

## Dr. IBRAHIM BATHIS.K

### Lecturer

Department of Applied Geology  
Kuvempu University, Shankaraghatta-577451  
Shivamogga, Karnataka - INDIA  
Website: <http://solarboost.tech/team>



+91 9495053864



+91 8848581954



ibrahimbathis



[ibrahimbathis@gmail.com](mailto:ibrahimbathis@gmail.com)

### Educational Qualifications

**Ph.D.** in *Remote Sensing Application*, 2017. Department of Applied Geology, Kuvempu University, INDIA.

Thesis title “**Spatial Mapping of Hydrological Determinants for Innovative Planning and Management of Doddahalla Watershed, Chitradurga District, Karnataka**”

**M.Sc.** in *Remote sensing Application*, 2011(C.G.P.A= 8.36)Dept of Applied Geology,Kuvempu University, INDIA

Dissertation “**Remote Sensing & GIS based Assessment and Mapping of Mangroves of Kasaragod district of Kerala State, India**”

**B.Sc.** in *Geography with Cartography and statistics*, 2006-09. Dept of Geography, Kannur University, INDIA

### Academic and Research Experiences

#### ✓ Lecturer - January 2021 to till (August 2017 to May 2019)

Department of Applied Geology, Kuvempu University, INDIA.

- Teaching Fundamental of Remote sensing, Geographical information system, and Digital image processing for Postgraduate students in Geoinformatics as well as Earth Science and Resource Management.
- Participated in curriculum development as well as Conducting examination and Evaluation.
- Implemented research-oriented theory and practical classes for Geoinformatics courses
- Instructing and subject interaction sessions in Remote sensing application and Research methodology for **Doctoral** students.
- **Guided** master student for project dissertation and promoted in research development activities for Doctoral students
- **Subject taught**
  - Fundamental of remote sensing
  - Geographical information system and spatial science
  - Geoinformatics application (Land and water resources, Agriculture, Earth Science, Forestry)
  - Digital image processing and GNSS
  - Resource mapping, Land use/Land cover and Surveying
  - Physical Geology and Geography
  - Geospatial data management system and Geostatistical modelling.
  - Introduction to Oceanography, and Structural Geology.
  - Research methodology and scientific report writing

#### ✓ Collaborator and Research Associate (August 2019 to July 2020)

Department of Engineering, Politeknik Negeri Pontianak, Kalimantan Barat, INDONESIA  
(institutional link (grant, ID 413871894) with University of Leicester, UK)

- Lead the research team to develop an integrated Geographic Information System for an accurate setting of surface solar irradiance maps and satellite raster databases and, merging local sources of land cover information, for solar PV site suitability analysis while considering the vulnerability zones.
- Developed a GIS-enabled web portal as a bridge of sharing knowledge and information to Provide decision tools for government, stakeholders, and industry sectors, aiming for the development of large-scale as well as mini-grid solar power plants.
- Conducted scientific research and processed large scale GIS datasets for boosting the scope of solar PV energy compatibility in the Indonesian energy mix. The research and finding are successfully communicated in peer-reviewed journals as well as technical reports for are shared with corresponding project stakeholders to enable the timely policy implementation for sustainable and green renewable energy scenarios in the country.

#### ✓ Senior Research Fellow (January 1, 2013 – December 2016)

Department of Applied Geology, Kuvempu University, INDIA.

[Scopus ID](#)

[Google scholar](#)

[Research Gate](#)

[ORCiD](#)

[LinkedIn](#)

- Research and development for the Ph.D. degree as Senior researcher under MANF scholarship
- ✓ **Junior Research Fellow (January 2, 2012 - December 2013)**  
Department of Applied Geology, Kuvempu University, INDIA.
- Research and development for the Ph.D. degree as Junior researcher under MANF scholarship

### **Project Experience**

- ✓ Boosting Solar energy capacity of Indonesia without compromising the protected areas: an integrated GIS tailoring solar energy resources and local information (Solar Boost) as **Lead researcher**.
- ✓ Rainfall-runoff estimation and LULC change detection in and around the Orient Cement mining area, Chitapur, Gulbarga, INDIA as a **technical expert** for providing Geospatial data solution.
- ✓ Irrigation water management in the Bhadra right bank canal using Geoinformatics; **Guided for M Sc Dissertation**.
- ✓ Drainage and Morphometric analysis and its application using Geoinformatics; **Guided for M Sc Dissertation**.
- ✓ Land use and land cover (LULC) change detection in Mogral river basin, Kasaragod District, Kerala using Remote Sensing and GIS, as a **technical expert** for providing Geospatial data solution.
- ✓ Spatial Mapping of Hydrological Determinants for Innovative Planning and Management of Doddahalla Watershed, Chitradurga District, Karnataka; **Ph.D. thesis**.
- ✓ Remote Sensing & GIS based Assessment and Mapping of Mangroves of Kasaragod district of Kerala State, India; **M Sc Dissertation**.

### **Research Interest**

- Remote sensing, Geographical Information System, Digital Image Processing, and GNSS application in Earth sciences and natural resource management.
- Mapping technology for the global climate change prediction and assessment for future prosperity.
- Watershed Management, Land and Water Resources conservation and management, Land use, and land cover mapping, Vegetation monitoring, Predicting the changes in vegetation over spatial and temporal scale
- Geospatial application in renewable energy exploration and mapping for sustainable management.
- Exploring endeavors in Optical, Radar and Hyperspectral remote sensing.

### **Achievements**

- ✓ **Research and development experience with international exposure as Research Associate/Collaborator** (Institutional link Project Between Politeknik Negeri Pontianak, Indonesia, and University of Leicester, UK)  
Project title; *Boosting solar energy capacity of Indonesia without compromising protected areas: an integrated GIS tailoring solar energy resource and local information.* ([SolarBoost](#))  
Funder; **British Council**, award no. 413871894
- ✓ **Awarded the prestigious Indian national fellowship “Maulana Azad National for Minority Fellowship** for pursuing **Ph.D.** Degree (2010-11) (*Number and date of award letter: F1-17.1/2010/MANF-MUS-KER-2777*).
- ✓ Online Certificate course from Indian Institute of Remote Sensing (IIRS) January 21, 2019, to February 01, 2019
  - 1) **Hyperspectral Remote sensing and its Application** (2019)
  - 2) **Remote sensing, GIS and Global Navigation satellite system** (2013)
- ✓ Completed the Big Data Analysis for Water-Related Applications Course on the Water Learning Center (WLC) from the United Nations University Institute for Water, Environment and Health, January 2021.

### **Technical Skills and additional information**

- ✓ One year post Ph.D. research experience as a research associate (Solarboost).
- ✓ Proven leading capacity in handling the project and guiding the research team.
- ✓ Two-year academic teaching experience at the university level.
- ✓ 10 years of research experience in Remote sensing and GIS application.
- ✓ Expertise in the latest version of software ArcMap GIS, ERDAS Imagine, ENVI, QGIS and can handle with easy several open-source GIS software.
- ✓ Proven capacity on scientific and technical research writing with publications in Springer, Elsevier, and other national and international journals of repute including book and Chapter publication.

[Scopus ID](#)

[Google scholar](#)

[Research Gate](#)

[ORCID](#)

[LinkedIn](#)

- ✓ Knowledge sharing and Scientific interaction with the researcher through the participatory experience of attending and presenting research findings at 4 International and 14 National conferences (INDIA).

## **Country visited**

- **Indonesia:** Permanent workplace from 01<sup>st</sup> August 2019 to 14 July 2020 (11 Month 15 days as Research Associate and Lead researcher)
- **United Kingdom:** 10 days (16<sup>th</sup> November 2019 to 24<sup>th</sup> November 2019) sponsored visit to the University of Leicester under SolarBoost Project for meeting on research progress and report submission.

## **i. Publications as full research articles (Peer-reviewed Web of Science (WoS)/Scopus)**

1. H.S. Ruiz, A. Sunarso, K. **Ibrahim-Bathis** et al., 2020. GIS-AHP Multi Criteria Decision Analysis for the optimal location of solar energy plants at Indonesia. Energy Reports (2020), <https://doi.org/10.1016/j.egyr.2020.11.198>
2. Sunarso A, **Ibrahim-Bathis K**, Murti SA, Budiarto I, Ruiz HS. GIS-Based Assessment of the Technical and Economic Feasibility of Utility-Scale Solar PV Plants: Case Study in West Kalimantan Province. Sustainability. 2020; 12(15):6283 <https://doi.org/10.3390/su12156283>
3. **Ibrahim-Bathis, K.**, Ahmed, S.A., 2019. Geospatial Approach for evaluating LULC pattern in the Doddahalla watershed, Chitradurga District, India. Remote Sensing in earth System Sciences-2:108-119. <https://link.springer.com/article/10.1007/s41976-019-00017-7>
4. **Ibrahim-Bathis, K.**, Ahmed, S.A., 2016. Geospatial technology for delineating Groundwater potential zones in Doddahalla watershed of Chitradurga district, India. The Egyptian Journal of Remote Sensing and Space Sciences: 19, 223-234. <https://www.sciencedirect.com/science/article/pii/S1110982316300242>
5. **Ibrahim-Bathis, K.**, Ahmed, S.A., 2016. Rainfall-runoff modeling of Doddahalla watershed- An application of HEC-HMS and SCN-CN in ungauged agricultural watershed, Arabian Journal of Geosciences: 9-170. <https://link.springer.com/article/10.1007/s12517-015-2228-2>

## **ii. Publications as full research articles (Peer-reviewed, including book chapters)**

1. **Ibrahim-Bathis, K.**, Ahmed, S.A., Nischitha.V., Mohammed-Aslam M.A. 2021. Crop water requirements analysis using Geoinformatics techniques in the water scarce semi-arid watershed (Book Chapter). Advances in Remote Sensing for Natural Resource Monitoring, ISBN: 9-781119-61597-2. WILEY publisher, <https://doi.org/10.1002/9781119616016.ch6>
2. **Ibrahim-Bathis, K.**, 2021. Insight to the spatial-temporal extent of mangrove forests in the northern coast of Kerala. In: Rani, M., Seenipandi, K., Rehman, S., Kumar, P., Sajjad, H. (Eds.), Remote Sensing of Ocean and Coastal Environments. Elsevier, pp. 375–392. ISBN: 9780128196045. <https://doi.org/10.1016/B978-0-12-819604-5.00021-4>
3. Gopinathan Nair, A., Mohammed-Aslam, M. A. and **Ibrahim-Bathis, K.**, 2018. Land use and land cover change detection in Mogral river basin, Kasaragod District, Kerala using Remote Sensing and GIS. Eco-Chronicle, Vol. 12, No. 3, September 2017.Pp: 67 – 74, ISSN: 0973-4155. <https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=2ahUKEwjzkdG8zsHoAhWPbX0KHVQIBaUQFjAAegQIARAB&url=http%3A%2F%2Fecochronicle.org%2Fwp-content%2Fuploads%2F2017%2F09%2FEC-120302.pdf&usq=AOvVaw2SSJo0Szya8cNf91MgQHdC>
4. **Ibrahim-Bathis K** and Ahmed S.A 2017. Geospatial Mapping of Mangrove. LAP LAMBERT Academic Publishing. ISBN-978-3-330-32834-1. <https://www.amazon.com/Geospatial-Mapping-Mangrove-Kasaragod-Coastal/dp/3330328347>
5. **Ibrahim-Bathis K** and Ahmed S.A 2017. Spatial System Innovations in Watershed Management. LAP LAMBERT Academic Publishing. ISBN-978-3-330-05087-7. <https://www.amazon.com/Spatial-System-Innovations-Watershed%20-Management/dp/333005087X>

## **iii. Publications as full research articles (contributions to proceedings)**

1. **Ibrahim-Bathis, K.**, Ahmed, S.A., Mohammed Aslam M.A 2020. Spatial and Temporal variability of rainfall analysis in Doddahalla watershed, Chitradurga India from TRMM 3B42 (TOVAS). Earth Resources Conservations and Management. College Book house. ISBN 978-81-946011-8-0
2. **Ibrahim-Bathis, K.**, Ahmed, S.A., Nischitha.V., Santhosh. D.S. 2020. Assessment of Land use and Land cover changes in the Honnali Taluk, Karnataka – A Geoinformatics appraisal. Earth Resources Conservations and Management. College Book house. ISBN 978-81-946011-8-0
3. Nischitha.V., Ahmed, S.A., **Ibrahim-Bathis, K.**, D.S. 2020. Land use change Detection analysis of Thirthahalli taluk, Shivamogga District using Remote Sensing and GIS techniques. Earth Resources Conservations and Management. College Book house. ISBN 978-81-946011-8-0

4. **Ibrahim-Bathis K** and Ahmed 2014. Identification of Suitable Sites for Water Harvesting in the Water Scarcity Rural Watershed by the Integrated Use of Remote Sensing and GIS – Proceeding of International Symposium on Integrated Water Resources Management (IWRM-2014), pp 1263-1271, CWRDM, Kozhikode, Kerala, India. Vol. 1- ISBN: 978-81-8424-906-4.
5. **Ibrahim-Bathis, K.**, Ahmed, S.A., Surabhi, Bhatt., Abdul-Karem, S.N., Nischitha, V., Kiran-Raj, S., 2012. Remote Sensing and GIS based Mapping and Assessment of Mangroves of Kasaragod District in Kerala State, India, *Frontiers of Earth Science Research*. PBS Publishers, ISBN: 978-81-909728-4-0
6. Abdul-karem, S.N., Ahmed, S.A., Kiran-Raj, S., Nischitha, V., Surabhi, Bhatt. Chandrashekarappa, K.N., **Ibrahim-Bathis, K.**, 2012. Evapotranspiration Estimates from MODIS in the Bhadra Command Area, *Frontiers of Earth Science Research*. PBS Publishers, ISBN: 978-81-909728-4-0

#### iv. Research finding presented in the International/ National conferences workshop

1. Geo-spatial Technology in Environmental Science & Management - National Level Workshop on 19<sup>th</sup>- 20<sup>th</sup> December, 2020. Integrated Institute for Advanced Research and Information (IIARI), [www.iiari.co.in](http://www.iiari.co.in).
2. SolarBoost Workshop entitled “Promoting the Development of Large-Scale Solar PV Plants in Indonesia” on December 7 - 8 , 2020. SolarBoost is a collaborative research project of Politeknik Negeri Pontianak (ID) and University of Leicester (UK), funded by Newton Fund Institutional Links Research Grant.
3. Geospatial approach for Evaluating for LULC patterns in the Doddahalla watershed, Chitradurga District, INDIA - National seminar on Application of GIS and statistics for Natural resources management, 23-25<sup>th</sup> January 2019, Department of Geography, Kannur University, Kerala.
4. A thermal remote sensing application for modeling urban heat - Conference on Climate Change: Recent Findings and Future Challenges, National Institute of Oceanography, Goa during 28-30<sup>th</sup> April 2016 (Poster presentation).
5. Modeling urban heat islands (UHI) in heterogeneous land surface of Chitradurga city, India-A thermal remote sensing application - National Conference on Role of Science and Technology in Environmental Protection (NCRSTEP-2015), Deccan Environmental Research Organization (DERO) Vijayapur, Karnataka held on 29<sup>th</sup> December 2015.
6. Mangroves Forest- Natural Barrier against Coastal hazard - A case study from Northern Coast of Kerala, National Conference on Role of Science and Technology in Environmental Protection (NCRSTEP-2015), Deccan Environmental Research Organization (DERO) Vijayapur, Karnataka held on 29<sup>th</sup> December 2015.
7. Estimation of Land Surface Temperature from Landsat Satellite Series. Emerging Trends in Earth Sciences, School of Earth Science, Central University of Karnataka, Gulbarga March 30-31, 2015
8. GIS Based appraisal of geo-environmental control in the drainage characteristics in a watershed at lower part of Bharatapuzha river basin - Environmental Conference 2014, Feb 17-19, National conference, Dept. of Environmental Science, Central University of Kerala, Nileshwaram, Kasaragod Dist, Kerala
9. Accuracy Assessment of Digital Elevation Models for Integrated Land and Water Resources Management in the Karabayyanahalli Sub-Watershed - Geospatial technologies in Natural Resource Management and Disaster Mitigation, UGIT National Conference, Dept. of Geography, School of Earth Science, Central University of Karnataka, Gulbarga on Feb 14-15, 2014
10. Evaluation of Morphometric Parameters - A comparative study from Cartosat DEM, SRTM and SOI Toposheet in Karabayyanahalli sub-watershed, Karnataka, National seminar on Geo-informatics in Land & Water Resources Studies, 1<sup>st</sup> & 2<sup>nd</sup> March 2013, Bharathidasan university, Tiruchirappalli
11. Morphometric analysis of Karabayyanahalli Sub-watershed, Chitradurgadist Using Cartosat DEM -National seminar on Coastal Environments & their Management, 22 & 23<sup>rd</sup> January 2013, Mangalore university, Mangalore.

#### v. International/ National and State level Seminar/ Conference attended (excluding above listed conferences)

1. Participating in the Webinar on " Recent trends of Space Technology in Geographical Science” organized by Symbiosis Institute of Geoinformatics 1<sup>st</sup> February, 2021 to 02<sup>nd</sup> February, 2021
2. Webinar on Hyperspectral imaging: Introduction & challenges in Field, Airborne application conducted by SINSIL PVT INTERNATIONAL PVT LTD on July 15, 2020.
3. One day State Level Seminar on Recent Trends in Earth Sciences organized by Dept. of Geology, Sahyadri College, Kuvempu University on 12<sup>nd</sup> April 2016
4. One day State Level Seminar on Environment and Health organized by Dept. of Environmental science, Kuvempu University on 22<sup>nd</sup> March 2016
5. National Seminar on Current Issues of Western Ghats- Problems and Solutions on 21<sup>th</sup> and 22<sup>nd</sup> April 2012 at the Dept. of Environmental Science, Kuvempu University Shankaraghatta
6. Geomatrix'12, an international conference on Geospatial technologies and application organized by Centre of Studies in Earth Resources Engineering, IIT Bombay, February 26-29, 2012, Mumbai India

7. National Seminar on Geospatial Solution for Resource Conservation and Management by Karnataka State Remote Sensing Application Centre, Dept. of IT, BT and ST, Govt. of Karnataka on 18<sup>th</sup> & 19<sup>th</sup> January 2012.
8. Environmental Awareness & Plantation Programme on 14<sup>th</sup> June 2011 at Kuvempu University, Shankaraghatta
9. National Seminar on Sustainability of Ground Water Resources organized by Central Ground Water Authority and Central Ground Water Board, South Western region Bengaluru, Ministry of Water Resources, Govt. of India in association with Dept. of Applied Geology, Kuvempu University, Shankaraghatta, on 9<sup>th</sup> February 2011 at Kuvempu University, Shankaraghatta
10. Two days Seminar on Understanding our Universe held on 7<sup>th</sup> & 8<sup>th</sup> December 2009 at Dept. of Physics, Kuvempu University, Shankaraghatta.

**Personal Info**

DOB: **28/July1987 (M)** Nationality: **INDIAN**, Passport No **T4201875**, Valid till 27, May 2029

I hereby declare that the above-written particulars are true to the best of my knowledge and belief. I can produce a certificate and valued proof of documents for all the credits mentioned above.

**Dated: 12/April/2021**

**Dr. IBRAHIM BATHIS.K**