



Mathematical & Statistical Modelling Week 2025 (MSM-Week 2025)

Department of Mathematics
University of Ruhuna



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| Group No. | 03 |
| Title | LASSO regression modeling for multi-source renewable energy forecasting using climate and atmospheric data |
| Description | The LASSO regression model is selected for its capability to perform variable selection and model regularization, improving the interpretability of results while minimizing overfitting high dimensional meteorological datasets. By integrating multi-source renewable datasets and optimizing predictive performance, the research aims to develop a data - driven forecasting model that contributes to efficient smart energy management systems. |
| Team Members | |
| Resource Person | Dr. N. A. D. N. Napagoda, Department of Mathematical Sciences, Wayamba University of Sri Lanka |
| Facilitator | Dr. N. A. D. N. Napagoda, Wayamba University of Sri Lanka |
| Supporting Members | K.A. Wimalasooriya, University of Ruhuna W.A.U. Sewwandi, University of Ruhuna P.W.M. Sewmini, University of Ruhuna |
| Other Members | S.T. Witharana, University of Ruhuna R.H. Lakmina, University of Ruhuna J.A.S. Liyathma, University of Kelaniya G.A.C. Sewwandi, University of Kelaniya W.P.C. Navoda, University of Kelaniya W.N. Omasha, University of Ruhuna K.D.K.N. Chandrawansha, University of Ruhuna |



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Important

- MSM-Week 2025 is scheduled to be held on December 06 - 13, 2025 as virtual collaborative sessions via zoom.
- The first session will be commenced on December 6, 2025, at 2:00 p.m.
- Each group should arrange group discussions via zoom during the period from 01.00 p.m. to 09.00 p.m. considering the convenience of members
- The fourth day (09.12.2025) of the program will be allocated to discuss the progress made by each group.
- Team members in each group should work collaboratively on their assigned topic toward finding a solution.
- Participants are required to maintain 100% attendance and active involvement in the group discussion to qualify for the **MSM-Week 2025 participant certificate**.