

PERSONAL INFORMATION



Dr. Arun Prasad Kumar

📍 Department of Geography, School of Earth Sciences, Central University of Tamil Nadu, Neelakudi Campus, Thiruvavur 610005, Tamil Nadu, INDIA

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🌐 <https://cutn.ac.in/geography/> ; <https://sites.google.com/view/arunprasadkumar/>

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Sex Male | Date of Birth 30/12/1987 | Nationality India

RESEARCH STATEMENT

My research work involves interdisciplinary subjects such as earth observation techniques, image classification, machine learning and pattern recognition for effective extraction of information from satellite imageries for the proper management of earth's landscapes. Currently, I am focusing on landscape dynamics of coastal wetlands and associated coastal landforms using multi-source multi-temporal remote sensing data.

WORK EXPERIENCE

09 / 03 / 2020 – present

Assistant Professor

Department of Geography, School of Earth Sciences, Central University of Tamil Nadu, Thiruvavur 610005, India

01 / 07 / 2019 – 09 / 03 / 2020

Guest Faculty

Department of Geography, School of Earth Sciences, Central University of Tamil Nadu, Thiruvavur 610005, India

29 / 06 / 2018 – 21 / 12 / 2018

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16 / 01 / 2019 – 14 / 05 / 2019

Assistant Professor (on Contract)

Department of Geography, School of Earth Sciences, Central University of Tamil Nadu, Thiruvavur 610005, India

01 / 03 / 2017 – 31 / 05 / 2018

Guest Scientist / Postdoctoral Researcher

Coasts and River Basins Team, Land Surface Department (LAX), German Remote Sensing Data Centre (DFD), German Aerospace Centre (DLR) Oberpfaffenhofen, Wessling 82234, Germany

24 / 09 / 2010 – 02 / 02 / 2010

Project Fellow

Resource Analysis Division, National Centre for Earth Science Studies (Formerly CESS), Thiruvananthapuram, Kerala, India

EDUCATION AND TRAINING

03 / 2017 – 05 / 2018

International Climate Protection Fellowship (2016-17) from Alexander von Humboldt Foundation, Germany

Coasts and River Basins Team, Land Surface Department (LAX), German Remote Sensing Data Centre (DFD), German Aerospace Centre (DLR) Oberpfaffenhofen, Wessling 82234, Germany

- The postdoctoral research was funded through *International Climate Initiative* (IKI) programme of Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB), Government of Germany.
- Project Title: Landscape Assessment and Ecological Monitoring of Selected Wetland Ecosystems in India using Time Series Analysis of Multi-temporal High Resolution Optical and Microwave Remote Sensing Data

02 / 2011 – 04 / 2016

Ph.D.

EQF Level 8

Indian Institute of Space Science and Technology, Thiruvananthapuram, Kerala, India

- Spectral Analysis for the Species Characterization of Mangroves of Bhitarkanika National Park, Odisha, India using Hyperspectral Remote Sensing

06 / 2008 – 04 / 2010

M. Sc. (Earth Remote Sensing and Geo-Information Technology)

EQF Level 7

Madurai Kamaraj University, Madurai, Tamil Nadu, India

- Earth Science, Photogrammetry, Remote Sensing, GIS, Geostatistics, Environmental Science

07 / 2005 – 04 / 2008

B. Sc. (Geography)

EQF Level 6

Government College Kariavattom, University of Kerala, Thiruvananthapuram, Kerala, India

- Geography, Geology, Statistics

PERSONAL SKILLS

Mother tongue(s) Tamil

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C1	C1	C1
Malayalam	C2	C2	C2	C2	C2
Hindi	B1	C1	B1	B1	B1
German	A1	A1	A1	A1	A1
Trained up to Level A2.1					

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user

Organisational / Managerial Skills

- Organises Invited Lectures, Conferences / Workshops as part of the curricular activities
- Supervising Master's dissertation
- Further details on <https://sites.google.com/view/aranprasadkumar/updates>

Programming / Software Skills

- Remote sensing and GIS software packages – ENVI IDL, ERDAS, ArcMap, Global Mapper, QGIS, SAMS, Chris BEAM, and ESA SNAP toolbox
- Programming languages – Google Earth Engine, MATLAB, Python, and R statistical package
- Other Analytical and Graphical software – SPSS statistical software, MS Office, Origin Pro, Adobe Illustrator, and Adobe Photoshop

Survey skills

- Collection of spectroradiometer reflectance data in field and laboratory condition from different mangrove species
- Collection and assessment of biophysical and biochemical parameters in mangrove forest
- Survey Instruments – ASD Fieldspec 3 Spectroradiometer, LICOR LAI-2000 Leaf Canopy Analyzer, Garmin Oregon 5 handheld GPS, Trimble Differential GPS, Trimble Total Station, and Leica Laser Distometer

ADDITIONAL INFORMATION**Conferences / Workshops attended**

- Attended more than 25 conferences / workshops nationally and internationally
- List of conferences/workshops attended can be found in <https://sites.google.com/view/aranprasadkumar/conferences-workshops>

Publications

- Kumar Arun Prasad, Marco Ottinger, Chunzhu Wei, and Patrick Leinenkugel. 2019. "Assessment of Coastal Aquaculture for India from Sentinel-1 SAR time series". *Remote Sensing*. Vol. 11; No. 3; pp - 357. doi: 10.3390/rs11030357. Published online: 11 Feb 2019. Impact factor: 3.406
- Mahima Singh, Jayant Singhal, K Arun Prasad, Dwijesh Ray, Priyadarshi Sahoo, and Rajesh V.J. 2016. "Spectral characteristics of banded iron formations in Singhbhum craton, eastern India: implications for hematite deposits on Mars". *Geosciences Frontiers*. Vol 7; No. 6; pp - 927-936. doi: 10.1016/j.gsf.2015.11.003. Published online: 30 Nov 2015. Impact Factor: 4.051
- Kumar Arun Prasad and Lakshmanan Gnanappazham. 2016. "Multiple statistical approaches for the discrimination of mangrove species of *Rhizophoraceae* using transformed field and laboratory hyperspectral data". *Geocarto International*. Vol. 31; No. 8; pp – 891-912. doi:10.1080/10106049.2015.1094521. Published online: 20 Oct 2015. Impact factor: 1.759
- Kumar Arun Prasad, Lakshmanan Gnanappazham, Vaithilingam Selvam, Ramasamy Ramasubramanian, and Chandra Sekar Kar. 2015. "Developing a Spectral Library of Mangrove Species of Indian East Coast Using Field Spectroscopy". *Geocarto International*. Vol. 30; No. 5; pp – 580-599. doi:10.1080/10106049.2014.985743. Published online: 20 Nov 2014. Impact factor: 1.759
- Saravanan P., Arun Prasad K., Sudha G., and Ilangovan P., 2011. "An assessment of environmental degradation: Case study of Avaniyapuram town panchayat, Madurai". *International Journal of Environmental Sciences*. Vol 1; No 7; pp - 1504-1514. ISSN: 0976-4402.
- K. Arun Prasad and L. Gnanappazham (2018), "Estimation of above ground biomass using high resolution multispectral Worldview-2 image". *Proceedings of 38th INCA International Conference* (29-31 October, 2018), Hyderabad, India (Accepted)
- K. Arun Prasad and L. Gnanappazham (2014), "Species Discrimination of mangroves using Derivative Spectral Analysis". *Proceedings of ISPRS 2014: ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, Volume II-8, 2014. ISPRS Technical Commission VIII Symposium (09th to 12th December 2014), Hyderabad, India; doi: 10.5194/isprsannals-II-8-45-2014
- K. Arun Prasad and L. Gnanappazham (2014), "Discrimination of mangrove species of *Rhizophoraceae* using laboratory spectral signatures". *Proceedings of IGARSS 2014: International Geoscience and Remote Sensing Symposium* (IGARSS 2014) held in Quebec, Canada (13th to 18th July 2014); doi: 10.1109/IGARSS.2014.6947084
- K. Arun Prasad and L. Gnanappazham (2013), "Spectral distance as an approach for species level discrimination of mangroves". *Proceedings of AGSE 2013: International Conference on Geospatial Momentum for Society and Environment*, jointly organized by CEPT University, Ahmedabad and University of Stuttgart, Germany, held in Ahmedabad, India between December 16 and 19, 2013
- K. Arun Prasad and L. Gnanappazham (2013), "Spectral separability among mangrove species of *Rhizophoraceae* family using field spectroscopy". *IEEE Conference Proceedings of Symposium on Ocean Electronics (SYMPOL 2013)*, organized by CUSAT, held in Kochi, India (23rd to 25th October, 2013); doi: 10.1109/SYMPOL.2013.6701933

Memberships

- Life Member – "Humboldt Life" from Alexander von Humboldt Foundation, Germany
- Life Member – Green Talents Alumni Network (BMBF, Federal Government of Germany)
- Life Member – Indian Society of Remote Sensing (ISRS) (Member ID: L-5008)
- Member – International Society for Photogrammetry and Remote Sensing (Member ID: 61248)
- Member – European Geosciences Union 2018 (Member ID: 272549)
- Member – IUCN Commission on Ecosystem Management (CEM) 2017-2020
- Life Member – Institute of Indian Geographers (IIG)

Awards and Honours

- **International Climate Protection Fellowship** from Alexander von Humboldt Foundation funded by Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB), Government of Germany
- **Green Talents 2015 - Young Scientist Award** from Federal Ministry of Education and Research (BMBF), Government of Germany
- **IEEE IGARSS Travel Support Grant** to participate and present the research paper in International Geosciences and Remote Sensing Symposium (IGARSS 2014) / 35th Canadian Symposium on Remote Sensing (35th CSRS) held in Québec, Canada
- Secured 36th Rank and awarded **Junior Research Fellowship (JRF)** and qualified **National Eligibility Test (NET)** India in Earth, Atmospheric, Ocean and Planetary Sciences stream organized by Jointed Council for Scientific and Industrial Research and University Grants Commission (CSIR-UGC) under the MHRD, Government of India in July 2010.
- **University level First Rank** in M.Sc. (Earth Remote Sensing and Geo-Information Technology) in 2010 from Madurai Kamaraj University.
- **University Grants Commission (UGC) Post Graduate Merit Scholarship** for University Rank holders in Bachelor's degree to study Master's programme for the time period 2008 – 2010.
- **"Maveeran Sundaralingam Endowment Scholarship"** for the highest Score in Master of Science Degree in Environmental Remote sensing & Geo Information Technology (2009)
- **University level First Rank** in B.Sc. (Geography) in 2008 from University of Kerala.

Professional and Research
Networking Sites

- LinkedIn - <https://www.linkedin.com/in/arun-prasad-kumar-283a6b30/>
- Research Gate - https://www.researchgate.net/profile/Arun_Kumar271
- Google Scholar - <https://scholar.google.de/citations?user=SAeuOg4AAAAAJ&hl=en>
- ORCID ID - <https://orcid.org/0000-0003-1645-4261>
- Web of Science Researcher ID: [U-7453-2019](https://www.researcherid.org/rid/0000-9142-7453-2019)
- Publons - <https://publons.com/researcher/3044826/arun-prasad-kumar/>

Reviewer in Journals

- Journal of Sustainable Forestry (Taylor and Francis Publications)
- GIScience and Remote Sensing (Taylor and Francis Publications)
- Environmental Monitoring and Assessment (Springer Publications)
- IEEE Geosciences and Remote Sensing Letters
- IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing

Other Recognitions

News in National and Regional Newspapers / Magazines.

- Article on my Green Talents Award in Puthiya Thalamurai Kalvi weekly Tamil Magazine (India) dated 07 December 2015.
- Article entitled "Indian student bags Germany's Green Talents Award" published in Hindustan Times (India) on 24 November 2015. (<https://www.hindustantimes.com/education/indian-student-bags-germany-s-green-talents-award/story-fWaRojHgC9LqHBWewwJP.html>)

National TV Interviews:

- Interview in NDTV Prime Heads Up Talk Show aired on January 07, 2016
<https://www.youtube.com/watch?v=SyBRafBaoHc>