01219496 (SKE)
Selected Topics in Software & Knowledge Eng.
Services Innovation and Engineering
August 2013 - December 2013
Thursday 16.00 pm – 19.00 pm Room 503

Contact details
Lecturer: Assoc.Prof.Dr.Asanee Kawtrakul
e-mail: asanee_naist@yahoo.com
Room No.: 503
Consultation hours: 16.00 pm – 19.00 pm Thursday

Unit details
Department: Computer Engineering
Course Title: Selected Topics in Software & Knowledge Eng.
Course Code: 01219496
Invited Talk:

Course description
Service Innovation and Engineering is a part of Service science, management, and engineering (SSME) which is a term introduced by IBM to describe service science, an interdisciplinary approach to the study, design, and implementation of services systems – complex systems in which specific arrangements of people and technologies take actions that provide value for others. More precisely, SSME has been defined as the application of science, management, and engineering disciplines to tasks that one organization beneficially performs for and with another.

Today, SSME is a call for academia, industry, and governments to focus on becoming more systematic about innovation in the service sector, which is the largest sector of the economy in most industrialized nations, and is fast becoming the largest sector in developing nations as well. SSME is also a proposed academic discipline and research area that would complement – rather than replace – the many disciplines that contribute to knowledge about service. The
interdisciplinary nature of the field calls for a curriculum and competencies to advance the development and contribution of the field of SSME.

**Aim**
The aim of this course is to acquaint students with creative idea in service system design with ICT enabling

**Teaching approach**
Teaching will consist of lectures, assignments and workshop.
- A formal lecture series will be employed to deliver core concepts, related theory and examples supported by some web-based notes, references to texts and references to online material.
- Assignment with a case study aligned with the country research strategy for creative design and prototyping. Four domain assignments on Agricultural, Tourism, Health and Education.
- Workshop for sharing knowledge and discussion

**Prerequisites**
**Assumed skills**
A background in ICT practices.

**Prerequisite units**
None

**Texts, references and learning resources**
**Reading Text**
1. The innovation Secrets of STEVE JOBS : Principles for Breakthrough Success,

**Learning resources**
Course materials : from webs.
Teaching arrangements

Lectures/Intensive sessions

Lectures are delivered in 3 hourly blocks including workshop.

Learning expectations and strategies

Expectations

Students are expected to participate actively and positively in the teaching/learning environment. They must attend classes when and as required, strive to maintain steady progress within the subject or unit framework, comply with workload expectations, and submit required work on time.

Unit schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Exercises/questions for discussion</th>
<th>Readings/Resources</th>
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</thead>
<tbody>
<tr>
<td>22 Aug 2013</td>
<td>Introduction to Service Innovation</td>
<td>Workshop and Exercises</td>
<td>Open Service Innovation</td>
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<tr>
<td>29 Aug 2013</td>
<td>ICT Enabled Service Innovation</td>
<td>Workshop and Exercises</td>
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<tr>
<td>5 Sep 2013</td>
<td>Business Model Innovation</td>
<td>Workshop and Exercises</td>
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<tr>
<td>12 Sep 2013</td>
<td>e-Government Service and Innovation</td>
<td>Workshop and Exercises</td>
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<tr>
<td>19 Sep 2013</td>
<td>Foresight : Service Research and ICT Enabling Innovation for Better Life</td>
<td>Workshop and Exercises</td>
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<tr>
<td>26 Sep 2013</td>
<td>Business Model Innovation</td>
<td>Workshop and Exercises</td>
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<tr>
<td>3 Oct 2013</td>
<td>Smart Service for Health Care</td>
<td>Workshop and Exercises</td>
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<tr>
<td>10 Oct 2013</td>
<td>Smart Service for Agriculture</td>
<td>Workshop and Exercises</td>
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<td><strong>Mid Term 14 – 18 Oct 2013</strong></td>
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<tr>
<td>24 Oct 2013</td>
<td>Smart Service for Education</td>
<td>Project Design and Presentation</td>
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<tr>
<td>31 Oct 2013</td>
<td>Smart Service for Tourism</td>
<td>Project Design and Presentation</td>
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<td>7 Nov 2013</td>
<td>Smart Innovation for Smart City</td>
<td>Project Design and Presentation</td>
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<tr>
<td>14 Nov 2013</td>
<td>Future Internet for Smart Life</td>
<td>Project Design and Presentation</td>
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<tr>
<td>Week</td>
<td>Topic</td>
<td>Exercises/questions for discussion</td>
<td>Readings/Resources</td>
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<tr>
<td>21 Nov 2013</td>
<td>Project Presentation</td>
<td>Project Design and Presentation</td>
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<tr>
<td>28 Nov 2013</td>
<td>Project Presentation</td>
<td>Project Design and Presentation</td>
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</table>

Final Exam. 9 – 20 Dec 2013

Assessment summary

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight/Value</th>
<th>Due date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midterm/Assignments /Quiz at the end of Class</td>
<td>50%</td>
<td>Week 9</td>
</tr>
<tr>
<td>Final exam and Assignment</td>
<td>50%</td>
<td>Week 14,15</td>
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</tbody>
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Laboratory Work

Task description

Undertake laboratory work in groups.

Link to learning outcomes

Workshop sessions serve to demonstrate principles learned in lectures and tutorials.

Report criteria/guidelines

Report is to be submitted not more than one week after lecture session. Report is graded on content, clarity and accuracy. The report format for each session is outlined in instructions for that session.

Weighting of Quiz components

Assignments are given out and examined classes sessions. Six assignments are of equal weight.

Mid and Final exam

A single three-hour closed book examination to cover in all material presented in the unit.

Submission of assignments

Assignments are given out during laboratory sessions. The due date will be at least one week from the date the assignment is handed out.
Requests for extensions
Only extensions on the basis of medical reasons will be considered.

Penalties
Late submission of assignments is not allowed. Only extensions on the basis of medical reasons will be considered.

Grading
More than 80%  A
More than 75%  B+
More than 70%  B..
More than 65%  C+
More than 60 %  C
More than 55%  D+