

Report on National Symposium on Geomatics for Digital India (16-18 December 2015)

The Indian Society of Geomatics (ISG) and the Indian Society of Remote Sensing (ISRS), the two premier professional societies dedicated to promotion and dissemination of GIS & RS in India, conduct annual conventions and joint national symposiums in tandem providing excellent opportunities to the scientists, teachers and students for presenting their research findings, updating their knowledge base and interacting with experts and peers. Continuing this rich tradition, a national symposium on “Geomatics for Digital India”, was organized by ISG and ISRS in the beautiful pink city of Jaipur (Rajasthan) during 16-18 December 2015 (Wednesday to Friday). This mega event was jointly hosted by JK Lakshmi Pat University Jaipur and ISG Jaipur Chapter.

The symposium had several technical sessions on important themes such as developing smart cities, e-governance, disaster management, climate change, water management, green buildings and urban solid and plastic waste management. The sub themes for national Symposium and ISG & ISRS annual conventions includes Making Digital India: Issues and Challenges, G-Governance for Village Level Planning, Spatial Data Infrastructure and Decision Support Systems, Web and Location based Services (Tele-Geomatics, Mobile GIS), Geomatics for Skill Development & Livelihood, Geomatics for Smart Cities Planning, Geomatics in e-Commerce, Advanced Imaging and Processing Technologies (UAV, Sensor Technology, LIDAR, SAR), Advances in Photogrammetry and 3-D Mapping, Navigation and Positioning System, Infrastructure Development and Planning, Geospatial Technology for Renewable Energy Resources, Land Degradation, Desertification and Soil Health, Sustainable Land Management, Rejuvenating and Interlinking of Rivers, Disaster Management & Weather Forecasting, Coastal and Marine Environment, Natural Resource Management (Water, Soil, Forest, Agriculture, Horticulture). Apart from paper presentations, a number of professionally significant events were lined up for the national Symposium including two popular lectures on the symposium theme, Millennium Lecture of ISG and Vikram Sarabhai Memorial Lecture of ISRS. Selected lead talks on major themes, plenary presentation by invited experts, and address by annual awardees of ISG & ISRS too were scheduled. Besides professional presentations Annual General Body meetings of both societies ISG & ISRS, Pre-symposium tutorials on 14th and 15th December on themes like Applications of IRNSS system and GPS in Navigation and Mapping by Dr. Ashish Kumar Shukla, SAC/ISRO Ahmedabad, Geoinformatics Skill Development for NGOs and Corporate Social Responsibility Sectors by Dr. Alok Chaudhary, MPCOST, Bhopal, RISAT data Processing and Applications by SAC/ ISRO Ahmedabad team, Applications of open source GIS by Prof. Anupam K. Singh, JKLU Jaipur and Dr. Ravikumar Ganti, several interesting programs such as poster presentation and model making competitions made national symposium an enriching and memorable experience to all the attendances.

The inaugural function of the Symposium was started with the floral welcome of all the dignitaries on the dais and prayer of goddess Saraswati. The welcome address was delivered by Dr. Anupam K Singh, Director, Institute of Engineering & Technology. Then Presidential addresses were delivered by Prof. P.K. Verma, Advisor, Science & Technology, Government of MP, Director General, MPCOST, Bhopal and Vice-President,

ISG and Dr. P.G. Diwakar, Deputy Director, Remote Sensing Applications Area, NRSC, Hyderabad and Vice-President, ISRS. He explained the functions of ISRS and also about its 24 chapters working across the whole India. He also briefed the research initiatives of ISRS as well as Bhuvan & Bhuvan Geoportal. After the presidential addresses, Guest of honour Dr. R.L. Raina, Vice Chancellor, JKLU released the ISG Newsletter and addressed the gathering. He focused his address on “how do we take science and technology to the common man of the country”.



Dr. M Annadurai Addressing the audience at ISG-ISRS National Symposium at JKLU

After this, Shri NS Mehta, an eminent scientist and Secretary, ISG announced awardees in different fields of space science and remote sensing and the awardees were presented several awards for their distinguished services by the chief guest Dr. M. Annadurai. Dr. R.L. Raina, Vice Chancellor, JKLU, and Dr. Anupam Kumar Singh, Director, JKLU and Organising Secretary of the Symposium shall be addressing the delegates of the Symposium during the inaugural function.

Addressing the gathering, the chief guest Dr. M. Annadurai highlighted the journey of ISRS Bangalore chapter and stated the challenge to fill the gap of technology understanding between the laboratories and the classrooms with the help of the digital technology. He also mentioned the achievements of the ISRO satellite Centre to launch 3-4 satellites every year and the mission of ISRO to launch one satellite every month. He also emphasized the need of the Digital India campaign of the Govt. of India to ensure that the lab technology reaches to the school classrooms and ease the reach of the technology to every classrooms in the village schools with the help of space technology and hence fulfilling the objective of the Digital India campaign. He stressed the

importance of the continuous research and development by saying “If we stop doing what we are doing today, future will no longer be a better one”.

The JKLU vice chancellor Dr. R. L. Raina, while addressing the attendees welcomed the participants in the symposium and encouraged them to find out the challenges the Digital India is facing and the ways to solve those challenges in the opening address of the three days long symposium. Dr. Raina exhorted the gathering to get a feel of the University ambience and to make the best use of the symposium sessions to explore the key challenges to make the Digital India benefits available to the common man of the country.

After the inaugural session all the ISG and ISRS awardees gave presentations on their research works. The session was followed by two technical sessions, each including four parallel sessions on different themes – Smart cities and G-Governance, Ground water management, Disaster Management, Agriculture Applications, Urban, Infrastructure Development, & Planning and Microwave Data Analysis and Applications. These technical sessions included both oral and poster presentation in which a number of researchers from various parts of the country presented their research works.

The first day of the symposium ended with the prestigious Millenium lecture of ISG delivered by Dr. Y.V.N. Krishna Murthy, Scientific Secretary, ISRO HQ, Bengaluru. He was the awardee at the millennium lecture of ISG. He addressed the people on the theme “space and technology based tools and applications in G-Governance”. He informed about how the G-Governance use the technology in reforming the government work. He discussed about the various applications of the above theme like disaster management, food and water, environment application, weather and infrastructure development-smart cities and education.



Dr. Y.V.N. Krishna Murthy addressing the audience at the Symposium

The second day of the ISG symposium had a wonderful galaxy of speakers and the most prominent feature of the day was the special session named as Vikarm Sarabhai Memorial Lecture. The lecture was presented by Hon'ble Secretary, Ministry of Culture, GOI, Mr. N. K. Sinha, IAS. The session was chaired by the noted space scientist Mr. A S Kiran Kumar, Hon'ble Chairman of ISRO and President of ISRS. Mr. Sinha in the Vikarm Sarabhai Memorial Lecture highlighted the importance of the space technology to preserve the national monuments which are the symbol of our culture and heritage. He elaborated in detail several technologies developed by ISRO which are proving very helpful to track the locations of several historically important sites in India.



Felicitation of Shri A S Kiran Kumar, Hon'ble Chairman, ISRO by Dr R L Raina, Vice Chancellor, JKLU

Mr. Sinha exhorted the scientific community to come forward and become partner of his ministry to preserve, protect and propagate the cultural heritage of India by developing the state of the art technological tools to protect the culture and heritage of India which is of both tangible and intangible nature.



Mr. Sinha shared his ministry's close cooperation with the scientists of ISRO in deploying the latest geospatial tools to monitor the national monuments both well-known as well as less known. He also called upon the academic institutions to encourage students to work on the advancement of technology by working on technical projects and that way students can also emotionally attach to the monuments they work on and hence accomplish the mission of his ministry to protect, preserve and propagate the Indian Culture and Heritage.

At the end of the lecture, ISRO Chief Mr. A S Kiran Kumar felicitated Mr. Sinha by presenting a shawl and a memento. After the lecture Dr. AS Kiran Kumar attended the ISRS, Annual General Meeting at JKLJU Campus. An interesting cultural eve with a flavour of Rajasthani Culture was organized at the end of day for all the participants in the symposium.

As part of Cultural evening performance on 17-12-2015, ISG Jaipur Chapter and JK LakshmiPat University collaborated and formed ISG Cultural group Jaipur Chapter. The group presented a good collection of old and modern Bollywood songs performed by Shri Kamal Kant Mishra, Shri Giriraj Gupta, Shri Sanjay Mishra and Mr. Kunj Ahuja, flute instrumental performed by Shri Harish Solankhi, synthesizer instrumental performed by Shri Subhash Sharma, western classical guitar (Flemenco style) performed by Shri Deepak Singh. Apart from this there was a special free style Dance by Master Ishan Mishra which moved the entire audience with his high energy performance. There were special performances from the outstation participants as well. One was gazal recital by Mr. Khan, student of AMU and Mr. Shankar Narayanan who sang Tamil song and he mesmerized the audience with his majestic voice quality. The live song performances were supported by Shri Deepak Singh on Guitar and Dr. Ravikumar Ganti on Synthesizer.

The Day 3 of the Symposium started with an industry session, in which the industries such as ISGR, Scanpoints Geomatics Ltd., OGC Mumbai, Hexagon Gurgaon, IIRS Dehradun and Urthecast presented their work in various related areas.

The symposium was further proceeded by different technical sessions based on the themes such as environment & climate change, Sustainable land management and renewable energy, Geosciences, Landuse / Landcover monitoring and applications, Disaster management, Urban, infrastructure development & planning, Hydrological Applications, Advanced image processing techniques etc. chaired by various dignitaries of ISRS and ISG. And technical oral sessions were followed by poster presentations on various topics related to the theme of symposium.

After a 3-days long event, full of information, knowledge, learning, followed by discussion, the symposium concluded with lot of ideas, scopes for future research, advancements in technology to improve the lives of common people, a technology which can connect our villages to the mainstream and much more.

The symposium was concluded with a valedictory session, which was chaired by Prof. PG Diwakar, Vice President-ISRS and Deputy Director-NRSC, Hyderabad.

A panel of six other eminent persons - Dr. S S Ray, Director - MNCFC; S P Agarwal - Secretary ISRS; Shri R P Dubey - Visiting Professor; CEPT University Ahmedabad; Dr. A S Rajawat, Head - Geosciences Division; SAC Ahmedabad; Dr. Anupam K Singh, Director - Institute of Engineering and Technology of JKLU Jaipur and Dr. N S Mehta, Secretary - ISG expressed their view points about the conference.



ISG-ISRS Panel at the Valedictory Session

Prof. P G Diwakar initiated the discussion and addressed the gathering about the new initiatives of ISRO, the most important of them as the involvement of universities and institutions in small field level projects for which they will be providing funds also. He mentioned that the necessary remote sensing data for conducting research projects will be made available from their website of ISRS and they are making a policy change to provide easy downloadable data by expanding the bandwidth.

The panel came up with noteworthy recommendations after a panel discussion in which they discussed upon the main issues of the 3-day symposium. These recommendations will be sent to various government departments for further implementations.

Dr. A S Rajawat thereafter announced the best oral paper award and best poster paper awards. Dr. N S Mehta proposed Vote of Thanks to the host Institute of Engineering and Technology, JK Lakshmi Pat University, Jaipur. Dr. Rajawat presented a memento to Director of the Institute Dr. Anupam K Singh.



Felicitation of Dr. Anupam K Singh, Director, JKLU by Mr. A S Rajawat, Head – Geosciences Division; SAC Ahmedabad

Dr. Anupam K Singh thanked ISG, ISRS for organizing the conference at JKLU. He also thanked all speakers, sponsors, chairs, co-chairs, organizing committee members and all the delegates. Dr. S P Agrawal announced the next symposium at ISRS Dehradun. The theme of the conference would be Remote Sensing: Touching Human Life. The entire Symposium was backed up by efforts of Faculties of Institute of Engineering and Technology, JK Lakshmi Pat University, Jaipur.