

Dr. Shalini Mahato

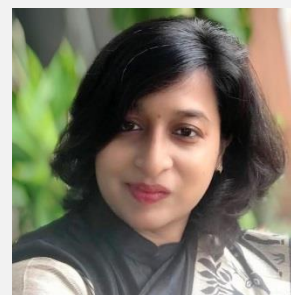
Assistant Professor

Department of Electronics and Computer Engineering (ECE),
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Research Area: Biomedical Signal Processing, Machine Learning and Data Analytics

JOURNAL PUBLICATIONS:

SCI/ SCOPUS Indexing:

1. **Shalini Mahato** and Sanchita Paul, "Detection of Major Depressive Disorder using linear and non-linear features from EEG signal ", Journal of Microsystem Technologies, Springer, Vol.25, no.3, 2018. <https://doi.org/10.1007/s00542-018-4075-z>. **(SCI Indexed, IF=2.27)**
2. **Shalini Mahato** and Sanchita Paul, "Classification of Depression patients and normal subjects based on Electroencephalogram (EEG) Signal using Alpha power and Theta asymmetry", Journal of Medical Systems, Vol. 44, no. 28, 2019. <https://doi.org/10.1007/s10916-019-1486-z> **(SCI Indexed, IF=4.46)**
3. **Shalini Mahato** , Nishant Goyal, Daya Ram and Sanchita Paul, "Detection of Depression and Scaling of Severity Using Six Channel EEG Data", Journal of Medical Systems, Vol. 44, no. 118 2020. <https://doi.org/10.1007/s10916-020-01573-y> **(SCI Indexed, IF=4.46)**
4. Laxmi K. Pathak and **Shalini Mahato**, "Artificial Intelligence: Changing the scenario of COVID-19", Disaster Adv., vol. 13, no. 10, pp. 85–92, 2020. <https://doi.org/10.1002/9781119785620.ch15> **(SCOPUS Indexed)**
5. Sumira Malik and **Shalini Mahato**, "Analysis of pre and post influence of COVID-19 pandemic among general population: An initial approach to COVID-19", Research. J. Biotechnology, vol. 15, no. 10, pp. 199–211, 2020. **(SCOPUS Indexed)**
6. **Shalini Mahato** , Sanchita Paul, Nishant Goyal, Sachi Nandan Mohanty and Sarika Jain, "3EDANFIS: Three Channel EEG-Based Depression Detection Technique with Hybrid Adaptive Neuro Fuzzy Inference System", Recent Patents on Engineering, 2022 <https://dx.doi.org/10.2174/1872212117666220801105612>. **(SCOPUS Indexed)**
7. A. O. Khadidos, K. H. Alyoubi, **S. Mahato**, A. O. Khadidos and S. N. Mohanty, "Computer Aided Detection of Major Depressive Disorder (MDD) using Electroencephalogram Signals," in *IEEE Access*, doi: 10.1109/ACCESS.2023.3262930. **(SCI Indexed)**
8. **Shalini Mahato** and Sanchita Paul, "Analysis of Region of Interest (RoI) of Brain for Detection of Depression using EEG Signal.", Multimedia Tools and Applications, doi: 10.1007/s11042-023-15827-7 **(SCI Indexed, IF=2.39)**
9. A. O. Khadidos, K. H. Alyoubi, **S. Mahato**, A. O. Khadidos and S. N. Mohanty, "Machine Learning and based Electroencephalogram Signal based Diagnosis of Depression",

Neuroscience Letters, 137313, 2023. <https://doi.org/10.1016/j.neulet.2023.137313> (**SCI Indexed, IF=3.19**)

10. N. Sharma, S. N. Mohanty, **S. Mahato**, and C. R. Pattanaik, "A novel dataset and local interpretable model-agnostic explanations (LIME) for monkeypox prediction." Intelligent Decision Technologies Preprint: 1-12. (**SCOPUS Indexed**)
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CONFERENCE PUBLICATION:

1. **Shalini Mahato** and Sanjay Biswas, "A Faster Genetic Algorithm to Solve Knapsack Problem employing Fuzzy Technique", IEEE International Conference on Computing, Communication and Networking Technologies (ICCCNT), 2013. <https://doi.org/10.1109/ICCCNT.2013.6726649> (**SCOPUS Indexed**)
2. **Shalini Mahato** and Sanchita Paul, "Electroencephalogram (EEG) signal analysis for diagnosis of Major Depressive Disorder (MDD): a review", Nanoelectronics, Circuits And Communication Systems, Vijay Nath and Jyotsna Kumar Mandal (Eds), Vol. 511, Springer, Singapore, 2017. https://doi.org/10.1007/978-981-13-0776-8_30 (**SCOPUS Indexed**)
3. **Shalini Mahato**, Abhishek Roy, Akshay Verma and Sanchita Paul, "Analysis of Electroencephalogram (EEG) Signals for Detection of Major Depressive Disorder (MDD) using Feature Selection and Reduction Techniques", Nanoelectronics, Circuits And Communication Systems, Vijay Nath and Jyotsna Kumar Mandal, Lecture Notes in Electrical Engineering, vol 692. Springer, Singapore. https://doi.org/10.1007/978-981-15-7486-3_39 (**SCOPUS Indexed**)
4. Soni Sweta, **Shalini Mahato**, and Laxmi K. Pathak, "Prediction of Learner's Performance in Adaptive E-Learning System using Learning Analytics," IOP Conf. Ser. Mater. Sci. Eng., vol. 1049, no. 1, p. 012006, 2021. doi: doi:10.1088/1757-899X/1049/1/012006 (**SCOPUS Indexed**)
5. **Shalini Mahato**, and Laxmi K. Pathak, "Prediction of Learner's Performance in Adaptive E-Learning System using Learning Analytics," IOP Conf. Ser. Mater. Sci. Eng., vol. 1049, no. 1, p. 012006, 2021. doi: doi:10.1088/1757-899X/1049/1/012006 (**SCOPUS Indexed**)

BOOK CHAPTER

1. **Shalini Mahato**, Laxmi K.Pathak and Kajal Kumari, "Detection of Schizophrenia Using EEG Signals" in Data Analytics in Bioinformatics: A Machine Learning Perspective, R. Satpathy, T. Choudhury, S. Satpathy, S. N. Mohanty and X. Zhang (Eds), Wiley, pp. 359-390. doi:<https://doi.org/10.1002/9781119785620.ch15> (**SCOPUS Indexed**)
2. Laxmi Kumari Pathak, **Shalini Mahato** and Soni Sweta, "Technological Dimension of Smart City" in Smart City Architecture and Infrastructure: the Block chain and Artificial Intelligence Perspective, V. Kumar, V. Jain, B. Sharma, J. M. Chatterjee and R. Shrestha (Eds.), Scrivener Publishing, pp 245–266
3. **Shalini Mahato**, Laxmi Kumari Pathak and Sumira Mallik, "Impact of Work from Home during COVID-19 Scenerio" in HR Practices in the POST-COVID-19 Scenario, S.Sharma, Scrivener Publishing

4. **Shalini Mahato** and Laxmi Kumari Pathak , “Wearable Smart Technologies: Changing the future of Healthcare” in "Machine Learning in Healthcare and Security: Advances, Obstacles, and Solutions , CRC Press

EDITED BOOK:

(Accepted and in Progress, to be Published by: March 2024)

Edited Book Title: Artificial Intelligence based Solutions for Industrial Applications

Editors: Pooja Jha, **Shalini Mahato**, Prasanta K. Jana ,Sudhanshu Maurya and Ines Chihi,

Publisher: CRC Press, Taylor and Francis Group.

PROJECT

“**SMART DEPRESSION MONITORING SYSTEM**” under Ministry of Micro, Small & Medium Enterprises(MSME) Innovative Scheme, Government of India

Project Budget: 15Lakhs.

PI: Dr. Shalini Mahato, Assistant Professor, Department of ECE, NIAMT Ranchi, Jharkhand

Co-PI: Dr. Nishant Goyal (MD Psychiatry, MBBS), Professor of Psychiatry, Central Institute of Psychiatry (CIP), Ranchi, Jharkhand.

WORK EXPERIENCE:

Academia:

February 2024-till date working as Assistant Professor in Department of Electronics and Computer Engineering (ECE), **National Institute of Advanced Manufacturing Technology (NIAMT)**, Ranchi, India.

January 2022-till January 2024, worked as Faculty in Department of Computer Science and Engineering, **Indian Institute of Information Technology (IIIT)**, Ranchi, India.

Industry:

December 2008-February 2010, worked as Assistant System Engineer in **Tata Consultancy Services (TCS)**, Kolkata, West Bengal.

Teaching Interest: Machine Learning, Data Mining, Operating System, Object Oriented Programming