

Name : Girish Gopinath



Designation : Professor and Head

Highest Degree (**Institute**): PhD CUSAT

Specialization: Geomatics, Earth Science

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Dr. Girish Gopinath, Professor & Head at Department of Climate Variability & Aquatic Ecosystem, Kerala University of Fisheries and Ocean Studies (KUFOS), Kochi, Kerala, has expertise in the research area of Geology and Geo-informatics. He has been working last 22 years in the area of application of geospatial technology in water resources management, natural hazards such as landslides, drought and coastal vulnerability. He is also expertise in the use hyperspectral remote sensing in vegetation characteristics and web based interactive spatial decision support systems. He has awarded his master's degree in Geology and also M-tech in Remote Sensing. After completing his PhD degree from Cochin University of Science and Technology, he has worked in international institution such Sultan Qaboos University, Muscat and also gained industrial experience from GEMS Int. N.V, Abu Dhabi, U.A.E as Senior Geologist/ Marine Specialist. He also worked at CWRDM, GoK as Principal Scientist at Geomatics and handling various R& D Projects and Training during his tenure. Handled more than 32 major research projects funded by national institutes such as MoESS, ISRO and DST Govt of India and state institutions such as CWRDM and KSCSTE Govt of Kerala. Published more than 101 research articles in various journals of national and international repute.

Teaching:

- ❖ Remote Sensing
- ❖ Geoinformatics and Earth Science

Research Areas:

- Hydrogeology
- Geoinformatics

Key Management Roles:

- Head of the Department
- Academic Co ordinator for Remote Sensing & GIS and Disaster Management
- Coordinator of IIRS outreach program

Publications: (Last Five Years)

<https://www.scopus.com/authid/detail.uri?authorId=14071154100> *h index 20; citations: 1098*

<https://scholar.google.com/citations?user=n9XpxEUAAAAJ&hl=en&oi=ao> *h index:28Citation:2600*

https://www.researchgate.net/profile/Girish_Gopinath: *h index 24; citations: 2024*

- Ashish K. Chaturvedi, U Surendran, Girish Gopinath, K Madhava Chandrana, Anjali N K and Mohamed Fasil CT (2019) Elucidation of stage specific physiological sensitivity of okra to drought stress through leaf gas exchange, spectral indices, growth and yield parameters, Agricultural Water Management, Elsevier, Vol.222, pp 92-104, <https://doi.org/10.1016/j.agwat.2019.05.041>. DOI:10.1016/j.agwat.2019.05.041. IF 6.611

- Varsha Prem, B.Gurugnanam, Girish Gopinath and Sorna Chandra Devadass C (2019) Creation of Laboratory Spectral Library of Beryl in Sevapure Area, Kadavur Basin, Karur District, Tamilnadu, International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 – 8958, Vol.9 (I) pp 5325-5327, DOI: 10.35940/ijeat.A2967.109119.
- Girish Gopinath, Nimmi S and Surendran U (2020) Landuse Classification of Hyperspectral Data by Spectral Angle Mapper and Support Vector Machine in humid tropical region of India, Earth Science Informatics, Springer, <https://doi.org/10.1007/s12145-019-00438-4>. DOI: 10.1007/s12145-019-00438-4. IF 2.705
- Swetha T V, Girish Gopinath and Reshmi T R (2020) Isotope mass balance estimation of groundwater recharge in a hard rock tropical river basin in Kerala, India Journal: Groundwater for Sustainable Development, Elsevier, <https://doi.org/10.1016/j.gsd.2020.100422>. DOI:10.1016/j.gsd.2020.100422. CS 10.4
- Jesiya N P & Girish Gopinath (2020) A fuzzy based MCDM–GIS framework to evaluate groundwater potential index for sustainable groundwater management - A case study in an urban-periurban ensemble, Southern India. Groundwater for Sustainable Development, Elsevier, <https://doi.org/10.1016/j.gsd.2020.100466>. DOI: 10.1016/j.gsd.2020.100466. CS 10.4
- Swetha T V and Girish Gopinath (2020) Landslide susceptibility assessment by analytical network process: a case study for Kuttiyadi river basin (Western Ghats, southern India), SN Applied Science, Springer Nature Switzerland AG, <https://doi.org/10.1007/s42452-020-03574-5>. DOI: 10.1007/s42452-020-03574-5.
- Karam A. Elzopy, Ashish K. Chaturvedi, K. Madhava Chandran, Girish Gopinath, Naveena K & U. Surendran (2020) Trend analysis of long-term rainfall and temperature data for Ethiopia South African Geographical Journal, Taylor & Francis, <https://doi.org/10.1080/03736245.2020.1835699>. DOI: 10.1080/03736245.2020.18. IF 1.66

- Girish Gopinath, U Surendran, S Abilash, K Ch V Nagkumar and C K Anusha (2020) Assessment of drought with a real-time web-based application for drought management in humid tropical Kerala, India, *Environmental Monitoring and Assessment*, Springer, volume 192 (72), <https://doi.org/10.1007/s10661-020-08665-9>. DOI: 10.1007/s10661-020-08665-9. IF 3.307
- Pritty S Babu, K P Sudheer, M C Sarathjith, Santhi Mary Mathew and Girish Gopinath (2020) Quality evaluation of tender jackfruit using near-infrared reflectance spectroscopy. *Journal of Applied Horticulture*, 22 (3), 171-175, <https://doi.org/10.37855/jah.2020.v22i03.31>. ISSN 0972-1045. CS 0.5
- Jesiya, N. P., Girish Gopinath & Resmi, T. R. (2021). Comprehending the groundwater recharge of a coastal city in humid tropical setting using stable isotopes. *Journal of Environmental Management*, Elsevier, 287, 112260. <https://doi.org/10.1016/j.jenvman.2021.112260>. DOI: 10.1016/j.jenvman.2021.112260. IF 8.91
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- Achu A L, Jobin Thomas, Aju C D, Girish Gopinath, Satheesh Kumar and Rajesh Reghunath (2021) Forest fire susceptibility modeling in a forest-agriculture mosaic landscape of Southern Western Ghats using machine-learning methods, *Ecological Informatics*, Elsevier. <https://doi.org/10.1016/j.ecoinf.2021.101348>. DOI: 10.1016/j.ecoinf.2021.101348. IF 4.498

- Aswathy T S, A.L. Achu, Shincy Francis, Girish Gopinath, Shijo Joseph, U. Surendran and P.S. Sunil (2021) Assessment of water quality in a tropical Ramsar wetland of southern India in the wake of COVID-19, *Remote Sensing Applications Society and Environment*, Elsevier, 23(6):100604, <https://doi.org/10.1016/j.rsase.2021.100604> . DOI:10.1016/j.rsase.2021.100604. CS 7
- Girish Gopinath, T.R.Resmi, M Pragath, N P Jesiya, A. Shahul Hameed and R.D.Deshpande (2021) Isotopic differentiation of groundwater recharge processes in a semi-arid region of southern India, *Environmental Earth Sciences*, Springer 80(16), <https://doi.org/10.1007/s12665-021-09816-y>. DOI: 10.1007/s12665-021-09816-y. IF 3.119
- Arun Bhadrar, Sreejith K.M. , Drishya Girishbai, B.P. Duarah, Ritesh Agrawal, Girish Gopinath (2022) An appraisal of ground failure and hydrogeological changes associated with the 28 April 2021, Mw=6 Sonitpur earthquake, Assam, India using field evidences and InSAR measurements, *Seismological Research Letters*, <https://doi.org/10.1785/0220210257>. DOI: 10.1785/0220210257.
- Swetha T V, Girish Gopinath, Arun B and Arjun P (2022) Geospatial approach to elucidate anomalies in the hierarchical organization of drainage network in Kuttiyadi river basin, Southern India, *Frontiers of Earth Science*, Springer, <https://doi.org/10.1007/s11707-021-0942-5>. IF 2.273
- K. Ch. V. Naga Kumar, P M Deepak, K. K. Basheer Ahammed, Nageswara Rao Kakani, Girish Gopinath and V P Dinesan (2022) Coastal vulnerability assessment using Geospatial technologies and Multi-Criteria Decision Making approach – a case study of Kozhikode District coast, Kerala State, India, *Journal of Coastal Conservation*, Springer, <https://doi.org/10.1007/s11852-022-00862-7>. DOI: 10.1007/s11852-022-00862-7. IF 2.098

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- Arun Bhadrar, Sreejith K.M. , Drishya Girishbai,, Girish Gopinath (2022) A GIS based fuzzy-AHP for delineating groundwater potential zones in tropical river basin, southern part of India, Geosystems and Geoenvironment, Elsevier <https://doi.org/10.1016/j.geogeo.2022.100093>. CS 3.1
- Girish Gopinath, Jesiya N P, Arun Bhadrar, Drishya Girishbai and Surendran U (2022) Geomorphological analysis of Tropical River Basins in Southern Kerala using Hypsometric indices and Neotectonic Proxies, Journal of Earth System Science, Springer, pp 245-246, <https://doi.org/10.1007/s12040-022-01982-2>. IF 1.912
- Achu A L, Jobin Thomas, Aju C. D, Praveen K. R, Girish Gopinath (2022) Performance Evaluation of machine learning and statistical techniques for modelling landslide susceptibility with limited field data" Earth Science Informatics, Springer Nature Switzerland AG, DOI: 10.1007/s12145-022-00910-8. IF 2.705
- Girish Gopinath, Thodi, M.F.C, Surendran, U.P, Prem, P, Parambil, J.N, Alataway, A, Al-Othman, A.A, Dewidar, A.Z, Mattar, M.A.(2023) Long-Term Shoreline and Islands Change Detection with Digital Shoreline Analysis Using RS Data and GIS in Humid Tropical Kerala, India. Water , 15(2), 244; <https://doi.org/10.3390/w15020244>. IF 3.530
- SurendranU,MJayakumar P. Raja, Girish Gopinath, PadmanabanVelayudhaperumal Chellam (2023) Microplastics in terrestrial ecosystem: Sources and migration in soil environment, Chemosphere, Elsevier, Volume 318, ,137946, <https://doi.org/10.1016/j.chemosphere.2023>. IF 8.943

- Padinchare Veettil Gayathri, Divya Nair, Girish Gopinath, Devika Pilla and Shijo Joseph (2023) Solar Photocatalysis for the Decontamination Of Water from Emerging Pharmaceutical Pollutant Chloroquine Using Nano ZnO as the Catalyst. *Water Air Soil Pollution, Springer*, 234, 146: <https://doi.org/10.1007/s11270-023-06148-4>. IF 2.982
- Nizam Ashraf, Abdulaziz Anas, Vrinda Sukumaran, Girish Gopinath, K.K. Idrees Babu, P.K. Dinesh Kumar (2023) Recent advancements in coral health, microbiome interactions and climate change, *Science of The Total Environment*, Volume 878, ISSN 0048-9697, <https://doi.org/10.1016/j.scitotenv.2023.163085>. IF 10.754
- Girish Gopinath, Nalukudiparambil Jesiya, Ashokan Laila Achu, Arun Bhadrans and Udayar Pillai Surendran (2023) Ensemble of fuzzy analytical hierarchy process in landslide susceptibility modeling from a humid tropical region of Western Ghats, Southern India, *Environmental Science and Pollution Research, Marine Pollution And Ecological Degradation*, <https://doi.org/10.1007/s11356-023-27377-4>. IF 5.053 IF: 5.8
- A.L. Achu, C.D. Aju, Mariano Di Napoli, Pranav Prakash, Girish Gopinath, E. Shaji, Vinod Chandra (2023). Machine-learning based landslide susceptibility modelling with emphasis on uncertainty analysis, *Geoscience Frontiers*, V(14), Issue 6, 101657, ISSN 1674-9871, <https://doi.org/10.1016/j.gsf.2023.101657>.IF: 8.9
- Chettiyam Thodi, M.F.; Gopinath, G.; Surendran, U.P.; Prem, P.; Al-Ansari, N.; Mattar, M.A. (2024) Using RS and GIS Techniques to Assess and Monitor Coastal Changes of Coastal Islands in the Marine Environment of a Humid Tropical Region. *Water* 2023, 15, 3819. <https://doi.org/10.3390/w15213819>. IF; 3.4
- Girish Gopinath , U. Surendran , J. Vishak, Nimmi Sasidharan, Muhamed Fasil CT (2024) Hyperspectral data and vegetative indices for paddy: A case study in Kerala, India, *Remote Sensing Applications: Society and Environment*, Volume 33, 101109: <https://doi.org/10.1016/j.rsase.2023.101109>. IF:4.7

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- AL Achu, J Thomas, CD Aju, H Vijith, G Gopinath (2024) Redefining landslide susceptibility under extreme rainfall events using deep learning, *Geomorphology* ,<https://doi.org/10.1016/j.Geomorpholog.2023.109033>, IF: 3.1
- Mattada Sreelakshmi, Sanjay Balachandran, Fathima Abdurazak, Girish Gopinath, Shijo Joseph (2024) From perils to preparedness: Decoding coastal hazard risks on Kerala’s central coast through the IPCC framework, *Natural Hazards*, <https://doi.org/10.1007/s11069-024-06543-y>: IF: 3.6
- Aju CD, Mohammed Maharoof, MC Raicy, Rajesh Reghunath, Girish Gopinath (2024) Emerging Nitrate Contamination in Groundwater: Changing Phase in a Fast-Growing State of India, *Chemosphere*, <https://doi.org/10.1016/j.chemosphere.2024.141964> , IF: 8
- Shanan D’Silva, Bobby P Mathew, Vijesh VK, Arun Bhadran, D Girishbai, Girish Gopinath (2024) Geomorphic evolution of a tropical river basin in the Deccan Volcanic Province: a critical water supply source to Mumbai metropolitan region (MMR), *India, Geology, Ecology, and Landscapes*, Taylor & Francis, 1-12, <https://doi.org/10.1080/24749508.2024.2359787> , IF 2.1
- **Awards & Achievements:**
 - Awarded best research paper in the theme of “Remote Sensing Applications in Earth System Sciences” in International Conference on Frontiers in Marine Sciences (MARICON-2024) held at Cochin University of Science and Technology- April 2024.

- Awarded best research paper in the theme of “Scientific Social Responsibility” in student category of 36th Kerala Science Congress, Govt. of Kerala, held at Govt College Kasaragod- February 2024.
- Awarded ‘AHI Phani Kishore Award’ for best research paper by Association of Hydrologists of India 41st convention and National Seminar held at PSG institute of advanced studies- December 2023
- Awarded best research paper award in National Seminar held at Kerala University of Fisheries and Ocean Studies- December 2023

Ongoing Projects:

- Establishment of long term 1-hectare plots and its’ inventory in Shimoga, Karnataka and Nilambur, Kerala for the validation of NISAR forest biomass products (Investigators: Dr. Girish Gopinath and Dr. Surendran U; Funding agency: under NISAR Science, SAC/ISRO, GoI, Budget 27.50 lakhs, Duration 5 years, October 2021 to October 2023)
- Centre for Climate Resilience and Environment Management (CCREM) (PI: Dr. Shijo Joseph, Co-PI: Dr. Girish Gopinath; Funding Agency KUFOS, Budget: 21 lakhs, Duration 5 years, March 2022 to March 2027)
- GIS-based aquaculture site suitability in Sarawak: Implications for guidelines and recommendation to the farmers and policymakers’ (PI: Co-PI: Dr. Girish Gopinath; Funding Agency: Curtin University, Malaysia, Budget: 50000 RM, Duration 2 years, June 2023 to May 2025)

- Phase-II: Collection of Lidar and in situ data over long-term forest inventory plots in India for validation of NISAR forest biomass products (Investigators: Dr. Girish Gopinath and Dr. Surendran U; Funding agency: under NISAR Science, SAC/ISRO, GoI, Budget 44 lakhs, Duration 2 years, January 2024 to October 2025)