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29 SEP - 01 OCT, 2015
PUTRA WORLD TRADE CENTRE
KUALA LUMPUR, MALAYSIA

THEME: TOWARDS NEXT BIG LEAP

GEO SMART ASIA 2015

[Former Asia Geospatial Forum]
Conference and Exhibition for Geospatial Technology

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Theme: Towards Next Big Leap
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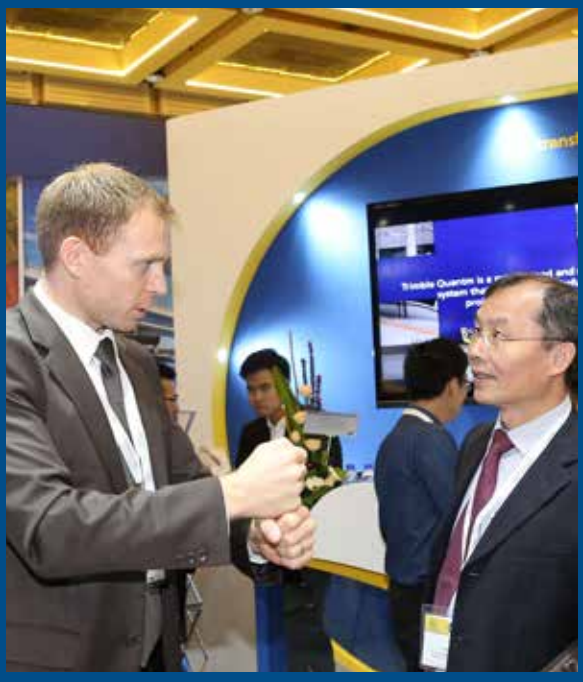

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- Caraga State University, The Philippines
- Center for Geological Survey, Indonesia
- Central Mindanao University, The Philippines
- Chief Minister's Department Sarawak, Malaysia
- Citymol Development Holdings
- CMNM Mining Group
- Cosmo Biofuels Group
- CRC for Spatial Information, Australia
- Cyient
- DBKL (Kuala Lumpur City Hall)
- DCSE TECH
- Defence Mapping Agency, Vietnam
- Defence Staff Intelligence Division, Malaysia
- Defence Technology Institute, Thailand
- Department of Energy, Philippines
- Department of Geography, University of Medan, Indonesia
- Department of Irrigation and Drainage (JPS), Malaysia
- Department of Survey and National Mapping (JUPEM), Malaysia
- Department of Town and Country Planning (JPBD), Malaysia
- Department of Town and Country Planning, State of Terengganu,Malaysia
- Dept. of Land Administration, Ministry of the Interior, Taiwan
- DigitalGlobe
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- DRSJ Geomatics
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- Eco Ideal Consulting
- Esri Malaysia
- Faculty of Geoinformation & Real Estate, Universiti Teknologi Malaysia
- FARO Singapore Pte Ltd
- Federal Aviation Administration, US
- Federal Department of Town and Country Planning Peninsular Malaysia
- Forest Research Institute Malaysia (FRIM)
- Garuda Robotics
- General Electric International Inc.
- GeoSense
- Geography Faculty Universitas Muhammadiyah Surakarta
- Geoinfo Services Sdn. Bhd.
- Geoinformatics Research Center Faculty of Computer Science University of Brawijaya
- Geological Society of Malaysia
- Geomatika University College
- GeoSat Informatics Technology Co. Taiwan
- Geospatial Information Agency (BIG), Indonesia
- GIS Innovation Sdn Bhd
- Global-trak
- GPS Lands (M) Sdn Bhd
- GROUND DATA SOLUTIONS R&D SDN BHD
- Hemisphere GNSS Inc.
- High Commission of India
- HP
- Hydromappers
- IMAO, France
- Indonesian National Institute of Aeronautics and Space (LAPAN)
- Infrastructure University Kuala Lumpur (IUKL)
- Institute Technology of Bandung, Indonesia
- Institution of Geospatial and Remote Sensing Malaysia (IGRSM)
- INSTUN
- Intermap Technologies
- IT Unit, State of Terengganu, Malaysia
- Jacobs Engineering
- Japan Aerospace Exploration Agency
- Jurukur Cekap
- Jurukur Perunding Services
- Land Management Bureau, Philippines
- Land Surveyors Board, Malaysia
- Lands and Survey Department Sarawak

927 DELEGATES

22 COUNTRIES

36 COLLABORATIVE PARTNERS

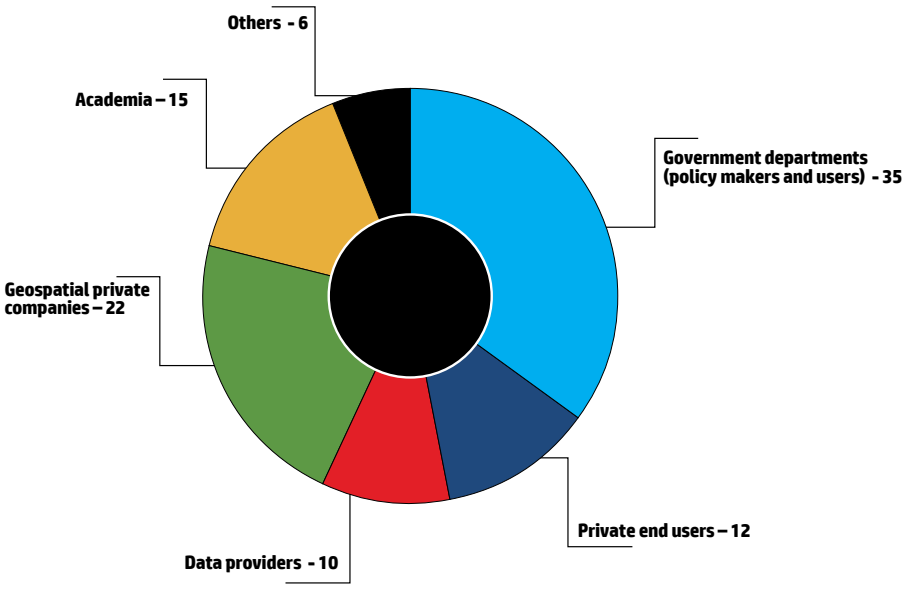
130 PRESENTATIONS

276 ORGANISATIONS

RGANISATIONS *(Indicative)*

- Lands and Surveys Department Sabah
- Leica Geosystems
- Lorienne SA
- Malaysia Highway Authority
- Malaysian Administrative Modernisation and Management Planning Unit (MAMPU)
- Malaysian Army
- Malaysian Centre for Geospatial Data Infrastructure
- Malaysian Communications And Multimedia Commission
- Malaysian Institute of Defence and Security
- Malaysian Maritime Enforcement Agency
- Malaysian Meteorological Department
- Malaysian Rubber Board
- Manila Water Company Inc.
- Marine Science Technology Sdn Bhd (MAST), Malaysia
- Mareikmas Group
- Matritime Institute of Malaysia
- Melaka ICT Holdings Sdn Bhd
- Meralco, The Philippines
- MIMOS Berhad
- Minister of the Interior, Republic of China (Taiwan)
- Ministry of Defence, Malaysia (MINDEF)
- Ministry of Energy, Green Technology & Water, Malaysia
- Ministry of Land Development Sarawak
- Ministry of Lands and Survey, Fiji Islands
- Ministry of Rural and Regional Development, Malaysia
- Ministry of Science, Technology and Innovation, Malaysia
- Muda Agriculture Development Authority
- National Audit Department, Malaysia
- National Defence University of Malaysia (NDUM)
- National Hydraulic Research Institute of Malaysia
- National Hydrographic Centre
- National Land & Survey Institute, Malaysia
- National Land Survey & Mapping Center, Taiwan
- National Landscape Deparment (JLN), Malaysia
- National Space Agency of Malaysia (ANGKASA)
- National Survey Authority, Norway
- National Survey Authority, Oman
- One Smart, Malaysia
- Parliament of Malaysia
- Pasco Corporation
- Petroliam Nasional Berhad (Petronas)
- Philippine Council for Industry, Energy and Emerging Technology Research and Development (PCIEERD)
- Physical Planning Department, Malaysia
- Pitney Bowes
- Planet Labs
- PLUS Malaysia Berhad
- Public Works Department, Malaysia
- Quantum Inventions Pte Ltd
- Royal Malaysian Air Force
- RPM Engineers
- Sabah Electricity Sdn Bhd
- Sabah Forestry Development Authority
- Sabah Softwoods Berhad
- Sabah Surveyors Board
- Sarawak Information System
- School of Design and Environment, National University of Singapore
- Science & Technology Research Institute for Defence
- Sime Darby Research
- Singapore Land Authority
- Space Technology Institute, VAST, Vietnam
- Surbana International
- Syarikat Air Melaka Berhad
- Telekom Malaysia Berhad
- Tenaga Nasional Berhad (TNB)
- The Association of Authorised Land Surveyors Malaysia
- Trimble
- Twenty First Century Aerospace Technology (Asia) Pte. Ltd.
- Unit Pengurusan Maklumat Negeri Terengganu
- Universiti Malaysia Terengganu
- Universiti Putra Malaysia
- Universiti Teknologi Malaysia
- Universiti Teknologi Mara, Malaysia
- University Malaya
- University Malaysia of Terengganu
- University of Brawijaya, Indonesia
- University of NSW, Australia
- University of Salzburg, Austria
- University of the Philippines
- University Tenaga Nasional
- US Embassy
- UTM Kuala Lumpur
- Valuation and Property Services Department (JPPH), Malaysia
- Velosi Plant Design Engineers
- VNU University of Science, Vietnam

AND MANY MORE...



USER SECTORS

- Land Management & cadastre
- Urban planning & city management
- Construction & infrastructure
- Environment and natural resources
- Mineral exploration
- Utilities (water / electricity)
- Financial services
- Defence & security
- Agriculture
- Water resources
- Transportation
- ICT
- Others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OVERVIEW

The first edition of the rebranded **Geo Smart Asia 2015** (former Asia Geospatial Forum) drew a curtain to resounding success on 01 October, 2015. Hosted three momentous conferences under one location, the event witnessed enthusiasts for GeoSmart Asia, GeoBuild Smart Infrastructure and GeoIntelligence Asia-Pacific Forum gathering together to address the evolution, changes and innovation of geospatial technology and its contribution towards sustainable development of Asia Pacific.

With **'Towards the Next Big Leap'** as the theme this year, the conference proved to be a unique opportunity for geospatial stakeholders to deliberate upon the geospatial developments in the region and exchange of knowledge. Held at Putra World Trade Centre (PWTC) in Kuala Lumpur, Malaysia, 29 September – 01 October 2015, the conference witnessed participation by over 900 high-profile delegates, ranging from policy makers and technology providers to end-user segments and academic communities across the APAC region.

The Conference featured distinguished and eminent speakers and experts from various verticals who addressed an inaugural session, two enlightening plenary discussions, three exclusive forums, three technology tracks, eight thought-provoking focus sessions, one partner's workshop and an exhibition showcasing cutting-edge geospatial technology.

Inaugural Session

Vice President for Asia Pacific, Geospatial Media and Communications, **Mr Prashant Joshi** in his welcome address delivering the introductory remarks and traced the journey of Geo Smart Asia 2015. On behalf of organizer, Mr Prashant Joshi shared his view on the geospatial industry trends, the integration of different technology in geospatial ecosystem, strategies, trends and the market opportunities of the geospatial industry in Asia.

The Inaugural-cum-Vision Session witnessed **Dr Suhazimah Dzazali**, Deputy Director General (ICT) of Malaysian Administrative Modernization and Management Planning Unit (MAMPU) emphasize the importance of collaboration in an interconnected world.

"MAMPU need to play a role in facilitating and creating the synergy towards the next leap of transformation. To enable the geospatial sector to grow, the geospatial community needs to act collaboratively under a strategic governance" she said while highlightingthe strategies to leverage the open data, cross-agency data sharing and big data analytics to geospatial data management in Malaysia.

Emeritus Professor John Trinder, President, Surveying and Spatial Sciences Institute (SSSI), Australia noted in his key note address that Australia located on the fastest moving tectonic plate on Earth; moving North-East at the rate of 70 mm per year. This had made the region quite significant for surveying applications.

"Australia and Asia sit in the area where we could receive the signals from all of six multiple GNSSsatellite systems that moving in space. We are in the right position to receive a very good positioning information in the future", he said while addressing the potential strategic collaboration between Australia and Asia.

Ng Siau Yong, Director of Geospatial Division, Singapore Land Authority, pointed out that geospatial information and technology is a key enabler for smart cities. While stressing the increasing importance of NSDI globally, he described how SG-Space has had contributed significantly towards Singapore's Smart Nation Initiatives. "GIT has empowered us in making evidence-based decision, while geo-analytics as a problem solving tools, has allowed us to implement optimum solution to the challenges of smart city initiatives", he added.

Director General of Survey & Mapping, Department of Survey & Mapping, Malaysia, **Datuk Sr Ahmad Fauzi Bin Nordin** said, the exponential growth in data creation makes data management all the more important. He asserted that in order to find the right information at the right time, it is necessary to increase use and reliance on big data technologies. Datuk Fauzi said people are beginning to appreciate more on the need for geospatial information and technology driven trends will have major impact in the coming years. He noted, "While there are plenty of benefits opportunities offered by the trends, however, there are also challenges. And it is imperative to maximize the full value of geospatial information in meeting those challenges".

Chief Guest

The Honorable Datuk Dr Abu Bakar Bin Mohamad Diah

Deputy Minister of Science, Technology & Innovation Malaysia

Officiating the conference, **The Honorable Datuk Dr Abu Bakar Bin Mohamad Diah**, Deputy Minister of Science, Technology & Innovation Malaysia said this conference will be an excellent platform for the geospatial community to give an in-depth analysis of their contributions, perspectives and approaches through enhanced collaboration.

> "Despite being a young industry, its global annual growth rate is around 10 to 15 percent as new applications of the technology emerge rapidly. From being confined to few applications, GIS has become a people's technology, thanks to its integration with mobile devices and the internet. "
>
> **Datuk Dr Abu Bakar Bin Mohamad Diah**

Asia Geospatial Excellence Awards 2015

Category	Winner(s)	Project
1. Application of Geospatial Technology in Governance:	National Land Surveying and Mapping, Ministry of Interior, Taiwan (R.O.C)	Taiwan Electronic Map
2. Application of Geospatial Technology in Electricity	Tenaga Nasional Berhad(TNB), Malaysia	Implementation of Smartview for Management in TNB Distribution
3. Application of Geospatial Technology in Natural Resources Management	Department of Science and Technology, ThePhilippines	Phil-LiDAR 2 – Nationwide Details Resources Assessment Using Lidar Program
4. Application of Geospatial Technology in Agriculture	Faculty of Computer Science, Brawijaya University, Indonesia	Automatic Oil Palm Tree Counting Software
5. Application of Geospatial Technology in Roads & Highway	PLUS Berhad Malaysia	Total Expressway Maintenance and Management System
6. Application of Geospatial Technology in Water Utilities	Manila Water Company, The Philippines	GIS - Critical Activity Review Integration


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Plenary Session 1 Evolving Smart Geospatial Technologies

Momentum on day 1 continued with the first plenary of the conference, discussing the theme of **Evolving Smart Geospatial Technologies**. Moderated by **Ng Siau Yong** who is the Director of Geospatial Division, Singapore Land Authority, the plenary touched on the advancement of existing and emerging geospatial technology trends.

In a very innovative presentation,

Rodney Chaffee, Head-Sales, Asia Pacific, FARO, while discussing the Geospatial solution to government and enterprise, emphasized on the technology advancement, current challengesand technology integration. Presentingthe application highlights, Rod showed the audience theintegration and the usage of GIS solutions in historical site preservation, in infrastructure, structural deformation monitoring and the high resolution 3D representation in building information modelling.

Dr Nithin Tripathi, Professor of Geoinformatics (RS & GIS), Asian Institute of Technology, Thailand introduced the audience with Hybrid Positioning System (HyPos). He described that since we spend 80% of our time inside the buildings, HyPos could be a great solution as this alternate position technology works well in indoor, outdoor as well as urban environments.

Reiterating Bentley as anengineering company, **Kaushik Chakraborty**, Territory Executive, South East Asia, Bentley Systems, quipped, "When we build an infrastructure, we put together 3D City GIS and BIM into a single seamless platform. In that way, we bring forward the whole GIS ecosystem collaborates in one common platform". Kaushik revealed the audience that in a few years from now, Singapore will be like an iceberg. "There are massive underground projects are going on today under the city", he added while citing about virtual excavation of underground utilities.

Insisting that the power of GIS mapping is transforming the way people work, **John Whitehead**, Sales Director Asia Pacific, Trimble, focused on the technology key enablers like Big Data, data integration, data fusion and analyticsof contents derived from multiple sources, cloud computing, data access, 3D and geospatial technology collaboration with Building Information Management. Giving an example of mining and oil & gas, John discussed about the integration of traditional surveying tools with UAVs, remote sensing data and scanning technologies.

Representing DigitalGlobe Singapore, **Derren Yong**, Senior Director – APAC Commercial Sales, talked about evolving geospatial technologies. "Data is growing at exponential rates - 90% of the world's data was created over the last 2 years alone, and by 2020 data will increase by 4,300 percent. However only 0.5% of the data are being analyzed". He asserted that key enabler for us to move forward is depend on how we make sense of those information.

Plenary Session 2 Geospatial Solutions: Empowering Government & Enterprise

Dr Fu Yuming, Vice Dean, School of Design and Environment, National University of Singapore wove the challenges and opportunities of Asia urbanization in a digital era. "Manufacturing sector is not going to be a sustainable engine in creating new jobs in the digital era", he said while elaborating on the emerging of new service industries in the city. "In peer to peer economy, we need to empower people to employ themselves", he added.

Dato' Dr Nadzri Yahaya, Deputy Secretary General (Energy), Ministry of Energy, Green Technology and Water (KETTHA), Malaysia showed the audience how geospatial technology has contributed to the energy sector in Malaysia. "Geospatial technology is playing an important role, not only creating a reliable and efficient power supply but also creating the opportunity for the economic growth". Dr Nadzri emphasized that Malaysia is currently exploring the solar energy utilization and geospatial technology could be an important tool for the utility-scale solar project.

Dr Tadashi Sasagawa, Executive Director of PASCO Corporation, Japan, discussed the latest technology of Mobile Mapping System developed by PASCO Corporation. According to Sasagawa, PASCO progressing towards worldwide GIS business activities by establishing comprehensive partnerships with other major geomatics firms and university around the world. "Our existing technology and GIS solutions play an important role in activities such as environmental studies, management of land, disaster management and climate change monitoring," he said while elaborating how their geospatial business development activities contribute to the larger community.

Josh Alban, Vice President – Sales, Planet Labs, USA, briefed the audience about Planet Labs mission to image the entire Earth every day, and provide universal access to that data. He continued to show the audience how the satellites are collecting daily global imagery which he asserted could be a helping hand for economic growth, development, disaster management, and others.

Dr Nurwadjedi, Deputy of Geospatial Thematic Information, Badan Informasi Geospasial, Indonesia, asserted that the use of geospatial information has opened up a plethora of opportunity in supporting the national development. "The thematic geospatial information in our country is like a database islands; scattered everywhere – one map policy mandate is to integrate and standardize those data". According to him, the progress of geospatial information needs to be improved. He also asserted that the cooperation with foreign countries, especially with ASEAN countries, should be enhanced to face the challenges in term of production, distribution, usage, human resource, technology and industry.

Session chair

Dr Nithin Tripathi, Professor of Geoinformatics (RS & GIS), Asian Institute of Technology, Thailand

ASEAN GEOSPATIAL SUMMIT

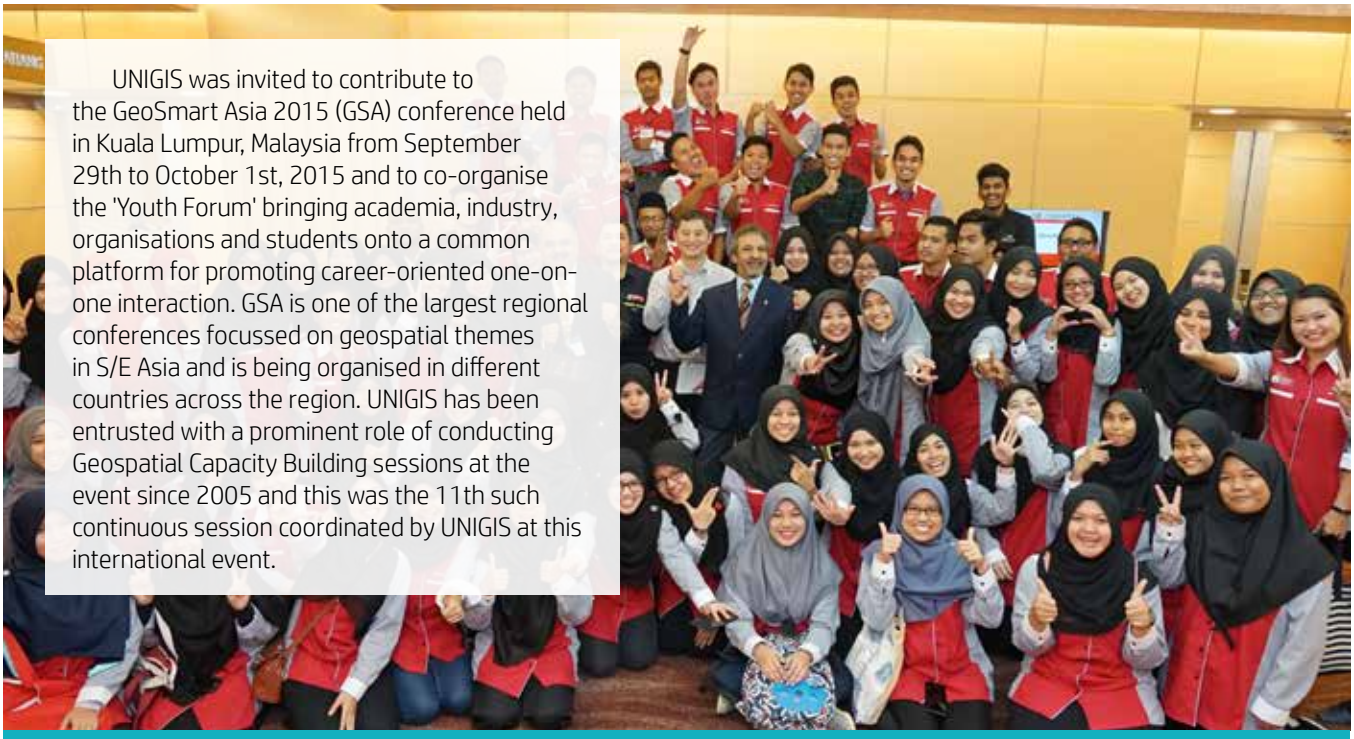
SPEAKERS

- **Ng Siau Yong**
  Director, Geospatial Division, Singapore Land Authority, Singapore
- **Datuk Sr Ahmad Fauzi Bin Noordin**
  Director General, Department of Survey & Mapping, Malaysia
- **Dr Nurwadjedi**
  Deputy of Geospatial Thematic Information, BadanInformasiGeospasial, Indonesia
- **Dr Noordin Ahmad**
  Director General, Malaysia Space Agency (ANGKASA), Malaysia
- **Dr. Lai Anh Khoi**
  Head of the Remote Sensing Dept., Space Technology Institute, Vietnam
- **Vu Tien Quang**
  Chief of Technology and Assessment Office, Department of Surveying & Mapping, Vietnam
- **Masanobu Tsuji**
  Director – Bangkok Office, Japan Aerospace Exploration Agency and Executive Secretary Asia Pacific Regional Space Agency Forum, Japan
- **Dedi Irawadi**
  Director for Remote Sensing, Technology and Data Centre, LAPAN, Indonesia
- **Dr Zaffar Sadiq Mohamed-Ghouse**
  Manager – Business, Research & International Relations, CRC for Spatial Information Director Surveying Spatial Science Institute, Australia

KEY TAKEAWAYS

- It is essential to identify and exploit the emerging capabilities of the semantic web to enable smarter and automatic data linkages along an information supply chain to create value-added applications.
- In order to popularize the utilization of the 3D map data, JAXA is preparing global DEM with lower spatial resolution to publish it as soon as it is ready. It will be available free of charge for any users. The 3D map will contribute to the expansion of satellite data utilizations and the industrial promotion, science and research activities as well as the Group on Earth Observations (GEO).
- The progress of geospatial information produced needs to be improved. The challenges identified are in terms of production, distribution, usage, human resource, technology and industry. The cooperation at international level should be enhanced to face the challenges.
- Studies reveal that geospatial information or services have contributed to national GDPs at an estimated $150-$270 billion per year with an estimated growth of 13% per year through 2016.
- E-Cadastre had successfully expedite the delivery system for land title survey. JUPEM has envisaged a significant reduction of time taken in any cadastral survey process from the existing average of 2 years to within 2 months.
- Understanding the extensive and diverse maritime continent geography of Indonesia, there is a growing need for Satellite RS data (multi sensors & resolution).
- For Vietnam, the implementation of GNSS Dynamic Frame Network and NRTK (Network Real Time Kinematic) service is the main focus in the coming future.

Youth Forum



UNIGIS was invited to contribute to the GeoSmart Asia 2015 (GSA) conference held in Kuala Lumpur, Malaysia from September 29th to October 1st, 2015 and to co-organise the 'Youth Forum' bringing academia, industry, organisations and students onto a common platform for promoting career-oriented one-on-one interaction. GSA is one of the largest regional conferences focussed on geospatial themes in S/E Asia and is being organised in different countries across the region. UNIGIS has been entrusted with a prominent role of conducting Geospatial Capacity Building sessions at the event since 2005 and this was the 11th such continuous session coordinated by UNIGIS at this international event.

The Participants of 'Youth Forum

Dr. Shahnawaz (Director, UNIGIS S/E Asia) gave framework presentation and moderated the forum involving about 100 participants from China, India, Indonesia, Iran, Malaysia, Philippines, Singapore and Thailand. The first session was designed for a panel discussion involving geospatial experts, followed by a competitive session of student presentations.

Four distinguished panelists i.e. **Prof Nitin K Tripathi** (Asian Institute of Technology, Thailand), **Dr Alias Madya**(University Putra Malaysia, Selangor), **Dr Lam Kouk-Choy** (National University of Malaysia, Bangi) and **MrJohn Whitehead** (Sales Director, Asia-Pacific,Trimble, Singapore) exchanged their experiences and visions about geospatial education, business and careers in the emerging ASEAN Economic Community. The last session triggered a critical open-floor discussion among experts, professionals and students focussed on the status of geospatial education and geospatial career opportunities in the forthcoming ASEAN Economic Community. The forum attendees largely expressed that there is a need of re-structuring geospatial education in the region as well as to introduce alternative modes of delivery for various target groups. Most of the in-service professional participants expressed that it is high time to launch short-cycle programmes for professionals not necessarily leading to academic degree qualifications.

Nur Hakimah Asnawi

The jury conferred the 'Best Student Paper' award on **Nur HakimahAsnawi** from National University of Malaysia, Bangi, who presented her paper on 'LanduseLandcover Changes in Gombak, Selangor - 1989-2014'.

GeoAgri

PROGRAM CHAIR

- **Dr. Siva K Balasundram**
  Dept of Agriculture Technology Faculty of Agriculture Universiti Putra Malaysia

SPEAKERS

- **Fatwa Ramdani**
  Director of Geoinformatics, Research Center, Faculty of Computer Science University of Brawijaya, Indonesia
- **John Whitehead**
  Director – Sales & Distribution, APAC, Trimble Geospatial Division
- **Siti Hajar**
  Senior Scientist, SIME DARBY PLANTATIONS RESEARCH, Malaysia
- **Sutha Veloo**
  Assistant Director-Planning & ICT Division, Department of Agriculture, Ministry of Agriculture and Agro-Based Industry, Malaysia
- **Dr. Zainol Abidin**
  Managing Director, Agrostevia Worldwide (M) Sdn. Bhd, Malaysia
- **Scot Craig**
  Regional Sales Manager, Trimble's Agriculture Division
- **Hock AunKhoo**
  Director-The GROW Centre & Managing Director-Cosmo Biofuels Group, Malaysia Vice Chair-RS BO, Switzerland
- **Doria Tai Yun Tyng**
  Principal Assistant Director, Lands and Surveys Department Sabah Malaysia
- **Mohd. Hafiz Mohd. Hazir**
  Research Officer, Malaysian Rubber Board
- **Mark Yong**
  CEO, Garuda Robotics, Singapore
- **Dr JeyannyVijayanathan**
  Research Officer, Forest Plantation Programme, Forest Research Institute Malaysia (FRIM), Malaysia

KEY TAKEAWAYS

- GeoAgri aimed to bring at front the advantages of using the latest geospatial technologies and tools for strengthening various agricultural activities in Agriculture & Plantation Industry.
- The program aimed to highlight and address the challenges, opportunities and smart solutions for the climate change.
- It was discussed to lay focus on the benefits and scope of precision farming techniques in small scale farming and plantation agriculture in Asian countries.
- Exchange of skills and knowledge on new forms of applications and technology by sharing latest success stories, case studies and challenges was taken place.
- Emphasis on Drone technology for detection and monitoring of crop stress, Artificial Neural Network (ANN) for agronomic data analysis, hyper spectral remote sensing for carbon monitoring, Robotics for agronomic management and crop harvesting, Radio Frequency Identification (RFID) for logistical intelligence.
- Outcome: Geospatial technologies and tools enable to get on time reports for the various field monitoring activity in more efficient ways.

EXPLORATION – MINING & OIL

PROGRAM CHAIR & LEAD SPEAKER

- **Fatwa Ramdani**
  Director of Geoinformatics, Research Centre, Faculty of Computer Science, University of Brawijaya, Indonesia.

SPEAKERS

- **Shailesh Shankar**
  Manager – Sales Engineering, Digital Globe
- **KhairulFaizi Bin M Taib**
  TDTG Department, Petronas, Malaysia
- **Andrew Chien**
  UniDimenxi
- **Richard Sugandha**
  3D Laser Scanning Manager, Asia Infrastructure & Environment, Jacobs
- **Akbar Cita**
  Center for Geological Survey, Geological Agency, Ministry of Energy and Mineral Resources, Indonesia
- **SaifulNizam Mustafa**
  Geomatics Department, Petronas, Malaysia

KEY TAKEAWAYS

- It is high time for Geospatial Data Standardization in GIS Corporate Database to accelerate the processes, reduce the cost, generate quality data and enhanced the seamless data interoperability with others repository & database.
- Case study proved that GIS information has improved the processes in Jack-up Suitability Mapping.
- Much more data than was ever thought possible is available for further processing at later stages by using Mobile Laser Scanning

GEOLAND

PROGRAM CHAIR

- **Datuk Dr. Abdul Kadir Taib**
  Ex-Director General JUPEM and CEO
  Platinum Survey Consultant, Malaysia

SPEAKERS

- **Sr Khuzaimah Abdullah**
  Director - National Property Information Centre, Malaysia
- **Alan Yong**
  Manager Business Development – APAC
  Thomson Reuters, Singapore
- **Emeritus Professor John Trinder**
  President, Surveying & Spatial Sciences Institute Surveying & Geospatial Engineering, The University of South Wales, Australia
- **Sr Tuan Haji Safar Bin Untong**
  Director- Sabah Land & Surveys Department, Malaysia
- **Tsai Wen-Yu**
  Specialist - National Land Surveying and Mapping Center, Ministry of Interior
  Taiwan (ROC)
- **Dr Sr Ahamad Zakaria**
  Director Of Survey and Mapping Department of Survey Selangor
  Malaysia
- **Samuela Naicegucegu**
  Director Land Use/Land Reform
  Ministry of Lands and Mineral Resources
  Fiji Islands
- **Sr Dr Hajah Norziha binti Md Zain**
  State Director of Valuation
  Valuation & Property Services Department, Malaysia
- **Benoit Frédéricque**
  Senior Product Manager, Hydraulics and Hydrology, Bentley
- **Dato' Sr. Dr. Mohd Zaid Bin Abdullah**
  Principal/ Licensed Land Surveyor
  Malaysia
- **Warlito G. Quirimit**
  Head - Geospatial Information Management Section Land Administration and Management System, The Land Management Bureau, The Philippines

KEY TAKEAWAYS

- As Land administration is intrinsically connected with various sustainable development goals including health, education, disaster management, infrastructure and utility services etc., hence updating cadastral maps using latest technologies and updating property ownership data in a centralised system serves a very important socio-economic function
- Increasingly cadastral data produced for land administration is getting linked with other key datasets for creating larger impact, giving rise to One Nation One Map concept
- Significance of Land Information Systems (LIS) is increasingly recognised for smarter governance in the Asia Pacific regions and several countries are striving to update their LIS for delivering smarter e-services to citizens
- Property Valuation and Registration tools developed by Thomson Reuters have helped cities like Cape Town, South Africa have added 236,154 properties to its tax roll, increasing assessments by 330% along with significant reduction in citizen objections
- While proportion to GDP from property rights is around 2.12% in OECD countries, it is merely at 0.6% in emerging countries, thereby leaving a significant growth potential in this arena
- Use of modern tools like UAVs, automation, 3 dimensional maps, crowd sourcing methods to validate cadastral information is gaining popularity resulting in faster delivery of services
- Modern land administration serves as a basic input for developing smart cities and smart nations by delivering sustainable property rights infrastructure, thereby aiding sustainable development
- 3D Enabled Cadastre is a pillar of Smart Cities, a fundamental element to implement Smart Nation initiatives. There are no Smart Cities without Smart Cadastres
- 3D cadastres allow users to integrate with existing 2D Cadastre Paradigms such as LADM and allow dealing with both 2D and 3D. It accurately represent the ownerships and rights associated to Land & property ownership representing the past, the present and the future
- 3D cadastres also communicate effectively cadastre information with Citizens and Infrastructure planners, designers, operators and integrate it with Infrastructure data
- Efforts like the e-Nilaian are automating the land valuation processes in Kuala Lumpur, ensure reliability, accuracy and updated information for the purpose of valuation works
- Countries such as Malaysia are focusing heavily on organising their property valuation and indicators systems by using tools such as remote sensing, GIS and related technologies thereby streamlining the Real Estate and Property markets

GEOGRID

PROGRAM CHAIR & LEAD SPEAKER

- **Sr Dr Mohd Yunus Mohd Yusoff,**
  Division Director – Survey, Utility Mapping Division, Department of Survey & Mapping (JUPEM), Malaysia

SPEAKERS

- **Romeo S Anano**
  Chief – Information Services Division, Department of Energy, The Philippines
- **Mohd Azahar Ab Aziz**
  Manager, Map Management, Geomatics Unit, IT & Business Solutions Unit, ICT Division, Tenaga Nasional Berhad
- **Dr Ong Hang See**
  Deputy Dean, University Tenaga Nasional Berhad (UNITEN), Malaysia
- **Eric Broussouloux**
  Asia Regional Manager, IMAO, France
- **Trudy R Ganendra**
  Director, Ground Data Solution R&D SdnBhd, Malaysia
- **Dr Anuar Ahmad**
  Sr Lecturer, Faculty of Geoinformation and Real Estate, UniversitiTeknologi Malaysia
- **Jerome Richard P. Felizarta**
  Staff Engineer, Network Asset Planning – Substation Asset Planning Department, MERALCO, The Philippines

KEY TAKEAWAYS

- As guardian for underground utility data, JUPEM must design a more holistic policy and approach better sustainability and to convince the policy makers to support such efforts.
- Budget allocation, policy compliance, big data and rapid changes of the technology are among the challenges identified in implementing the geospatial technologies in energy sector.
- Implementation of Smart View has allowed us to view the outage problems at real time, able to provide the immediate information to customers and could improve the outage handling time.
- Smart Grid is the future trends of electricity distribution.
- Only LIDAR technology is able to map all obstruction in 3D of the catenaries of existing transmission lines which are crucial elements for transmission line management and design.
- The use of satellite maps allows a good understanding of the load growth patterns in the electric service area, exact geographic modeling of electric load, electric facilities, customer locations and can be used as qualitative reference for electric network expansion planning.
- Ultralight lidar survey could improve the density leads and better identification of equipment using a very cost-effective methodology.
- University TeknologiMalaysia is developing UAVs which could assist TNB for their research, route selection of transmission line, mapping project etc.

CLIMATE CHANGE AND DISASTER MANAGEMENT

CHAIR AND LEAD SPEAKERS

- **Prof Dr FredolinTangang**
  Professor, School of Environmental and Natural Resource Sciences, Faculty of Science and Technology, Universiti Kebangsaan Malaysia
- **Masanobu Tsuji**
  Director – Bangkok Office, Japan Aerospace Exploration Agency and Executive Secretary Asia Pacific Regional Space Agency Forum, Japan
- **Sr Dr Azhari Bin Mohamed**
  Director of Survey (Geodetic Survey Division), Department of Survey and Mapping (JUPEM), Malaysia.

SPEAKERS

- **Ling Leong Kwok**
  Section Chief, Weather and Climate Models Development Section, Malaysian Meteorological Department

Dr Dickson Lukose
Head Knowledge Technology Cluster, MIMOS Berhad

AzharIshak
Head of Meteorological Division, Marine Science Technology, Malaysia

Jojene R Santillan
Chief Science Research Specialist, CSU Phil-LiDAR 1 Project, Caraga State University, The Philippines

Prof Dr Roslan Zainal Abidin
President, Infrastructure University Kuala Lumpur

Norisam Abd Rahaman
Section Manager, PLUS Berhad, Malaysia

Dr Wan Mohd Naim Wan Mohd
Technical Advisor, Bumitouch PLMC, Malaysia

Tan Siew Siong
Regional Sales Manager,GNSS Infrastructure Division, Trimble

Dr Eng Ariel C Blanco
Head, Environmental Systems Applications of Geomatics Engineering (EnviSAGE), College of Engineering, University of The Philippines

Asep YusupSaptari
Lecturer, Geodesy & Geomatics – Institute of Technology Bandung, Indonesia

KEY TAKEAWAYS

- The coastal vulnerability index will indicate the high vulnerability area along the shore line for the impact of sea level rise. This output would help the implementation agencies in preparedness the impact of SLR. Furthermore, in early planning stage the prevention in developing the high risk to SLR impact.
- Capability building, enhancement, sustainability responsive utilization of space technologies for improved natural resource assessment in the Philippineswill be achieved through active involvement of the stakeholders and establishment of system of data collection, processing, updating, sharing, and support mechanism.
- GIS is an important tools to integrate and model landslide hazard zones.
- For Earthquake Early Warning (EEW) systems, the SG160-09 calculates accurate co-seismic displacements and seismic information in real time to alert decision makers about public safety and infrastructure shutdown.
- MyDAS - An Integrated Malaysian Oceanographic Data and Information Management System for Ocean Modeling and Forecasting is an important research for Cyber Security, Environment and Climate Change in the future.
- Geography role in the provision of fresh water in Pucung, Indonesia is very significant namely through the use of geographic approach.
- Among key contributory factors to failure of engineered soil cuts in Malaysia are inadequate slope maintenance, weak geological materials, adverse groundwater conditions, inadequate surface drainage provision and uncontrolled, concentrated surface water flow.
- The HF radar system WERA (WavERAdar) is an oceanographic radar placed at the coast and providing simultaneous wide area measurements of ocean surface current fields and sea state parameters.
- Satellite and radar are useful tools in multi-hazard early warning systems.
- Space Technology is powerful tool for Disaster Risk Reduction and Management (DRRM). Sentinel Asia, regional cooperation framework in DRRM using Space Technology, has been fully operated and currently covers preparedness and recovery phases.

Amri Md Shah
Research Officer Coastal Management and Oceanography Research Centre, National Hydraulic Research Institute of Malaysia

Drs Priyono M.Si,
Faculty of Geography, UniversitasMuhammadiyah Surakarta, Indonesia

Engr Meriam M Makinano-Santillan
Associate Proffessor, College of Engineering and Information Technology, Caraga State University, Philippines

DwiWahyuniNurwihastuti
Lecturer, Department of Geography, State University of Medan, Indonesia

Dr Mohd Fadzil Akhir
Physical and Geological Oceanography Lab, Institute of Oceanography and Environment, Universiti Malaysia Terengganu

GEO GOVERNANCE AND SMART APPLICATIONS

CHAIRPERSON & SPEAKERS

- **Gatot Pramono**
  Head - Marine Thematic Mapping and Integration Division, Badan Informasi Geospasial, Indonesia
- **Sr Bernard Liew Chau Min**
  Deputy Director (Survey) Department of Lands & Surveys Sabah, Malaysia
- **Mary Joy Buitre**
  Science Research Specialist, Philippines Council for Industry, Energy and Emerging Technology, Research and Development, The Philippines
- **Jean-Pascal Butte**
  International Business Development, Lorienne, France
- **ShyamParhi**
  Program Manager, Federal Aviation Administration, USA
- **Wan Mohd Hafiz**
  Master Architect for Geo Mobile Platform, Telekom Malaysia
- **Ooi Wei Han**
  Research Officer, Space Application and Technology Development Division, National Space Agency (ANGKASA), Malaysia
- **Md Afif Bin Abu Bakar**
  Technical Engineer for FARO Laser Scanner, ATAMA TECH SDN BHD, Malaysia

KEY TAKEAWAYS

- GazMis 2.0 is designed to provide users with rapid and ready access to gazette information pertaining to reserved lands. It has contributes towards better administration and management of State Land Reserves development outcomes.
- Space infrastructure is an important enabler of other critical infrastructures like communications, energy, transport, banking & finance, health, water and many more.
- With the success of DREAM Program, DOST called for a directed research to cascade the technology and capacitate more researchers and experts in various parts of the country. DOST realized the need to sustain the capability of Filipino engineers and researchers in utilizing geospatial data even beyond the project life.
- Airports GIS is proven to reduce costs to Airports, Air carriers, and FAA, to improve safety and efficiency, produce a better management strategy and a single database for Airport information, help share data among stakeholders and aviation partner and support the new initiatives – Next Generation of Air Transportation (NextGen)

EMERGING TRENDS AND TECHNOLOGIES

CHAIRPERSON & SPEAKERS

- **Vu Tien Quang**
  Chief of Technology and Assessment Office, Department of Survey & Mapping, Vietnam
- **Shahrizal Ide Moslin**
  Head of Space Application Development Unit, Space Application & Technology Development Division, National Space Agency (ANGKASA), Malaysia
- **Lee Kok Wai**
  Country Business Manager, HP, Singapore
- **Vincent Kessler**
  Regional Sales Manager, Geospatial Division, Trimble
- **Ahmad Hizami Rosehaizad**
  Manager – Mapping and Content Development, Geomatics Department, Telekom Malaysia Berhad
- **Muhammad Fakhri Hassni**
  Technical Support Engineer, Global Track Surveying System

TECHNOLOGY SESSION: SENSORS AND UAVs

CHAIRPERSON

- **Lt Gen AKS Chandele, PVSM, AVSM**
  President – Defence, Security & Public Safety
  Geospatial Media & Communications

SPEAKERS

- **Sr Dr Zainal A Majeed**
  Director – Survey and Mapping, Department of Survey and Mapping (JUPEM), Malaysia
- **Lim Chor Sheng**
  Managing Director, GPS Lands, Malaysia
- **PasawatTipyotha**
  Solution Specialist, Geospatial Division, Trimble, APAC
- **Dr John K Hornsby**
  Black Sky Global
- **Kenneth Smillie**
  Segment Manager Mobile Mapping & Solutions, APAC, Leica Geosystems, Singapore
- **Muhammad Jafni Bin Yusof**
  Digital Content Designer, Centre for Creative Content Digital Innovation, University of Malaya, Malaysia
- **Jackson Cham**
  Technical Sales Manager, Bandwork GPS Solutions, Malaysia

KEY TAKEAWAYS

- Trimble UX5 HP Aerial Imaging Solution which is integrated with L1/L2 GNSS is perfect for broad range of applications such as survey, oil & gas, mining, environmental.
- UAS has a massive potential in future indoor 3D model building.
- With new lower cost infrastructure both in space and on the ground combined with new software and computing technology, it is possible for the commercial utilization of EO data to make a dramatic increase.
- TM Aerial Services (TAS) owned by TM Malaysia is ready for integrated solutions including live transmission in high definition, data center for media storage and for geospatial analysis.
- There is a huge potential for how private, commercial drone use could change the way we do our business in surveillance, in exploration, mapping (and updating) and other missions. However, we also need to address the safety and security issues.

CONCURRENT FORUM:
GEOINTELLIGENCE ASIA PACIFIC FORUM 2015

INAUGURAL SPEAKERS:

- **Lt Gen AKS Chandele, PVSM, AVSM (Rtd),**
  President-Defence, Security & Public Safety, Geospatial Media & Communications
- **Lt Gen SH Kulkarni, PVSM, AVSM, VSM (Rtd),**
  Former Director General, Mechanized Forces, Indian Army
- **John Taylor,**
  Senior Director Government – Asia Pacific Region, Bentley System
- **Ir Rozinah Anas,**
  Director, Malaysian Emergency Response Services (MERS 999), Telekom Malaysia Berhad

SPEAKERS:

- **Prof Dr Aruna Gopinath,**
  National Defence University Malaysia
- **Lt Col Associate Prof Ajaya Kumar A/L Kurup (Rtd),**
  National Defence University Malaysia
- **Capt Martin A.Sebastian RMN (Retd),**
  Research Fellow, Maritime Institute of Malaysia
- **Lt Col Prof Ahmad Ghazali Bin Abu-Hassan (Rtd),**
  National Defence University Malaysia
- **Lt Col Abdul Rahman Alawi (Retd),**
  National Defence University Malaysia
- **Prof Dr Iyyanki V Murali Krishna,**
  Dr Raja Ramanna Distinguished Fellow,
  Defence Research and Development Organisation (DRDO), India
- **Dr Dinesh Sathyamoorthy**
  Senior Research Officer, Science & Technology Research Institute for Defence (STRIDE), Malaysi

CONCURRENT FORUM:
GEOBUILD SMART INFRASTRUCTURE

KEYNOTE SPEAKER

- **Mr. Mohd Haris Ismail**
  Construction IT Dept., CIDB, Malaysia

SPEAKERS

- **Mohd Rizal Mohd Rozly**
  Managing Director, Construction Industry Development Board, Malaysia.
- **JugalMakwana**
  BIM Director – APAC, AECOM, Singapore.
- **Victor Ong Chee Wee**
  Managing Director, ONE SMART Engineering, Singapore.
- **Azlan Zainal**
  Business Development Manager (Building & Infrastructure Engineering Services), Strand Aerospace, Malaysia.
- **Raghunath Babu Guduru**
  Vice President, Surbana International, Singapore.
- **Jason D Clark**
  Director, Spatiali Pty Ltd, Australia.
- **Giorgia Rossi**
  International Sales Manager, Gexcelsrl, Italy
- **Naveen Bhat**
  Corporate Accounts Manager, Bentley Systems, Singapore.
- **Michael De Lacy**
  Business Development Consultant, AAM Group, Australia.
- **Abbas Mazlan**
  CEO, REDtone IOT SdnBhd, Malaysia.
- **Carsten Rönsdorf**
  Practice Manager, Future cities, Standards and 3D, Ordnance Survey International, UAE.
- **Philip Von Meyenbure**
  Co-Founder and Managing Partner, Aetos, Singapore.

KEY TAKEAWAYS

- Emphasis on adoption of BIM technology in the APAC region and benefits of BIM in handling the competitiveness with a proper change management strategy to sustainable BIM adoption.
- The urge for underground profiling especially in case of tunnels and other natural and human fabricated features that would help in further planning. The problems faced during such tunnelling sessions.
- Effect of BIM in business transformation in the industry along with how information about features can result in efficient planning of cities and the role of BIM in assessing the human capital index. Knowledge about the people can enable GeoBuilding of Smart Cities.
- Emphasis on how BIM is driving the development of the Architecture sector as a whole. The urge on integration of the location information with BIM resulting in successful project delivery.
- The significance of BIM in design and construction of the Italian Pavilion at the international exposition 2015 at Milan, Italy. Contribution to the integration of the Building Information, role of high precision instruments along with the location details helping in execution of the project.
- Brief on infrastructure projects handled by the Building and Construction Authority of Singapore and the development of BIM technology in Singapore were briefly previewed in the session. The Building Control Act that is recently being passed was also discussed and its influence in transforming the building community.
- Benefits of having a common data environment for sharing the data and the importance of instant and dynamic data mobility from the data collection site to the planners or engineering community resulting in better product outcomes and helps in enhancing the expected benefits.
- The advancement of geospatial technologies that helped in building smart cities and the depth of information that geospatial technologies can offer and the information that would be required in building a virtual model of the city to plan better.
- Brief on the classification of cities on the factors driving, the challenges faced by them and the various other services demanded in a Smart City. The fact how the Smart Phone found commonly with almost everyone can be an effective replacement of a set of sensing devices. The App that is developed by the organisation helps in capturing information on problems of the city and directly reports it to the municipality.
- "Geospatial – BIM – Indoor: Room for Integration" insisted on establishing common and open standards for data sharing. The pitch on the Smart Cities Pilot initiated jointly with the BuildingSmart International.
- Supporting Smart Infrastructures on UAVs delineated how the UAVs can be deployed in making the cities smart by live feeds for instance on crowd supervision and control, behavior analytics, support surveillance activities, etc. These data can serve as an input for creating a Digital Terrain Models (DTM), locational and as-built drawings and also for the purpose of industrial documentation.

TESTIMONIALS

"We are very happy to see a lot of users from various organization across South East Asia and ASEAN region. It was a great opportunity for us to listen and address the need of our users"

Kaushik Chakraborty, Territory Executive, Southeast Asia , Bentley Systems

"Very informative. The quality of knowledge and experience shared by the professionals from such a diverse group of people was really amazing"

Saiful Nizam B Mustafa, Geomatics Department, Petronas, Malaysia

I like the title of the conference - Geo Smart. It demonstrate the use of the latest technology in geo science. I definitely will include some of the information that I learnt during the conference into my lecture. My congratulation to the organizer for a very interesting conference!

Prof John Trinder, SSSI, Australia

"I think the conference was really beneficial to everyone because it laid down all the geospatial applications that we required, especially in electricity sector. Looking forward to be in this conference again in the future"

Dr Mohd Yunus Mohd Yusoff, Division Director – Survey, Utility Mapping Division, Department of Survey & Mapping (JUPEM), Malaysia

"It was interesting to see what other people are doing in this industry. Geomatics industry is changing quite rapidly, so Geo Smart 2015 help us to keep up to date with the industry"

Trudy R. Ganendra, Managing Director, Ground Data Solutions R&D Sdn Bhd, Malaysia

"Geo-Smart Asia provides a great platform to improve our connection and networking. I really enjoyed the conference!"

Jean-Pascal Butte, Lorienne Software Development, France

"For a space agency like us, it was a great opportunity to meet and network with the key players in this industry"

Masanobu Tsuji, Director – Bangkok Office, Japan Aerospace Exploration Agency, & Executive Secretary Asia Pacific Regional Space Agency Forum, Japan

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