

A Semantically-Enriched E-Tendering Mechanism

by

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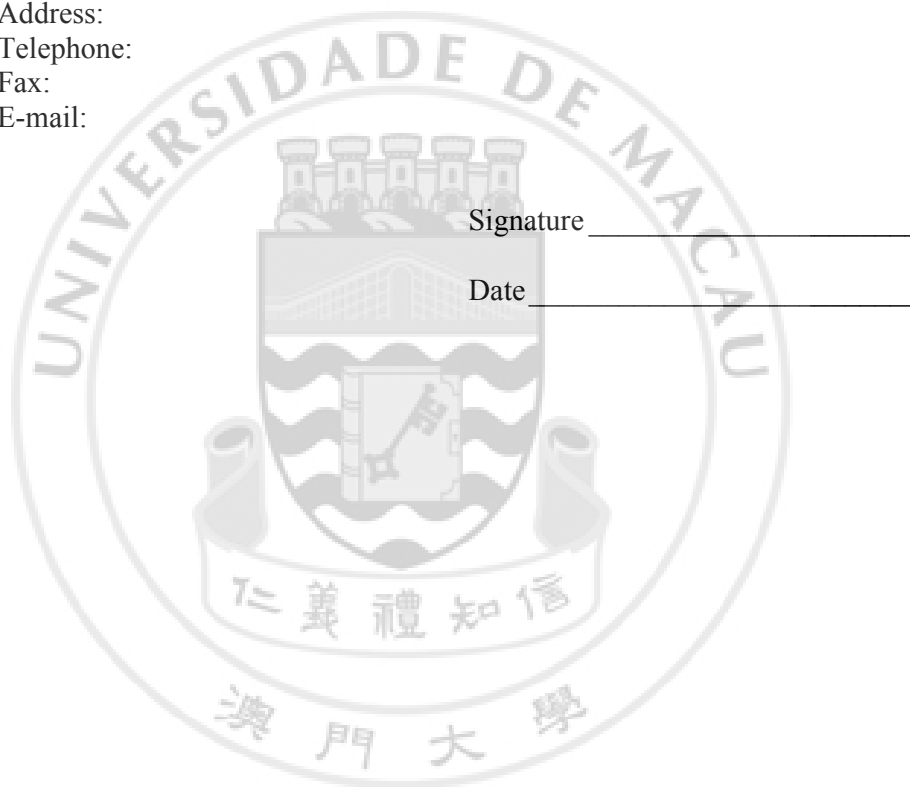
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Abstract

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E-tendering is widely used in company and government purchasing in e-business practice. However, existing e-tendering platforms cannot solve semantic interoperability problems between heterogeneous e-tendering systems. It increases extra risks of misunderstanding the meaning of the exchanged e-tender document and failing to fairly evaluate which company is the best. This thesis proposes a novel semantically-enriched e-tendering (SEET) approach, which enables heterogeneous e-tendering systems to be semantically connected and interoperable by applying collaborative conceptualization theory. Based on this approach, a SEET platform is implemented and guarantees that e-tender inviters and e-tender bidders can exchange their e-tendering documents in a semantically consistent manner.

This thesis targets to achieve the following objectives:

1. Identify the problem in the current practices for e-tendering platform
2. Design and develop a framework of SEET to solve the problem
3. Implement an SEET e-tendering platform prototype
4. Evaluate SEET and analyze by demonstrating the applicability of the approach using a real world scenario.
5. Conclude the thesis and describe the future work.

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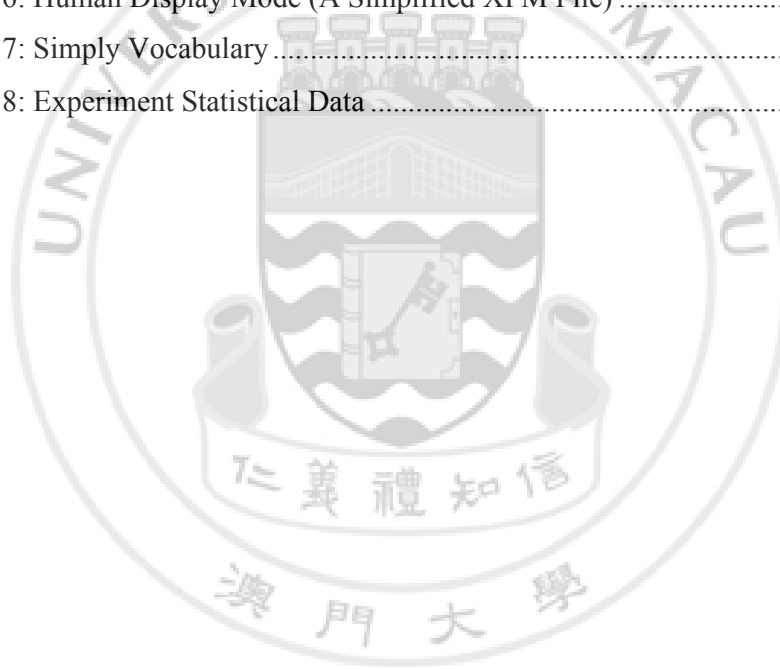
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LIST OF ABBREVIATIONS



CCE.	Common Concept Editor
CLM.	Common-Local Map
CM.	Computer-Mode
CONEX.	Collaborative Concept Exchange
CT.	Concept Transformer
CV.	Common Vocabulary
DOM.	Document Object Model
EDM.	E-tender Document Manager
ETB.	E-Tender Box
ETM.	E-tender Manager
HM.	Human-Mode
HTTP.	Hypertext Transfer Protocol
JSP.	Java Server Pages
LCE.	Local Concept Editor
LV.	Local Vocabulary
SAX.	Simple API for XML
SEET.	Semantics-Enriched Electronic Tendering
WWW.	World-Wide-Web
XML.	Extensible Markup Language
XPM.	XML Product Map

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