APSEC 2013 Tutorial Proposal

Title:
Requirements Engineering Based on REBOK (Requirements Engineering Body Of Knowledge) and its Practice

Discussion Leader (Contacting Person)
Mikio Aoyama, Dr. of Engineering
Professor, Dep. of Software Engineering, Nanzan University
Seto, Japan
mikio.aoyama@nifty.com

Tutorial Purpose: (objective of a tutorial)
The objective of the tutorial is to introduce core concepts and techniques of requirements engineering with practical examples.
The overall goal of the tutorial: Participants can understand the whole picture of requirements engineering based on REBOK.
- Practitioners can understand the current state of the practice of requirements engineering, and get ready to practice requirements engineering.
- Researchers can understand the whole view of requirements engineering, and get ideas and hints of the research topics.
- Educators can understand the whole view of requirements engineering, and guidelines of teaching it.

Tutorial description: (provide a clear description of the topic including background information & audience participation)

(1) Background and Motivation
Requirements engineering is a key to success to software development. However, it is still difficult to practice full knowledge of requirements engineering due to the diversity of the knowledge. In Asia-Pacific area and the world, software professional and researchers in many countries are now facing challenges of introducing requirements engineering, and make the development success.

On the other hand, the requirements engineering has been maturing with a large number of publications, and an international standard of requirements engineering process [5]. To guide practitioners and researchers on the requirements engineering, REBOK (Requirements Engineering Body Of Knowledge) was published in 2011 [1, 2, 3]. Since then, REBOK has been well received, and several companies developed methodologies and education programs for professional engineers based on REBOK. At Requirements engineering conferences, we organized special session on REBOK at RE 2010 [1], and a panel session at RE 2013 [4]. This year English version of REBOK is going to publish.
(2) Intended Audience
Level: Basic to intermediate
Prerequisites: None

(3) Duration of Tutorial
Half-day (Three to four hours)

(4) Structure of Tutorial
Session 1 (1hr 30 min)
   (1) Introduction
   (2) Foundation of Requirements Engineering based on REBOK
       Foundation of Requirements Engineering, Requirements Process, Requirements Analysis,
       Requirements Verification and Validation
Session 2 (1hr 30 min)
   (3) Requirements Engineering Techniques
       Requirements Elicitation, Requirements Analysis, Requirements Verification and
       Validation
   (4) Requirements Engineering Practice
       A Case Study of Requirements Engineering Practice and Practical Hints
   (5) Discussions

(5) Previous experiences
At APSEC 2011, we organized a half-day tutorial on requirements engineering based on REBOK,
which drew more than 50 participations, followed by another half-day tutorial at APSEC 2012.

Speakers: (short biographies of potential speakers)

Mikio Aoyama is a professor at the Department of Software Engineering, Nanzan University, Japan.
He received MS and Dr. of Engineering from Okayama University and Tokyo Institute of Technology,
respectively. For 15 years, he worked for Fujitsu Limited, where he involved in the development of
large-scale communications software, and the development and practice of advanced software
engineering. From 1986 to 1988, he was visiting scholar at the University of Illinois, USA. In 1995,
he joined Niigata Institute of Technology as a professor, then moved to Nanzan University in 2001.
He served many program/organizing committees of international conferences, including general
co-chair of IEEE RE 2004, general co-chair of APSEC 2007 and co-chair of Experience Track on
Automotive Systems of ICSE 2008. He is also served for editorial boards of several international
journals including requirements engineering journal and IEEE Transactions on Services Computing.
References


