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TALKING CIRCLE PSPM (02/2024): A PLATFORM FOR KNOWLEDGE SHARING AND RESEARCH GROWTH

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EXECUTIVE SUMMARY

The Talking Circle Program: PSPM (02/2024), organized by the PSPM Colloquium Committee, was successfully conducted on 11 October 2024 via Google Meet, hosted by UiTM Cawangan Negeri Sembilan, Kampus Kuala Pilah. The session gathered 11 lecturers from the Department of Pengajian Sains Pengkomputeran dan Matematik (PSPM) to discuss research, teaching methodologies, and academic collaborations. The primary objective was to enhance knowledge sharing and strengthen research networks among faculty members.

INTRODUCTION

This series serves as a platform for academic staff to engage in meaningful discussions on teaching strategies, research progress, and institutional challenges. The second session of 2024 centered on topics related to PSPM, including pedagogical innovations, research impact, and interdisciplinary collaboration opportunities. This initiative reflects UiTM's commitment to academic excellence and continuous professional development.

Figure 1: Dr. Nurul Aityqah Yaacob presents her research on Neural Network-Integrated Lee-Carter Models at the Talking Circle Program PSPM (02/2024).
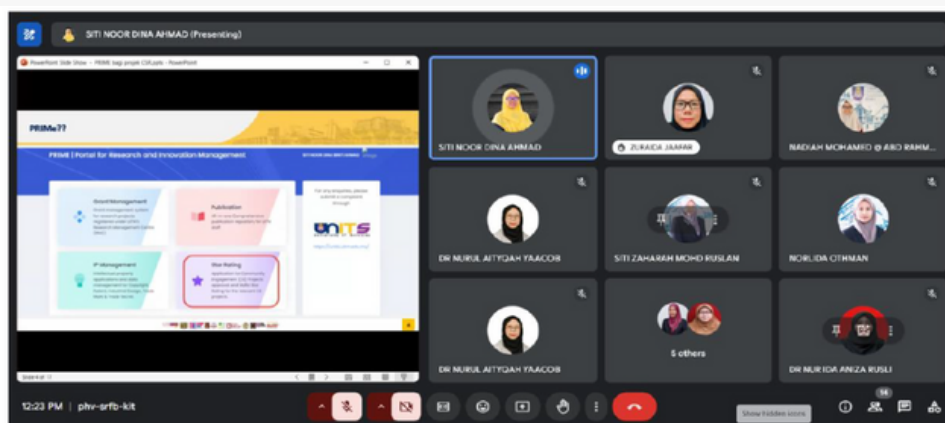

Figure 2: Siti Noor Dina Ahmad presenting insights on Community Engagement (CE) projects during the Talking Circle Program PSPM (02/2024)

RESULTS /ACHIEVEMENTS

Figure 3: Survey results on participant satisfaction for Talking Circle Program: PSPM (02/2024).

Figure 3 shows the survey results on participant satisfaction for Talking Circle Program: PSPM (02/2024), illustrating ratings for program duration, objective achievement, course content, and speaker presentations. The figure indicates that the session received an overwhelmingly positive response, with all aspects of the program rated as "Cemerlang." Both presenters, Dr. Nurul Aityqah Yaacob and Siti Noor Dina Ahmad received outstanding feedback for their informative and engaging presentations.

The first presenter, Dr. Nurul Aityqah Yaacob, presented Modelling and Forecasting Mortality Rates Using a Neural Network-Integrated Lee-Carter Model at the 5th International Conference on Artificial Intelligence & Data Sciences (AiDAS), held on 3-4 September 2024. Her presentation introduced a novel approach to forecasting mortality rates by integrating artificial neural networks (ANNs) with the traditional Lee-Carter (LC) model. ANNs, inspired by the brain's structure and function, capture complex nonlinear relationships in data. The study employed a multilayer feed-forward network to predict the mortality index, which tracked mortality rate fluctuations more effectively than the conventional autoregressive integrated moving average (ARIMA) process. The performance comparison between the ANN-based LC model and ARIMA, using mortality data from 19 countries, demonstrated the superiority of the ANN approach. Results indicated lower root mean square error (RMSE) and mean absolute error (MAE) in mortality rate predictions for 17 out of 19 countries. The findings suggest that integrating wavelet analysis and fuzzy logic with ANNs could improve forecasting accuracy by handling non-stationary data, uncertainty, and complex patterns.

The second presenter, Siti Noor Dina Ahmad, presented PRIMe STAR RATING bagi projek CSR, focusing on the PRIMe Star Rating System designed for managing Community Engagement (CE) projects, particularly in the context of Corporate Social Responsibility (CSR). The PRIME platform streamlines project registration, approval, and monitoring, ensuring alignment with UiTM's Research Management Centre. The system integrates with MyATP, where community projects are assessed and categorized into star ratings, contributing to academic and institutional performance metrics. Her presentation emphasized the importance of CSR initiatives in academia, showcasing successful community engagement efforts and encouraging faculty participation in impactful outreach programs.

CONCLUSION

Successfully achieving its objectives, the Talking Circle Program : PSPM (02/2024) fostered a culture of knowledge exchange and collaboration among lecturers. The overwhelmingly positive response underscores its effectiveness in addressing academic concerns and enhancing faculty engagement. Building on these achievements, future sessions will further promote interdisciplinary collaboration and innovative teaching strategies within PSPM.