A.M.Ramiya

Assistant Professor · Remote Sensing

Department of Earth and Space Sciences, Indian Institute of Space Science and Technology, Department of Space, ISRO,Valiamala P.O. Thiruvananthapuram 695547 Kerala India

(+91) 9995450253 | ramiya@iist.ac.in | https://www.iist.ac.in/ess/ramiya | Ramiya Anandakumar

Education

PhD in Remote Sensing — *Thiruvananthapuram*

Indian Institute of Space Science and Technology — *2016*

- Thesis: 3D Semantic labelling of urban LiDAR point cloud and multispectral data
- Supervisors : Dr. Rama Rao Nidamanuri and Dr. R. Krishnan
- External Examiners: Prof Arthur P Cracknell (University of Dundee, UK) and Prof Manoj K Arora (Vice Chancellor, PEC)

Masters in Remote Sensing and Spatial Analysis — *Southampton, UK*

University of Southampton — *2008*

- Thesis: Effect of atmosphere on object oriented segmentation for land cover classification
- Supervisors : Prof E. J. Milton
- **Full Scholarship by Commonwealth commission of UK and Govt of India.**

B. E. GeoInformatics — *Chennai, India*

College of Engineering, Guindy. Anna University — *2006*

- Thesis: Estimating the area of Vaigai reservoir – a sub-pixel approach
- Supervisors : Prof S Sanjeevi

Professional Positions

Assistant Professor — *Department of Space, Thiruvananthapuram*

Indian Institute of Space Science and Technology — *Dec 2017 - Present*

Reader — *Department of Space, Thiruvananthapuram*

Indian Institute of Space Science and Technology — *July 2009 - November 2017*

Junior Research Fellow — *Thiruvananthapuram*

National Centre for Earth Science Studies — *March 2009 - July 2009*

Software Engineer — *Bangalore*

Infosys Technologies Ltd — *May 2006- July 2007*

Honors & Awards

Prestigious Commonwealth Scholarship — *2007*

- For Masters program in Remote Sensing
- Govt of UK and Govt of India

Best Masters Student Poster — *New Forest, UK*

Annual Student Meeting of Remote Sensing and Photogrammetry Society — *2008*

- River Depth mapping using Airborne Imaging Spectrometry

RSPSoc Travel Brusary — *Exeter, UK*

2008

- To attend RSPSoc 2008

Best Student Paper Presentation — *New Delhi*

MAPINDIA,International Conference on Remote Sensing, GIS and Photogrammetry — *2006*

- Optimal Route Analysis for Solid Waste Disposal Using GIS

Best Poster Award — *Killikulam*

Seminar on Wasteland Development — *2004*

- Wasteland Development using Remote Sensing and GIS

Externally Funded Projects

Integrating air and space borne spectroscopy and laser scanning to assess structural and functional characteristics of crops and field margin vegetation

- One of projects in the network based Indo-German consortium research projects "The Rural-Urban Interface of Bangalore: A Space of Transitions in Agriculture, Economics, and Society"
- Funding agency: Department of Bio Technology
- Total fund : 200 Lakhs.
- Co Investigator for the project. PI: Dr. Rama Rao Nidamanuri (IIST) and Dr Sunil Nautiyal (ISEC Bangalore).
- The project aims at developing a methodology for fusion of ground and airborne/space-borne hyperspectral and LIDAR remote sensors for regional level large scale assessment of the spatio-temporal dynamics of cropping systems.
- Duration : 3 years 2016-2019

CityGML based 3D models for smart cities in India using LiDAR point cloud

- Funding agency: DST -NRDMS
- Principal Investigator
- Total Fund : 40 Laks
- The main objective of this research project is to develop a methodological approach for creating a spatio-semantic LOD2 based 3D city model for Kochi and analyse the applicability for urban flood
- Duration : 2 years
- Project status: Recommended

3D Reconstruction of Koyikkal Palace, Nedumangad using LiDAR data

- The aim of this study is to develop algorithms for manmade planar structures such as buildings and natural resources such as trees.
- Funding agency: DST -NRDMS

Estimation of tropical forest biophysical parameters using UV and NIR reflectance from GOSAT TANSO – CAI sensor.

- The aim of this study is to arrive at an improved VI which utilises the UV band (370-390nm) for better bio-physical parameters estimation and improved understanding of use of UV band in vegetation classification.
- Funding Agency: JAXA/ NIES/ MoE (Japan) Won in an international competitive bidding by JAXA Amount: access to data acquisition, software and validation support PI: Dr. Rama Rao Nidamanuri.

Academic Projects

3D semantic labelling of urban LiDAR point cloud and multispectral data

- The overall aim of this study is to develop an efficient and reliable algorithmic framework for semantically labelling 3D coloured LiDAR point cloud (point cloud with spectral data integrated) acquired over an urban environment using computer vision techniques in an open source prototype system.
- A novel 3D object-based framework for semantically labelling the 3D coloured LiDAR point cloud obtained by integrating LiDAR point cloud and multispectral imagery was developed.
- To improve the efficiency of the algorithm while processing highly dense point cloud, a computationally efficient supervoxels-based LCCP (Local Cloud Connectivity Patches) segmentation approach has been adapted and extended for creating meaningful segments from the point cloud.
- The study also critically assess the role of spectral and geometrical information in the various stages of object-based point cloud labelling, namely, segmentation, feature extraction, and classification.
- This study was carried as part of doctoral thesis.

Integrating air and space borne spectroscopy and laser scanning to assess structural and functional characteristics of crops and field margin vegetation

- One of projects in the network based Indo-German consortium research projects "The Rural-Urban Interface of Bangalore: A Space of Transitions in Agriculture, Economics, and Society"

- Funding agency: Department of Bio Technology: Total fund : 200 Lakhs.
- Co Investigator for the project. PI: Dr. Rama Rao Nidamanuri (IIST) and Dr Sunil Nautiyal (ISEC Bangalore).
- The project aims at developing a methodology for fusion of ground and airborne/space-borne hyperspectral and LIDAR remote sensors for regional level large scale assessment of the spatio-temporal dynamics of cropping systems.
- Duration : 3 years

Individual Tree detection using airborne LiDAR data.

- This study compares two different machine learning approaches: point based method and supervoxel based approach for individually delineating tree canopy clusters in urban green spaces from airborne LiDAR dataset.
- In collaboration with Dr. Beril Sirmacek and Dr. Roderik Lindenbergh of TUDelft.

Fusion of hyperspectral and LiDAR data

- 3D Species level classification using hyperspectral image data and LiDAR point cloud.
- Fusion of LiDAR DSM and hyperspectral data for land cover classification.

3D Reconstruction from LiDAR point cloud

- The aim of this study is to develop algorithms for manmade planar structures such as buildings and natural resources such as trees.

3D Digital heritage mapping

- Preserving the architectural marvels of the country in this digital era gained momentum with recent scientific initiatives of the Government on Digital Heritage Mapping.
- The digital documentation helps in preserving the engineering skills of our ancestors and can act as a testimony to the civilization of the past.
- The objective of this research project was to employ terrestrial laser scanner and create a 3D digital documentation of Koyikkal Palace in Nedumangad in Thiruvananthapuram, which was built in the 15th century.

Estimation of tropical forest biophysical parameters using UV and NIR reflectance from GOSAT TANSO – CAI sensor.

- The aim of this study is to arrive at an improved VI which utilises the UV band (370-390nm) for better bio-physical parameters estimation and improved understanding of use of UV band in vegetation classification.
- Funding Agency: JAXA/ NIES/ MoE (Japan) Won in an international competitive bidding by JAXA Amount: access to data acquisition, software and validation support PI: Dr. Rama Rao Nidamanuri.

River Depth mapping using airborne imaging spectrometry

- The River depth was mapped using CASI airborne data for the River Test in Hampshire, UK. The image was atmospherically corrected using ATCOR and depth was calculated. Contours showing depths at various parts of the river was produced. The work was carried out with data from NCAVEO field experiment, which is the UK's Calibration and Validation programme.

Estimating the Area of Vaigai Reservoir – A Sub Pixel Approach

- The aim of this project was to estimate the area of Vaigai Reservoir using Sub pixel classification technique. This project was carried out with data provided from National Institute of Hydrology, India.

Optimal Route Analysis for Solid Waste Disposal Using GIS

- The project was carried out to find the optimal route for solid waste disposal in the Adyar area in Chennai. This project was done for ONYX Pvt, Ltd which worked with the corporation of Chennai in the solid waste disposal.

Publications

Peer Reviewed Manuscripts

- **Ramiya, Anandakumar M.**, Rama Rao Nidamanuri, and Ramakrishnan Krishnan. 2016. Supervoxels Based Spectro Spatial Approach for 3D Urban Point Cloud Labelling. International Journal of Remote Sensing. 37:17, 4172-4200, DOI:10.1080/01431161.2016.1211348. Publisher:Taylor and Francis.
- **Ramiya, Anandakumar M.**, Rama Rao Nidamanuri, and Ramakrishnan Krishnan. 2018. Critical assessment of semantic object based point cloud labelling on urban LiDAR dataset. GeoCarto International. Publisher: Taylor and Francis.
- **Ramiya, Anandakumar M.**, Rama Rao Nidamanuri, and Ramakrishnan Krishnan. 2016. Object-Oriented Semantic Labelling of Spectral - Spatial LiDAR Point Cloud for Urban Land Cover Classification and Buildings Detection. Geocarto International. 31 (2). doi:10.1080/10106049.2015.1034195.Publisher: Taylor and Francis.
- **Ramiya, Anandakumar M.**, Rama Rao Nidamanuri, and Ramakrishnan Krishnan. 2017. Segmentation based building detection approach from LiDAR point cloud. Egypt. J. Remote Sensing Space Sci.20(1), 71-77.Publisher : Elsevier.
- **Ramiya, Anandakumar M.**, Rama Rao Nidamanuri, and Ramakrishnan Krishnan. 2014. Semantic Labeling of urban point cloud data. ISPRS - International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Volume XL-8, 2014, pp.907-911 .DOI : 10.5194/isprsarchives-XL-8-907-2014.
- Nidamanuri, R.R. and **Ramiya, A.M.**. 2014: Spectral identification of materials by reflectance spectral library search, Geocarto International 29 (6) 609-624 DOI:10.1080/10106049.2013.821175 Publisher: Taylor and Francis.
- Arun R Nath and **A M Ramiya**. 2016. 3D Reconstruction of Buildings from classified LiDAR point cloud. International Journal of Earth Sciences and Engineering. Volume 09(1) pages 162-166.

Manuscripts submitted : under revision

- **Ramiya, Anandakumar M.**, Rama Rao Nidamanuri, and Ramakrishnan Krishnan. 2018. Individual tree detection from airborne laser scanning data based on supervoxels and local convexity. Remote Sensing Applications: Society and Environment.Publisher : Elsevier.
- Jayakumari Reji,Rama Rao Nidamanuri,**Ramiya, Anandakumar M.**,Thomas Moeckel,Sunil Nautiyal,Michael Wachendorf,and Andreas Buerkert, 2018. Multi-temporal Estimation of Biophysical Parameters of Vegetable Crops at Different Levels of Nitrogen using Terrestrial Laser Scanner.ISPRS Journal of Photogrammetry and Remote Sensing. Publisher : Elsevier.

Manuscripts under preparation

- Saheba Bhatnagar, **Ramiya, Anandakumar M.** and Rama Rao Nidamanuri (2017) Active learning based classification of fused hyperspectral and LiDAR data.
- Beril Sirmacek, **Ramiya, Anandakumar M.**, Roderik Lindenbergh , Rama Rao Nidamanuri (2017) Automated methods for individual tree detection from urban LiDAR point cloud.
- Midhun Mohan , **Ramiya, Anandakumar M.** and Rama Rao Nidamanuri (2017) , 3D reconstruction of tree leaves from LiDAR point cloud.

Conference Proceedings

- Purnima Jayaraj, and **Ramiya, Anandakumar M.** 2018. 3D CITYGML building modelling from LiDAR point cloud data, 38th INCA International Congress on Emerging Technologies in Cartography, Hyderabad, 29-31 October 2018.
- Preethi PM, **Ramiya, Anandakumar M.**, and Vinay K Dadhwal 2018. 3D Modelling of IIST campus using terrestrial laser scanning data, 38th INCA International Congress on Emerging Technologies in Cartography, Hyderabad, 29-31 October 2018.
- **Ramiya, Anandakumar M.**, Rama Rao Nidamanuri, and Ramakrishnan Krishnan. 2018. 3D laser scanning for estimation of large scale buildings' rooftops based solar energy in urban environments, International Conference on Sustainable Energy and Environmental Challenges (SEEC-2018), 31 Dec 2017 - 3 Jan.2018, IISc, Bangalore.
- **Ramiya, Anandakumar M.**, Rama Rao Nidamanuri, and Ramakrishnan Krishnan. 2014. 'Comparative Analysis of 3D segmentation algorithms for Building detection from LiDAR point cloud data'. Research Scholars day, IIST.
- **Ramiya, Anandakumar M.**, Rama Rao Nidamanuri, and Ramakrishnan Krishnan. 2015. 'Supervoxel approach for 3D object-based point cloud labelling'. Submitted as an entry to IEEE Data fusion 2015 contest (31 entries worldwide).

- **Ramiya, Anandakumar M.**, Rama Rao Nidamanuri, and Ramakrishnan Krishnan. 2016.A super-voxels based approach for urban tree mapping using airborne LiDAR. ISRS –ISG National Symposium at IIRS Dehradun December 7-9.
- Bibin Wilson, **Ramiya, A.M.**, Rama Rao Nidamanuri (2016) " Hyperspectral and LiDAR data fusion for species classification (3D) " Proceedings of GeoSmart India 2016. 1-3 March 2016 New Delhi. **Awarded the best student paper award.**
- **Ramiya A.M.** (2012). Effect of Atmosphere on Object based Image Analysis (OBIA), presented in National Symposium on 'Space Technology for Food and Environmental Security' and Annual Convention of Indian Society of Remote Sensing, Dec. 5 -7, 2012, New Delhi.
- Nidamanuri R.R., and **Ramiya, A.M**. (2011). Estimation of tropical forest biophysical parameters using near UV and NIR reflectance from GOSAT TANSO – CAI sensor, presented in "International Conference on "Adaptive Management of Ecosystems: The Knowledge Systems of Societies for Adaptation and Mitigation of Impacts of Climate Change" 19-21, October 2011, Bangalore.
- **Ramiya A.M.**, Milton E. J., Sear D.A., "River Habitat mapping using Airborne Imaging Spectrometry", RSPSoc Annual Conference, University of Exeter, Falmouth, Campus. 2008.
- **Ramiya A.M**.,Pounlakshumi A.P., Sathya R., "Optimal Route Analysis for Solid Waste Disposal Using GIS", Map India 2006, International Conference on Remote Sensing, GIS and photogrammetry, New Delhi, India, 2006.
- **Ramiya A.M.**, Senthil S., "Wasteland Development using Remote Sensing and GIS", National Seminar on Wasteland Development organized by Tamil Nadu Agricultural College and Research Institute, TNAU, Vallanad, Killikulam, India, 2004.

Book chapter

- D. Anu, A.P. Pounlakshumi, **A.M. Ramiya** R. Sathya V.S. Jeyakanthan and S. Sanjeevi.," Sub Pixel classification of images for reservoir area estimation",chapter on the book, 'Hydrology and Watershed Management : II (2 Vols-Set)' ,2007, edited by B VenkateshwaraRao; G Jagmohan Das; C Sarala and M V S SGiridhar.

Peer Recognition

- Serving as referee for manuscripts of peer-reviewed journals such as Geocarto International, GIScience and Remote Sensing, Journal of Indian Society of Remote Sensing.

Teaching

Courses Taught

- Remote Sensing and Application
- Geographic Information System
- Digital Image Processing of Remotely Sensed Data
- LiDAR Remote Sensing
- Satellite based Navigation and Positioning
- Introduction to Data Structures, Algorithms and Database Management
- Scientific Computing for Geospatial Data Analysis

Professional membership

Indian Society of Remote Sensing

Life member

Indian Society of Geomatics

Life member

Invited Talks/Meetings

- Attended the National Spatial Data Infrastructure (NSDI) meeting “LiDAR mapping standard Development” on June 28,2013 at New Delhi. The aim of the meeting was to establish the LiDAR mapping standards (Airborne) for India.
- Delivered lecture on “Digital image processing for satellite images ” for the MSc GeoInformatics students at IIITMK, Thiruvananthapuram on March 5 and March 7,2013.
- Delivered lecture on “ Satellite image processing” in the summer training programme on geospatial technologies and application under the NRDMS programme in DST held at Madurai Kamaraj University on 21 May 2012 and 22 May 2012.
- Delivered a talk and conducted hands-on session on “ Playing with Satellite Images” for around 60 school students as part of the Training On Monitoring Agriculture Through Satellite Technology for the sponsored students of Kumari Arivial Peravai, Young Scientists Programme 2013 – 2014 on 3 March 2014
- Acted as the External Examiner for Project Evaluation for Fourth Semester MSc GeoInformatics at IIITMK by Cochin University of Science and Technology. The project Evaluation was held on August 5,2013 at IIITMK. Technopark Campus Thiruvananthapuram. The same exercise was carried out on August 21, 2014 for another batch of students
- Delivered a Talk and conducted hands-on session on “ Exploring the world with GIS” Training On Monitoring Agriculture Through Satellite Technology for the sponsored students of KumariArivialPeravai, Young Scientists Programme 2012 – 2013 on 16 January 2013
- As part of GIS day 2013, visited Govt HSS school Tholicodu on Nov 27, 2013 and gave lecture on “Exploring with GIS”. Also conducted Quiz program in the school.
- Delivered a lecture on “ Magic of 3D” at IIST@school program, which is a social outreach of IIST for school students, held on Jan 2-7 ,2010, 28-30 June 2012,Jan 28-30, 2013
- Delivered a talk in NRSC forest division on the potential of LiDAR for forest applications on May 22, 2015.
- Delivered a talk and conducted hands-on session on “ Eyes in Space” for around 60 school students as part of the training on natural resource management for the sponsored students of Kumari Arivial Peravai, Young Scientists Programme Jan 2016
- Resource person at the “National seminar on Techniques and Applications of Hyperspectral Image analysis” organized by the Department Electronics and Communication Engineering, Amrita School of Engineering on April 19-20,2016. Delivered lecture on LiDAR image processing.
- Resource person at the faculty development programme in “Recent Trends in Medical and Satellite Image Processing Techniques” organized by the College of Engineering, Perumon on July 11, 2016. Delivered lecture on Applications of image processing techniques in satellite images.
- Resource person at the TEQIP II sponsored faculty development programme in Recent Trends in Signal Processing organized by the College of Engineering, Chertala on February, 2017. Delivered lecture on Digital image processing.
- Resource person at the “National workshop on Geomatics” organized by the Marian Engineering College jointly with Indian Society of Remote Sensing on July 17, 2017. Delivered lecture on Remote Sensing: An overview.
- Resource person at the faculty development programme in Field Data acquisition methods for terrain modelling organized by the College of Engineering, Trivandrum on Dec 14, 2017. Delivered lecture on Terrain modelling with focus on LiDAR.
- Acted as the External Examiner for Project Evaluation for Fourth Semester MSc Computer Science with specialisation in Geoinformatics at IIITMK by Cochin University of Science and Technology. The project Evaluation was held on July 2018 at IIITMK.
- External Question paper Setter for End semester Examination at Vignan University, Guntur, AndraPradesh. Prepared Question Papers for Remote Sening and Image Interpretation course for Masters students.
- Resource person at the induction programme for project fellows at Kerala State Remote Sensing Center on September 2018. Delivered lecture on Satellite based positioning and applications.

Student Guidance

MTech Thesis

2016	**Bibin Wilson**, Integration of LiDAR and hyperspectral data for understanding the vegetation structure characterization	*IIST*
2017	**Saheba Bhatnagar**, Active learning based hyperspectral and LiDAR image classification	*IIST*
2017	**Midhun Mohan**, 3D Reconstruction of trees and biophysical parameters estimation from LiDAR point cloud	*IIST*
2017	**Dhanusha Syam**, Local climatic zones mapping using object based image classification	*IIITMK*
2018	**Athul Kaitheri**, Mapping and monitoring the dynamics of earth surface at fine resolution	*IIST*
2018	**Abhinav Galohda**, Deep learning based hyperspectral image classification	*IIST*
2018	**Preethi PM**, 3D Campus Modelling of IIST campus using Terrestrial laser scanner	*Anna University, Tirunelveli*
2018	**Asif Mustafa**, 3D Mapping of Koyikkal Palace using Terrestrial Laser Scanning	*Sree Sankaracharya University, Kallady*

BTech Thesis

2013	**Rohit Pradhan**, 3D building reconstruction using aerial LiDAR data	*IIST*
2016	**Amith Kumar VP**, Segmentation of IIST-TLS data	*IIST*

BTech Internship

2012	**Rohit Pradhan**, A study of Spectral Vegetation Indices using UV and NIR bands of GOSAT-CAI	*IIST*
2016	**Sridhar Naik**, Comparison of Object based and Pixel based classification techniques for land cover classification	*IIST*
2013	**Ashish Bisht** , Image Classification and Enhancement for assessment of classification accuracy	*IIST*
2014	**Manish Sharma**, Evaluation of machine learning algorithms for LiDAR point cloud classification	*IIST*
2014	**Anitha P**, Machine Learning algorithms using matlab	*NIT Surathkal*
2015	**Sandra Maria Cherian**, Comparison between object based and pixel based technique for high resolution image classification	*NIT Surathkal*
2015	**Arun R Nath**, 3D reconstruction of buildings from LiDAR data using microstation	*NIT Surathkal*
2015	**Saurabh Tripathi**, 3D boundary extraction from LiDAR point cloud using alpha shape algorithm	*IIST*
2015	**Amith kumar VP**, Modified voxel cloud connectivity algorithm for generating supervoxels using matlab	*IIST*
2016	**Jubina CK**, 3D reconstruction of buildings and creation of fly through animation.	*NIT Surathkal*
2017	**Ankit Patel**, 3D Building extraction from airborne LiDAR data using clustering techniques	*IIT Kanpur*
2017	**Preethi PM**, 3D Reconstruction of building from Terrestrial laser scanner	*Anna University, Tirunelveli*
2018	**Purnima Jayaraj**, 3D CityGML building modelling from Airborne LiDAR point cloud data	*College of Engineering, Guindy, Anna University*

Professional Activities

Workshop attended

- Workshop on Biologically Inspired Computing – WBIC 2011, Organized by Department of Mathematics, IIST, Thiruvananthapuram, July 4-7, 2011.
- Workshop on "Softcomputing" organized by department of Avionics and Department of Mathematics, IIST from December 19-21, 2011.
- National Workshop on Geospatial Technologies for Coastal Resources Management" organized by Department of ESS held at IIST on May 28 and 29,2012 at IIST.
- Participated in the workshop " Mission to Venus" organized by Department of ESS held at IIST on 22 and 23 July 2012 at IIST.
- Participated in the "Open source WebGIS and Bhuvan workshop held at IIST on 7-8 Nov,2014.

Training attended

- ISRS Pre-symposium tutorial on "LiDAR Technology and its Applications" as part of National Symposium on 'Space Technology for Food and Environmental Security' and Annual Convention of Indian Society of Remote Sensing, Dec.3- 5, 2012, New Delhi.
- A week long training on LiDAR and Terrestrial Laser Scanner at IIT Kanpur under Dr. Bharat Lohani November 22-December 2,2012.
- Advanced Terrasolid (LiDAR processing software)Training: Sept 23-25,2013 Kolkata Organised by : Terrasolid Ltd, Finland Host: PCI Kolkata.

Organising/Coordinating Events

- Coordinator and resource person for 3DPCM : LiDAR point cloud processing with LAStools One day workshop with hands-on training on 3D LiDAR point cloud processing and visualization with LAStools on October 12,2017.
- Coordinator and resource person for GeoConnect 2015,2016,2017 summer school on geospatial technologies.
- Organizing committee member for Remote Sensing and GIS day annually at IIST
- Acted as the LADY JOINT SECRETARY for the society of Geoinformatics Engineers (SGE)and organised the first technical symposium, GEOHORIZON05.

Other Institutional Activities

- ISAT (IIST Admission Test) Examination official for ISAT 2011 at Govt Arts College, Thiruvananthapuram.
- ISAT Examination official(Chief Examiner) for ISAT 2012 at Doon Public School New Delhi.
- Member of several institutional committees such as Library Committee, Student welfare and cultural committee, hostel and canteen committee, Printing committee,IIST web committee.

Academic References

- Dr. Rama Rao Nidamnauri, Associate Professor, Department of Earth and Space Sciences Indian Institute of Space Science and Technology Valiamala P.O. Thiruvananthapuram 695547 Kerala Email:rao@iist.ac.in / ramarao.iit@gmail.com Telephone no: 08129285705 / 0471-2568519
- Dr. R. Krishnan, Former Director (ADRIN), Former Dean (IIST)17, "Varsha", G G Avenue 1st Street BU Post Coimbatore 641046 TamilNadu Email: drrkdrrk@gmail.com Telephone no: 09995025453
- Dr. S.Sanjeevi Professor, Department of Geology College of Engineering, Guindy Anna University Chennai Email id: ssanjeevi@annauniv.edu Telephone no: 09444782949
- Prof E.J.Milton Emeritus Professor of Remote Sensing School of Geography University of Southampton Southampton , UK Email id: ted.milton@gmail.com / E.J.Milton@soton.ac.uk

Personal Information

- Date of Birth : 15 April 1985
- Aadhaar number: 486549410812