

Curriculum Vitae

Amba Shetty , PhD
Associate Professor
Dept.of Applied Mechanics and Hydraulics
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Professional Education

- **PhD, Water Resources and Remote Sensing**

Dissertation Title: Spatial Hydrological Modelling using Remote Sensing and GIS
National Institute of Technology, Karnataka, 2006

- **Mater of Technology , Hydraulics and Water Resources Engineering**

Thesis Title: Stress Analysis of a Gravity Dam using Finite Element Method,
1992
National Institute of Technology, Karnataka (Formerly KREC, Surathkal)

- **Bachelor of Engineering, Civil**

National Institute of Technology, Karnataka (Formerly KREC, Surathkal), 1990

Technical Areas of Specilisation

Hydraulics, Water Resources Engineering, Surface water Hydrology, Remote Sensing, GIS

Research Interests

- Hydrological Modelling
- Remote sensing and GIS application in:

Surface and Ground water,

Soil, Vegetation and land use, land cover characterization

Work Experience

From	To	Designation
7.2.2009	To date	Associate Professor
7.2.2006	7.2.2009	Assistant Professor
1 st March 2000	6/02/2006	Senior Lecturer
1 st March 1995	29 th Feb 2000	Lecturer
7 th May , 1992	28 th Feb 1995	Lecturer at Manipal University, Manipal

Courses Taught

- Engineering Mechanics (I Sem B.E)
- Strength of Materials (II Sem BE)
- RS and GIS applications in Water Resources (I semM.Tech, HWRE)
- RS and applications in Coastal Engineering (I semM.Tech, MS)
- Remote Sensing and Photogrammetry (I Sem M.Tech RS & GIS)
- Introduction to GIS (I Sem M.Tech RS & GIS)
- Advanced GIS (II Sem M.Tech RS & GIS)
- Geographic Information System (IV year E &E, E&C, Comp, Civil)
- Satellite Digital Data Analysis (IV year E &E, E&C, Comp)

Awards and Fellowships

- **Eighth Rank** to Mangalore University in BE (Civil)
- **Govt.of India Scholarship** for M.Tech studies
- **DAAD Fellowship** to attend Summer school in Germany : Summer school 2009 held at Kiel Germany during the period Sep 15, 2009 to Sep 30, 2009 on “ Field Methods and eco-hydrological models for integrated water management in rural areas
- **Best Paper Award** for the paper titled Utility of Hyperspectral Data for disease detection in Arecanut Palms in National Conference on furthering aspiration in Civil Engineering Techniques organised by Dept.of Civil Engineering Kannur, Kerala – Authored by Megha, Bhojraj **Amba Shetty** and Nagaraj M.K

Professional Memberships

- Life member of Indian Society of Technical Education (LM 24984)
- Life Member Indian Society of Hydraulics (LM/ 463)
- Life Member Indian Society of Photogrammetry and Remote Sensing (LM- 2683)
- Life Member Indian Society of Geomatics (IGS) (ISG-L-708)
- Life Member Institution of Engineers (IE) (M 128599-2)

Research & Development Activities

1. Sponsored R & D Projects

1. Co-investigator in the project titled estimation of ground water recharge using RS and GIS tools sponsored by MHRD (Dr. Lakshman Nandagiri was the Principal Investigator) (2001-2003)
2. Co-investigator in the project titled “ Integrating Remote Sensing data GIS and Hydrological Modelling for assessment of rural water supplies” sponsored by Indian Space Research Organization (ISRO) (Dr. Lakshman Nandagiri was the Principal Investigator) (2002 -2005)
3. Co-investigator in the project titled “ Watershed characterization using parallelly processed remote sensing data “ sponsored by CDAC Pune (Dr. M.C.Narasimhan was the Principal Investigator) (2001- 2003)
4. Principal Investigator in the project titled “ Modernisation of Remote Sensing and GIS lab” sponsored by MHRD (2004- 2005)

Details of the Project

i)

Sponsoring Agency	Title of Project	Amount of Grant	Period	Investigators
Min.of HRD, Govt.of India	Catchment Scale groundwater recharge estimation using RS & GIS inputs (Thrust Area Project)	Rs.10 lakhs	April 2001- April 2003	Lakshman Nandagiri –PI Amba Shetty- Co-PI

Description: Project involved setting up of GIS laboratory in Department and upgrading facilities for remote sensing analysis. Necessary hardware and software for GIS and RS were procured and installed. Faculty and students have been trained in these frontier areas of research.

ii)

Sponsoring Agency	Title of Project	Amount of Grant	Period	Investigators
Min.of Information Technology Govt.of India (CDAC)	Watershed characterization using parallelly-processed multi-band RS data	Rs.1.5 lakhs	2001-2003	Lakshman Nandagiri-PI MC Narasimhan – Co-PI Amba Shetty – Co-PI

Description: Project involved development of algorithms for analysis of digital remote sensing data on PARAM 10000 supercomputer. The developed parallel algorithms can be used to determine various physical characteristics of a watershed for use in management of natural resources.

iii)

Sponsoring Agency	Title of Project	Amount of Grant	Period	Investigators
Indian Space Research	Integrating Remote Sensing Data, GIS and	Rs.10 lakhs	Ongoing (2002-05)	Lakshman Nandagiri-PI Amba Shetty – Co-PI

Organization /RESPOND Hydrological Modelling for assessment of rural water supplies

Description: Project involves development of a modeling system for assessment of available water resources at micro-scale within a watershed using remote sensing data of Indian satellites and GIS techniques. Water demands within the watershed can also be assessed to identify areas of water deficit and water surplus, information that will be useful in planning rural water supply projects.

iv)

Sponsoring Agency	Title of Project	Amount of Grant	Period	Investigators
Min. of HRD, Govt. of India	Modernization of Remote Sensing & GIS Laboratory (MODROB)	Rs.21 lakhs	Ongoing (2004-06)	Amba Shetty- PI Lakshman Nandagiri – Co.PI

Fund was completely utilized to upgrade the facilities of the Remote sensing and GIS laboratory.

v)

Madhav Gadgil et.al. Participatory local level assessment of life support systems: A methodology manual, Tech. Report No.78, Centre for Ecological Sciences, Indian Institute of Sciences, Bangalore, India.2000.

2.Doctoral Thesis Supervision

Awarded

- 1.Runoff Dynamics in Tank Catchments and Strategy for Tank Managements A case study from the Varada River Basin in Subtropical Region of South India (Dr. Tejaswini, 2013)
- 2.Measurement and Prediction of top soil chemical properties using remote sensing (Dr. Binny Gopal, 2014)

Ongoing

1. Arecanut crop Health monitoring using Hyperspectral Remote Sensing data (Mr. Bhojraj) Co-Guide : Prof .M.K.Nagaraj , Dept. of Applied Mechanics
2. Impact of Land cover change on the Hydrological regime- A case study of Giba Catchment Ethiopia (G.Kiros Hailu) Co-Guide : Prof. Lakshman Nandagiri
3. Assessment of Ground water Quality using Source Apportionment and multivariate statistical Techniques (Mr. Shahid)
4. Influence of Oceanic parameters on Coastal Rainfall (Vinay D.C.)
5. Role of Preprocessing Techniques on the Predication Accuracy of topsoil Chemical Properties retrieved from Hyperspectral Data (Ms.Minu)
6. Land use system Modelling using Bottom up Approach (Suparno Ghosh)
7. Remote Sensing Data classification using Soft computing Techniques (Ashwin)
8. Digital Soil Mapping (Vinod) Co guide : Prof. S.Srihari, Civil Engg.

2.Masters Student Thesis Supervision

M.Tech (By Research)

Awarded:

Prediction of Soil Organic Carbon content using Using Hyperspectral Remote Sensing (Chaya , 2014)

Ongoing

- 1.Mineral detection and Mapping using Hyperspectral Data (Chandan)
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2. Evaluation of Algorithms for Soil Properties Retrieval using Hyperspectral Data (Ramesh) Co guide : Dr. Ramesh, Dept.of Applied Mechanics

M.Tech (Regular)

Awarded:

- 45.Spatio Temporal Analysis and Receptor Modelling of Groundwater Quality of Greater Bangalore using Multivariate Statistical Techniques & GIS (Varada, 2014)
- 44 Land Use/Cover Change Modelling using Land Change Modeller (Harith, 2014)
- 43 Comparison of Atmospheric Correction Algorithms on Eo-1 Hyperion Data for mineral studies (Alina, 2014)
- 42 Classification of Satellite Images by Black Propagation Neural Network and K-means Algorithm (Priyamitra , 2014)
- 41 Modelling of top soil Nitrogen and Iron Oxide using hyperspectral data and ANN (Ramya , 2013)
- 40 Rubber stock Volume prediction using remote Sensing data (Pratima, 2013)
- 39 Influence of Sea surface temperature on Mangalore Rainfall (Chenju Prince, 2013)
- 38 Python script for landslide susceptibility Mapping (Priyank , 2013)
- 37 Arecanut crop Discrimination and Age prediction using Hyperspectral Remote sensing (Manju, 2013)
36. Disease detection of Arecanut crops using Hyperspectral Remote sensing (Megha, 2013)
- 35 GIS enabled Construction Management (Atul Balan , 2012)
34. Image Change Detection Algorithms using Matlab : A comparative study (Minu, 2012)
33. Prediction of Soil Organic Carbon from Visible Spectroscopy (Abhiya, 2012)
32. Assessment of Areal growth of Rubber Plantations and its age in Dakshina Kannada using remote sensing (Vinaya, 2012)
31. Residential Real Estate Development using GIS Technique (Shilpa , 2011)
30. An Investigation on use of Digital camera as a tool to measure Organic matter of Coastal soil (Suraj, 2011)
29. Spatial and temporal change studies of Western Ghats of Karnataka using Remote Sensing (Swetha D, 2011) Co guide : Prof. M.K.Nagaraj

28. Estimation of soil parameters using Geostatistical Techniques (Jayaprakash, 2011) Co guide : Prof. M.K.Nagaraj
27. Characterization of soil physical properties using spectral reflectance (Bhojraj, 2011)
26. Assessment of Areal growth of Arecanut Plantations in Dakshina Kannada using Geostatistics (Chethan, 2011)
25. Urban Sprawl studies of Mangalore City using Remote Sensing and GIS (Vandan Pinto, 2011)
24. Urban Sprawl Assessment of Mangalore City using RS and GIS (Sujay, 2010)
23. Integrated Evaluation of Urban Development Suitability based on GIS technique (Chandrashekhar , 2010)
22. Performance Analysis of Conventional Classification Algorithms for Land use land cover mapping (Umesh, 2010) Co guide: Prof. Lakshman Nandagiri
21. GIS enabled Decision making for Real estate Investment in Udupi City (Deepak, 2010)
20. Investigation on performance evaluation of Rainfall Interpolation Algorithms (Bilu , 2010)
19. Seismic Analysis of Rubble Mound Breakwater (Nagaraj G, 2009) Co guide, Prof. Babu Narayan
18. Geostatistical analysis of Water quality Parameters (Shahid , 2009)
17. Peak Flow Estimation using GIS Techniques (Ravi Kishore , 2009)
16. Real Estate Information System (Nayan Mulki , 2009)
15. Change in Land Cover Composition over Mangalore City Corporation Area using RS data (Ms. Pratibha, 2009) (Msc Remote Sensing)
14. Finite Element Analysis of Breakwater (Shivaraju , 2008) (MS
13. Groundwater Prospective Mapping – A GIS Based Index Model Approach by Padmini R. (2007)
12. Evaluation of pedotransfer functions – A comparative analysis (Rajashekhar Reddy , 2006) (Co-guide)
- 11 Predictions of streamflow in ungauged basins – A systematic approach (G. Ravikumar, 2005)
10. Distributed hydrological modelling using Remote Sensing and GIS (Rajesh M.V.S, 2004) Co guide
9. Experimental Characterization of unsaturated hydraulic properties of lateritic soils of coastal Karnataka by (S.B. Boregowda, 2004)
8. Integrating Remote sensing data GIS and Hydrological modelling by (Siva Kumar Y.V , 2004)

7. Identification of ground water rechargeable areas using remote sensing GIS (Venkata Reddy , 2004)
6. Geomorphological studies of Seetha Swarna estuary using Remote Sensing techniques (Suresh , 2004)
5. Experimental studies on the mobile prisms for discharge measurements in open channels (Venkatakrishna J, 2003) (Co- guide)
4. Application of a physically based hydrologic model to a tropical river basin by (AVS Murali Mohan, 2003)
3. Performance evaluation of Pedo-transfer functions across soil textures (J. Vijayalatha, 2002) (Co-guide)
2. Estimation of Unsaturated Hydraulic properties using artificial Neural networks (Somnath Kori , 2001) (Co-guide)
1. Assessment of aquifer parameters and water quality around KREC Campus (Srinivas G., 2000)

Ongoing :

1. Hyperspectral Index for Arecanut crop disease identification (Hredya)
2. 4D modeling for Construction management (Yadhukrishnan)
3. Fuzzy Techniques in Remote Sensing data classification (Anitha,)

Industrial Consulting

1. Routine Testing of materials used in the construction industry in (Tension, Compression, Bending and Hardness)
2. Routine Pressure gauge calibration from the hospitals
3. Routine Watermeter Calibration from the Industry
4. 2007, Design of Surface Drainage system for Chitrapur area, Mangalore, Asha City Builders and Developers (PI : Prof. Lakshman Nandagiri)
5. Ongoing Institute Project: Design of Treated water Distribution System

Publications

International Journals

- 2014** 6. Chandan Kumar, **Amba Shetty**, Simit Raval Richa Upadhyay , P. K. Champatiray, , Subpixel Mineral Mapping Using EO-1 Hyperion Hyperspectral Data (2014) The international Archives of the Photogrammetry , Remote Sensing and Spatial Information Sciences, Volume XCL-8, 2014
Doi:10.5194/isprsarchives XL-8-455-2014
5. Gopal, B., **Shetty, A**, Ramya, B. J. (2014). “Prediction of topsoil nitrogen from spaceborne hyperspectral data”. Geocato International, Taylor and Francis publications, **doi: 10.1080/10106049.2014.894585. IF=0.9**
- 2013** 4. Gopal, B. and **Shetty, A**. (2013). “Evaluation of topsoil iron oxide from visible spectroscopy”. International Journal of research in engineering and Technology, 2(12), 670-673. ISSN: 2321-7308
- 2012** 3. Anusha Gururaj and **Amba Shetty** “Land Cover Change Detection using Change Vector Analysis in Matlab” IPCSIT vol.58 (2012) IACSIT Press, Singapore **doi:10.7763/IPCSIT.2012 V.58.7**
- 2011** 2. Tejaswini N.B., **Amba Shetty** and Hegde V.S . Land use Scenario analysis and Prediction of Runoff using SCS-CN Method: A case study from the Gudgudi Tank, Haveri District, Karnataka, India . International Journal of Earth Sciences and Engineering ISSN 0974-5904, Vol. 04, No. 05 October 2011, pp. 845-853
1. Tejaswini , **Amba Shetty** , V.S.Hegde “Spatial variation in Drainage characteristics and geomorphic instantaneous unit hydrograph : Implications for watershed Management – A case study of Varada River basin, Northern Karnataka” Elsevier Publications Catena 87 (2011) 52-49 **IF = 2.482**

National Journals

2015

1. Binny Gopal, Amba Shetty, Jayaprakash and D.Y Chaya "Spatial variability of topsoil chemical properties" "Indian Journal of Agricultural Research" (NAAS Rating 3.86) Print ISSN : 0367-8245 Online ISSN : 0976-058X

2011 1. Chethan S, **Amba Shetty** "Satellite Imagery for Assessing Growth in Area of Arecanut Plantations in Dakshina Kannada" Indian Journal of Arecanuts, Spices & Medicinal Plants Vol.13 No.3 July-Sept, 2011 pp 25-31

2006. 2. Lakshman Nandagiri., Bore Gowda, S.B., and **Amba Shetty.** (2006). In-situ characterization of unsaturated soil hydraulic properties of a laterite soil profile in coastal Karnataka. ISH Journal of Hydraulic Engineering. Vol.12, No.1. pp. 87-98 ISSN 0971-5010 **DOI: 10.1080/09715010.2006.10514819**

2005. 3 **Amba Shetty,** Lakshman Nandagiri, Sangeetha & Rajesh, M.V.S. (2005). "Land use Land cover mapping using satellite data for a forested watershed Udupi district, Karnataka State India". Journal of the Indian Society of Remote Sensing, Vol.33, No.2. SSN: 0974-3006 **IF = 0.528**

International Conferences

8. B.E. Bhojaraja, , Gaurav Hegde, U. Pruthviraj, **Amba Shetty,** M.K. Nagaraj "Mapping Agewise Discrimination of Arecanut Crop Water Requirement Using Hyperspectral Remote Sensing" Aquatic Procedia Volume 4, 2015, Pages 1437–1444

2015. 7. Minu S. and **Amba Shetty** "A comparative study of change detection algorithms in MATLAB" Aquatic Procedia Volume 4, 2015, Pages 1366–1373

2013. 6. Amba Shetty, Abhiya Abbas Mundol and Minu S “ Effect of Spatial Resolution on Soil Erosion Patterns – A GIS Approach” 3rd International Engineering Symposium IES 2013, March 4-6, 2013, Kumamoto University, Japan

2012 5. Anusha Gururaj and **Amba Shetty** “Land Cover Change Detection using Change Vector Analysis in Matlab” International Conference on Signal Processing Systems ICPS 2012) IPCSIT vol.58 (2012) held in Malasia

4. Ravi Kumar Ganti and **Amba Shetty** “ Prediction of streamflow in ungauged Basins – A comprehensive Framework” Abstract accepted to American Geophysical Union – 2012 Fall meeting held in San Francisco

2009 3. Amba Shetty and Shahid “Geostatistical Analysis Of Groundwater Quality In Coastal Karnataka” Presented in Kiel Germany as part of the Summer school 2009 held at Germany Kiel during the period Sep 15 , 2009 to Sep 30 , 2009, on “Field methods and eco-hydrological models for integrated water management in rural areas “

2008 2. Amba Shetty , Lakshman Nandagiri and Padmini R “Groundwater Prospective Mapping: Remote Sensing and a GIS Based Index Model Approach” “ Presented in the International SPIE Asia Pacific Remote Sensing conference held at Noumea , New Calidonia during the period 17th Nov. to 22nd Nov. 2008
DOI:10.1117/12.810012

DOI:

2002 1. Lakshman .Nandagiri, **Amba Shetty** & Somanth Kori. Pedo Transfer Functions- An exploration using artificial neural networks. International Groundwater Symposium 2002, 25-28 March 2002, Berkely, USA

National Conferences

2015 19, Alina Nero , Amba Shetty and Chandan Kumar “Comparison of Atmospheric Correction Algorithms on Hyperion Data for Mineral study” Proceedings 27th Session Kerala Science Congress held in ALAPPUZHA , 27th–30th January 2015

2014. 18.Bhojaraja B E,**Amba Shetty**,Nagaraj M K “An Integrated Approach For Arecanut Crop Health Monitoring “ Proceedings of HYDRO 2014 International Conference on Hydraulics, Water resources & Environmental Engineering. (Dec. 18-20th, 2014) held at Bhopal

17. Megha V, B.E Bhojaraja **Amba Shetty** , M.K Nagaraj “Utility of Hyperspectral Data for Disease Detection in Arecanut Palms” National Conference on furthering Aspiration in Civil Engineering Techniques t organized by Dept. of Civil Engineering, Government College of engineering, Kannur, Kerala 26-27 th June 2014. **It got the Best Paper Award**

16.Varada V, Mohammad Shahid and **Amba Shetty** “ Ground Water Quality Asessment using Multivariate Analysis “ Proceedings of the First Annual Conference on Innovations and developments in Civil Engineering held in NITK Surathkal 19-20 May, 2014

2013.

15. Chaya D.Y. and **Amba Shetty** “ Atmospheric Correction Modules on EO-1 Hyperion Data “ National Conference on New Horizons in Civil Engineeing, April 12-13, 2013 at MIT ., Manipal

14. Ramya B.J., **Amba Shetty**, Nagaraj M.K., and Swetha D “ Spatial and Temporal Change studies of Western ghats region in Karnataka state using Remote Sensing Data” National Conference on New Horizons in Civil Engineeing, April 12-13,2013 at MIT ., Manipal

13. Priyamitra and **Amba Shetty** “ Solar Radiation Mapping of Karnataka using Remote Sensing and GIS” National Conferene on Emerging Trends in Environment and Energy Management (NCEEM- 2013) organized by Shri Madhwa Variraja Institute of Technology and Management August 12- 13, 2013

2012 12. Suparno Ghosh and **Amba Shetty** “A Conceptual Framework to Model Sustainable Land Management Using Remote Sensing and GIS” National Seminar on Managing Land Resources for Sustainable Agriculture held at NBSS & LUP Nagpur during during 12th - 13th October 12.

2010 11. Gumageri Nagaraj, Babu Narayan and **Amba Shetty** “ Seismic Analysis of Rubble Mound Breakwater using FEM “ International Conference on Earth Sciences and Engineering held at 21 st August 2010 at Hyderabad

2008 10. **Amba Shetty** and Madhukara K Shetty Presented a technical paper titled “ An overview of GIS applications in Mining Sector “National Seminar on “ Synergy in Mineral sector for Sustainable Development Vision 2020” during the period 4th to 6th October 08.

2005 9..Lakshman Nandagiri & **Amba Shetty**. (2005). Predictions in Ungauged Basins: An Opportunity and Challenge for Bridging the Gap between Hydrologic Science and Practice in India. Accepted for presentation & publication in the IWMI-TATA Annual Partners’ Meet, Anand, 24-26th February 2005.

2004 . 8.. Bore Gowda S.B; Lakshman Nandagiri; and **Ambha Shetty** (2004). “Use of Time Domain Reflectometry to Characterize Unsaturated Soil Hydraulic Conductivity of a Sandy Lateritic Soil Profile on the West Coast of India”. ICON-HERP-2004, 26-28 Oct 2004, IIT Roorki.

7.. Lakshman Nandagiri; **Amba Shetty**; and Rajesh, M.V.S.(2004). “A Hydrologic Model with Identifiable Parameters for Predictions in Ungauged Basins”. PUBSWRPM-2004 30th October 2004, BITS Pilani

2003

- 6.. Lakshman Nandagiri & **Amba Shetty**. Estimation of Catchment scale Irrigation Water Requirements using Remote Sensing and GIS Techniques. Proc. of National Conference on ‘Integrated Sustainable Water Resources Planning and Management’, Birla Inst. of Tech. & Sci., Pilani, Oct. 11-12, 2003.
- 5..Lakshman Nandagiri & **Amba Shetty**. Stream flow Estimation from Rainfall – A Comparison of Statistical and Artificial Neural Network Approaches. Proc. of International Conference on ‘Water and Environment’, Bhopal, 15-18 Dec. 2003
- 2002 4.. **Amba Shetty**, Venkat Reddy K and L. Nandagiri. Classification of potential ground water recharge zones using Remote sensing and GIS, Proceedings of National Conference on Hydraulics, Water Resources & Ocean Engineering HYDRO 2002.
- 2001
3. **Amba Shetty**, L.Nandagiri & Venkatakrishna J. Experimental studies on the use of trapezoidal mobile prisms for discharge measurements in open channels. Proceedings of Conference on Recent advances in Hydraulics & Water Resources Engineering, HYDRO2000, REC, Allahabad Feb.2001
2. . **Amba Shetty**, L.Nandagiri & T Suresh Kumar. Evolution of geomorphology in the Seetha-Swarna estuary identified using remote sensing data. Proceedings of Conference on Recent advances in Hydraulics & Water Resources Engineering, HYDRO2000, REC, Allahabad Feb.2001.
- 1.. **Amba Shetty**, L.Nandagiri & Rahim Khan. An algorithm for designing a precipitation network- A case study. Proceedings of HYDRO 2001, 6-7 Dec. 2001, Pune.

Book Chapters

3. Lakshman Nandagiri & **Amba Shetty** , MVS Rajesh (2006) . A Hydrological Model with identifiable parameters for predictions in ungauged basins. In predictions in Ungauged basins for Sustainable Water Resources Planning and Management Raju K.S (Ed.) Jain Brothers 53-61
- 2 . L. Nandagiri & Amba Shetty (2004) Estimation of Catchment Scale Irrigation Water Requirements using Remote Sensing and GIS Techniques. In Integrated Wqater Resources Planning and Management Raju K.S etal (EDs) Jain Brothers 137-144
1. L. Nandagiri & Amba Shetty (2003) Streamflow Estimation from Rainfall – A comparison of Statistical and Artificial Neural Networks . In Advances in Hydrology Singh V.P and R.N YAdava (Eds.) Allied Publishers, Pvt. Ltd 253-257

Courses / Events Organized

- 7 Two days workshop on “Geoinformatics for Natural Resources Management” sponsored by Karnataka Science and Technology Academy was organized during January 30-31st **2013** for the benefit of Science teachers sponsored by Karnataka Science and Technology Academy
- 6 Organised visit of Prof. George Hormann and his teams from Kiel University Germany to NITK Surathkal and arranged number of lectures in the area of water resources quantity and Quality modelling **2011** sponsored Institute Expert Lecture Series Fund
- 5 Organised visit of Prof. Gooverts , University of Florida - visit to NITK and other Institutes nearby . Arranged number of lectures and interaction with the students in the area of Environmental Geostatistics sponsored Institute Expert Lecture Series Fund , **2009**
- 4 Coordinator for the refresher course on “Computer Aided Analysis Design and detailing of Structures” held during the period 25th August to 29th August **08**. Sponsored by KERS Mysore

- 3 .Awareness program on Remote Sensing Applications for students and high school teachers (**2008**) sponsored by RRSSC , Bangalore
2. One Day Workshop on STADD PRO for students of Civil Engineering Association, sponsored by CEA, NITK , **2007**
1. Short term Program (5 Days) on Principles of GIS for the engineers of Irrigation Dept. and Public Works , **2007**

Training Received

Year	Nature of Training	Duration	Organization where training was provided
2011	Digital Image Processing and Analysis for Remote Sensing QIP programme held at IIT Bombay during July 18-22, 2011	5	IIT Bombay
2011	Fuzzy logic, Genetic Algorithm with Wavelet transformation in Civil Engineering shortterm training programme held during 27 th June to 1 st July, 2011 at NITK Surathkal	5	NITK
2010	Geographic Information System and Applications QIP short term course on Geographic Information System and Applications conducted by IIT Bombay during July 05-09, 2010	5	IIT Bombay
2010	Geostatistical analysis of Environmental Data training course jointly organized by University of Florida and International Crops Research Institute for the Semi Arid tropics during the period 5-9 April 2010, ICRISAT, India	5	ICRISAT, India
2010	Dale Carnegie MISSION 10 X training Programme on “ High Impact Teaching Skills” on the 17 th and 18 th May 2010	2	NITK
2010	Summer School of Effective Teaching Methodologies- Statics Organised by Dept. of Applied Mechanics and Hydraulics 10-14 th May 2010		NITK

Workshosp Attended

Year	Conferences / Seminars /Workshops attended	Organization
2015	Data Science (Feb, 27 th and 28 th , 15)	NITK Surathkal
2015	Soil and Water Networking National Workshop (Jan 4 th to 7 th , 15)	IIT Kharagpur and University of Sydney Australia
2013	One day Workshop on Workplace Sensitisation 22nd Nov, 2013	NITK
2013	ASI- SBN Conference 2013 ISRO Satellite Centre , April 17-18, 2013	ISRO, Bangalore
2013	Water Proofing and Water Harvesting	IE, Kodagu , Dakshina Kannada and Udupi Engineers Association
2013	Disaster Management of Floods and Consequences thereof in Coastal Region and Food and Water Security	NITK and IE , Mangalore
2012	GNSS USER MEET -2012 at ISRO Satellite Centre, Bangalore on February 23, 2012.	--ISRO, Bangalore
2012	Conservation of Water Resources of West Flowing Rivers in Coastal Karnataka 14-15 Dec. 2012	NITK
2010	International Conference on Earth Sciences and Engineering, ICEE 2010	CAFET, INNOVA Technical Society

Visits Abroad

Organization	Nature of work	Period
Kumamoto University Japan	Symposium	3 Days (2013)
Kiel, Germany	Training on Field methods and eco-hydrological models for integrated water management in rural areas Hands on training on open source softwares , Simulattion project including report and presentation	2 weeks (Sept, 2009)
New Calidonia , IRD cell	Discussion on Remote sensing , GIS and watershed management	2 days (Nov, 2008)
The University of Western Australia, Perth	Interaction with Remote sensing , GIS , Water resources specialists in the Dept	5 days (Non-Dec) 2008
Nanyong Technological University, Singapore	Interaction with Remote sensing , GIS , Water resources specialists in the Nanyong, University of Singapore and Centre for Remote Sensing and Processing	1 month May- June 2008