



PERSONAL INFORMATION



Dr. Deepak Kumar

 **Amity Institute of Geoinformatics and Remote Sensing (AIGIRS),**
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 **Orcid ID** <https://orcid.org/0000-0003-4487-7755>

Sex Male | **Date of birth** 06/08/1987 | **Nationality** Indian

PERSONAL STATEMENT

My current research emphases on wider areas of satellite image processing and geospatial technology to utilize cutting-edge technology in exploring potential of technologies for interdisciplinary research. My interdisciplinary research interest include :

- Satellite Image Processing
- Planetary and Radar Remote Sensing
- Microwave and Hyperspectral Image Processing and Analysis
- Pattern Recognition and Object Based Image Analysis
- Urban Landscape Studies and Analysis for Smart cities
- Location Analytics, Spatio-Temporal Data Analytics
- Spatial Data Management and Revisualization
- Renewable Energy, Energy Conservation, Conversion and Management

WORK EXPERIENCE

14/06/2016–Present

Assistant Professor

Amity Institute of Geoinformatics and Remote Sensing (AIGIRS),
Amity University, Sector –125, Noida-201 303, Uttar Pradesh, India

- *Teaching and Research Work*
- *Teaching to doctoral, post graduate and undergraduate students*
- *Administrative responsibilities*

01/08/2014–09/06/2016

Senior Research Fellow [DST-INSPIRE]

School of Earth Sciences, Central University of Karnataka, Kalaburagi (Gulbarga), India.

- *Research Work*
- *Teaching to postgraduate and undergraduate students*

06/08/2012–31/07/2014

Junior Research Fellow [DST-INSPIRE]

School of Earth Sciences, Central University of Karnataka, Kalaburagi (Gulbarga), India.

- *Research Work*
- *Teaching to postgraduate and undergraduate students*

EDUCATION AND TRAINING

08/2012–06/2016

Doctor of Philosophy (Ph.D.)

School of Earth Sciences, Central University of Karnataka, Kalaburagi (Gulbarga), India.
Renewable Energy & Geospatial Technology

08/2010–06/2012

Master of Science

School of Earth Sciences, Central University of Karnataka, Kalaburagi (Gulbarga), India.
Geospatial Applications in Regional Development

08/2005–07/2009

Bachelor of Technology (B.Tech)

Biju Patnaik University of Technology, Odisha, India. (India)
Information Technology

ONGOING RESEARCH SUPERVISION

- Research supervision to Ms. Noyingbeni Kikon on topic entitled *Advanced spatial information retrieval and quantification (ASIRQ) from SAR and optical images* at Amity Institute of Geoinformatics and Remote Sensing (AIGIRS), Amity University, Sector –125, Noida-201 313, Uttar Pradesh, India, India.
- Research supervision to Ms. Mandvi Misra on topic entitled *Evaluating urban green landscape through hybrid approach for smart cities* at Amity Institute of Geoinformatics and Remote Sensing (AIGIRS), Amity University, Sector –125, Noida-201 313, Uttar Pradesh, India, India.
- Research supervision to Ms. Sunita on topic entitled *Assessing Urban Blue-Green Spaces through SAR Remote Sensing* at Amity Institute of Geoinformatics and Remote Sensing (AIGIRS), Amity University, Sector –125, Noida-201 313, Uttar Pradesh, India, India.

ONGOING PROJECT

- Hybrid Urban Landscape Analysis for Green Smart Cities through Geospatial Technology, DST Early Career Research Award (2017-20) as Principle Investigator.
- Meta-sensing of urban footprint from airborne synthetic aperture radar (ASAR) data, SAC (ISRO) Department of Space, Govt. of India (2017-20) as Principle Investigator.

MEMBERSHIPS

- Member of International Society for Photogrammetry and Remote Sensing
- Life Member of Indian Society of Remote Sensing (ISRS) //Membership. No-L-4491.
- Life Member of Indian National Cartographic Association (INCA) //Membership. No-LM-2763.
- Member of European Geosciences Union(EGU) // ID No.265275

FELLOWSHIPS, ACADEMIC AWARDS AND HONOURS

- Received *International Travel Support (ITS)* grant from Science and Engineering Research Board, Department of Science and Technology, Government of India for presenting paper at USA.
- Received *Best Paper Award* for the paper entitled *Evaluating solar exergy for alternate energy systems* at 37th INCA International Congress on Geoinformatics for Carto-Diversity and Its Management during 01st to 03rd November 2017 at National Hydrographic Office, Dehradun-248 001, India.
- Recipient of research grant from SAC-ISRO, Govt. of India under NISAR mission of NASA-ISRO on project entitled *Meta-sensing of urban footprint from airborne synthetic aperture radar (ASAR) data* with funding of ₹15.86 lakhs.
- Recipient of *Early Career Research (ECR)* Award from Science and Engineering Research Board, Department of Science and Technology, Government of India on project entitled *Hybrid Urban Landscape Analysis for Green Smart Cities through Geospatial Technology* with research funding of ₹17.44 lakhs.
- Recipient of *University Gold Medal* from Central University of Karnataka, Kalaburagi (Awarded from the President of India) for securing highest marks at position at post-graduate level.
- Recipient of *Junior Research Fellowship (JRF)* position from National Remote Sensing Centre, Indian Space Research Organization, Department of Space, Government of India.
- Recipient of *DST-INSPIRE Fellowship* [IF120639] in the year 2012-2013 by the Department of Science & Technology, Ministry of Science & Technology, Government of India for pursuing the Doctoral Program in Science & Technology.
- Recipient of *University Research Fellowship* in the year 2012-2013 by the Central University of Karnataka for pursuing the Doctoral Program in Earth Sciences domain.
- Received *Certificate of Outstanding Contribution in Reviewing* for the contributions made to the quality of the SCIENCE OF THE TOTAL ENVIRONMENT Journal by The Editors of SCIENCE OF THE TOTAL ENVIRONMENT, Elsevier, Amsterdam, The Netherlands.
- Received *Certificate of Outstanding Contribution in Reviewing* for the contributions made to the quality of the SUSTAINABLE CITIES AND SOCIETY Journal by The Editors of SUSTAINABLE CITIES AND SOCIETY, Elsevier, Amsterdam, The Netherlands.

- Received *Certificate of Outstanding Contribution in Reviewing* for the contributions made to the quality of the SOLAR ENERGY Journal by The Editors of SOLAR ENERGY, Elsevier, Amsterdam, The Netherlands.
- Received *Certificate of Outstanding Contribution Reviewing* for the contributions made for the SOLAR ENERGY Journal by The Editors of SOLAR ENERGY, Elsevier, Amsterdam, The Netherlands.

RESEARCH CONTRIBUTIONS

- Completed PhD Research on the thesis entitled *Solar Energy Modelling and Feasibility Analysis of Smart Solar Grids Using Geospatial Technology* from School of Earth Sciences, Central University of Karnataka, Kalaburagi (Gulbarga), India.
- Completed Research Project entitled *Lunar Digital Surface Modelling & Analysis Using Chandrayaan-1 TMC Stereo Data for Implementing Navigation Techniques Based on Surface Derivatives Criterion* from Space Applications Centre (ISRO), Ahmedabad, Gujarat, India.
- Contributed to data processing and product generation work related to *Chandrayaan-1 Mission* and also worked on preliminary activities for *Chandrayaan-2 Mission* like Terrain Surface Modeling & Visualization as well as understanding Geo-Information pipeline for data processing.
- Worked on multiple on-going projects (related to high resolution data processing & output generation) related to *Chandrayaan-1 Mission* during three months internship at HRDPD/SPDCG/SIPA, Space Applications Centre (ISRO), Ahmedabad, Gujarat.

REVIEWERS OF JOURNALS

- IEEE Access-The Multidisciplinary Open Access Journal
- Science of the Total Environment, Elsevier.
- Optik - International Journal for Light and Electron Optics, Elsevier.
- Sustainable Cities and Society, Elsevier.
- Solar Energy, Elsevier.
- Environmental Progress & Sustainable Energy, Wiley.
- Geo-Spatial Information Science, Taylor & Francis Group.
- International Journal of Remote Sensing, Taylor & Francis Group.

PUBLICATIONS

International Peer Reviewed Journal

- **Kumar, Deepak (2019).** *Hyper-temporal variability analysis of solar insolation with respect to local seasons*, Remote Sensing Applications: Society and Environment, (Elsevier), ISSN: ISSN: 2352-9385 (Online). DOI: <https://doi.org/10.1016/j.rsase.2019.100241>
- **Kumar, Deepak (2018).** *Mapping solar energy potential of southern India through geospatial technology*, Geocarto International, (Taylor & Francis), ISSN: 1010-6049 (Print) 1752-0762 (Online). DOI: 10.1080/10106049.2018.1494759
- **Kumar, Deepak, Tewary, Tavishi and Shekhar, Sulochana (2018).** *Enhanced Adaptive Technique for surface Temperature Variability Analysis*, Iranian Journal of Science and Technology Transactions A: Science (Springer), Volume 42, Issue 3, pp 1309–1316. DOI: 10.1007/s40995-017-0469-5. ISSN 1028-6276.
- **Kumar, Deepak (2018).** *Surface temperature variability analysis of an urban area using Landsat ETM+ thermal images*, Asian Geographer (Taylor & Francis), Volume 34, Issue-1, page 25-37, <https://doi.org/10.1080/10225706.2017.1322992>
- **Kumar, Deepak and Shekhar, Sulochana (2016).** *Linear Gradient Analysis of Kinetic Temperature through Geostatistical Approach*, Modelling Earth Systems and Environment (Springer) ISSN 2363-6203, DOI 10.1007/s40808-016-0198-3.
- **Kumar, Deepak (2016).** *Adaptive Hierarchical Cell Sub-Division (AHCS) Method For Enhanced Surface Radiance Temperature Variability Analysis*, Modelling Earth Systems and Environment (Springer) ISSN 2363-6203, DOI 10.1007/s40808-016-0194-7

- **Kumar, Deepak** and Shekhar, Sulochana (2015). *Statistical Analysis of Land Surface Temperature–Vegetation Indexes Relationship through Thermal Remote Sensing*, Elsevier-Ecotoxicology and Environmental Safety (Elsevier), Volume 34, Issue-1, page 25-37, <http://dx.doi.org/10.1016/j.ecoenv.2015.07.004> (**Impact Factor-2.878**).
- **Kumar, Deepak** and Shekhar, Sulochana (2015). *Renewable Energy Potential for Green Networks*, Research J. Science and Tech. 7(2): April-June, 2015, **Print ISSN:** 0975-4393 / **Online ISSN:** 2349-2988, PP 125-132.

National Peer Reviewed Journal

- **Kumar, Deepak (2018)**. *Evaluating Solar Exergy for Alternate Energy Systems*, Indian Cartographer, Vol-37, 2017 (ISSN 0927-8392), INCA, Hyderabad, India, PP 1-10.
- **Kumar, Deepak (2014)**. *Spatial Variation of Surface Energy Fluxes with respect to land use changes across Gulbarga city*, Indian Cartographer, Vol. XXXIV (2014).

International Conference/ Proceedings

- **Kumar, Deepak (2015)**. *Economic Assessment of Photovoltaic Energy Production Prospects in India*, Elsevier Earth and Planetary Science Procedia (Elsevier) 11 **ISSN:** 1878-5220 PP 436-447. doi:10.1016/j.proeps.2015.06.042 (**SNIP-1.088**).
- **Kumar, Deepak (2015)**. *Remote Sensing Based Vegetation Indices Analysis to Improve Water Resources Management in Urban Environment*, Elsevier Aquatic Procedia 4(2015) **ISSN:** 2214-241X, PP 1374-1380. doi:10.1016/j.aqpro.2015.02.178.
- **Kumar, Deepak** and Shekhar, Sulochana (2014). *Computing Building Rooftop Solar Potential for Photovoltaics*, Conference Proceedings papers of ISRS Special Interactive Session in ISPRS TC VIII Mid-Term Symposium on “Operational RS Applications: Opportunities, Progress and Challenges” held during December 9-12, 2014 at Hyderabad, India.
- **Kumar, Deepak** and Shekhar, Sulochana (2013). *Modelling Solar Energy Using Geospatial Technology*, Conference Proceedings of International Conference on Geospatial Momentum for Society and Environment, CEPT University, Ahmedabad, AGSE Publishing, Germany, PP 351-364, ISBN: 978-3-943321-12-8.

National Conference/ Proceedings

- Misra, Mandvi and **Kumar, Deepak (2018)**. *Base Map Preparation with Multi-Source Datasets for Urban Landscape Analysis*, Conference Proceedings of ESRI India User Conference 2018, Delhi, NCR.
- Rana, Diksha and **Kumar, Deepak (2018)**. *Analysing Impact on Urbanization Pattern of Delhi NCR Region due of Delhi Metro*, Conference Proceedings of ESRI India User Conference 2018, Delhi, NCR.
- Garg, Pratibha and **Kumar, Deepak (2018)**. *Assessing lateral expansion along Delhi Meerut Expressway Corridor*, Conference Proceedings of ESRI India User Conference 2018, Delhi, NCR.
- Girish, Aditya and **Kumar, Deepak (2018)**. *Analysing decline of Green Cover due to Eastern Peripheral Expressway*, Conference Proceedings of ESRI India User Conference 2018, Delhi, NCR.

Book Chapters

- **Kumar, Deepak (2019)**. *Statistical Image Processing for Enhanced Scientific Analysis*. In A. K. Somani et al. (eds.), *Smart Systems and IoT: Innovations in Computing, Smart Innovation, Systems and Technologies* 141, https://doi.org/10.1007/978-981-13-8406-6_1 (Springer Nature Singapore Pte Ltd. 2020)
- **Kumar, Deepak (2017)**. *Mitigating Climate Change through Efficient Agroforestry Methods*. In *Climate Change and Agroforestry*, pp. 95-108 Editors: C.B. Pandey, Mahesh Kumar Gaur and R.K. Goyal © 2017, New India Publishing Agency, New Delhi, India, PP 93-106, ISBN: 9789386546067.
- **Kumar, Deepak & Shekhar, Sulochana (2015)**. *Rural Energy Supply Models for Smart Villages*. In Rao, Madhava V.; Rao, Kesava P.; Kumar Phanindra T. & Murthy D.S.R. (1st Edi.) *Geoinformatics Applications in Rural Development*, Professional Books Publisher, Hyderabad, PP 166-178 ISBN: 978-81-909728-9-5.

- **Kumar, Deepak** (2014). *Overview of open Source Virtual Learning Environment for Scientific Research*. In Kattimani P.S., & Jange, Suresh (1st Edi.) *Integrating ICT in Academic Libraries: Making a Difference in Knowledge Age*, Neoti Book Agency, New Delhi, PP 672-683, and ISBN: 9788-19275-6912.

WORKSHOP, TRAINING AND CERTIFICATIONS

- **June 2019:** Participated in the course on *Machine Learning and its Application* conducted by, Indian Institute Remote Sensing (IIRS), Dehradun during June 03-07, 2019 at Dehradun.
- **September 2018:** Participated in the course on *SAR Data Processing and Analysis for Land Applications with Special Emphasis on L&S Bands* conducted under TREES (Training and Research in Earth Eco-System), an initiative of Space Applications Centre during 24-28 September, 2018 at Ahmedabad.
- **April 2016:** Participated in the course on *Microwave Remote Sensing Applications* conducted by National Remote Sensing Centre, Hyderabad during April 11-22, 2016.
- **February-April 2016:** Completed advance course Off-campus outreach Certificate program on *Geospatial Technologies for Urban Planning* conducted by Indian Institute of Remote Sensing (ISRO), Department of Space, Govt. of India during 11th February 2016 to 15th March 2016.
- **July 2015:** Participated in ISPRS Summer School on *Research and Teaching Methodologies for Master and Ph.D. students* conducted by Siberian State University of Geosystems and Technologies, Russia in association with Indian Institute Remote Sensing (IIRS), Dehradun during July 6-10, 2015.
- **May 2015:** Participated in the National Workshop on *Basic Matlab Programming and Simulink* held from May 6-8th, 2015 at the Department of Mathematics, Central University of Karnataka, Kalaburagi (Gulbarga), India.
- **April-May 2015:** Participated in the course on *Emerging Trends in Remote Sensing* conducted by National Remote Sensing Centre, Hyderabad during April 20-May 1, 2015.
- **April 2015:** Participated in the International Conference on *Global Challenges, Policy Framework & Sustainable Development for Mining of Mineral and Fossil Energy Resources: 2015-20(GCPF:2015-20)* held at Department of Mining Engineering, National Institute of Technology Karnataka, Surathkal between 17th & 18th April 2015.
- **February 2015:** Participated in two days' workshop on *Real Time GIS* organised by Department of Geography, School of Earth Sciences, Central University of Karnataka, Gulbarga during February 16 -17th, 2015.
- **January-March 2015:** Completed advance course Off-campus outreach Certificate program on *Applications of Remote Sensing & GIS for Natural Resources* conducted by Indian Institute of Remote Sensing (ISRO), Department of Space, Govt. of India during 27th January 2015 to 27th March 2015.
- **January 2015:** Participated in one days' Training in *Human Rights* held on 19th January 2015 at the Administrative Building, Central University of Karnataka, Kalaburagi (Gulbarga).
- **December 2014:** Participated in Four day Workshop on *Recent Challenges in Atmospheric and earth Sciences (RCAES-2014)* held at Department of Chemical Engineering, National Institute of Technology Karnataka, Surathkal during 27th to 30th December 2014.
- **December 2014:** Participated in Pre-Symposium Tutorial on *Hyperspectral Data Analysis and Applications* held during December 07-08, 2014 at National Remote Sensing Centre, ISRO as part of ISPRS Technical Commission VIII Mid-Term Symposium, 2014.
- **September 2014:** Attended Three Weeks DST-NRDMS Sponsored Winter/Summer School Training Programme on *GEOSPATIAL TECHNOLOGY-Significance, Applications and beyond* held during 4th to 24th September, 2014 organized by Department of Earth Sciences (DST-FIST Sponsored) at Annamalai University, Annamalai Nagar, Tamil Nadu.
- **February-March 2014:** Completed advance course Off-campus outreach Certificate program on *Microwave (SAR) Remote Sensing for Natural Resources* conducted by Indian Institute of Remote Sensing (ISRO), Department of Space, Govt. of India during 03rd February 2014 to 29th March 2014.
- **February 2014:** Participated in *National Workshop on SPSS and Statistical Data Analysis* held on 8th & 09th February, 2014 at Faculty of Management Studies, AKS University Satna in collaboration with SPSS South Asia Pvt. Ltd., Bangalore-an IBM Company.
- **January - February 2014:** Participated and successfully completed the three week *NRDMS Geospatial Winter School on Open Source Development of Geospatial Technology* sponsored under NRDMS programme of DST, Govt. of India and jointly organised by the non-profit foundation Open Source Geospatial and Lab for Spatial

Informatics, International Institute of Information Technology, Hyderabad during 27th January-15th February, 2014.

- **December 2013:** Attended *International Workshop on Innovative Learning Tools 2013: ISPRS Technical Commission-VI, Working Group VI/2 with specific emphasis on Earth Resource management* organised by Faculty of Technology, CEPT University, Ahmedabad during December 20-21, 2013.
- **December 2013:** Attended *Pre-Symposium Tutorial on PLANETARY EXPLORATION* conducted at Department of Geo-Engineering & Centre for Remote Sensing, College of Engineering (Autonomous), Andhra University, Visakhapatnam during December 2-3, 2013.
- **November 2013:** Participated one Week AICTE recognized short term course on *Soft Computing through ICT* from 11th November to 15th November 2013 at AKS University, Satna, Madhya Pradesh, India.
- **July 2013:** Contributed as Technical Resource Person in two day workshop on *Frontier's in Geospatial Technology* organised by Dept. of Geography, School of Earth Sciences, Central University of Karnataka, Gulbarga during 1st and 2nd July 2013 sponsored by Karnataka Science & Technology Academy, Govt. of Karnataka.
- **May 2013:** Completed advance course through Off- Campus Outreach Certificate Program on *Geoweb Services-Technology and Applications* conducted by the Indian Institute of Remote Sensing(IIRS),ISRO, Dehradun held during 11th February to 15th March 2013.
- **January 2013:** Attended *13th PLANEX (Planetary Sciences and Exploration Program) on Impacts on Solar System Objects* at CSIR-National Geophysical Research Institute, Hyderabad held during January 6-12, 2013 and completed a short project entitled *Numerical Modelling Using High Performance Computers*.
- **October 2012:** Completed basic course through Off- Campus Outreach Certificate on *Remote Sensing, Geographical Information System and Global Position System* conducted by the Indian Institute of Remote Sensing (IIRS), ISRO, Dehradun held during 06th August to 22nd October 2012.
- **May 2012:** Attended two day National Seminar on *Frontiers of Earth Science Research* organised by School of Earth Sciences, Central University of Karnataka, in association with Mineralogical Society of India during May 5-6, 2012.
- **January 2012:** Participated and Volunteered in two day's Social Business Plan Competition entitled *UTTHAN'12* organised by Faculty of Management Studies, Banaras Hindu University during January 6-7, 2012.
- **October- November 2011:** Undergone one month intensive field training on *Physical Survey & Field Techniques* during October 12th to November 15th ,2011 along with hands on experience with Chain, Compass, Theodolite, Total Station, Plane, GPS Survey techniques from Department of Civil Engineering, Poojya Doddappa Appa (PDA), College of Engineering, Gulbarga, Karnataka.
- **May 2011:** Undertaken three week summer internship program on *Digital Image Processing, Principles of Image Interpretation & Applications of Remote Sensing* during May 10th to 28th ,2011 along with hands on training on ESRI's ArcGIS software's & its extensions(like Spatial Analyst & 3-D Analyst), ERDAS Imagine, AutoCAD, ArcView from Department of Applied Geology, Kuvempu University, Shankaraghatta, Karnataka.

CONFERENCES, SEMINAR AND SYMPOSIA

- **March 2019:** Presented a paper entitled *Countering Challenges of Smart Cities Mission through Participatory Approach* at the International Conference on Smart Cities during March 14-16, 2019 at Department of Civil Engineering, Jamia Millia Islamia, New Delhi -110025, India.
- **January 2019:** Presented a paper entitled *Enhanced Scientific Analysis through Statistical Image Processing Approach* at the International Conference on 2nd International Conference on SMART IOT SYSTEMS: INNOVATIONS IN COMPUTING (SSIC 2019) during January 18-20, 2019 at Manipal University Jaipur (Rajasthan), India.
- **September 2018:** Authored a paper entitled *Base Map Preparation with Multi-Source Database for Urban Landscape Analysis* at the ESRI User Meet 2018 during 11th September 2018 organized by ESRI India User Conference 2018, India.
- **November 2017:** Presented a paper entitled *Innovative Trends in Engineering Science and Management- Presentation on Evaluation and Analysis of Ground Water Quality through Geospatial Technology* at the

International Conference on Innovative Trends in Engineering, Science and Management (ITESM-2017) during 10th to 11th November 2017 organized by MATS University, Aarang, Raipur-493441 (Chhattisgarh), India.

- **November 2017:** Presented a paper entitled *Evaluating solar exergy for alternate energy systems* at the 37th INCA International Congress on Geoinformatics for Carto-Diversity and Its Management during 01st to 03rd November 2017 organized by National Hydrographic Office, Dehradun-248 001, India.
- **October 2017:** Presented a paper entitled *Geospatial Technology for the Urban Health Equity* at the 38th Asian Conference on Remote Sensing during October 23 - 27, 2017 at Hotel-The Ashok, New Delhi, India.
- **October 2017:** Presented a paper entitled *Prospects of Big Data Analytics in Geospatial Sciences* at the 38th Asian Conference on Remote Sensing during October 23 - 27, 2017 at Hotel-The Ashok, New Delhi, India.
- **August 2017:** Presented a paper entitled *Spatio-Temporal Data Analytics in Urban Remote Sensing* at the National Seminar on Recent Trends in Mining Technology and Geosciences held on August 05th, 2017 at National Institute of Technology, Raipur (CG).
- **March 2017:** Presented a paper entitled *Simulation for Feasibility Assessment of Renewable Energy Systems* at the International Conference on Advances in Steel, Power and Construction Technology held during March 22nd to 23rd, 2017 at Hotel Hyatt, Raipur (CG) organized by OP Jindal University, Raigarh (CG).
- **March 2017:** Presented a paper entitled *Mitigating Energy Crisis through Geospatial Technology* at the International Conference on Advances in Steel, Power and Construction Technology held during March 22nd to 23rd, 2017 at Hotel Hyatt, Raipur (CG) organized by OP Jindal University, Raigarh (CG).
- **February 2017:** Presented a paper entitled *GIS Based Solar Energy Potential Map for Southern India* at the International Conference Membrane Technology and Its Application (MemSep-2017) held during February 21st to 23rd, 2017 at Department of Chemical Engineering, National Institute of Technology, Tiruchirappalli 620015, India.
- **February 2017:** Presented a paper entitled *Hyper Temporal Variability Analysis of Solar Insolation* at the International Conference Membrane Technology and Its Application (MemSep-2017) held during February 21st to 23rd, 2017 at Department of Chemical Engineering, National Institute of Technology, Tiruchirappalli 620015, India.
- **March 2016:** Presented a paper entitled *Simulation for Feasibility Assessment of Renewable Energy Systems* at the International Conference on Recent Trends in Engineering and Material Sciences (ICEMS-2016) held during March 17th -19th, 2016 at Jaipur National University, Jaipur, Rajasthan, India. (ISBN No.-978-93-5254-230-7).
- **March 2016:** Presented a paper entitled *Empowering Smart Cities With Energy Supply Models* at the International Conference on Materials Research and Application (ICMRA-2016) held during March 11th -13th, 2016 at CMR Technical Campus, Hyderabad, Telangana, India.
- **February 2016:** Presented a poster/paper titled *Effect of Rainfall Variability on Photovoltaic Energy Production* at the Annual Workshop on Monsoon-2014 and National Symposium on Vagaries of Monsoon organized by Indian Meteorological Society, Pune Chapter held during February 23rd and 24th, 2016 at Indian Institute of Tropical Meteorology, Pune, and Maharashtra, India.
- **March 2015:** Presented a paper titled *Rural Energy Supply Models for Smart Villages* at the National Seminar on Geo-Informatics in Rural Development organized by National Institute of Rural Development & Panchayati Raj, Hyderabad held during March 26-27th, 2015 at Hyderabad, Telangana, India.
- **March 2015:** Presented a paper titled *Remote Sensing Based Vegetation Indices Analysis to improve Water Resources Management in Urban Environment* at International Conference on Water Resources, Coastal and Ocean Engineering (ICWRCOE'15) held during March 12 -14th, 2015 organized by Department of Applied Mechanics and Hydraulics, National Institute of Technology Karnataka, Surathkal, Mangaluru, India.
- **March 2015:** Presented a poster titled *Variability of Monsoons and its Implications to Drifts in Energy Usage* at the Annual Workshop on Monsoon-2014 and National Symposium on Vagaries of Monsoon organized by Indian Meteorological Society, Pune Chapter held during March 02-03rd, 2015 at Indian Institute of Tropical Meteorology, Pune, Maharashtra, India.
- **January 2015:** Presented poster titled *Feasibility Analysis of Smart Solar Grids for Handling Energy Linked Disasters* at Two days Karnataka Science and Technology Academy (KSTA) Conference on "Science and Technology for Disaster Management" organised by School of Earth Sciences, Central University of Karnataka, Kalaburagi (Gulbarga), India during January 30th and 31st, 2015.

- **December 2014:** Presented a paper entitled *Spatial Variation of Surface Energy Fluxes with respect to Land Use Changes across Gulbarga City* at the Indian National Cartographic Association XXXIV INCA International Congress, Hyderabad held during December 16th -18th ,2014 at Hyderabad, Telangana, India.
- **December 2014:** Presented a paper entitled *Computing Building Rooftop Solar Potential for Photovoltaics* at ISPRS TC VIII Mid-Term Symposium on “Operational RS Applications: Opportunities, Progress and Challenges” held during December 9-12, 2014 at Hyderabad, Telangana, India.
- **September 2014:** Presented paper entitled *Statistical Analysis of Land surface Temperature-Vegetation Indexes Relationship through Thermal Remote Sensing* in the International Conference on Green Technology for Environmental Pollution Prevention and Control (ICGTEPC-2014) held at National Institute of Technology, Tiruchirappalli, Tamil Nadu, India during 27th -29th September 2014.
- **September 2014:** Presented paper entitled *Transition and Transect in Geospatial Science & Engineering* in National Conference on Emerging Trends of GIS & Remote Sensing in Modern Engineering organized in association with Chhattisgarh Council of Science and Technology (CGCOST) Raipur, Chhattisgarh, India during 14th -15th September, 2014.
- **August 2014:** Presented paper entitled *Overview of open Source Virtual Learning Environment for Scientific Research* in National Conference on Integrating ICT in Academic Libraries: Making a Difference in Knowledge Age organised by Central Library, Central University of Karnataka, Gulbarga, India during August 12-13th, 2014.
- **February 2014:** Presented paper entitled *Dynamics of Urban Heat Pattern in Urban Environments* at National Conference of Union of Geographic Information Technologists (UGIT) organised by Department of Geography, School of Earth Sciences, Central University of Karnataka, Gulbarga, India held during February 14-15, 2014.
- **January 2014:** Presented poster titled *Renewable Energy Potential Assessment through Geospatial Modelling Techniques* at Two days Karnataka Science and Technology Academy (KSTA) Regional Conference on “Science and Technology for Development” organised by School of Earth Sciences, Central University of Karnataka, Gulbarga, India during January 30th and 31st , 2014.
- **December 2013:** Presented paper entitled *Modelling Solar Energy Using Geospatial Technology* at International Conference on Geospatial Momentum for Society and Environment (AGSE 2013) organised by Faculty of Technology, CEPT University, Ahmedabad, Gujarat India during December 16-19, 2013.
- **December 2013:** Presented paper entitled *Geoinformatics Tools and Techniques for Regional Renewable Energy Assessment and Management* in the National Symposium on Remote Sensing and GIS for Environment with special Emphasis on Marine and Coastal Dynamics held Andhra University, Visakhapatnam, Andhra Pradesh, India during December 2-3, 2013.
- **December 2012:** Presented Paper entitled *Geospatial Analysis for Water Conservation Structures in Gulbarga, Karnataka, India* in International Conference on Sustainable Water Resource Development and Management organised by Department of Environmental Science, Shivaji University, Kolhapur, Maharashtra, India during December 20-21, 2012.