SECP1513-03 TECHNOLOGY AND INFORMATION SYSTEM)

TITLE: SKILLS IN UNIVERSITY AND INDUSTRY、

Speakers:

TS. HJ. ABDUL ALIM BIN ABDUL MUTTALIB

Lecturer: Ts. Dr. Muhammad Iqbal Tariq bin Idris

Group Member:

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1.0 Introduction

We attended an industry talk on December 18, 2025, at the Hyflex Classroom, N28a, Universiti Teknologi Malaysia. This talk focused on the critical relationship between Project Management, System Development, and the evolving role of Artificial Intelligence (AI) in the computer science field.

2.0 Description of the speaker experience

Ts. Hj. Abdul Alim bin Abdul Muttalib, an alumnus of Universiti Teknologi Malaysia (UTM) who graduated in 2014/2015. With over 10 years of experience in the technology sector, his career journey includes roles such as Software Engineer at Brilliance Information, Product Development Manager (AI) at Genaxis Group, and Head of Digital Application & Innovation at Theta Edge Berhad. Currently, he serves as the Head of Technology and Innovation at Serunai Commerce Sdn Bhd, where he leads the development of global digital halal solutions.

Ts. Hj. Abdul Alim bin Abdul Muttalib is a certified Professional Technologist through the Malaysia Board of Technologists and has ventured into entrepreneurship as the founder of Sakupay and PilgrimPro. During his talk, he revealed that he struggled during the first three years of his career because he initially failed to appreciate the core system development principles taught in university.

3.0 Basic skills required for computer science

Ts. Hj. Abdul Alim bin Abdul Muttalib emphasized that one of the most important skills required for computer science is understanding the Software Development Life Cycle (SDLC), but not only "writing code". He explained that system development is the "entire process" of defining, designing, testing, and implementing an application. Without a blueprint, projects are destined for chaos and failure. He mentioned that students must understand the five core stages of the SDLC roadmap **(Figure 1)** which are planning (understanding why we build), analysis (defining what to build), design (deciding how to build), implementation (the actual building process), and maintenance (keeping the system running).

Also, Ts. Hj. Abdul Alim bin Abdul Muttalib advised students to focus on project management. Project management helps students to control chaos since software projects are complex, and project management ensures students stay on track, on time, and within budget. Besides, team

synergy can be achieved as project management skills help students to coordinate with designers, testers, and other developers effectively.

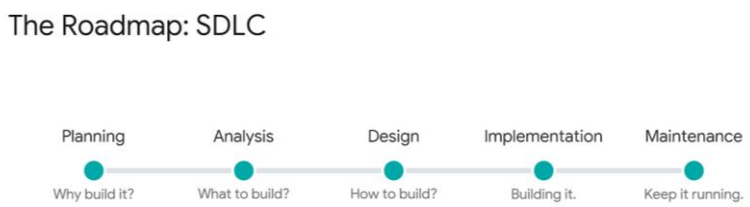

Figure 1: The Software Development Life Cycle (SDLC) Roadmap

4.0 Skills Required by Industry

In the contemporary IT landscape, students must expand their focus beyond basic programming to include comprehensive project management and system development skills. Ts. Hj. Abdul Alim bin Abdul Muttalib emphasized that while coding is a foundational skill, the ability to effectively implement projects ensures long-term career sustainability. This aligns with research indicating that technical skills and system analysis remain the most critical entry-level requirements for new hires (**Abraham et al., 2006**). Furthermore, the shift from rigid Waterfall models to Agile methodologies by industry leaders like Petronas and Intel reflects a growing demand for flexibility and iterative feedback.

Ts. Hj. Abdul Alim also highlighted a "success formula" for graduates: leveraging AI tools for 40% of productivity while maintaining 60% core knowledge in architecture. This balance is crucial because, while tools like **Cursor.ai** accelerate development, they cannot replace the human judgment required for complex design. Ultimately, mastering teamwork and planning—skills identified as high-ranking priorities by recruiters (**Fang, Lee, & Koh, 2005; Kim, Hsu, & Stern, 2006**)—is essential for navigating real-world software environments and remaining competitive.

5.0 Reflection on Talk

How will you be successful in computer science in the next four years?

LEE JIAN LIANG: Competition is high, so I must offer more than basic coding. I'll focus on system architecture because AI cannot replace the human brain's ability to design complex,

novel solutions. I'll study hard now to avoid the struggles the speaker faced in his early career.

TEOH WEI CHENG: Hearing about the speaker's early struggles made me realize how much I need these fundamentals now. The cooking analogy for the SDLC made everything click it's about the care you put into every phase, from design to deployment. Proper planning prevents project chaos and is essential for a sustainable, long-term career in the IT industry.

THURGA DEVI A/P PONNAMBALAM: The speaker's "success formula" really hit home for me. It's a wake-up call to not let tools like **Cursor.ai** make me lazy. I want to feel the pride of truly understanding my own system of architecture. My goal is to be a thinker, not just a prompt engineer.

WONG QI SHEUN: Computer science isn't my main hobby, but I have a deep interest in data. After this talk, I realized I must push myself to handle teamwork and master self-learning skills. I'll treat every data project as a team effort, ensuring I'm disciplined enough to grow independently.

WONG ZI PING: I've already started learning some basics, but this talk made me realize how much further I must go. It's not just about the code I've written; it's about mastering the industry's standard tools and frameworks like Agile. I need to enhance my skills to meet real market demands.

6.0 References

- **Abdul Muttalib, A. A. [LinkedIn]. (n.d.).** *Innovator in Digital Transformation & Ecosystem Enablement | Founder of Sakupay & PilgrimPro*. LinkedIn. Retrieved December 25, 2025, from https://www.linkedin.com/in/ts-abdul-alim-abdul-muttalib-06728316b/

- **Abraham, T., Beath, C., Bullen, C., Gallagher, K., Goles, T., Kaiser, K. and Simon, J. (2006).** "IT workforce trends: implications for IS programs," *Communications of the Association for Information Systems*, Vol. 17, pp. 1147-1170.

- **Fang, X., Lee, S., and Koh, S. (2005).** "Transition of Knowledge/Skills Requirement for Entry-Level IS Professionals: An Exploratory Study Based on Recruiters' Perception." *Journal of Computer Information Systems*, 46(1), pp. 58-70.

- **Kim, Y., Hsu, J., and Stern, M. (2006).** "An Update on the IS/IT Skills Gap." *Journal of Information Systems Education*, 17(4), pp. 395-402.