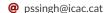
Dr. Pangambam Sendash Singh

Postdoctoral Researcher at Institut Català d'Arqueologia Clàssica, Tarragona, Spain



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Educational Background

2022 Ph.D. in Computer Science

Banaras Hindu University, Varanasi

Thesis title: Machine Learning Based Efficient Approaches for Improving the Performance of Multi-faceted Hyperspectral Imaging Applications

2015 M.Sc. in Computer Science

Banaras Hindu University, Varanasi

2012 B.Sc. (Hons.) in Physics with Computer Science and Mathematics

D.M. College of Science (Manipur University), Imphal

Academic Achievements

- State topper in Computer Science (97%) securing all Manipur 20th Position (Science Stream) in Higher Secondary Examination conducted by Council of Higher Secondary Education, Manipur in the year 2009.
- Awarded INSPIRE Scholarship for Higher Education by Department of Science and Technology, Gol (2009-2013).
- Recipient of (Late) N. Lakhi Devi Memorial Gold Medal for securing highest marks in Computer Science for D.M. College
 of Science, Imphal in B.Sc. Degree in the year 2012.
- Qualified GATE in Computer Science and Information Technology (2015).
- Qualified UGC-National Eligibility Test (NET) in Computer Science and Applications (June 2015).
- Awarded Junior Research Fellowship (December 2015) and subsequently Senior Research Fellowship by the University Grants Commission (UGC), New Delhi, India (2017-2022).

Work Experience

Postdoctoral Researcher (November 2022 - Ongoing)

Institut Català d'Arqueologia Clàssica (ICAC), Tarragona, Spain

- Project: Mapping Archaeological Heritage Sites in Asia (MAHSA)
- Responsibility: Investigating novel machine learning algorithms to automatically detect heritage sites using data obtained from multiple satellite imageries.

List of Publications

- Papers published in International Journals:
 - 1. **Singh, Pangambam Sendash** & Subbiah Karthikeyan (2022). "Salient object detection in hyperspectral images using deep background reconstruction based anomaly detection." *Remote Sensing Letters*, 13(2), 184–195. Taylor & Francis. doi: 10.1080/21507 04X.2021.2005270 (SCIE IF: **2.369**)
 - 2. **Singh, Pangambam Sendash** & Subbiah Karthikeyan (2021). "Enhanced classification of remotely sensed hyperspectral images through efficient band selection using autoencoders and genetic algorithm." *Neural Computing and Applications*, 34, 21539–21550. Springer. doi: 10.1007/s00521-021-06121-4 (SCIE IF: **5.102**)
 - 3. **Singh, Pangambam Sendash**, Vijendra Pratap Singh, Manish Kumar Pandey & Subbiah Karthikeyan (2021). "Enhanced classification of hyperspectral images using improvised oversampling and undersampling techniques." *International Journal of Information Technology*. Springer. doi: 10.1007/s41870-021-00676-0 (Scopus indexed)
 - 4. Singh, Pangambam Sendash, Vijendra Pratap Singh, Manish Kumar Pandey & Subbiah Karthikeyan (2020). "Local Binary Ensemble based Self-training for Semi-supervised Classification of Hyperspectral Remote Sensing Images." *Computación y Sistemas*, 24(2), 497–509. doi: 10.13053/CyS-24-2-3374 (Scopus indexed)
 - 5. Singh, Vijendra Pratap, Manish Kumar Pandey, Singh, Pangambam Sendash & Subbiah Karthikeyan (2020). "An LSTM Based Time Series Forecasting Framework for Web Services Recommendation." *Computación y Sistemas* 24(2), 687–702. doi: 10.13053 /CyS-24-2-3402 (Scopus indexed)

Papers published in International Conference Proceedings:

- 1. Singh, Pangambam Sendash, Vijendra Pratap Singh, Manish Kumar Pandey & Subbiah Karthikeyan (2020). "One-class Classifier Ensemble based Enhanced Semisupervised Classification of Hyperspectral Remote Sensing Images." *International Conference on Emerging Smart Computing and Informatics (ESCI)*, 2020, (pp. 22–27). IEEE Xplore., doi: 10.1109/ESCI48226.2020.9167650.
- 2. Singh, Vijendra Pratap, Manish Kumar Pandey, **Pangambam Sendash Singh** & Subbiah Karthikeyan. "Neural Net Time Series Forecasting Framework for Time-Aware Web Services Recommendation." *Third International Conference on Computing and Network Communications (CoCoNet'19)*, Procedia Computer Science 171, (2020): 1313–22. doi: 10.1016/j.procs.2020.04.140
- 3. Singh, Vijendra Pratap, Manish Kumar Pandey, **Pangambam Sendash Singh** & Subbiah Karthikeyan. "An Econometric Time Series Forecasting Framework for Web Services Recommendation." *International Conference on Computational Intelligence and Data Science ICCIDS* 2019, Procedia Computer Science 167, no. ICCIDS 2019 (2020): 1615–25. doi: 10.1016/j.procs.2020.03.372

Book Chapter:

Singh, Vijendra Pratap, Pandey Manish Kumar, Singh, Pangambam Sendash & Karthikeyan Subbiah. "An Empirical Mode Decomposition (EMD) Enabled Long Short Term Memory (LSTM) Based Time Series Forecasting Framework for Web Services Recommendation." Frontiers in Artificial Intelligence and Applications, Vol. 320 Fuzzy Systems and Data Mining V (2019), 715–723. doi: 10.3233/FAIA190241

Research Area

- Machine Learning
- Deep Learning
- Hyperspectral Data Analysis

Professional Activities

- Peer reviewer of IEEE Transactions on Geoscience and Remote Sensing
- Peer reviewer of IEEE Geoscience and Remote Sensing Letters
- Peer reviewer of International Journal of Remote Sensing
- Peer reviewer of Machines

Technical Skills

- Programming Languages: C, MATLAB, Python (Currently exploring)
- Document Preparation System: Latex, MS Word
- Machine Learning Tools/Simulators: Weka
- Application Software: MS Office, Adobe Photoshop
- Web Design Languages: HTML, CSS

Personal Details

Father's name: Pangambam Ibomcha Singh
Mother's name: Pangambam Sumobala Devi

Date of birth: 01/02/1992

Permanent address: Yairipok Poiroukhongjin Kaina Road

P.O. Thoubal, Imphal East District

Manipur - 795138, India.

Nationality: Indian

Linguistic ability: Manipuri, Hindi, English

Hobbies: Singing, playing musical instruments and writing poems.

Referees

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