SOST - List of Publications 2024

1. Mumtaz Ali, **Ramendra Prasad**, Mehdi Jamei, Anurag Malik, Yong Xiang, Shahab Abdulla, Ravinesh C Deo, Aitazaz A Farooque, Abdulhaleem H Labban. (2024). *Short-term wave power forecasting with hybrid multivariate variational mode decomposition model integrated with cascaded feedforward neural networks*, **Renewable Energy**, Vol. 221, 119773, ISSN 0960-1481, DOI: https://doi.org/10.1016/j.renene.2023.119773

2. **Orcherton, D.F** (2024). *Impact of Transformational and Relational Leadership Theories and Ethics, towards Climate Change Resilience in Fiji*. **Journal of Policy & Governance (JPG)**. ISSN: 2564-212X; CODEN: JPGOC8; Indexed: HEIN. https://grassrootsjournals.org/jpg/jpg040101-orcherton.pdf

3. Shiveel Raj, Ravinesh C Deo, Ekta Sharma, **Ramendra Prasad**, Toan Dinh, Sancho Salcedo-Sanz (2024) *Atmospheric Visibility and Cloud Ceiling Predictions with Hybrid IIS-LSTM Integrated Model: Case Studies for Fiji's Aviation Industry*. **IEEE Access**, Vol. 12, Pp 72530 - 72543, ISSN: 2169-3536, DOI: 10.1109/ACCESS.2024.3401091

4. Lionel P Joseph, Ravinesh C Deo, David Casillas-Perez, **Ramendra Prasad**, Nawin Raj, Sancho Salcedo-Sanz (2024). *Multi-step-ahead wind speed forecast system: Hybrid multivariate decomposition and feature selection-based gated additive tree ensemble model*. **IEEE Access**, Vol. 12, Pp 58750 - 58777, ISSN: 2169-3536, DOI: 10.1109/ACCESS.2024.3392899

5. Lionel P Joseph, Ravinesh C Deo, David Casillas-Pérez, **Ramendra Prasad**, Nawin Raj, Sancho Salcedo-Sanz (2024). *Short-term wind speed forecasting using an optimized three-phase convolutional neural network fused with bidirectional long short-term memory network model*. **Applied Energy**, Vol. 359, Pp 122624, DOI: https://doi.org/10.1016/j.apenergy.2024.122624

6. **Neeraj A. Sharma**, **Rishal R. Chand**, Zain Buksh, **A. B. M. Shawkat Ali**, Ambreen Hanif, and Amin Beheshti. 2024. "*Explainable AI Frameworks: Navigating the Present Challenges and Unveiling Innovative Applications*" **Algorithms** 17, no. 6: 227. https://doi.org/10.3390/a17060227

7. Schunko, C., Álvarez-Fernández, S., Benyei, **Priyatma. Singh**, P. *et al.* Consistency in climate change impact reports among indigenous peoples and local communities depends on site contexts. *npj Clim. Action* **3**, 41 (2024). https://doi.org/10.1038/s44168-024-00124-2

8. Reyes-García, V., García-del-Amo, D., Álvarez-Fernández, S., Benyei, P., Calvet-Mir, L., Junqueira, **Priyatma Singh**,. *et al.* (2024). Indigenous Peoples and local communities report ongoing and widespread climate change impacts on local social-ecological systems. *Communications Earth & Environment*, *5*(1), 29. https://doi.org/10.1038/s43247-023-01164-y

9. Reyes-García, V., García-Del-Amo, D., Porcuna-Ferrer, A. **Priyatma Singh**. *et al*. Local studies provide a global perspective of the impacts of climate change on Indigenous Peoples and local communities. Sustain Earth Reviews 7, 1 (2024). https://doi.org/10.1186/s42055-023-00063-6

10. K. Chaudhary, **A. Prasad**, A. Prasad and B. Sharma, "Robot Motion Control Using Stepping Ahead Firefly Algorithm and Kinematic Equations," in *IEEE Access*, vol. 12, pp. 43078-43088, 2024, doi: 10.1109/ACCESS.2024.3380004.

11. **Prasad, A**., Chaudhary, K., Sharma, B., & **Ali, S. A**. (2024). Robot Path Planning and Motion Control: A Systematic Review. *Engineered Science*. (Accepted)

Book Chapters

1. **Priyatma Singh**., Schulman, D., **Charan, D.**, Reyes-García, V., Schlingmann, A., Singh, A. A., & **Railoa, K.** (2024). Climate change adaptation in Fiji: Local adaptation strategies to enhance national policy. In Routledge Handbook of Climate Change Impacts on Indigenous Peoples and Local Communities (pp. 391-409). Routledge.

2. Dan F. Orcherton, (2024). The Extent of Causality and Burden of Proof for Climate Related Intangible Loss Damage in At-Risk Settlements (Fiji Islands). In: Hasrat Arjjumend (ed), Advances in Environmental Law (TGI Books/ The Grassroots Institute, Montreal/Vancouver, Canada), pp. 303-334. ISBN: 978-1-7778455-2-0. <https://doi.org/10.33002/enrlaw-333/c11>

3. **Neeraj A. Sharma**, Kunal Kumar, **Rishal R. Chand**, & Ashad Kabir. *Utilizing Hyperspectral Imaging with Machine Learning Techniques for Soil Analysis*. In Computational Intelligence Based Hyperspectral Image Analysis Springer. (Accepted/In press)

4. Chand, P. P., **Prasad, A**. & Raj, S., 2024. Adapting to changes in Higher Education posed by COVID-19 pandemic. In: *EDUCATIONAL LEADERSHIP & LEARNING: COVID-19 Pandemic and Beyond*. s.l.:s.n.

Conference Papers

1. **Ashwin A. Prasad**, **Neeraj. A. Sharma**, and Anal Kumar, "A Comp*arative Analysis of Joomla, Drupal, Wordpress and ASP.NET: Exploring Features, Performance, and*

Suitability," 2023 IEEE Asia-Pacific Conference on Computer Science and Data Engineering (CSDE), Nadi, Fiji, 2023, pp. 1-7, doi: 10.1109/CSDE59766.2023.10487657. [Published April 2024]

2. Raymond. K. Kumar and **Neeraj. A. Sharma**, "*Navigating Cybersecurity Challenges: A Contemporary Analysis of Fiji Islands*," 2023 IEEE Asia-Pacific Conference on Computer Science and Data Engineering (CSDE), Nadi, Fiji, 2023, pp. 1-6, doi: 10.1109/CSDE59766.2023.10487707. [Published April 2024]

3. Raymond K. Kumar and **Neeraj A. Sharma**, "*Leveraging Web Application to Enhance Transport Mobility: Optimize Bus Schedules and Ride-Share in Fiji's Central Division*," 2023 IEEE Asia-Pacific Conference on Computer Science and Data Engineering (CSDE), Nadi, Fiji, 2023, pp. 1-6, doi: 10.1109/CSDE59766.2023.10487728.

4. K. Chaudhary, **A. Prasad** and B. Sharma, "Reinforcement Learning at the Forefront of Robot Path Planning," *2023 International Aegean Conference on Electrical Machines and Power Electronics (ACEMP) & 2023 International Conference on Optimization of Electrical and Electronic Equipment (OPTIM)*, Istanbul, Turkiye, 2023, pp. 1-8, doi: 10.1109/ACEMP-OPTIM57845.2023.10287063.

Projects

1. **Development of Entrepreneurial Skills Post COVID-19 through Rural Aquaculture**
   USAID-funded project.
   350,000 USD (742,000 FJD)
   Progress/Updates: As of February 2024, the USAID PAF aquaculture project is in its final year scheduled to end in August, 2024. In the past project year, the project team has facilitated refresher training on essential aspects of aquaculture covering pond preparation, maintenance, handling and hygiene as well as financial literacy training. Furthermore, we are concluding our second cycle this month, with plans to initiate the next cycle by mid-April.

2. **National implementation of global goals: Coherence between Nationally Determined Contributions (NDC) and the Sustainable Development Goals (SDG).**
   Funded by Stockholm Environment Institute and Linkoping University, Sweden.
   FJD 90,000
   Progress/Updates: The team is currently finalizing Policy brief in partnership with SEI and will be working on writing of the manuscript this year.

3. **Transforming Energy Access – Learning Partnership (TEA-LP)**
   Funded by UK Aid and overseen by the Carbon Trust
   £16700.00
   Progress/Update: The new course REM408 has been registered by the HECF. The course will be delivered in S2-2024 and there are some tuition fee scholarships available for students doing this course. The next step would be to update the webpage and begin marketing to deliver the course.

4. **Food Security in Vulnerable Islands: A Comparative Study between Kiribati and Fiji   Islands**.
   Funded by Action on Poverty
   $29,587.07 FJD
   Progress/Update: The project team is now working on addressing the comments/suggestions made by the donor organization on the project report.

5. **"Climate Change Traditional and Local Knowledge Mitigation and Adaptation: Coastal Villages and Resilience/Renaissance in Fiji and Vanuatu" AIS-UNDP.**
   Funded by:UNDP
   $30,000 USD
   Progress/Update: The project team is conducting online training with RA's in research methodologies for work to be completed in Vanuatu.