



# **Uncertainty Factors of the Projects in Sri Lankan Software Industry and a Controlling Model**

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I certify that I have read this thesis and that in my opinion it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Science.

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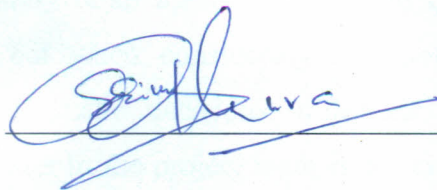
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## Declaration of originality

This is to certify that the work is entirely my own and not of any other person, unless explicitly acknowledged (including citation of published and unpublished sources). The work has not previously been submitted in any form to the Sri Lanka Institute of Information Technology or to any other institution for assessment for any other purpose.

Signed

A handwritten signature in blue ink, appearing to be 'Sri Lanka', written over a horizontal line.

Date

17-12-2014

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## **Abstract**

# **Uncertainty factors of the projects in Sri Lankan software industry and a controlling model**

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MSc. in Information Technology

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Uncertainty is an inevitable factor of most software projects, not only in Sri Lanka but when considering the global software industry. Most Project Managers make decisions, milestones to make sure that each and every stakeholder in the project team is working to make the desired deliverables but still the project ends up with an overrun schedule, overflowing budget and compromised specifications. Or it just dies.

Software organizations should identify different kind of uncertainties where project can tolerate at different stages of the projects. For this study I would like to collect data through questionnaires from several software companies in Sri Lanka and find out what are the uncertainties that they face during various phases of the project. Also the management approaches they take when such instance occurred will also identified from the data collection from various stakeholders of the projects.

In this study the uncertainty factors were explored by conducting surveys based on interviews and questionnaires. From the interview based surveys the uncertainty factors affecting to projects in Sri Lanka software industry were identified and to measure the significance of the responses actions in each impact level a questionnaire based mass surveys was conducted.

There it is observed that there are response actions that can be taken independent of the impact level of the uncertainty of some uncertainty factors. Furthermore when selecting suitable response action when there is an uncertainty in a particular impact level, the order of preference can be taken into consideration.

This study is significant because the data was collected from a large sample of professionals who involved in Sri Lankan software industry and inferential analysis techniques and hypothesis tests were performed under 95% significance level and the tests satisfied the requirements of validity of the data. Also from the mass questionnaire based survey verifies the application of responses actions for identified uncertainties in different impact levels.