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FSKTM Hosts Successful 5-Minutes Thesis (5MT) Challenge

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Student receiving certificate.

EDITED BY

Raja Jamilah Raja Yusof

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5-Minutes Thesis (5MT) Challenge

– By Maizatul Akmar Binti Ismail, Jamalla Zawia

The **5-Minutes Thesis (5MT) Challenge**, organized by the **Data Science Research Group** at the Faculty of Computer Science and Information Technology (FSKTM), Universiti Malaya (UM), was successfully held on **17th January 2025** at **Bilik Kuliah 2 (BK2)**. This event aimed to highlight the innovative research conducted by PhD students while honing their ability to communicate complex ideas in a concise and engaging manner. The challenge brought together **15 participants**, including students, faculty members, and guests, creating a vibrant atmosphere of academic exchange. **8 PhD students** took the stage, each presenting their research within the strict **5-minute time limit**, using only **one slide** to convey their ideas. The presentations were marked by **clarity, creativity, and relevance**, leaving a lasting impression on the audience.

The event featured a diverse range of cutting-edge topics in **data science**, showcasing the depth and breadth of research being conducted at FSKTM. Among the standout presentations was Yang Xiaoyu's (Sophia) exploration of a **group recommendation framework for project-based learning**, which proposed innovative methods to optimize collaborative education models. Saravanan Sukumaran delved into **hybrid multimodal LLMs for harmful content moderation**, addressing the urgent need for ethical AI systems in digital spaces. Nurul Wahidah Razali's **adaptive feature engineering and ensemble learning framework** demonstrated

promising approaches to refining credit risk assessment, while Marina Shah’s work on **machine learning-driven reference interval estimation** highlighted transformative potential in medical diagnostics. Shanmuga Sundram captivated the audience with his **explainable AI (XAI)-based system for chronic kidney disease diagnosis**, emphasizing trust and transparency in healthcare AI. Not to be overlooked was Xie Shujun’s intriguing proposal on **intention analysis through data science**, which bridged behavioral insights with technical innovation. Each presentation exemplified FSKTM’s dedication to solving real-world challenges through cutting-edge research.



Students presenting.

The competition culminated in Artika Arista’s winning presentation, “**Ethical Framework for Utilization of GAI Tools in Higher Education**,” which earned unanimous acclaim from the judges. Arista’s work tackled the pressing ethical dilemmas surrounding generative AI (GAI) in academia, proposing a robust framework to guide the responsible integration of tools like ChatGPT into teaching, research, and assessment. Her ability to distill complex ethical considerations into a clear, actionable roadmap—while addressing risks such as academic integrity and bias—resonated deeply with the audience. Judges praised her seamless blend of theoretical rigor and practical relevance, as well as her engaging delivery, which made the case for ethical AI both accessible and urgent. This victory underscored the growing importance of ethical AI discourse in academia and positioned Arista’s research as a critical contribution to shaping future educational practices.



The event showcased participants’ mastery of communicating high-impact ideas under stringent time constraints. From healthcare to finance and education, the presentations illustrated data science’s transformative role across sectors. Attendees left inspired not only by the technical ingenuity on display but also by the presenters’ commitment to addressing societal challenges. As FSKTM continues to champion such initiatives, the 5MT Challenge reaffirms UM’s position as a hub for innovation, collaboration, and academic excellence in the digital age.

We extend our heartfelt gratitude to all **participants, attendees, and organizers** for their contributions to making this event a **resounding success**. The 5MT Challenge has set a high

standard for future events, reinforcing FSKTM's commitment to nurturing research talent and promoting academic excellence.

For more information, contact the author at maizatul@um.edu.my from the Department of Information System at Universiti Malaya.