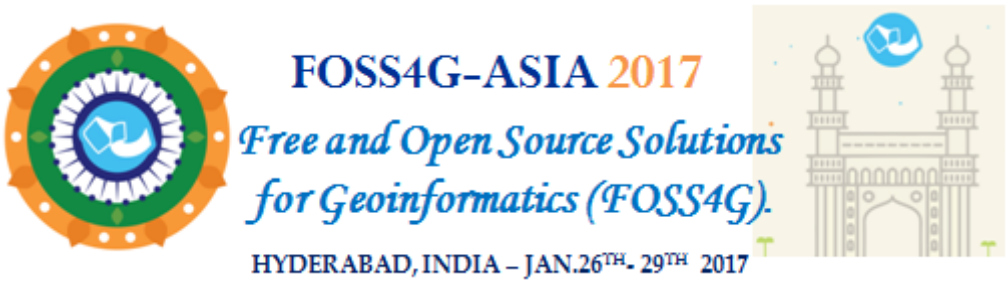
FOSS4G-ASIA 2017, HYDERABAD, INDIA



Conference Theme

EMPOWERING COMMUNITIES

THROUGH OPEN GEOSPATIAL INNOVATION

JANUARY 26-29, 2017

www.foss4g-asia.org/2017/

ORGANIZED BY

OSGeo - India
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HOSTED BY

INTERNATIONAL INSTITUTE OF INFORMATION TECHNOLOGY
HYDERABAD

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Conference Themes

The Conference aims to provide a forum for wide-ranging discussions on a range of thematic areas, Papers are invited in areas covering, but not limited to, the following:

- **FOSS4G** Roots, philosophy, open standards, open data, copyrights and others
- **FOSS4G** technology which includes development of new tools, customization, databases, language localization, coding and improvements to existing tools
- **Use of FOSS4G** in applications like Biodiversity conservation, climate change research, forestry, agriculture, ecological sciences, conservation, environment, geology, soil sciences, rural and urban development, water resources, coastal and marine, disaster management, education and e-governance,
- **FOSS4G** that includes desktop, web and mobile GIS, Capacity building, and societal use like Village/ Societal GIS

Hands on Workshops

In addition, the Conference will also hold a range of hands on workshops to help familiarize specific FOSS4G tools. The workshop topics may include tools from Desktop GIS, Image Processing, WebGIS, Geo-Databases and Mobile GIS

OSGeo-India

OSGeo-India is the India Chapter of the Open Source Geospatial Foundation (OSGeo.org), launched in Jan 2007 as a not-for-profit Society with a pan India focus. The goal of the Society is to provide support and help in building up of open source tools and applications related to the field of geospatial technologies and its allied sciences in this part of the world. The Society and its activities are tuned towards achieving these goals, both in the context of software development, e-governance, localization (Indian language support) and building of awareness & outreach of such software systems. OSGeo-India holds national conference biannually with a mission to foster the development and promote the widespread use of Open Source Geospatial Technologies including support for software development and publicly available Geo-data. This year, with a focus on showcasing its activities internationally, OSGeo-India organizes **FOSS4G-ASIA 2017,** as its first international conferences on Free and Open Source Solutions for Geoinformatics. The ***2012 & 2015 FOSS4G, first and second series of national conferences*** organized by OSGeo India and have successfully showcased the relevance and requirement of these rapidly emerging technologies and need to have a platform within India. With a holistic view**, FOSS4G–ASIA 2017** aims to bring together the developers and users of FOSS4G tools -academicians, researchers, technologists, companies and entrepreneurs from Asia to share, discuss and collaborate towards faster adoption and benefit the society across the country/region

Hyderabad – Host City

Hyderabad, known as the Pearl City, is also well-known as a global IT-destination. It is perched on the top of the Deccan Plateau, 536m above sea level and sprawls over 650 Km^2. The city is nearly 400 years old and is noted for its natural beauty, mosques and minarets, bazaars and bridges, hills and lakes. Its palaces and buildings, houses and tenements, gardens and streets have a history and an architectural individuality of their own, which makes Hyderabad a city of enchantment.

Secretariat

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Conference URL:http://www.foss4g-asia.org/2017/

Program of FOSS4G-ASIA 2017

International Conference on Free and Open Source Solutions for Geoinformatics (FOSS4G-ASIA 2017)

On

"EMPOWERING COMMUNITIES THROUGH OPEN GEOSPATIAL INNOVATION"

January 26-29, 2017

Hyderabad

Organized by:

Open Source Geospatial Foundation of India,

INTERNATIONAL INSTITUTE OF INFORMATION TECHNOLOGY

HYDERABAD

Abstracts of

FOSS4G-Asia 2017

International Conference on Free and Open Source Solutions for Geoinformatics (FOSS4G)

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Program Outline

January 27th, 2017

	Room A	Room B
08:30 – 09:15	Registrations	
09:15 – 10:00	Inaugural	
10:00 – 10:15	Opening of Exhibition stalls	
10:15 – 10:45	Tea Break	
10:45 – 11:30	Plenary Session- I	
11:35 – 13:30	Session 1A: FOSS4G Urban and LULC Applications	Session 1B: FOSS4G in Mobile mapping,LBS and e-governance
13:30 – 14:20	Lunch	
14:30 – 15:45	Session 2A: FOSS4G in Disaster Management & Mitigation	Session 2B: FOSS4G- Development of Plugins and Modules
15:45 – 16:00	Tea Break	
16:00 – 17:30	Session 3A: FOSS4G in Water resource Management and Climate studies	Session 3B: FOSS4G- Web GIS

January 28th, 2017

	Room A	Room B
08:30 – 09:15	Registrations	
09:15 – 10:00	Plenary Session – II	
10:00 – 10:25	Tea Break	
10:30 – 12:00	Session 4A: FOSS4G- Applications in Agriculture and Environment	Session 4B: FOSS4G - Technology and Development-1
12:00 – 13:30	Session 5A: FOSS4G in Forestry and Spatial Modeling	Session 5B: FOSS4G - Technology and Development-2
13:30 – 14:20	Lunch	
14:30 – 15:15	Popular Talk : ***Open Source for Geospatial: some challenges for the community****, by Prof. Massimiliano Cannata (University of Applied Sciences and Arts of Southern Switzerland)*	
15:15 – 15:45	Panel Discussion: FOSS4G in Asia and international: Potential and Challenges for Adoption	
15:45 – 16:00	Tea Break	
16:00 – 16:30	Valedictory & Interaction among participants	

Technical Program Details

	Day- 1: Friday, January 27, 2017		
	Plenary Session - I		
	Keynote Talk: "FOSS4G for K-Smart City under the New Urban Agenda" *By Dr. Choi, Junyoung, Spatial Big Data Center, Korea Land and Housing corp, Korea* .		
	Session 1A: FOSS4G -Urban & LULC Applications		
1A-1	Land Information System using Open Source Tools		*Neeraj Gangwal* *Deepali Shrivastava* *Shailesh Chaure* *(Devi Ahilya University, Indore)*
1A-2	Qualitative analysis of urbanization using Open datasets		*Ajay Kumar Mulakala,* *(KAIINOS)*
1A-3	Quantification of urban heat using Thermal remote sensing technology- A case study of Varanasi city.		*Aman Arora* *Masood A. Siddiqui* *Manish Pandey* *(Jamia Milia Islamia, New Delhi)*
1A-4	Improved LULC mapping by combining pixel-based and object-based fuzzy classification using spectral indices of RapidEye and GRASS GIS for Lao Cai area, Vietnam		*Thi Hang Do* *Venkatesh Raghavan* *Xuan Luan Truong* *Poliyapramvinayaraj* *Go Yonezawa* *Pavithra Jayasinghe* *(Osaka City University, Japan* *Hanoi University of Mining and Geology, Vietnam)*
1A-5	Identifying relationship between land surface temperature and changes of vegetation cover and built-up areas in Colombo, Sri Lanka		*Pavithra Jayasinghe* *Venkatesh Raghavan* *Go Yonezawa* *(Osaka City University, Japan)*
1A-6	Geospatial techniques used for Land Resource Management		*Harikesh* *Varun Sharma* *Kunwar Pratik Raj,* *(Central University Of Jharkhand)*
1A-7	Open source GIS based land information system in Mongolia.		*Tuul Batbaldan* *Battogtokh Demching* *(Ulaanbaatar, Mongolia)*

	Session 1B: FOSS4G in Mobile Mapping, LBS and e-governance		
1B-1	Mobile application for campus data collection and problem reporting		*Pavan Kumar Guduru* *Venkata Reddy Keesara* *Narayana Rao Bhogapurapu* *(NIT, Warangal)*
1B-2	Offline LBS app for healthcare services		*Meena Kumari K* *Kapil Oberai* *M. Shashi* *(NIT, Warangal* *IIRS, Dehradun)*
1B-3	Open Source Smart Parking application using Internet of Things and pgRouting		*Ankur Shukla* *Rajat Shinde* *Surya S Durbha* *(CSRE, IIT Bombay)*
1B-4	Show me where? : Directory and location based socializing application for university students		*Pasindu De Silva* *Kavinda Bandulasena* *Kasun Kulathilake* *Wickramasundara Nimalika* *(Sri Lanka Institute of Information Technology, Srilanka)*
1B-5	Location Intelligence: Citizen centric Health GIS		*Sai Ram Krishna J* *Sonal Aggarwal* *Murugavel Arulraj* *Lesslie A* *M V Ravikumar* *Vinod M Bothale* *B Gopalakrishna* *A Ravishankar* *(NRSC Hyderabad, APDCA)*
1B-6	FOSS4G in extending the reach of the Government's social and welfare schemes to the needy		*A. Vijaya Banu* *(NRSC Hyderabad)*
1B-7	Open Source platform a boon for large scale implementation of GIS at Tehsils/Blocks for updation of Cadastral maps and core network of Roads		*Ganesh Khadanga* *(NIC & IIT Roorkee)*
1B-8	Developing a free digital map and a mobile travel guide for National Zoological Garden of Sri Lanka using OSM and open source mapping tools		*Shashiprabha Rajapaksha* *Sandareka Hidallaarachchi* *Rivini Pramodi* *Kaumadi Marasinghe* *Nimalika Fernando* *(Sri Lanka Institute of Information Technology,*

	Session 2A: FOSS4G in Disaster Management & Mitigation		
2A-1	Development of drought monitoring based on pyModis and ZOO-Project		*Chingchai Humhong* *Luca Delucchi* *Gerald Fenoy* *Sittichai Choosumrong* *Venkatesh Raghavan* *(Naresuan University)*
2A-2	New approach to detect active forest fires based on MODIS TERRA satellite datasets		*Suresh Babu K V* *P. Rama Chandra Prasad* *(IIIT-H)* *Arijit Roy* *(IIRS Dehradun)*
2A-3	A comparative performance analysis of four standard drought indices in India		*Tinku Monish* *(IIIT Hyderabad)*
2A-4	Urban flood monitoring using QGIS - A case Study of Hyderabad city		*Durgasrilakshmi Hari* *NSR Prasad* *Ramamohan Reddy* *(JNTU-H , NIRD Guwahati)*
2A-5	Urban flood inundation risk assessment for the upcoming Amaravati city -state capital of the newly formed Andhra Pradesh		*Vani M* *K.S.Rajan* *(IIIT Hyderabad)*
2A-6	Delft-FIAT: An open-source flood impact analysis tool		*K.Slager* *D.Wagenaar* *E.Bos* *J. Sala* *A. Burzel* *L. Bouwer* *K. de Bruijn* *(Deltares, The Netherlands)*

	Session 2B: FOSS4G-Development of Plugins and Modules		
2B-1	QGIS Python Plugin for finding numbers of Survey of India Topographical maps		*Shailesh Chaure* *H K Solanki* *(Govt. Holkar Science College, Indore)*
2B-2	Efficient viewshed Plugin in QGIS		*Vivek saxena* *Priyanka Jhanwar* *Divyani jigyasu* *(DRDO, Banasthali university)*
2B-3	Augmenting GIS functionality through plugin development in QGIS (FOSS4G)		*Anshika Gautam* *Suchitra Choudhary* *Vivek Saxena* *(DRDO, Delhi)*
2B-4	Python tools for climate data retrieval and analysis		*Balaji Yarramsetty* *Venkata Reddy Keesara* *Sri Lakshmi Vani J* *(NIT Warangal)*
2B-5	GRASS GIS module for satellite derived bathymetry and application example		*Venkatesh Raghavan* *Poliyapram Vinayaraj* *(Osaka City University)*

	Session 3A: FOSS4G in Water Resource Management & Climate studies		
3A-1	Hydrological modelling and analysis using open source software		*Sampath Kumar Sudulagunta* *Venkata Reddy K* *Sowjanya P N* *Deva Pratap* *(NIT Warangal)*
3A-2	Climate change impact analysis on watershed using QSWAT		*Nageswara Reddy N* *Venkata Reddy K* *Sri Lakshmi Sesha Vani J* *(NIT Warangal)*
3A-3	Impact of climate change on reservoir inflows using hydrological modelling framework and open source GIS softwares		*Galla Sireesha Naidu* *Shaik Rehana* *(IIIT-H)*
3A-4	Volume calculation of irregularly shaped water bodies		*Rahul Kumar Rai* *K. S. Rajan* *(IIIT-H)*
3A-5	Simplification of data selection process for monitoring major national level project IWMP		*Kumarapu K* *M A Fyzee* *Girish S Pujar* *Shashi M* *(NIT Warangal)*
3A-6	Perspectives in monitoring the implementation of integrated watershed management at national level in India using Bhuvan Open source Web Geo portal		*G S Pujar* *Reddy K M* *Ravishankar T* *Lesslie A* *Fyzee M.A* *Shyamsunder B* *Arulraj M* *Bhanumurthy V* *Amitkumar K* *(NRSC, Hyderabad)*
3A-7	FREEWAT: FREE and open source tools for Water resource management		*Massimiliano Cannata* *(University of Applied Sciences and Arts of Southern Switzerland)*

	Session 3B: FOSS4G-Web-GIS		
3B-1	PINOGIO-Open Source based web Map visualization platform		*Geun-bae Kim* *Si-woon Jung* *(Mango System.inc, Korea)*
3B-2	Geo Geek: E-Learning quiz application on Sri Lanka history and geography with interactive web maps		*Hasara Amaraarachchi* *(Sri Lanka Institute of Information Technology, Srilanka)*
3B-3	An update on ZOO-Project WPS platform and MapMint Web-GIS application development framework		*Gerald Fenoy* *Venkatesh Raghavan* *Nicolas Bozon* *(GeoLabs SARL, France* *Osaka City University, Japan* *ESRI France)*
3B-4	Web service for Survey of India open series map sheet numbers		*Shailesh Chaure* *(Govt. Holkar Science College, Indore,)*
3B-5	Web GIS applications for Karnataka Industrial Area Development Board (KIADB)		*Rushya Shrungeshwara,* *Jayachandran Mani,* *Prabhuraj* *(KSRAC, Karnataka)*
3B-6	Web GIS interface for nalyzing and displaying ocean currents using Open Source Tools		*Venkat Shesu Reddem* *(Indian National Centre for Ocean Information Services)*
3B-7	Development of rich Web GIS application using Openlayers 3		*Vani Lakumarapu* *Sonal Aggarwal* *Murugavel Arulraj* *T Vijaya Lakshmi* *Vinod M Bothale* *B Gopalakrishna* *(NRSC, Hyderabad* *JNTU-Hyderabad)*

	Day 2: Saturday, January 28, 2017		
	Plenary Session – II **Keynote Talk:** The OSGeo Foundation goes "Up to eleven": Recollection and Perspectives. *By Prof. Venkatesh Raghavan, Osaka City University, Japan*		
	Session 4A: Foss4G Applications in Agriculture and Environment		
4A-1	Use of GIS to evaluate the role of Land Use Land Cover on Arsenic contamination		*Biplab Biswas* *(Burdwan University)*
4A-2	Jal-DSS – Smart solution for sustainable agriculture through watershed Program		*D V S Sarma* *Subhasmitha Sahani* *Kaushalya Ramachandran* *(ICAR- CRIDA)*
4A-3	Optimizing harvest schedule of Sugarcane crop using genetic algorithm through assimilation of DSSAT-CANEGRO model with Remote Sensing		*Penchala Vineeth Kurapati* *Sarawut Ninsawat* *(AIT, Thailand)*
4A-4	Validation of land surface temperature product of INSAT-3D with MODIS land surface temperature product and its temporal and spatial variation analysis		*Rajesh basoju* *Virendra singh*
4A-5	4ONSE: four times open monitoring system for sensing the environment		*Massimiliano Cannata* *(University of Applied Sciences and Arts of Southern Switzerland)*
4A-6	QGIS for Environmental impact assessments of Hydel power development in Arunachal Pradesh, India.		*S Narendra Prasad* *(OSGeo-India)*
4A-7	Estimation of power generation from solid waste generated in sub-urban area, using spatial techniques: A case study for Trichy city, Tamilnadu, India		*N.N. Salghuna* *Jaldi Anitha* *K.S.Rajan* *(IIIT-Hyderabad)*

	Session 4B: FOSS4G Technology and Development-1		
4B-1	Shortest path search in your database and more with pgRouting		*Vicky Vergara*
4B-2	Open transport tools		*Srinivas Kodali* *Datameet*
4B-3	Cloud-based near real-time monitoring of electricity usage and human occupancy inside buildings using image processing and WiFi log data		*Nguyen Duong Tri Nguyen* *Sarawut Ninsawat* *(AIT, Thailand)*
4B-4	Query based information system of Nizamabad city using open data		*Murali Rajendra G* *Pritigna* *Y Omprakash* *(Telangana University)*
4B-5	An efficient algorithm for generation of billion of map tiles		*Sandeep T* *Murugavel Arulraj* *Sonal Aggarwal* *K Manjula Vani* *Vinod M Bothale* *B Gopalakrishna* *(NRSC/ISRO)*
4B-6	MIGRATE: gamification approach to raise awareness about the migration phenomenon in Europe		*Candan Kilsedar* *Mayra Zurban* *Marco Minghini* *Martina Aiello* *Maria Antonia Brovelli* *Marco Gianinetto* *(Como Campus, Via Valleggio* *Politecnico di Milano)*
4B-7	Evaluation of shortest path computation over a statistically derived contracted road network.		*Rohith Reddy* *Mukul Priya* *K.S Rajan* *(IIIT-H)*
4B-8	Building segmentation from LiDAR data using scan line based processing		*Gaurav Parida,* *K S Rajan* *(IIIT-Hyderabad)*

	Session 5A: FOSS4G in Forestry and Spatial Modeling		
5A-1	Vegetation cover monitoring for Visakhapatnam district using NDVI approach with Landsat data		*Narayanarao Bhogapurapu* *Dasari Sandeep* *(NIT Warangal)*
5A-2	Development of Kerala forest Geoportal using open source technologies		*Tanish C Brown* *Nisha P* *Anu Murali* *Hitha Kiron* *Kalaraj S* *Neelakandan V N* *(KSITM)*
5A-3	Forest Management - Generation of stand and stock tables using FOSS (R Software)		*T.Mayamanikandan* *R.SurajReddy* *C.S.Jha* *G.Rajashekar* *(NRSC)*
5A-4	Spatial distribution of nests and nesting habitat of colonial birds at Telineelapuram Pelicanary using Geo spatial tools.		*Sravan kumar R* *Siva Krishna Ch* *Nagulu V* *Prasad SN* *Vasudeva Rao V* *(JNTU-Hyderabad)*
5A-5	Aiding species distribution models using open source mobile applications		*Viheno Iralu* *Krishna Upadhaya* *(North-Eastern Hill University)*
5A-6	Spatial analysis of peanut distributions and modeling the impact of climate change for resource conservation		*M.Srinivas* *RamachandraPrasad Pillutla* *K.S.Rajan* *(IIIT-Hyderabad)*
5A-7	FOSS4G modeling of forest cover transitions with Kaiga nuclear plant		*Bharath Setturu* *Rajan Ks* *Rama Chandra T V* *(IIIT-Hyderabad)*
5A-8	Experiences in teaching Open Source Geospatial Technology to Stakeholders of Biodiversity conservation in Western Ghats		*Nishith Maheshwari ,* *S. N. Prasad* *. K. S. Rajan* *(IIIT-Hyderabad)*

	Session 5B: FOSS4G Technology and Development-2		
5B-1	An OGC standards-conformant geospatial data infrastructure for classification of stress in solar energy materials		*Tharunya Danabal* *Christian Schill* *(Anna University,* *Albert-Ludwig University* *Freiburg, Germany)*
5B-2	Thematic dashboard on Bhuvan: towards decision-support		*Sonal Aggarwal* *Murugavel Arulraj* *Vinod M Bothale* *B Gopalakrishna* *(NRSC/ISRO)*
5B-3	Success with OSGeo + GSoC		*Vicky Vergara*
5B-4	A decision support system for slum areas using FOSS4G tools - A case study from Rajahmundry Municipal Corporation, East Godavari district, Andhra Pradesh, India.		*Dr.K.V.Swamy* *D.V.S.Sarma* *Ajay Kumar Mulakala* *(Adikavi Nannaya University)*
5B-5	Open source databases and software tools for effective processing and retrieval of bulk volume Geospatial data		*C. A. Rishikeshan* *H. Ramesh* *S. K Katiyar* *(National Institute of Technology Karnataka, Surathkal)*
5B-6	Crowd-sourcing for societal GIS with Open Data Kit (ODK) an Indian perspective		*Bala Sankar .V* *P.Suresh Varma* *(Aditya college of engineering)*
5B-7	LSIViewer 2.0: An online viewer for Â Geospatial vector data using javascript and canvas		*K Manikanta* *K.S.Rajan* *(IIIT Hyderabad)*
5B-8	Development of Solar Powered Automatic Weather Station Using Sensors and Smartphone Applications		*Gajula Manoj Mahajan* *Nitin Kumar Tripathi* *(AIT, Thailand)*
5B-9	Developing service oriented framework for integration of field data into GIS using FOSS4G stack		*Niroshan Bandara* *Venkatesh Raghava* *Gerald Fenoy* *Daisuke Yoshida* *(Osaka City University, Japan)*