scale (from local to regional). Compared to cost intensive high resolution satellite image in acquisition and data sharing, UAV would be a better choice for the decision makers and RS practitioners. Application of UAV will enable extracting information about the marine biology, ecology and oceanographic features, present status and predict future as such help in marine spatial planning, resolve cumulative and potentially conflicting uses of the marine areas, and ensure sustainable development of economy and environment in a harmonized manner. Future research on improvement of UAV methods and techniques is essential to make it transparent, reproducible as well as to widen applications.

About the Speaker

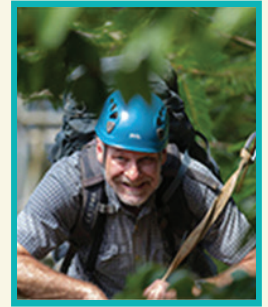
Professor Mazlan Hashim has spent over 30 years in the teaching, research and development, and project management of remote sensing, geospatial related applications and surveying equipment including field radiometry. His interest is in the rigorous development and innovation of diverse remote sensing and geospatial applications for natural resources and environmental management as well as national strategic planning. He has led several national and international collaborative studies in remote sensing and geospatial technology applications, with wide publications in more than 200 SCI (Science-citation indexed) articles, more than 300 conference proceedings, and several books. He received various awards at both national and international levels for his outstanding research and innovations in the field of geospatial sciences and its applications. Amongst others, he is co-recipient of the Eduard Dolezal award 1996 by International Society of Photogrammetry and Remote Sensing (ISPRS), Eco-frontier Award 2002 by Global Environment Research Fund Japan, and Top Research Scientists Malaysia by Malaysia Academy of Sciences. Currently Prof Hashim is the Senior Director of Research Institute of Sustainable Environment, Universiti Teknologi Malaysia (UTM); and Fellow of the Geoscience and Digital Earth Centre (INStEG), UTM. He is also Fellow and life member of Institution of Geospatial and Remote Sensing Malaysia. He has 5 patents – granted, pending and disclosed, a founder and managing director of UTM-spinoff Company – Geospatial & Utility Services (GUS) Pte. Ltd formed since 2016.



Bryan PIJANOWSKI

Purdue University, U.S.A

Title: Recording the Earth: Research Advances in Global Soundscape Ecology



Abstract

A soundscape is the collection of all sounds from biological, geophysical and anthropogenic sources at any place and time. As each ecosystem supports a different variety of animals, the biological signals reflect the diversity and activity patterns of all soniferous organisms and the geophysical sounds reflect climate and hydrologic dynamics. I will present an overview of the use of passive acoustic recorders and a host of soundscape ecological metrics that can be used to assess spatial-temporal trends across disturbance gradients which are useful for natural resource planning. As sound can be collected continuously - during the day and at night - and in very inaccessible places, I argue that it is an effective means to monitor biodiversity trends over time as well as trends in changing climate. I also demonstrate how that, in combination with other remote sensing technologies such as those from MODIS and LiDAR, a comprehensive quantification of the plant and animal diversity can be made. I suggest ways that we can move the integration of these technologies into more programmatic use for planning. As a special treat, I plan to illustrate my talk with numerous recordings from around the world further demonstrating the efficacy of these technologies.

About the Speaker

Bryan C. Pijanowski is Professor and University Faculty Scholar in the Department of Forestry and Natural Resources at Purdue University. He is also the Director of the Discovery Park Center for Global Soundscapes and the Executive Producer of the Interactive IMAX experience film Global Soundscapes: A Mission to Record the Earth. His research focusses on the use of soundscape recordings to assess the health of ecosystems around the world. To date, he has conducted over 40 studies on five continents, often in very remote places of the world. His passive acoustic recorders have been recording in 8 of Earth's 12 major biomes for at least one year (one study is now finishing its 10th year!). Over 3 million recordings approaching 1 PB are now being analyzed at his center. Dr. Pijanowski often travels to "the ends of the Earth" to record extremely natural places and he is known for performing his "deep listening" exercises - listening and analyzing with no technology -- in unusual places and times, like the top of the rainforest canopy in Borneo over an entire night. Studies span the use of soundscapes to understand how animal communities respond to wildfire, how livestock grazing in the eastern steppes affects ecosystem health, how changes in temperature and rainfall affect amphibian declines in the jungle, how climate change impacts glacier dynamics and how ocean acidification alters marine life in the Caribbean.

Title: Remote Sensing for Cultural Heritage: from Documentation to Risk Estimation and Preservation



Abstract

The use of EO technologies in Cultural Heritage is stepping in its golden age characterized by an increasing growth of both classical and emerging technologies and multidisciplinary methodologies, addressed to the study and conservation of natural and cultural heritage. The availability of the new technologies has opened new infinite possibilities, unthinkable only a few years ago especially for archaeology and cultural landscape that is an integral part of our archaeological heritage being that it preserves the main features that identify the evolutionary history of civilization over time.

A wide availability of 3D technologies, from active and passive satellite, aerial and ground sensors, including laser scanning, GIS mapping tools, virtual 4D modeling, augmented reality etc enables us to address manifold strategic challenges. Thus opening a new horizon in Cultural Heritage. The impact of digital technologies regards researchers, professionals as well as end-users. This is clearly evident thinking about, for example, the new portable devices, as tablets and smart-phones, nowadays equipped with integrated GPS, very powerful processors and video cards, which permit us to enjoy virtual reconstructions as well as an increasing amount of information available “exactly on site and on time”.

Moreover, we already live in an age of a growing availability of free data and open access software tools that enhance a powerful link between in situ investigations and computer-based analysis thus offering a new opportunity for the exploitation of scientific outcomes. Therefore, the new and emerging challenges are the dissemination of data, the interoperability, the costs, simplicity in use and speed of applications, to make them open and understandable to everybody.

Moreover, Earth Observation (EO) technologies can enable advanced performance and new operational applications specifically addressed to security and risk (see, for example Copernicus program and Sentinel missions) also including the monitoring and preservation of heritage sites. EO techniques can provide operative tools for supporting heritage protection, conservation and presentation identifying and monitoring factors that can adversely affect the property (see for example those listed in the UNESCO web site <http://whc.unesco.org/en/factors/>). In this context, UNESCO in partnership with some space agencies in the world (NASA, ESA, DLR, ASI, CNES, Chinese) over the years has strongly promoted the use of space technologies to assess the state of conservation of cultural and natural heritage sites. Nevertheless, even if the potential of EO technologies for assessing and monitoring natural and man-made disasters is well known, still today the applications of RS data in operational disaster management and monitoring is a difficult task. To move from scientific to operational applications there are gaps to be filled and needs to be addressed. To improve risk estimation and management based on Remote Sensing data it is particularly important to set up operational approaches and methods for the diverse applications and risks, with protocols and quantitative evaluations of accuracy and reliability.

The lecture will be focused on:

- An Overview on active and passive satellite remote sensing technologies for documentation, monitoring and preservation of natural and cultural heritage
- Remarkable case studies selected from Europe, Africa, Asia and Southern America

About the Speaker

Rosa Lasaponara –Senior research at the Italian National Council Research. She holds a MsC and PhD in remote sensing . She is and has more than twenty years of experience in modeling and processing of passive (multispectral and hyperspectral) and active (Radar, Lidar) data acquired from satellite, airborne and ground remote sensing. Her research activities deals with modeling, data processing and integration for cultural heritage, Landscape and risk monitoring. She is author or co-author of 350 peer reviewed papers. She is Editor of NHESS, academic Editor of RS , guest editor for JAS, JCH, AP, JAG. IJRS, EM. PI for numerous currently ongoing projects in Europe, Africa, South America, China.

She holds several international positions including: Science officer for EGU Natural Hazard division, chair of EARSeL SIG RS for archaeology (<http://www.ibam.cnr.it/earsel/>) CREATED WITH AND supported by UNESCO, Member of Governing Board of HIST-CAS- Cat 2 UNESCO centre; Visiting professor at the Chinese Academy Of Science (RADI) – Beijing, Member of the governing Board of HIST –CAS (UNESCO cat. 2 centre) Beijing.

Title: The Global Human Settlement Layer framework and the Digital Belt and Road: A Synergic Perspective**Abstract**

The Global Human Settlement Layer (GHSL) framework produces new global spatial information, evidence-based analytics and knowledge describing the human presence on the planet. The GHSL operates in an open and free data and methods access policy and produces free tools supporting information production. The GHSL activities are supported by the Joint Research Centre (JRC) and the Directorate General for Regional Development (DG REGIO) of the European Commission together with the Human Planet Initiative, an international partnership and community of practices set under the umbrella of the Group of Earth Observation (GEO). The GEO Human Planet Initiative aims to test these new data and tools for monitoring the implementation of post-2015 international frameworks: the UN Third Conference on Housing and Sustainable Urban Development (Habitat III, 2016), the post-2015 framework on Sustainable Development Goals (SDGs), and the UN Framework Convention on Climate Change, and the Sendai Framework for Disaster Risk Reduction 2015-2030 (DRR). A common synergic perspective between the JRC GHSL and the CAS DBAR activities will be summarized in three points. i) the strong foundation on data science and Big Earth Data analytics of both DBAR and GHSL helping to exchange known-how and best practices, ii) the science in support to policy perspective especially focused in the sustainable development in the One-Belt-One-Road Region, and c) facilitate the linkages to international scientific partnerships as the GEO Human Planet Initiative.

About the Speaker

Works at the European Commission, Joint Research Center (EC JRC), contributing to programs dealing with the use of space technologies for automatic image information retrieval and decision support systems in the areas of post-natural-disaster and post-conflict damage assessment, conflict-related resource monitoring, risk and exposure mapping. In 2005-2007 he was the chair or of the Global Monitoring for Security and Stability (GMOSS) Network of Excellence. From 2007 to 2013, he was the leader of the team "Information Support for Effective and Rapid External Action" (ISFEREA) of the EC JRC. From 2014 to 2016, he was initializing and leading the Global Human Settlement Layer (GHSL) project activities of the EC JRC, establishing new geospatial analytics technologies for assessing the human presence on the planet supporting post-2015 international frameworks. He is the chair of the "Human Planet" international initiative in the frame of the Group of Earth Observation (GEO) work program 2017-2019. He is co-chair of the "urban working group" in the Digital Belt And Road (DBAR) program.

Title: Capacity Building of Big-Data from Earth Observation for Water and Land Management in Thailand**Abstract**

Earth observation technologies, with their tremendous ability to obtain and manage large scale data and information accurately and effectively, have great potential to address the global challenges in terms of environment, natural resources, energy, and disaster, and facilitate sustainable development. Thailand has laid great efforts on building capacity in climate change adaptation, environment and ecosystem conservation, sustainable resources management, and disaster risk management to make sound decisions on sustainable development in the face of a changing global conditions. Since 2012, the Royal Thailand Government has launched various research programs and projects with the collaboration of experts from countries including the United States, China, and Japan to address such problems. These included the “Watershed-based Adaptation to Climate Change Initiative” program in collaboration with the U.S. Agency for International Development (USAID), the “Watershed Sciences and Sustainable Management” program in collaboration with the National Natural Science Foundation of China (NSFC), and the “Advancing Co-design of Integrated Strategies with Adaptation to Climate Change” project in collaboration with the Japan International Cooperation Agency/Japan Science and Technology Agency (JICA/JST). All these programs and projects aim to gain a better understand of the global change mechanisms and contribute to the national strategies on sustainable development. However, the capabilities and facilities for studying these issues still need to be strengthened. Taking the opportunity of the “Belt and Road Initiatives”, Thailand is strongly willing to work closely with the Chinese experts in order to enhance the capacity in Earth observation technologies for water and land management. In 2017, the National Research Council of Thailand (NRCT) and Chinese Academic of Science (CAS) jointly took the lead in establishing an International Center of Excellence (ICoE) under the umbrella of the “Digital Belt and Road” program in Thailand as a regional center of the Southeast Asian region. It is believed that the success of the DBAR ICoE in Thailand will make enormous contribution on capacity building in Earth observation to Thailand and the whole region.

About the Speaker

Dr. Monthip Sriratana received her Ph.D in Urban Engineering at the University of Tokyo, Japan. She previously held key positions at the Ministry of Natural Resources and Environment. She serves as a Councillor for South and East Asia of the International Union for Conservation of Nature (IUCN), Board Member of Stockholm Environment Institute (SEI), Institute for Global Environment Strategies (IGES) and Sirindhorn International Environmental Park (SIEP). Dr. Monthip has been joining as the speaker at the side events of COP 19-21 on the National Adaptation Programme of Action (NAPAs) and on low carbon strategies including her involvement at the Working Group on Gender during COP21. She has initiated the joint programme with USAID ADAPT Asia-Pacific, and serves as the adviser under JICA/JST on ADAP-T programme in Thailand.

She also involve in climate change assistance to Thailand on “financing for innovation” which is expecting to continue playing a key role in channelling new global climate funds to Asia-Pacific countries. She has also high interest on how to promote the Climate Investment Funds (CIFs) and Global Environment Facility (GEF) especially on how to mainstream gender in all financing for development in Asia and the Pacific.



Conference Information

1 Location

Conference Venue(s)

▶ Cheng Yu Tung Building (CYT), CUHK

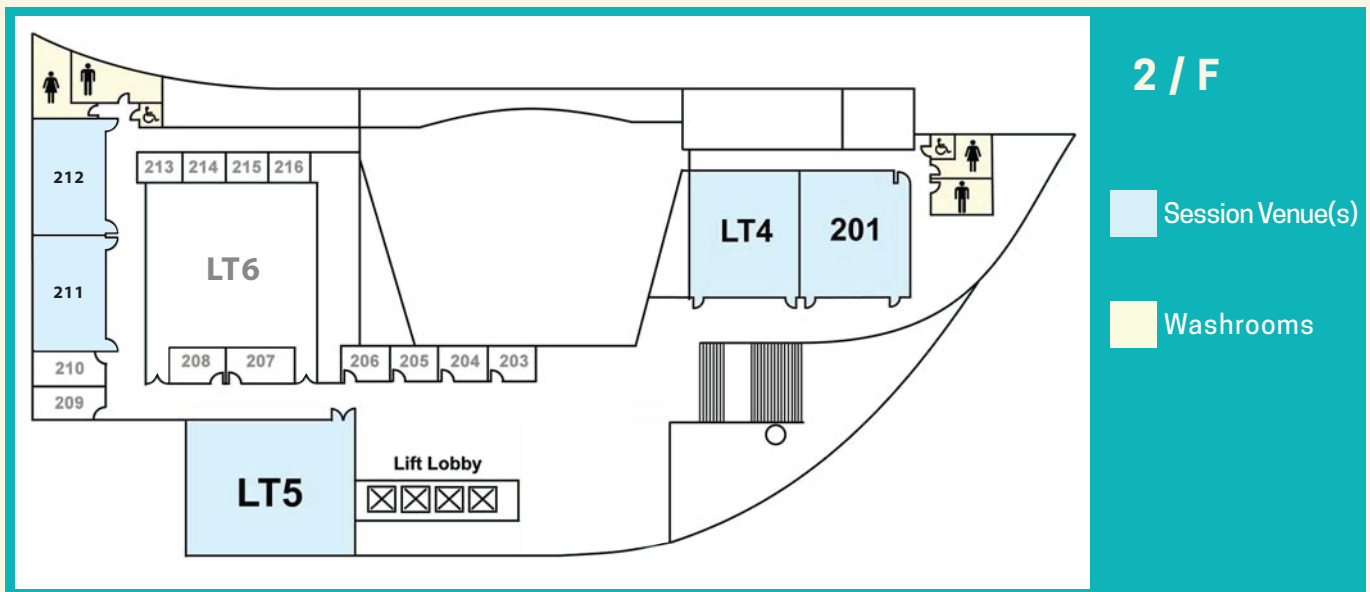
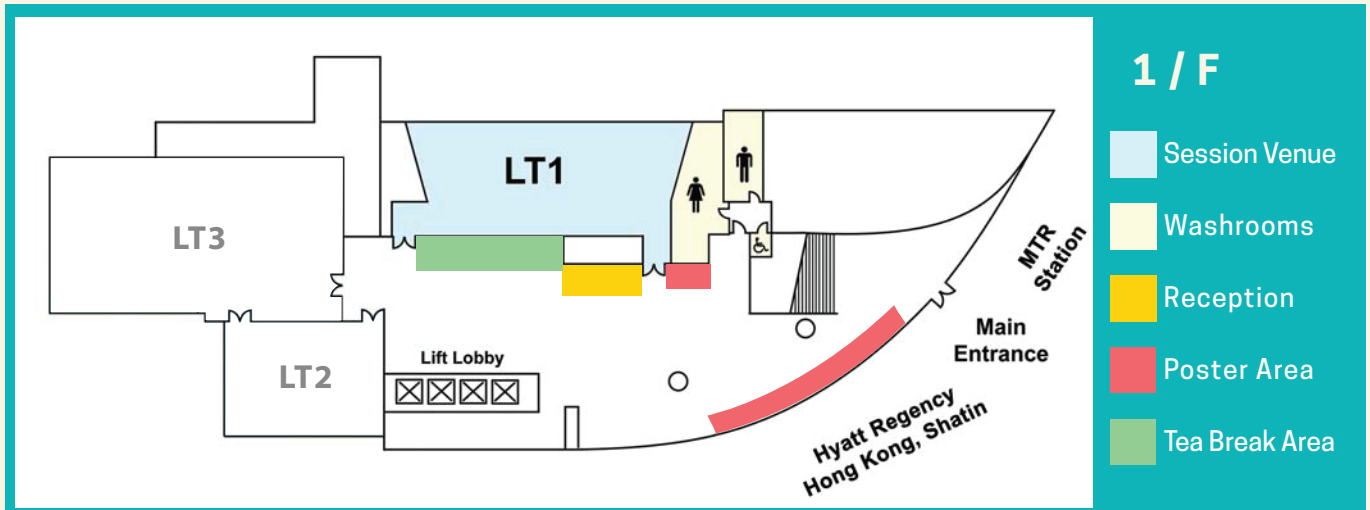
Lunch(es) (6-7 December 2017)

▶ The Stage, 3/F., Cheng Yu Tung Building, CUHK

Welcome Banquet (6 December 2017)

▶ Regency Ballroom, Hyatt Regency Hong Kong Shatin, 18 Chak Cheung Street, Shatin, Hong Kong

Cheng Yu Tung Building, CUHK



2 Language

The official language of presentation is English.

3 Name Badge

Please wear the conference name badges for identification during the conference period.

4 Smoking

Smoking is **strictly forbidden** in the whole CUHK campus.

5 Mobile Phone

As a courtesy to other participants and presenters, please ensure that all mobile device(s) is/are turned off or is/are in **"SILENT"** mode during the sessions.

6 Shuttle Bus

6 December 2017 (Wednesday)

From	To	Departure Time	Assembly Point
Royal Park Hotel	Cheng Yu Tung Building	8:15am	Main Lobby of Royal Park Hotel
University Guest House	Cheng Yu Tung Building	8:25am	Outside University Guest House
Hyatt Regency HK Shatin	Royal Park Hotel	After Banquet	Outside Hyatt Regency HK Shatin
Hyatt Regency HK Shatin	University Guest House	After Banquet	Outside Hyatt Regency HK Shatin

7 December 2017 (Thursday)

From	To	Departure Time	Assembly Point
Royal Park Hotel	Cheng Yu Tung Building	8:20am	Main Lobby of Royal Park Hotel
University Guest House	Cheng Yu Tung Building	8:40am	Outside University Guest House
Cheng Yu Tung Building	Royal Park Hotel	After Program	Outside Cheng Yu Tung Building
Cheng Yu Tung Building	University Guest House	After Program	Outside Cheng Yu Tung Building

8 December 2017 (Friday)

From	To	Departure Time	Assembly Point
Royal Park Hotel	Cheng Yu Tung Building	8:20am	Main Lobby of Royal Park Hotel
University Guest House	Cheng Yu Tung Building	8:40am	Outside University Guest House
Cheng Yu Tung Building	Royal Park Hotel	After Closing Ceremony	Outside Cheng Yu Tung Building
Cheng Yu Tung Building	University Guest House	After Closing Ceremony	Outside Cheng Yu Tung Building



Programme

6 December 2017 (Wednesday)

6 December 2017 (Wednesday)	
Venue: LT 1, 1/F, Cheng Yu Tung Building (CYT), The Chinese University of Hong Kong (CUHK)	
08:45 - 09:15	Registration
Opening Ceremony Chair: Hui LIN	
09:15 - 10:00	Opening Remarks
10:00 - 11:00	Keynote Speech Big Earth Data for Belt and Road Development <i>Huadong GUO - Chair of DBAR Program</i>
	Panel Discussion <i>Co-chairs by: John van GENDEREN & Jie LIU</i>
11:00 - 11:20	Tea Break
Keynote Addresses (1) Chair: Paul UHLIR	
11:20 - 11:50	Keynote Speech Earth Observation Data Analytics for Global Challenges: The DataCube Solution <i>Alex HELD - CSIRO, Australia</i>
11:50 - 12:20	Keynote Speech Remote Sensing of Seas and Oceans in Tropical and Subtropical Regions <i>Valery BONDUR - Institute for Scientific Research of Aerospace Monitoring "AEROCOSMOS" (ISR "AEROCOSMOS"), Moscow, Russia</i>
12:20 - 14:00	Lunch <i>(Venue: The Stage, 3/F., Cheng Yu Tung Building, CUHK)</i>
13:30 - 14:00	Side Event: DBAR-WATER Launching Ceremony <i>(Venue: Rm 201, Cheng Yu Tung Building (CYT), CUHK)</i>

	<p>Session 2 – Part 1 Remote Sensing for Agriculture Monitoring and Food Security (1)</p> <p>Co-chairs by: Bingfang WU & Shukri AHMED</p>	<p>Session 3 – Part 1 Environmental Monitoring and Analysis for Sustainable Development and Management of Coast and Sea (1)</p> <p>Co-chairs by: Mazlan HASHIM & Guanghui LIN</p>	<p>Session 4 – Part 1 Remote Sensing for Global Environment Change (1)</p> <p>Co-chairs by: Howard EPSTEIN & Gensuo JIA</p>	<p>Session 6 Big Earth Data for Disaster Risk Reduction</p> <p>Co-chairs by: Fang CHEN & Atta Ur-RAHMAN</p>	<p>Session 7 – Part 1 Remote Sensing for Water Resources (1)</p> <p>Co-chairs by: Bob SU & Kamal LABBASSI</p>
	Rm 211, 2/F, CYT	LT 4, 2/F, CYT	LT 1, 1/F, CYT	Rm 212, 2/F, CYT	Rm 201, 2/F., CYT
14:00-14:15	<p>765: Shared Agronomic Information Community for One Belt and One Road</p> <p>Bingfang WU - Institute of Remote Sensing and Digital Earth of the Chinese Academy of Sciences; SHUKRI FARAH AHMED- Food and Agriculture Organization of the United Nations, Changchun HE-National Remote Sensing Center of China</p>	<p>872: Earth Observation Science and Techniques for the Coastal Environment and Resources along the Maritime Silk Road</p> <p>Li ZHANG - Institute of Remote Sensing and Digital Earth, CAS; Key Laboratory of Earth Observation, Hainan Province</p>	<p>794: Comparative Analysis of Ecological Environment Change in Southeast Asia and Central Asia</p> <p>Xinwu LI, Xiaotong ZHANG, Siyang YIN, Wenjin WU - Institute of Remote Sensing and Digital Earth, CAS, Beijing & Key Laboratory of Earth Observation, Hainan Province; Beijing Jiaotong University; Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences, RAD, CAS</p>	<p>876: DBAR Disaster: A joint contribution to disaster risk reduction in the Belt and Road</p> <p>Fang CHEN - Institute of Remote Sensing and Digital Earth, CAS; Key Laboratory of Earth Observation, Hainan Province</p>	<p>878: DBAR-Water: Understanding Spatial & Temporal Patterns of Water Resources and Water Use by Earth Observations</p> <p>Jia LI - Institute of Remote Sensing and Digital Earth (RAD)-Chinese Academy of Sciences (CAS)</p>
14:15-14:30	<p>690: The Comparative Research on Diseases and Insect Pests in Cotton Identification Model Based on the Wavelet Transform and Vegetation Index</p> <p>Yubin ZHENG, Qing ZHANG, Wenjie SONG, Jiangning YANG - Xinjiang Career Technical College Institute of Remote Sensing and Digital Earth, CAS</p>	<p>806: Environmental Monitoring for Sustainable Management of Coast and Sea</p> <p>Dewayana SUTRISNO - Geospatial information agency/Indonesian Society for Remote Sensing</p>	<p>861: Extraction of Agricultural Phenological Parameters of Central Asia using MODIS, NDVI time - series data</p> <p>Aitekeyeva NURGUL, Xinwu LI, Huadong GUO - Institute of Remote Sensing and Digital Earth, CAS</p>	<p>850: Impact of Climate Change on Flood Factors and Extent of Damages in the Hindu Kush Region</p> <p>Atta Ur-RAHMAN[*], Shakeel MAHMOOD[*]** - *Department of Geography, University of Peshawar, **Pakistan Govt college university Lahore, Pakistan</p>	<p>879: Earth Observations for Water Accounting in Southeast Asia</p> <p>Wim Bastiaanssen, Elga SALVADORE, Bert Coerver, Nurcharat, SRIWONG-SITANON, Jia LI - UNESCO-IHE/Delft University of Technology; UNESCO-IHE/University of Technology, Brussels; UNESCO-IHE/Delft University of Technology; Kasetsart University; RAD-CAS</p>
14:30-14:45	<p>870: Spatio-Temporal Changes of Agricultural Land Use in Kazakhstan During 1970-2015</p> <p>Dr. Jie BAI - Xinjiang Institute of Ecology and Geography, CAS</p>	<p>873: Sustainable Management of Coast would only be a Miracle without Rational Baseline and Indicators: Sri Lankan Perspectives</p> <p>Jayasingam THANGAMUTHU-Eastern University, Sri Lanka</p>	<p>733: Analysis of Ecological Quality Changes in the Typical Region of Aojiang River Basin, Fujian Province, China</p> <p>Tingting SHI, Hanqiu XU - Fuzhou University</p>	<p>798: Fire-Caused Global Forest Loss Mapping by an Object-Based Mapping Method</p> <p>Lei WANG - Institute of Remote Sensing and Digital Earth, CAS</p>	<p>739: Contribution to Site Selection Methodology for Water Harvesting in the Belt And Road Region</p> <p>Altansukh OCHIR, Davajargal BOLDBAATAR - National University of Mongolia</p>
14:45-15:00	<p>742: The Comprehensive Agricultural Drought Monitoring with Multiple-Source Data and Aquacrop Model</p> <p>Hongshuo WANG - China Agricultural University</p>	<p>735: Mapping Spatial Distribution and Biomass of Mangroves Using Lidar and High-Resolution Satellite Data</p> <p>Guanghui LIN, Yi ZHENG, Yiqiong LIN, Jian ZHOU, Qinghua GUO[*] Hongsheng ZHANG[*]** - Tsinghua University, *Institute of Botany, the CAS, **ISES, CUHK</p>	<p>669: An Integrated Indicator for Environmental Assessment of Critical Areas Along the Belt and Road</p> <p>Xiangcheng DENG, Zhihui LI, Siqi JIA, Feng WU Institute of Geographic Sciences and Natural Resources Research, CAS - Faculty of Social Science, CUHK</p>	<p>657: Remote Sensing-Based Assessment of Vegetation Damage by a Strong Typhoon (Meranti) in Xiamen Island, China</p> <p>Meiya WANG, Hanqiu XU - Fuzhou University</p>	<p>781: Integration of Hydrologic Planning Model and Remote Sensing Data for Estimating Water Balance Components</p> <p>Saeid HAMZEH, Ayoub NOKHASI, Farshad AMIRALANI, Arash AZARI - University of Tehran Razi University</p>

CUHK Public Lecture of CAE Academician

LT 5, 2/F, CYT

15:00 – 17:00

The Innovation and Development of Beidou System and Its Application Prospect (The Lecture will be in Chinese)

Shusen TAN - Academician, Chinese Academy of Engineering

15:00-15:15

751: Regional Mapping of Arable Land in the Arid Oasis of Northwestern China with Multiscale Remotely Sensed Data

Ligang MA-College of Resource and Environmental Sciences, Xinjiang University

755: Salt Marsh Migration under Sea Level Rise and Land Development, South Carolina, USA

CuiZhen WANG, Ms. Huixuan LI, Zhongchang SUN(*) - University of South Carolina, *Institute of Remote Sensing and Digital Earth (RAD), CAS; Key Laboratory of Earth Observation, Hainan Province

859: Remotely Sensed Drought Changes over Tropical and Subtropical Areas

Anzhi ZHANG, Gensuo JIA - Institute of Atmospheric Physics, CAS

877: Integration and Sharing the Information by the Service System for Marine Fishery Safety Guarantees

Wenbo CAI - National Marine Environmental Forecasting Center, State Oceanic Administration

880: Analysis of 2010-Flood Causes, Nature and Magnitude in Khyber Pakhtunkhwa-Pakistan

Atta Ur RAHMAN - Department of Geography, University of Peshawar, Pakistan

15:15-15:30

766: Assessment of Nitrogen Status for Winter Oilseed Rape using Reflectance Measurements from Field Spectrometer and Unmanned Aerial VehicleSONG, Shishi LIU, Shanqin WANG, Qingfeng GUAN - Huazhong Agricultural University China University of Geosciences (Wuhan)

785: Study on the Submarine Physiographic Features in the Bay of Bengal

Myint Myint KHAING - Technological University (Pakokku), Myanmar

855: Recent Vegetation Trends and Variability from AVHRR NDMI and MODIS EVI in South Asian Ecoregions

Sangeeta SARMAH, Gensuo JIA, Anzhi ZHANG - Institute of Atmospheric Physics, CAS

745: Prediction Technology of Green Blooms and Harmful Algal Blooms Based on Satellite Remote Sensing

Dan WANG, Jing YANG, Enye HE, Sisi ZHANG, Guimei LIU, Tiejun LING - Key Laboratory of Research on Marine Hazards Forecasting, National Marine Environmental Forecasting Center, State Oceanic Administration, Beijing

720: Hyperspectral Models for Estimating Colored Dissolved Organic Matter of Turbid Water in Poyang Lake

Jian XU, Yeqiao WANG - Ministry of Education's Key Laboratory of Poyang Lake Wetland and Watershed Research, Jiangxi Normal University

15:30-15:45

871: Soil Monitoring based on Remote Sensing Data

Igor SAVIN - People's Friendship University of Russia, and of Moscow State University

807: Detection of Forest Cover Changes Using Multi-Temporal Satellite Imagery

Siow Wei JAW, Muhammad Aizat RAMLI, Fatin Nabihah Syahira RIDZUAN - Geoscience & Digital Earth Centre (INSTeG), Universiti Teknologi Malaysia

875: Vegetation Dynamics and Responses to Recent Climate Change in Arid and Semi-Arid Regions

Guli JIAPAER - Xinjiang Institute of Ecology and Geography, CAS

904: Innovative Applications of Big Data in the Mining Industry

Mei Li, Shanjun MAO - Institute of Remote Sensing and Geographic Information System, Peking University

703: Anomalous tidal behavior in the South China Sea and Hong Kong with implications for peak water levels

Dr. Adam DEVLIN - The Chinese University of Hong Kong

15:45-16:00

874: A Geospatial Insight in South Asia: Natural Resources and Environment

Ainong LI - Institute of Mountain Hazards and Environment, CAS

725: Global Ecosystems and Environment Observation: Annual Report from China (GEOARC) - The Belt and Road

Qinhuo LIU, Junjun WU, Zheng NIU - State Key Laboratory of Remote Sensing Science, Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences

16:00 - 16:20

Tea Break

	<p>Session 2 – Part 2 Remote Sensing for Agriculture Monitoring and Food Security (2) Co-chairs by: Bingfang WU & Shukri Farah AHMED</p>	<p>Session 3 – Part 2 Environmental Monitoring and Analysis for Sustainable Development and Management of Coast and Sea (2) Co-chairs by: Jiapeng WU & Jayasingam THANGAMUTHU</p>	<p>Session 4 – Part 2 Remote Sensing for Global Environment Change (2) Co-chairs by: Howard EPSTEIN & Xinwu LI</p>	<p>Side Event DBAR-HIMAC Task Force Working Meeting</p>	<p>Session 7 – Part 2 Remote Sensing for Water Resources (2) Co-chairs by: Jia LI & Wim BASTIAANSEN</p>	
16:20 - 16:35	<p>861: Extraction of Agricultural Phenological Parameters of Central Asia using MODIS, NDVI Time - Series Data Aitekeyeva NURGUL, Xinwu LI, Huadong GUO - Institute of Remote Sensing and Digital Earth, CAS</p>	<p>827: Spectral Reflectance Different Water Turbidity on Outer and Middle Inner Zona Spermonde Archipelago Nurjannah NURDIN[*], Chair RANI, Djamaluddin DJOMPA - Marine Science Department, Hasanuddin University, Indonesia</p>	<p>856: Effect of Climate Change on Productivity and Cultivation Distribution of Spring Maize in Northeast China Junfang ZHAO - Chinese Academy of Meteorological Sciences</p>	<p>Rm 212, 2/F, CYT</p>	<p>Rm 201, 2/F, CYT</p>	
16:35 - 16:50	<p>778: Remote Estimation of Crop Productivity with Satellite Data Yi PENG, Shenghui FANG, Yan GONG, Kan LIU, Can DAI, Anatoly GITELSON - Wuhan University; Wuhan Institute of Physics and Mathematics of CAS; Hubei University; University of Nebraska-Lincoln</p>	<p>796: Monitoring of Mangrove Forests in Hainan and Construction of Spectral Library and Backscattering Feature Database of Mangrove Forests Jingjuan LIAO, Jianing ZHEN, Guozhuang SHEN - Key Laboratory of Digital Earth, Institute of Remote Sensing and Digital Earth, CAS; Key Laboratory of Earth Observation, Hainan Province</p>	<p>805: Analysis of Response and Recovery of Vegetation to Forest Fire Based on GLASS Product Jing LI, Adu GONG, Jing LI, Jianjun WU, Jianwei YUE, Hong TANG, Yunhao CHEN, Yanling CHEN, Jingmei WANG - Beijing Normal University</p>	<p>Side Event DBAR-HIMAC Task Force Working Meeting</p>	<p>884: EO Monitoring of Actual and Maximum ET Towards Adaptive Irrigation Water Management in Response to Climate Forcing: The Case of Doukkala, Morocco Fatima Efatime EZZAHRA, EIGHANDOUR, S. M. ALFHERI, Nadia AKDIM, Adnane HABIB, Kamal LABBASSI, Massimo MENENTI - Chouaib Doukkali University, Delft University of Technology</p>	
16:50 - 17:05	<p>791: Crop Classification Using Time Series Chinese Moderate Resolution Satellite Data Bo ZHONG, Aixia YANG, Shanlong WU - Institute of Remote Sensing and Digital Earth</p>	<p>691: Assessment of Socio-Economical Impact of Coastal Erosion and Coastal Oceanography along Pasni Fish Harbor and Shadi Kour Area Muhammad SHAHZAD, Ibrahim ZIA[*], Mejid NAZEER, Muhammad ALI, Mohsin MERAJ - Earth & Atmospheric Remote Sensing Lab (EARL), Department of Meteorology, COMSATS Institute of Information Technology, Islamabad Pakistan [*National Institute of Oceanography, Karachi Pakistan</p>	<p>676: Reflections on Air Pollution Control Measures of China and Countries along the Belt and Road--the ultimate goal of liberty Jinhai ZHANG - Peking University's visiting scholar</p>		<p>885: Monitoring Land Surface Evapotranspiration in the Belt and Road Region based ET Monitor Driven by Earth Observations Chaolei ZHENG, Jia LI, Guangcheng HU, Jing LU, Kun WANG, Jie ZHOU, Qiting CHEN - RADII-CAS</p>	<p>886: Validation of Remotely Sensed ET Products for Thailand using the Water Balance of 150 Sub-Basins Nutchanat SRIWONGSITANON, Sithichoei ARCHAVAKULGOSOL, Sansarith THANPOPIRUG, Jia LI, Wim BASTIAANSEN - Kasetsart University RADII-CAS, JCGCS UNESCO-IHE, Delft University of Technology</p>
17:05 - 17:20	<p>825: Rice Planting Information Retrieval at Farmland Plot Scale Using Multi-sources Satellite Data Qiting HUANG, Wen DONG, Jiancheng LUO - Agricultural Science and Technology Information Research Institute, Guangxi Academy of Agricultural Sciences</p>	<p>881: Environmental Benefits of Seaweed Aquaculture in China Yuhan ZHENG, Runjie JIN, Xiujuan ZHANG, Carlos M. DURATEE, Jiaping WU - Ocean College, Zhejiang University; King Abdullah University of Science and Technology, Red Sea Research Center, Thuwal, Saudi Arabia</p>	<p>882: Strategies for Environmental Monitoring in the Belt and Road Region Jinsong CHEN - Shenzhen Institutes of advanced technology, CAS</p>			

17:20 - 17:35	<p>824: Cooperation in Grape Research and Industry Development under the Belt and Road Initiative <i>Xuefu ZHANG, Pythagoras KARAMPIPERIS, Babis THANOPOULOS - Agricultural Information Institute of Chinese Academy of Agricultural Sciences Agroknow</i></p>	<p>748: Significant Wave Height Retrieval using Sentinel-1 SAR : Analysis of the Wave Spectra in Offshore and Coastal Waters <i>Fabian PRAMUDYA, Jiayi PAN, Adam DEVLIN - The Chinese University of Hong Kong</i></p>	<p>660: Understand Global Forest Carbon Absorption using The Big Earth Data and Data Driven Method <i>Wenjin WU, Xuejing ZHAO, Xinwu LI - RADI, CAS; Shandong University of Science and Technology/Institute of Remote Sensing and Digital Earth, CAS</i></p>	<p>Side Event DBAR-HiMAC Task Force Working Meeting</p>	<p>887: H-TEP: A potential platform for EO water applications for DBAR Communities <i>Bernat MARTINEZ, Laia ROMERO - isardSAT</i></p>
17:35 - 17:50	<p>746: Numerical Simulation on Tides in The South China Sea by Assimilating Satellite Altimetry Data <i>Yanqiang WANG, Tianyu ZHANG, Yun LI, Xueming ZHU - National Marine Environmental Forecasting Center</i></p>	<p>860: Sensitivities of Spring Greenup to Preseason Climate <i>Xiyun XU, Gensuo JIA, William RILEY, Charles KOVEN - Institute of Atmospheric Physics, CAS; Lawrence Berkeley National Laboratory</i></p>	<p>888: Multi-scale Modeling of Evapotranspiration: An Approach Towards Validation <i>Qiting CHEN, Jia Li, Chaolei ZHENG, Guangcheng HU - RADI-CAS</i></p>		
17:50 - 18:05	<p>710: Application of Satellite Sensing Data on Regional Ocean Modeling System (ROMS) <i>Zhaoyi WANG - National Marine Environmental Forecasting Center of China</i></p>	<p>848: Pixel Information Expert for the 21st Century Maritime Silk Road <i>Xiaohua WANG - Beijing Plesat Information Technology CO., Ltd.</i></p>			
18:30 - 21:00	<p>Welcome Banquet <i>(Regency Ballroom, Hyatt Regency Hong Kong Shatin, 18 Chak Cheung Street, Shatin, Hong Kong)</i></p> <ul style="list-style-type: none"> ▪ 18:30- 19:00: Reception ▪ 19:00-21:00 Dinner 				



Programme

7 December 2017 (Thursday)

7 December 2017 (Thursday)	
Keynote Addresses (2) <i>Chair: Changchui HE</i>	
Venue: LT 1, 1/F, Cheng Yu Tung Building (CYT), The Chinese University of Hong Kong (CUHK)	
09:00 - 09:30	Keynote Speech Contributing to Market Transparency - Challenges of Agricultural Monitoring Systems <i>Bettina BARUTH - European Commission, Joint Research Centre</i>
09:30 - 10:00	Keynote Speech The Major Challenges Related to Water Safety in the Northern Part of Africa; An Overview of Water Resources: Morocco as an Example <i>Kamal LABBASSI - Chouaib Doukkali University, Morocco</i>
10:00 - 10:30	Keynote Speech Remote Sensing of Sea Ice in the Arctic: From Long Time Series to Recent Developments <i>Gunnar SPREEN - University of Bremen, Germany</i>
10:30 - 10:50	Tea Break
Keynote Addresses (3) <i>Chair: Natarajan ISHWARAN</i>	
10:50 - 11:10	Keynote Speech Remote Sensing for Integrated Coastal Zone Management: UAV Interventions <i>Mazlan HASHIM - Universiti Teknologi Malaysia (UTM)</i>
11:10 - 11:40	Keynote Speech Recording the Earth: Research Advances in Global Soundscape Ecology <i>Bryan PIJANOWSKI - Purdue University, U.S.A</i>
11:40 - 12:10	Keynote Speech Remote Sensing for Cultural Heritage: from Documentation to Risk Estimation and Preservation <i>Rosa LASAPONARA - The Italian National Council Research</i>
12:20 - 14:00	Lunch <i>(Venue: The Stage, 3/F., Cheng Yu Tung Building, CUHK)</i>

14:00-14:15	<p>889: Data Sharing to Support the DBAR Initiative Paul UHLIR - Information Policy and Management, Callicoon, NY, USA;</p> <p>890: Big Earth Data for Disaster Risk Reduction in the Tropics: Challenges and Prospect Ali SELAMAT, Centre for Computing & IT, UTM</p> <p>891: ASEAN-DBAR DATA WG Cooperation Update Silap BOUPHA - MOST, Lao PDR</p>	<p>Session 1 – Part 1 Digital Earth and Spatial Data Infrastructure (1) Co-chairs by: Guoqing LI & Silap BUPA</p>	<p>Session 5 – Part 1 Natural and Cultural Heritage Conservation and Sustainable Development (1) Co-chairs by: Xinyuan WANG & Rosa LASAPONARA</p>	<p>Session 8 – Part 1 Urban Environment and Sustainable Urban Development (1) Co-chairs by: Linlin LU & Martino PESARESI</p>	<p>Session 9 – Part 1 Observations and Adaption to Changes in High Mountain and Arctic Cold Regions (1) Co-chairs by: Massimo MENENT & Yubao QIU</p>	<p>Side Event DBAR-COAST Launching Ceremony</p>
14:15-14:30	<p>662: Cultural Heritage along the Belt and Road: Universal Values and the Silk Road Spirit Carrying Xinyuan WANG - Institute of Remote Sensing and Digital Earth, CAS; Key Laboratory of Earth Observation, Hainan Province</p> <p>772: Preserving the UNESCO Designated Places from Space Guelin DEDE - GEMINI SSO</p> <p>896: Remote sensing for Natural and Cultural Heritage Monitoring, Preservation and Sustainable Development Rosa LASAPONARA - IMAA-CNR</p>	<p>Session 8 – Part 1 Urban Environment and Sustainable Urban Development (1) Co-chairs by: Linlin LU & Martino PESARESI</p>	<p>Session 5 – Part 1 Natural and Cultural Heritage Conservation and Sustainable Development (1) Co-chairs by: Xinyuan WANG & Rosa LASAPONARA</p>	<p>Session 8 – Part 1 Urban Environment and Sustainable Urban Development (1) Co-chairs by: Linlin LU & Martino PESARESI</p>	<p>Session 9 – Part 1 Observations and Adaption to Changes in High Mountain and Arctic Cold Regions (1) Co-chairs by: Massimo MENENT & Yubao QIU</p>	<p>Side Event DBAR-COAST Launching Ceremony</p>
14:30-14:45	<p>662: Cultural Heritage along the Belt and Road: Universal Values and the Silk Road Spirit Carrying Xinyuan WANG - Institute of Remote Sensing and Digital Earth, CAS; Key Laboratory of Earth Observation, Hainan Province</p> <p>772: Preserving the UNESCO Designated Places from Space Guelin DEDE - GEMINI SSO</p> <p>896: Remote sensing for Natural and Cultural Heritage Monitoring, Preservation and Sustainable Development Rosa LASAPONARA - IMAA-CNR</p>	<p>Session 8 – Part 1 Urban Environment and Sustainable Urban Development (1) Co-chairs by: Linlin LU & Martino PESARESI</p>	<p>Session 5 – Part 1 Natural and Cultural Heritage Conservation and Sustainable Development (1) Co-chairs by: Xinyuan WANG & Rosa LASAPONARA</p>	<p>Session 8 – Part 1 Urban Environment and Sustainable Urban Development (1) Co-chairs by: Linlin LU & Martino PESARESI</p>	<p>Session 9 – Part 1 Observations and Adaption to Changes in High Mountain and Arctic Cold Regions (1) Co-chairs by: Massimo MENENT & Yubao QIU</p>	<p>Side Event DBAR-COAST Launching Ceremony</p>
14:45-15:00	<p>892: Data Cloud for Education in DBAR Big Data Platform Jibin WANG, Jian WANG - Jinan Supercomputer Center, China; Institute of Remote Sensing and Digital Earth, CAS & Key Laboratory of Earth Observation, Hainan Province</p>	<p>Session 8 – Part 1 Urban Environment and Sustainable Urban Development (1) Co-chairs by: Linlin LU & Martino PESARESI</p>	<p>Session 5 – Part 1 Natural and Cultural Heritage Conservation and Sustainable Development (1) Co-chairs by: Xinyuan WANG & Rosa LASAPONARA</p>	<p>Session 8 – Part 1 Urban Environment and Sustainable Urban Development (1) Co-chairs by: Linlin LU & Martino PESARESI</p>	<p>Session 9 – Part 1 Observations and Adaption to Changes in High Mountain and Arctic Cold Regions (1) Co-chairs by: Massimo MENENT & Yubao QIU</p>	<p>Side Event DBAR-COAST Launching Ceremony</p>
15:00-15:15	<p>893: H-TEP: A Community Platform for EO Water Applications in West Africa and South-East Asia Benat MARTINEZ - isardSAT Ltd, Spain</p>	<p>Session 8 – Part 1 Urban Environment and Sustainable Urban Development (1) Co-chairs by: Linlin LU & Martino PESARESI</p>	<p>Session 5 – Part 1 Natural and Cultural Heritage Conservation and Sustainable Development (1) Co-chairs by: Xinyuan WANG & Rosa LASAPONARA</p>	<p>Session 8 – Part 1 Urban Environment and Sustainable Urban Development (1) Co-chairs by: Linlin LU & Martino PESARESI</p>	<p>Session 9 – Part 1 Observations and Adaption to Changes in High Mountain and Arctic Cold Regions (1) Co-chairs by: Massimo MENENT & Yubao QIU</p>	<p>Side Event DBAR-COAST Launching Ceremony</p>

15:15-15:30	<p>894: China E0 Satellites and Its International Data Sharing and Service Zhiqiang WANG - CRESDA, China</p>	<p>758: Susceptibility Assessment of Karez System in Pakistan Shahina TARIQ, Xinyuan WANG, Zain ABEDIN - Department of Meteorology, COMSATS Institute of Information Technology (CIIT); Institute of Remote Sensing and Digital Earth, CAS; Faculty of Architecture and Design, COMSATS Institute of Information Technology (CIIT);</p>	<p>665: Analysis of the Evolution of a Typical Haze Pollution in Beijing Yang YANG-The Institute of Atmospheric Physics, Chinese Academy of Sciences</p>	<p>790: Barents Sea Ice Decline in Spring Has Enhanced Summer Hot Drought Events over Northeastern China Huopo CHEN - Institute of Atmospheric Physics, CAS</p>
15:30-15:45	<p>895: Introduction on Remote Sensing Ground Receiving Station, CUHK Kin YEUNG - The Chinese University of Hong Kong</p>	<p>759: New Technologies, New Challenges and New Opportunities for Management and Exploration of Natural and Cultural Heritage Sites in Pakistan Zain UL ABEDIN, Shahina TARIQ, Uzma NOORREEN ZAIN UL ABEDIN - Faculty of Architecture and Design, COMSATS Institute of Information Technology (CIIT); Department of Meteorology, COMSATS Institute of Information Technology (CIIT); xHEC prof and Independent Consultant</p>	<p>686: Urban Expansion and Its Ecological Effects in Moscow, Russia (1975-2015) Yue SUJ - Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences</p>	<p>795-Permafrost A Map of Permafrost Thermal Stability Covering the Third Pole Obtained by Integrating Remotely Sensed Data and Ground Youhua RAN, Northwest Institute of Eco-environment and Resources, CAS</p>
15:45-16:00	<p>704: Evaluation of the Development Trend of Space Geoscience in Countries Along the Belt and Road Routes Haiming WANG, Trends of research cooperations between the Belt and Road countries in space earth science: bibliometric analysis using the Web of Science database</p>	<p>897: The Ancient Environment and Prehistoric Settlement around Songshan Mountain Peng LU, Dexian FENG, Shike QIU, Panpan CHEN - Institute of Geographical Sciences of Henan Academy of Sciences</p>	<p>907: A talk on Investigation of Snow and Sea Ice in the Polar Oceans Using Ice Mass Balance Buoy and a 1-D Thermodynamic Model Bin CHENG, FMI, Finland</p>	<p>Side Event DBAR-COAST Launching Ceremony</p>

16:00 - 16:20 Tea Break

Keynote Addresses (1)
Chair: Paul UHLIR

	Session 1 – Part 2 Digital Earth and Spatial Data Infrastructure (2) Co-chairs by: Guoqing LI & Silap BOUPHA	Side Event DBAR Capacity Building	Session 8 – Part 2 Urban Environment and Sustainable Urban Development (2) Co-chairs by: Hangju XU & Chao REN	Session 9 – Part 2 Observations and Adeption to Changes in High Mountain and Arctic Cold Regions (2) Co-chairs by: Xin LI & Juha LEMMETYINEN	Side Event DBAR-COAST launching ceremony
	LT 4, 2/F, CYT	Rm 211, 2/F, CYT	LT 5, 2/F, CYT	LT 1, 1/F, CYT	Rm 212, 2/F, CYT
16:20 - 16:35	700: Evaluation of the Development Trend of Space Geoscience in Countries along the Belt and Road Routes Weiwei FAN - Institutes of Science and Development, CAS	Side Event DBAR Capacity Building	747: Predicted Effect of Forthcoming Population Growth on Regional Thermal Environment and Ecological Quality: Xiong'an New Area, North China Hangju XU, Meiya WANG, Tingting SHI, Zhongli LIN - Fuzhou University	900: CAS Three Pole Big Earth Data Project Xin LI - Northwest Institute of Eco-environment and Resources, CAS	Side Event DBAR-COAST Launching Ceremony
16:35 - 16:50	714: Application Potentiality and Prospects of Night-time Light Remote Sensing for the Belt and Road Wei JIANG - Institute of Remote Sensing and Digital Earth, CAS		737: Multi-time Scale Analysis of Heat Island Effect in Guangdong - Hong Kong - Macau Greater Bay Area from 1990 to 2015 Jinsong CHEN, Hongzhong LI - SIAT, CAS	901: Satellite-derived Soil, Snow Cover and Lake Ice Characteristics as Indicators for Carbon Feedbacks Juha LEMMETYINEN - Finnish Meteorologi- cal Institute, Helsinki, Finland	
16:50 - 17:05	707: Global System of Quantitative Remote Sensing Products for Typical Applications Chunxiang CAO, Min XU - Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences		741: Thermal Remote Sensing For Urban Heat Wave Events: Applications and Challenges Feng CHEN - Xiamen University	685: Glacier Mass Balance Over the Central Nyainqentanglha Region, southeastern Tibetan Plateau during 1968-2013, estimated from remote sensing data Liu SHIMIN - Institute of International Rivers and Eco-Security, Yunnan University	
17:05 - 17:20	Side Event DBAR-DATA Working Meeting	Side Event DBAR Capacity Building	799: Identifying Socio-economic Drivers of Air Quality and Their Spatial Relationship in Yangtze River Delta Qianjing YUAN, Rongrong LI, Hui LIN - The Chinese University of Hong Kong	902: Multi-Source Hydrological Data Products to Monitor High Asian River Basins and Regional Water Security Massimo MENENTI - State Key Laboratory of Remote Sensing Science, Institute of Remote Sensing and Digital Earth	Side Event DBAR-COAST Launching Ceremony
17:20 - 17:35			905: Estimation of Land Surface Emissivity Using Different Vegetation Indices By Means Of ANN and SVR Y. Jouybbari MOGHADDAM and M.R. SARADJIAN - University of Tehran	903: SMEAR Station Concept in DBAR and HIMAC Task Force Kujansuu JONI - University of Helsinki, Finland	
17:35 - 17:50			719: The World Urban Database and Access Portal Tools (WUDAPT) and Its Planning Implications for Belt and Road Cities Chao REN - The Chinese University of Hong Kong	793: Multi-sphere Hydrological Modeling over the Third Pole Region Lei WANG - Institute of Tibetan Plateau Research, CAS	



Programme

8 December 2017 (Friday)

8 December 2017 (Friday)	
Keynote Addresses (4) <i>Chair: Qunli HAN</i>	
Venue: LT 1, 1/F, Cheng Yu Tung Building (CYT), The Chinese University of Hong Kong (CUHK)	
09:00 - 09:30	Keynote Speech The Global Human Settlement Layer framework and the Digital Belt and Road: A Synergic Perspective <i>Martino PESARESI - European Commission, Joint Research Centre</i>
09:30 - 10:00	Keynote Speech Capacity Building of Big-Data from Earth Observation for Water and Land Management in Thailand <i>Monthip SRIRATANA - National Research Council of Thailand (NRCT)</i>
10:00 - 10:30	Tea Break
10:30 - 11:30	Closing Ceremony



Side Event (7)

4-5 December 2017

DBAR Agriculture and Food Security Working Group (DBAR-AGRI) Launching Ceremony

Venue: Hyatt Regency Hong Kong, Sha Tin

Abstract:

This is a preparatory meeting of DBAR agriculture and food security (DBAR-AGRI) working group, which is an important component of DBAR. To ensure global food security and realize UN Sustainable Development Goals (SDGs), it is essential to improve global food security governance involving the entire food chains, from production, harvest, to trade, market and consumption. Information on the food chains is crucial for an open, transparent, and inclusive global food security governance. The DBAR-AGRI working group aims at creating a community of practice on comprehensive agriculture monitoring to address the information gap related to food security and nutrition, to establish a partnership community of practice to develop and implement a science plan for comprehensive agriculture monitoring, to promote up-to-date understanding and awareness on Earth Observation (EO) contributions to global and regional food and nutrition security issues, to compile and promote good practices on EO based comprehensive agricultural monitoring cloud platform, adaptation and customization of EO based agriculture monitoring cloud platform for BAR countries, capacity building for agriculture monitoring in DBAR countries. The basic tenet of the working group is to contribute to a holistic approach to address the information-gap in order to ensure food and nutrition security of a growing population. In this meeting, the draft of science plan of DBAR-AGRI will be discussed and the implementation plan for the next five years will be formulated.

6 December 2017, 13:30-14:00

DBAR Water Working Group (DBAR-WATER) Launching Ceremony

Venue: Room 201, Cheng Yu Tung Building, CUHK

Abstract:

The DBAR-WATER Working Group promotes and coordinates science and applications within one of the nine foci of the DBAR (Digital Belt and Road) Science Program aiming at applying Earth Observations to understand the water resources and water use in the Belt and Road Countries by building joint platforms and initiate research projects. Earth Observation is very helpful for water cycle studies and water resource management to solve critical water related problems, e.g. to understand the distribution of water resources and to monitor drought and flood disasters. This meeting aims at launching the DBAR-WATER theme that will promote Earth Observation scientific studies and applications to water resource and water use in the Belt and Road Countries. Scientists and experts from the Belt and Road region will gather and share their contributions to DBAR-WATER. Several presentations are included, which cover the understanding of spatial and temporal patterns of water resources and water use, agricultural water productivity, assessment of water related disasters analysis and monitoring of water quality. More in general, the goal of DBAR-WATER is to understand the challenging problems and to search for solutions related to water resources in the Belt and Road Countries using Earth Observation. In this meeting, the top priority issues and collaboration plans will be discussed. Finally but not least, the science plan of DBAR-WATER will be discussed and the implementation plan for the next five years will be formulated.

6 December 2017, 15:40-18:00

DBAR High Mountain and Cold Region Task Force (DBAR-HiMAC) Working Meeting

Venue: Room 212, Cheng Yu Tung Building, CUHK

Abstract:

The meeting aims to call for more research topics, to inspire understanding of the remote connection of Earth poles, to promote the scientific understanding to the High Mountain and Polar Cold Regions (HiMAC), especially to the Belt and Road region of ice silk road. An effort will be settled to advocate the engagement of new participant. The content and revision to work plan and priorities will be discussed, especially to call for proposal on the joint effort with other organizations, and program.

The preliminary agenda includes:

- 1. Science opinions speech*
- 2. Belt and Road relevant, especially the ice silk road*
- 3. Progress report, and work plan consulting*
- 4. Joint action with international program, such as GEO CRI, and etc.*

7 December 2017, 14:00-18:00

DBAR Coastal Zone Working Group (DBAR-COAST) Launching Ceremony

Venue: Room 212, Cheng Yu Tung Building, CUHK

Organizer: *DBAR-COAST Working Group, Key Laboratory of Earth Observation, Hainan Province*

Abstract:

The DBAR Coastal Zone Working Group (DBAR-COAST) is one of the seven working groups and mainly contributes to Maritime Silk Road development. The Maritime Silk Road traverses over thirty ports throughout Asia, Africa, Arab States and Europe. The implementation of the 21st Century Maritime Silk Road strategy will profoundly influence the further integration of these regions or countries into the global economy. Along with the construction of the Maritime Silk Road, the rapid expansion of harbours together with coastal urban population and changes in land-use practices will bring challenges to coastal ecosystems and environment. Climate Change induced changes in sea level are likely to increase the risk of inundation in many parts of the coastal zone, especially the densely populated low-lying areas. Coastal zones are areas of particular ecological, social, and economic value where many conflicting interests need to be reconciled in order to ensure sustainable development. All countries along the Maritime Silk Road have an interest in the sustainable management of their coastal and marine ecosystems. The DBAR-COAST will focus on promoting cooperation among these countries, advocate and demonstrate the applications of Big Earth Data in support of sustainable development of people and economies at local, national and regional levels. Besides, these cooperation, advocacy and demonstration envisages to deliver critical sustainable development policies and strategies for coastal or near shore environments. DBAR-COAST will work to support the development of a Maritime Silk Road network of partner countries to improve access to appropriate and up-to-date science data, technology, and knowledge. These scientific data, technology and knowledge will cover coastline and nearshore environment, coastal ecosystems, harbour and port city, carrying capacity of coastal resources & environment and conservation and management as a result of the strengthened capacities. Beside these, it also focuses to enhance collaboration between existing regional and national stakeholders (B&R partners) in knowledge generation and users of the knowledge and technology.

7 December 2017, 16:00-18:00

DBAR Big Earth Data Working Group (DBAR-DATA) Working Meeting

Venue: LT 4, Cheng Yu Tung Building, CUHK

Organizer: DBAR-DATA Working Group, Key Laboratory of Earth Observation, Hainan Province

Abstract:

This meeting is aimed to review the progress of DBAR Big Data Working Group in the past months of 2017, and extend the scope of big earth data service and research for DBAR communities. Data providers and data consumers from Belt and Road region will gather and share their opinions on big earth data themes. Different with the past workshops and sessions held by DBAR Big Data WG, this meeting is designed in form of panel discussion. We want to get ideas on how to solve the priority big data issues for DBAR users. More than ten experts from Australia, China, EU, Hong Kong, Japan, Lao, Malaysia, Sri Lanka, UK and USA have been invited as panelists. The questions have been listed for experts and audiences to discuss together.

1. Identify the priority, quality, and implementable data resources and data services for B&R region
2. Recommend the most urgent data service types in this region

7 December 2017, 15:40-18:00

DBAR Capacity Building

Venue: Room 211, Cheng Yu Tung Building, CUHK

Abstract:

Implementation of the DBAR Science Plan will include multi-tiered training opportunities. Training of young scientists at master and doctoral levels can be achieved using the current system of scholarships offered by different Agencies in China. In addition training of EO technicians, observation and data analyses and interpretation technologies and tools as well as decision makers will be made feasible via online, refresher and mobile courses both in China and a selected number of B&R countries. A special session will be dedicated to Capacity Building. The goal of the Session is to initiate a dialogue among interested parties in the 65 B&R Countries, International and Chinese Agencies offering a variety of training opportunities and fellowships and academic organizations in China interested in hosting fellows under this initiative. Highlights on the achievements of current CB programs will be presented, while invited speakers from the B&R Countries will share their views on CB needs.

7-8 December 2017

ICSU Regional Committee for Asia and the Pacific

Venue: Hyatt Regency Hong Kong, Sha Tin

Abstract:

The long term ICSU vision is for a world where science is used for the benefit of all, excellence in science is valued and scientific knowledge is effectively linked to policy-making. In such a world, universal and equitable access to high quality scientific data and information is a reality and all countries have the scientific capacity to use these and to contribute to generating the new knowledge that is necessary to establish their own development pathways in a sustainable manner. ICSU mobilizes knowledge and resources of the international science community for the benefit of society and serves to: 1) Identify and address major issues of importance to science and society; 2) Facilitate interaction amongst scientists across all disciplines and from all countries; 3) Promote the participation of all scientists in the international scientific endeavour, regardless of race, citizenship, language, political stance and gender; 4) Provide independent, authoritative advice to stimulate constructive dialogue between the scientific community and governments, civil society and the private sector. The ICSU Regional Committee for Asia and the Pacific (ICSU RCAP) leads and oversees the development and implementation of specific activities to achieve the aims and objectives of ICSU to enhance scientific understanding and capacities for research in the ICSU ROAP priority areas, and in other areas defined in the ICSU Strategic Plan, for the Asia-Pacific region. ICSU RCAP is responsible for the dissemination of information about ICSU ROAP initiatives and activities at the regional and global levels, and where appropriate in the identification and establishment of research groups and networks in areas of research relevant to the priorities of ICSU and its international programme offices. This is the 24th meeting of ICSU Regional Committee for Asia and the Pacific.



Poster

6 December 2017 (Wednesday)

6 December 2017 (Wednesday)

Session 10: Remote Sensing for Agriculture Monitoring and Food Security

771: Application of Agricultural Decision Support Based on Multi-source Image Collaboration, Wen DONG, Qiting HUANG, Yingpin YANG Institute of Remote Sensing and Digital Earth, Chinese Academy of Science; Agricultural Science and Technology Information Research Institute, Guangxi Academy of Agricultural Sciences

756: The Fractional Vegetation Cover Estimation Using ZY-3a Data in Hilly Areas of Fujian Province, Southern China, Mr. LIANG peng, Ms. DONG Jing, Mr. CHAI peng, Mr. DING Yixing

Session 11: Environmental Monitoring and Analysis for Sustainable Development and Management of Coast and Sea

681: Himawari-8 Geostationary Satellite observation of the Internal Solitary Waves in the South China Sea, Mr. Qidong GAO, Ms. Di DONG, Prof. Xiaofeng YANG - Institute of Remote Sensing and Digital Earth, CAS; South China Sea Branch, State Oceanic Administration

731: Spatio-temporal Variation of Winter Phytoplankton Blooms northwest of Luzon Island, Ms. Hui GAO, Prof. Hui ZHAO, Mr. Jian ZHAO - Guangdong Ocean University

727: The distribution of summer chlorophyll a in the Arabian Sea using remote sensing data, Prof. Hui ZHAO, Mr. Jian ZHAO, Ms. Hui GAO - Guangdong Ocean University

728: On the strong summer phytoplankton bloom east of Vietnam in 2007, an El Niño year, Prof. Hui ZHAO, Mr. Jian ZHAO, Ms. Hui GAO - Guangdong Ocean University

723: Dynamics of Mangroves during 1985-2015 in Zhangjiang Mangrove National Nature Reserve, Guangdong, P.R. China, Ms. Yi ZHENG, Mr. Nan XU, Mr. Jian ZHOU, Prof. Guanghui LIN, - Tsinghua University

762: Mangrove Species Classification and Biomass Retrieval at the Species Level with WorldView-2 images, Mr. Yuanhui ZHU, Prof. Kai LIU, Prof. Lin LIU - Center of Integrated Geographic Information Analysis, School of Geography and Planning, Sun Yat-sen University

764: Mapping Mangrove Species Based on Unmanned Aerial Vehicle Hyperspectral Image Using OBIA Approach, Ms. Jingjing CAO, Ms. Wanchun LENG, Prof. Kai LIU, Prof. Lin LIU, Prof. Zhi HE - Sun Yat-sen University; Center of Integrated Geographic Information Analysis, School of Geography and Planning, Sun Yat-sen University

775: Assessing the Gross Primary Productivity in a Subtropical Tidal Mangrove Wetland Using CO₂ Eddy Flux Measurement and Remote Sensing Based Evaluation, Mr. Jiangong LIU - Department of Geography and Resource Management, The Chinese University of Hong Kong

697: The Interannual Variability of the Upwelling in the Northern South China Sea, Prof. Ye qiang SHU - South China Sea Institute of Oceanology, Chinese Academy of Sciences

713: Quantifying Mangrove Zonation Pattern Change in Mai Po Using Landscape Metrics Derived from Long Time-series Satellite Images, Ms. Mingfeng LIU, Prof. Hongsheng ZHANG, Prof. Hui LIN - ISEIS, CUHK

823: The Monitoring and Analysis of the Coastal Lowland Subsidence in the Southern Hangzhou Bay with an Advanced Time-series InSAR Method, Dr. Lin BAI, Prof. Liming JIANG, Dr. Qishi SUN, Mr. Yuxing CHEN, - State Key Laboratory of Geodesy and Earth, Wuhan, China

744: Mangrove Species Classification Using Deep Learning with Remote Sensing Images and Aerial Photos from Consumer Drones, Mr. Luoma WAN - Institute of Space and Earth Information Science

659: Study on Monitoring Method of High Resolution Remote Sensing in Cloudy and Rainy Regions along the Maritime Silk Road, Dr. Shanwei LIU - China University of Petroleum(East China)

712: Comprehensive Ground-space Monitoring of Anthropogenic Impact on Coastal Water Areas, Prof. Valery BONDUR, Mr. Victor ZAMSHIN -State scientific Institution "Institute for Scientific Research of Aerospace Monitoring AEROCOSMOS

804: Research on Extraction Experiment of Oil spill Information Based on Polarization Decomposition, Prof. Zou YARONG - National Satellite Ocean Application Services

655: Unified Analysis on Compact Polarimetric SAR Features for Oil spill Classification, Dr. Yu LI - Beijing University of Technology

Session 12: Remote Sensing for Global Environmental Change

- 674: Land Intensive Utilization Evaluation of the New Areas—Taking 5 National New Areas as Example**, Ms. LU Xiaohui, Ms. CUI Xiaofang, Prof. LIU Zhengjun - Chinese Academy of Surveying and Mapping
- 662: Cultural Heritage along the Belt and Road: Universal Values and the Silk Road Spirit Carrying**, Prof. Xinyuan WANG, Dr. Lei LUO, Ms. Jie LIU - Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences
- 689: Simulation of Moon-based Platform Viewed Earth Radiation Budget with GEOS-5 Data**, Mr. Hanlin YE, Prof. Huadong GUO, Prof. Guang LIU - Institute of Remote Sensing and Digital Earth, CAS; Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences
- 679: Estimation of Ground-level PM2.5 Concentrations in Fuzhou Region Using Satellite-retrieved 3 km AOD**, Ms. Lijuan YANG, Prof. Hanqiu XU - Fuzhou University
- 740: Ecosystem Condition and Change during 2010-2015 over Belt and Road Area**, Dr. Jing LI - Institute of Remote Sensing and Digital Earth, CAS
- 701: Glacier Variations in Headwaters of the Yangze River Based on Multi-Sources Remote Sensing**, Dr. Qingkai MENG - State Key Laboratory of Plateau Ecology and Agriculture, Qinghai University
- 696: Simulation Study of Moon-based Platform Viewed Earth Radiation Budget**, Mr. Hanlin YE, Prof. Huadong GUO, Prof. Guang LIU - Institute of Remote Sensing and Digital Earth, CAS
- 708: Spatio-temporal Variability of Air Quality over the Belt and Road Region by Using Satellite Data**, Mr. Zhentao WANG, Prof. Jie GUANG - The Experimental High School Attached to Beijing Normal University; Institute of Remote Sensing and Digital Earth, CAS
- 730: Effects of Humidity on Aerosol Extinction Efficiency in Beijing**, Ms. Ying LI, Prof. Yong XUE, Ms. Jie GUANG, Ms. Lu SHE, Ms. Cheng FAN, Ms. Guili CHEN - Chinese Academy of Science
- 734: Lake Mass Variation of Qinghai Lake Based on Multisource Remote Sensing Data under Climate Change from 2003 to 2009**, Dr. Xiliang NI, Prof. Chunxiang CAO, Dr. Min XU, Dr. Wei CHEN, - Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences
- 736: Retrieval of Atmospheric Particulate Matter Using Satellite Data in Beijing Area**, Ms. CHEN Guili, Prof. Guang JIE, Prof. Xue YONG, Ms. Li YING, Prof. GONG Shaoqi, Mr. CHE Yahui - Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences
- 715: Policy Factors Impact Analysis between Karst Landform and Non-karst Landform in the Lijiang River, China**, Ms. Qingwen JIN - Chinese Academy of Sciences, Institute of Remote Sensing and Digital Earth
- 846: Microwave Polarimetry: A Distinctive Opportunity to Retrieve Wind Field Inside Typhoon**, Prof. Xiaobin YIN - Beijing Piesat Information Technology Co., Ltd
- 770: Combination of Optical and Microwave Remote Sensing in Estimating All-sky Land Surface Longwave Radiation**, Dr. Tianxing WANG - Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences
- 653: Semi-automatic Mapping of Large Shallow Landslides Based on Visual Saliency Detection and Image Segmentation for High-resolution Remote Sensing Imagery**, Dr. Hui LI, Mr. Qi YAN, Prof. Linhai JING, Dr. Yunwei TANG, Dr. Haifeng DING, Ms. Ru XU - Institute of Remote Sensing and Digital Earth; CalInstitute of Space and Earth Information Science, The Chinese University of Hong Kong
- 694: Atmospheric Observation from DSCOVR-EPIC to Moon-Based Platform**, Ms. Cheng FAN, Prof. Yong XUE, Ms. Jie GUANG - Institute of Remote Sensing and Digital Earth; University of Derby
- 761: Specific Patterns of XCO2 Observed by GOSAT and Assessed with Model Simulations over Chinese Mainland**, Dr. Nian BIE, Prof. Liping LEI, Mr. Changjiang WU - Key Laboratory of Digital Earth Science, Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences
- 863: A Valuable Comparison Analysis between Transfer Learning and Semi-supervised Learning on Land Use Classification Application**, Hongliang XIE, Chao YANG, Heng WANG, Kaijun REN - National University of Defense Technology

Session 13: Big Earth Data for Disaster Risk Reduction

- 718: Satellite Monitoring of Wildfires and Their Emissions of Harmful Gases and Aerosols into the Atmosphere**, Prof. Valery BONDUR, Ms. Kristina GORDO, Mr. Vladimir KLADOV - State scientific Institution "Institute for Scientific Research of Aerospace Monitoring "AEROCOSMOS"
- 711: Short-term and Middle-term Earthquake Precursors Registered from Space by a Seismic Danger Area Comprehensive Monitoring System**, Prof. Valery BONDUR, Ms. Marina TSIDILINA, Ms. Elena GAPONOVA, Ms. Olga VORONOVA - State Scientific Institution "Institute for Scientific Research of Aerospace Monitoring "AEROCOSMOS"

Session 14: Remote Sensing for Water Resource

- The Real Time Flood Predictions for the Milano Area**, A. Ceppi, G. Ravazzani, C. Corbari, G. Lombardi, M. Mancini - Department of Civil and Environmental Engineering (D.I.C.A.), Politecnico di Milano, Italy; Department of Civil and Environmental Engineering (D.I.C.A.), Politecnico di Milano, Italy
- Smart Irrigation from Soil Moisture Forecast Using Satellite And Hydro-meteorological Modelling**, Prof. M. Mancini, C. Corbari, A. Ceppi, Prof. M. Menenti, Prof. L Jia, R. Romero, A. Amengual, J. Sobrino, D. Skokovic, S. Meucci, R. Salerno, G. Branca, R. Zucaro - Department of Civil and Environmental Engineering (D.I.C.A.), Politecnico di Milano, Italy; Delft, RAD1-CAS; RAD1-CAS



Poster

7 December 2017 (Thursday)

7 December 2017 (Thursday)

Session 15: Digital Earth and Spatial Data Infrastructure

666: On a Microservice-based Platform for Big Remote Sensing Data Analytics, Dr. Bo XIANG, Dr. Zheng LI, Prof. Yan LIU, Prof. He ZHANG - Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences; State Key Laboratory of Novel Software Technology, Software Institute, Nanjing University; Faculty of Engineering and Computer Science, Concordia University

668: Design and Analysis of Data Transmission for Moon-based Earth Observation Platform, Dr. Zhixing RUAN, Mr. Guoqiang CHEN, Prof. Guang LIU, Dr. Yixing DING - Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences, School of electronic & information engineering, Beijing Jiaotong University

682: The Design and Development of Hainan Province "Digital Ocean" Platform and Applications on Natural Disasters Prevention and Reduction, Prof. Lei WANG, Prof. Xin ZHANG - Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences

693: A New Polar Coordinate Expression for Moon-Based Earth Observation Images, Prof. Lu ZHANG, Prof. Huadong GUO, Ms. Hui JIAO, Prof. Guang LIU - Key Laboratory of Digital Earth Sciences, Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences, China

732: SAR Vehicle Classification Based on Convolutional Neural Networks with Transfer Learning, Ms. Di ZHANG, Dr. Jia LIU, Dr. Heng WANG, Prof. Kaijun REN, Prof. Junqiang SONG - National University of Defense Technology; Academy of Ocean Science and Engineering, National University of Defense Technology

809: Geometry Simulation System for Moon Based Earth Observation, Dr. Guozhuang SHEN, Prof. Huadong GUO, Prof. Guang LIU - Key Laboratory of Digital Earth, Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences

810: SAR Time-sequential Images Formation Algorithm Based on Invariant-parameter Subaperture Processing, Mr. Baobin MA, Prof. Jie CHEN, Pengbo WANG, Wei YANG - Beihang University

816: Range-Doppler Frequency Domain Characteristics Analysis for Lunar Based SAR System, Mr. Xinwei GU, Prof. Jie CHEN, Mr. Wei YANG, Mr. Pengbo WANG, Prof. Xinwu LI - School of Electronics and Information Engineering, Beihang University; Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences, Beijing 100094

716: Data-driven Crowd Behavior Simulation in the Digital City Application, Mr. Zhuxin XUE - Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences

749: A GIS Geometric Knowledge Assisted GLCM Construction method for RS Texture features, Dr. Zeying LAN, Prof. Yang LIU - School of management, Guangdong University of Technology; Guangzhou Urban Planning & Design Survey Research Institute

789: A New Geometric Correction Method Based GCPs for High Resolution Airborne SAR Data, Dr. P ZHANG - RADI, CAS

Session 16: Natural and Cultural Heritage Conservation and Sustainable Development

651: Ecological Function Assessment of the Belt and Road Region, Mr. Chen GONG - Institute of Remote Sensing and Digital Earth

661: Integrated OBIA and SVM to Mapping Mangrove Patches in Dongzhaigang National Natural Reserve, Hainan (China), Dr. Lei LUO, Prof. Xinyuan WANG, Ms. Jie LIU, Dr. Chuansheng LIU, Dr. Lanwei ZHU - Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences

788: Photovoltaic Power Plants Site Suitability Analysis Using Remote Sensing Data and Multicriteria Evaluation, Mr. Qian ZHANG, Dr. Xiao Zhou XIN, Dr. Hai Long ZHANG - Key Laboratory of Digital Earth Science, Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences

845: A Study of the Ancient Route Redrawing and Virtual Construction on the Desert Silk Road (Xinjiang Section) in Han and Tang Dynasties by Using Spatial Information Techniques, Dr. Chuansheng LIU - Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences

667: Potential Occurrence Risk Prediction of Sudden Oak Death under Different Future Climate Scenarios Using SVM Model, Dr. Wei CHEN, Prof. Chunxiang CAO, Dr. Zhou FANG, Prof. Houzhi JIANG, - Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences; Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences

862: Integration of Multi-parametric Fussy Analytic Hierarchy Process and GIS along the World Heritage: A Flood Hazard index, Mombasa County, Kenya, Mr. Yves HATEGEKIMANA - Institute of Remote Sensing and Digital Earth, Chinese Academy of Science

Session 17: Urban Environment and Sustainable Urban Development

757: Analysis of Sanctuary Development Security Assessment Based on River Belief, Dr. Lin ZHENGSONG, Dr. Zhang LU - China University of Geosciences

774: Synergetic Use WorldView-2 and Airborne LiDAR Data to Extract Urban Impervious Surfaces Using A Hierarchical 3D Convolutional Neural Network, Dr. Zhongchang SUN, Mr. Mengfan WU, Dr. Cuizhen WANG, Prof. Huadong GUO, Dr. Hui LI - Institute of Remote Sensing and Digital Earth (RADI), Chinese Academy of Sciences; Hainan Key Laboratory Earth Observation, Sanya Institute of Remote Sensing, Chinese Academy of Sciences; University of South Carolina

709: Using Geostatistic Techniques to Analyze Spatial Heterogeneity in Urban Ecological State Based on a Remote Sensing Index, Dr. Xisheng HU, Prof. Hanqiu XU - Fuzhou University

753: Implication of Urban Heat Island Related to Human Activities: A Case Study in Mongolia, Mr. Byambakhuu GANTUMUR, Dr. Falin WU, Dr. Battengel VANDANSAMBUU, Dr. Enkhjargal DALAIBAATAR, Ms. Fareda ITIRITIPHAN, Mr. Wasia Akande AHMED, Prof. Yan ZHAO - Beihang University; National University of Mongolia

743: Characterizing Urban Spatial Expansion of Oasis Cities around Tarim Basin Using Remote Sensing and GIS Methods, Dr. Bushra KHALID, Prof. Abdul GHAFAR, Ms. Bumairiyemu MAIMAITI, Prof. Qianli CHEN, Mr. Song LI - International Islamic University Islamabad Pakistan; COMSATS Institute of Information Technology Islamabad Pakistan; Xinjiang Agricultural University

706: Research on Fine-scale Urban Population Spatial Products Based on AsiaPop Data, Dr. Min XU, Prof. Chunxiang CAO - Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences

800: A Temperature and Emissivity Separation Algorithm for Chinese Gaofen-5 Satellite Data, Dr. Hua LI, Mr. Yikun YANG - Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences

773: The Composition and Configuration of Urban Buildings Impact on Seasonal Urban Warming, Ms. Yuliang LAN, Prof. Qingming ZHAN - School of Urban Design, Wuhan University

Session 18: Observations and Adaption to Changes in High Mountain and Arctic Cold Regions

663: Mass Changes of the Mountain Glacier Detecting Based on the InSAR Observations, Dr. Zhou JIANMIN, Prof. Zhen LI - Institute of Remote Sensing and Digital Earth, CAS

797: Object-oriented Extraction of Thermal Erosion Gullies from Unmanned Aerial Vehicle Image, Ms. Linlin LIANG, Prof. Liming JIANG, Dr. Zhiwei ZHOU, Mr. Yuxing CHEN, Dr. Yafei SUN - Institute of Geodesy and Geophysics, Chinese Academy of Sciences

822: Operational Global Snow Cover Mapping Using Fengyun-3 MERSI and VIRR Data, Mr. Zhaojun ZHENG, Prof. Yujie LIU - National Satellite Meteorological Center, China Meteorological Administration

692: Lunar Influence on Earth's Cloud Amount, Ms. Wu JIE, Prof. Guo HUADONG, Mr. DING Yixing, Ms. DONG Jing, Prof. LIU Guang, Mr. LIU Zhiqiang - Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences; China Institute of Water Resources and Hydropower Research

849: Poles Detection of Crevasse on Ice Sheet Based on Remotely Sensed Observations, Prof. Xinwu LI, Dr. Lei LIANG - Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences, Beijing 100094; State Key Laboratory of Resources and Environmental Information System, Institute of Geographic Sciences and Natural Resources Research, CAS

792: Active Layer Thickness in Permafrost Regions across the Northern Hemisphere, Dr. Dongliang LUO - Northwest Institute of Eco-environment and Resources, Chinese Academy of Sciences

675: Arctic Vegetation Dynamics: Tundra Greening and Browning, Prof. Howard EPSTEIN - University of Virginia

699: Glacier Mass Balances at Karakoram-Pamir-West Kunlun during 2000-2014, Dr. Gang LI - Institute of Space and Earth Information Science, The Chinese University of Hong Kong

763: Influence of Moon on Earth's Polar Brightness Temperature, Mr. LIU Zhiqiang, Prof. PENG HONGCHUN, Mr. DING Yixing, Ms. WU JIE, Ms. RUAN Zhixing - Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences; School of Geomatics and Marine Information, Huaihai Institute of Technology

820: High-resolution Mapping of Near-surface Soil Freeze/thaw State in China, Dr. Tianjie ZHAO, Prof. Jiancheng SHI - Institute of Remote Sensing and Digital Earth

754: Land Cover Phenology Change in the North to the North-east Asia, Dr. Bayarsaikhan UUDUS, Ms. Narantuya DAVAA, Dr. Aibek ULYKPAN - National University of Mongolia

717: Aerosol Properties Retrieved over Land from AVHRR Instrument, Dr. Yahui CHE, Prof. Yong XUE, Dr. Linlu MEI, Ms. Jie GUANG, Dr. Lu SHE - Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences

658: Recent Glacier Change in Qilian Mountains of Northwest China Using Multi-scale Remote Sensing, Dr. Xinyang YU, Ms. Wenqian HUO - Shandong Agricultural University; Taishan International School

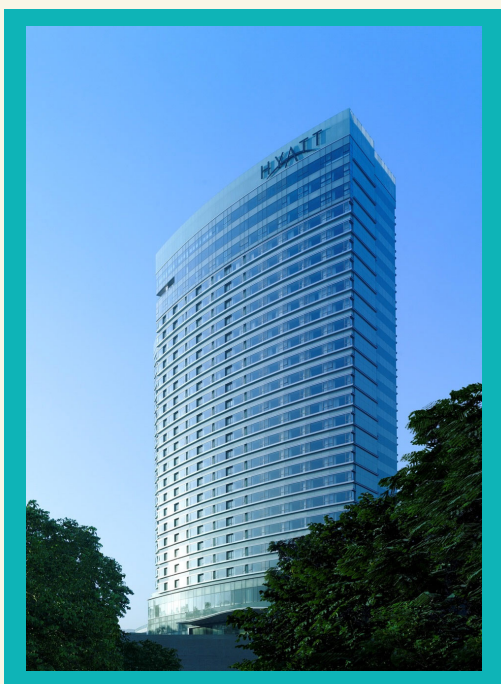
684: Glacier mass changes in the western Nyainqentanglha Range from 1970-2010, Dr. Wu Kunpeng, Liu Shiyin, Wei Junfeng, and Guo Wanqin - School of Resources and Environment, Anqing Normal University, Anqing, China; Institute of International Rivers and Eco-Security, Yunnan University, Yunnan, China; State key Laboratory of Cryospheric Sciences, Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences, Lanzhou, China; Department of Geography, Hunan University of Science and Technology, Xiangtan, China

908: Modeling Experiments on Seasonal Lake Ice Mass and Energy Balance in Qinghai-Tibet Plateau, Wenfeng Huang, Bin Cheng Zhijun Li and Timo Vihma, Chang'an University



Designated Hotels

Hyatt Regency Hong Kong, Shatin 沙田凱悅酒店



18 Chak Cheung Street, Sha Tin District,
New Territories, Hong Kong.
香港新界沙田區馬料水澤祥街18號

Tel: +852 3723 1234

Fax: +852 3723 1235

Website:

<http://hongkong.shatin.hyatt.com/en/hotel/home.html>

Hyatt Regency Hong Kong, Shatin is well-connected with public transport. Guests can walk between University MTR station and Hotel:



University Guest House 大學賓館



Chan Kwan Tung Building,
The Chinese University of Hong Kong,
Shatin, Hong Kong
香港沙田香港中文大學陳昆棟樓

Tel: +852 2603 6411

Fax: +852 2603 5272

Website:
<http://www.cuhk.edu.hk/ugh/>

University Guest House provides free shuttle pick up from MTR University Station (the lay-by at Exit "C") to the Guesthouse. You can make reservation by calling at 26036411. The timetable is shown as below:

From Yali Guesthouse to MTR University Station **
由雅禮賓館開出 至 港鐵大學站 **
(Circular Route 循環線)

0800	1600
0830	1700
0900	1800
0930	1830
1000	1900
1100	1930
1200	2000
1245	2030
-	2100
1330	2130
1400	2200
1500	2245

** Please make reservations in advance
須預訂留位



For reservation or further information, call Yali
Guesthouse Reception on 2603 6411.

欲預訂客車或作相關查詢，請聯絡雅禮賓館接待處，
電話為 2603 6411。

Royal Park Hotel 帝都酒店



8 Pak Hok Ting Street, Shatin, Hong Kong
香港沙田白鶴汀街八號

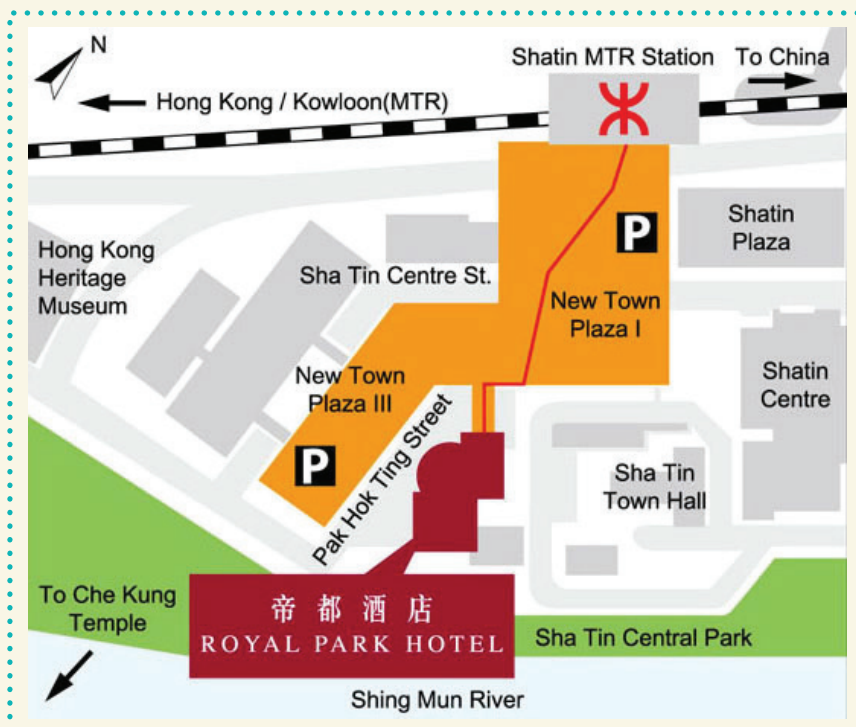
Tel: +852 2601 2111

Fax: +852 2601 3666

Website:

<http://www.royalpark.com.hk>

Royal Park Hotel is well-connected with public transport. Guests can walk between Shatin MTR station and Royal Park Hotel:





More about Hong Kong

1 Area

Hong Kong can be divided into four distinct parts:

- Hong Kong Island
- Kowloon Peninsula
- New Territories
- The Outlying Islands

2 Map of Hong Kong



3 Transportation in Hong Kong

Variety of public transportations can be found in Hong Kong. MTR subway and bus are examples of the most popular public transportations in Hong Kong.

4 Time Difference

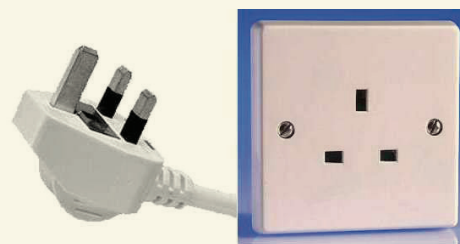
GMT/UTC + 8 hours

5 Local Language

Hong Kong's official languages are Chinese and English. In hotels, major restaurants, stores, and tourist centers, most people speak English and Mandarin. This is not always the case, however, with taxi drivers, bus drivers, and workers in small shops, cafes, and market stalls, people just say native Cantonese.

6 Electricity

220 volts, 50 cycles. Three-rectangular pin plugs are the norm.



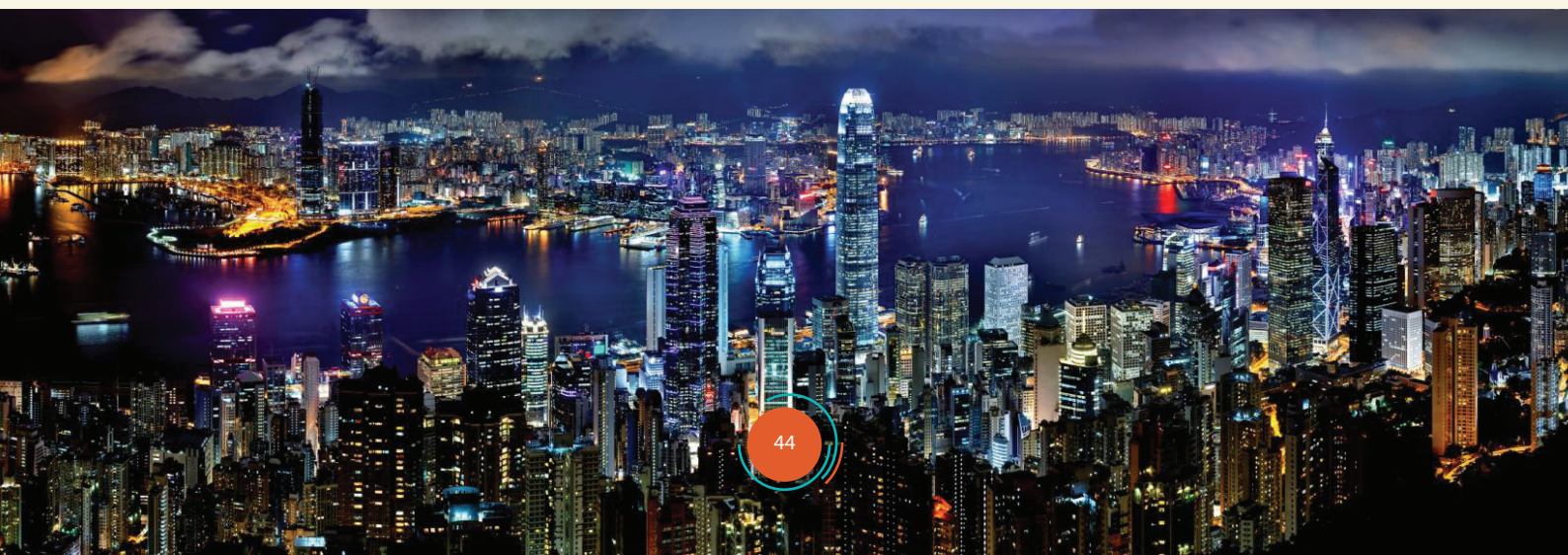
7 Currency & Currency Exchange

The Hong Kong dollar (HK\$) is the official currency. It is pegged to the US dollar at HK\$7.8 to US\$1.00 and is freely convertible. Traveler's checks are honored at most banks, hotels and shops.

Major credit cards are also widely accepted and ATM (ETC) facilities are widespread.

8 Weather

Hong Kong is sub-tropical and temperatures in November range from 68° F / 20° C to 75° F / 24° C with humidity range from 67% to 77%. A sweater or light jacket is recommended for air conditioned restaurants and hotels. An umbrella is recommended in case of rain. The most updated information of weather can be found in the website of Hong Kong Observatory: <http://www.hko.gov.hk>

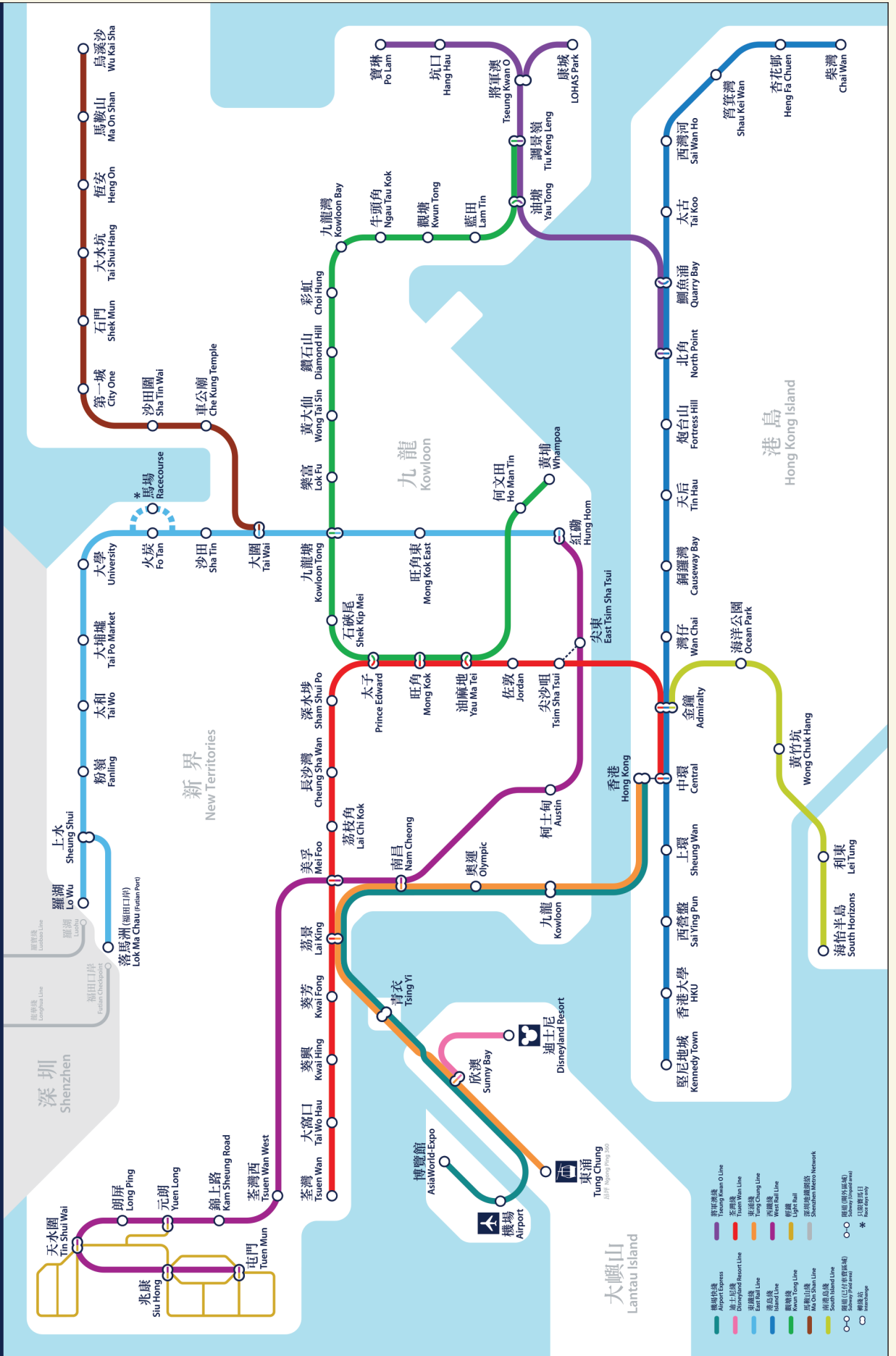




Useful Telephone Numbers

Emergency - Police / Fire / Ambulance:	+852 999
Citizen's Easy Link:	+852 1823
Directory Inquiries:	+852 1083 (Chinese) +852 1081 (English)
Dial-a-Weather Service:	+852 1878 2000
Kowloon Bus (KMB):	+852 2745 4466
City Bus:	+852 2873 0818
First Bus:	+852 2136 8888
MTR Corporation Limited:	+852 2881 8888 +852 2947 7888
Taxi:	+852 2383 0168 +852 2476 2265 +852 2476 4247 +852 2475 0417 +852 2657 2267 +852 2450 2288 +852 2478 8332 +852 2332 2571 +852 2574 7311 +852 2760 0455 +852 2368 1318 +852 2362 2337
Hong Kong International Airport:	+852 21818888 (Chinese) +852 2181 0000 (English)

港鐵路綫圖 MTR system map





Enquiry:

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Fax: +852 26037470
Email: rsatsa@cuhk.edu.hk
Website: http://www.iseis.cuhk.edu.hk/DBAR2017_RSATSA2017
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