

**NOVEL DECISION SUPPORT SYSTEM FOR UNDERGROUND POWER
NETWORK ASSET MANAGEMENT**

ASAWIN RAJAKROM

**DOCTOR OF PHILOSOPHY
IN KNOWLEDGE MANAGEMENT**

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**THE GRADUATE SCHOOL
CHIANG MAI UNIVERSITY
AUGUST 2009**

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**A THESIS SUBMITTED TO THE GRADUATE SCHOOL IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY
IN KNOWLEDGE MANAGEMENT**

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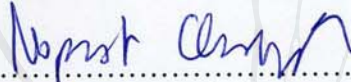
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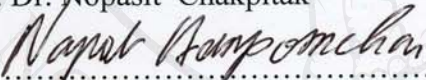
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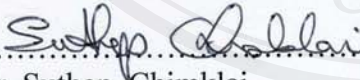
THIS THESIS HAS BEEN APPROVED
TO BE A PARTIAL FULFILLMENT OF THE REQUIREMENTS
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“Three Angles, Thanks for Devotions and Loves”

The research was motivated by year-long experiences of the author working in the distribution utility that there does not exist in the company the modeling framework to represent the human expert knowledge and in turn apply to assist their daily work. As well, the lack of a comprehensive decision support tool is another issue that makes the decision process more or less inefficiently and ineffectively. As the matter of fact, the knowledge for assessment and decision making tasks have already existed in the organization, but when the assessment and decision making tasks are to be performed, they always require the human experts. So it might be a good thing if there is an effective decision support tool available for assisting decision making.

The development of decision support system for underground network asset management has been progressed and succeeded under many kind supports of Metropolitan Electricity Authority (MEA) personnel and management. The colleagues from Construction Department where the author is currently working are the main sources of knowledge that the author can ask, discuss, consult or witness any time he likes. Not to mention the colleagues from diverse department, Research and Development Department, Planning Department, Design Department, District Office, etc. they are all invaluable resources for the research. Without their contribution, the success of this thesis would not be possible.

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Asawin Rajakrom

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