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The 10th International Conference on Mining Intelligence and Knowledge Exploration : Submission (217) has been created.

1 message

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Hello,

The following submission has been created.

Track Name: Main Conference

Paper ID: 217

Paper Title: Measuring the Impact of Meditation on Academic Stress Levels in UG Students using Machine Learning Models

Abstract:
This study uses machine learning and causal inference techniques to investigate how meditation helps college students who are experiencing academic stress. In order predict stress reduction based on initial psychological responses and demographic characteristics, we examined data from more than 680 students. To classify stress levels and forecast post-meditation outcomes, three machine learning algorithms were evaluated: Random Forest, Support Vector Machine (SVM), and K-Nearest Neighbors (KNN). With 88.24\% accuracy, 89.05\% precision, and 88.24\% recall, the Random Forest model outperformed the others. Accuracy values for KNN and SVM were 77.21\% and 63.97\%, respectively. The best indicators of stress reduction were age, meditation frequency, and baseline stress. The treated group experienced a significant reduction in stress, particularly among those with medium baseline stress, according to causal analysis (Causal Forest and T-Learner). These results were validated by K-Means clustering, which was consistent with the machine learning outcomes. In conclusion, machine learning models, especially Random Forest, are capable of predicting individual results, and meditation successfully lowers academic stress in specialized circumstances.

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Primary Subject Area: Data Mining

Secondary Subject Areas: Not Entered

Submission Files:
    Springer_Lecture_Notes_in__Measuring_the_Impact_of_Meditation_on_Academic_Stress_Levels_in_UG_Students_using_Machine_Learning_Models (3).pdf (970 Kb, Fri, 07 Nov 2025 17:56:10 GMT)

Submission Questions Response: Not Entered

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