# UNIVERSITI TEKNOLOGI MARA

# AN APPROACH TO THE DEVELOPMENT OF SOFTWARE RISK MANAGEMENT SYSTEM

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Thesis submitted in partial fulfillment of the requirements for the degree of Master of Science in Information Technology

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### **CANDIDATE'S DECLARATION**

I declare that the work in this thesis that was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any other master or qualification.

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### ABSTRACT

Risk management exists in our everyday life. It plays an important role in securing valuable things in life and make people feel safer and more at ease. The same goes to software development project. Risk management plays an important role in reducing the risk of project failure and minimizes the loss that will be suffered if any unwanted events do occur in the project. However, software developers today still fail to realize the importance of risk management and reluctant to implement it in their project. In this research, investigation on risk management process practice by software development project manager and issues and challenges involved in risk management of software development project was done. As the result, all respondents do implement risk management but in an informal manner and do not cover all software development projects. There are lots of issues and challenges identified during the interview. Some of the issues become the barrier in risk management implementation while some of them encourage the implementation. A unique issue, 'law and regulations force risk management implementation was discovered' in this research. The law that force risk management implementation in software development project in Malaysia is ISO 27001 by International Security Office (ISO) and the International Electro technical Commission (IEC). An approach to resolve this issue was taken by developing a prototype of risk management system for software development project in this research. The system was designed to focus on alerting user on risk triggered and producing a good risk management report to help user in achieving the ISO 27001 standard.

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