

# 3rd Workshop of Dependable Software Engineering (DSE) for Safety-Critical Systems

**KAERI, Korea**

**24-27 September 2013**

The objectives of the workshop are to:

- Exchange the experiences of the dependable software engineering for a safety-critical systems
- Discuss the research collaboration methods, e.g., information exchange, experts exchange
- Make a task-force team to establish a long-term collaboration project of the dependable software engineering, e.g., participating the Framework Program7.

## **Participants**

- ICT Risk and Dependability Division, IFE, OECD/NEA Halden Reactor Project (HRP), Norway
- Dependable Software Engineering Department, Korea Advanced Institute of Science and Technology (KAIST), Korea
- I&C.HF Division, Korea Atomic Energy Research Institute (KAERI), Korea
- Dependable Software Laboratory, KunKuk University, Korea
- The workshop is open to experts from regulatory authorities, research organizations, and industry representatives and observers.

## **Background**

The main concern is that safety-critical systems are required to have high and predictable levels of reliability. The evidence from operating experience shows that in some cases that long-term maintenance of software dependability is an

issue of concern. This has to be resolved particularly for software-based systems important to safety.

**Workshop** focuses on the exchange of experiences to risk assessment and management from the safety, security and reliability viewpoints. All aspects of dependability of critical software-based systems and infrastructures are included.

#### **4 days(24-27. Sep. 2013) Programme**

The workshop is divided into four sessions: Technical Session I; Technical Session II, Workshop Session, Technical Session III. The Workshop will have short plenary presentations in the followed by discussions.

#### **Technical Session I (Tuesday. 24th. Sep. 2103, INTEC meeting room 102, KAERI building no.6)**

**Technical session I** will address the following issues:

- (Morning)Greetings and Discussion on Safety Demonstration Framework
- (Afternoon)Interview about Safety Demonstration

#### **Technical Session II (Wed. 25<sup>th</sup>. Sep. 2013, INTEC meeting room 102)**

**Technical session II** will address the following issues:

- (Morning) Interview about Safety Demonstration (cont.)
- (Afternoon) Discussion on preparing the IEC Hazard Analysis TR

#### **Workshop Session (Thursday. 26<sup>th</sup>. Sep. 2013, INTEC meeting room 106)**

No.	Schedule	Topic	Speaker
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1	13:30-13:40	Welcome and Introduction	Jangsoo Lee
2	13:40-14:20	Automated Structural Testing for FBD Programs	Eunyoung Jee
3	14:20-15:00	Requirements for safe and secure computer-based systems	Christian Raspotnig
4	15:00-15:40	Virtual Prototyping based Simulation and Testing for Embedded Systems	Woojin Lee
5	15:40-16:00	Coffee Break	
6	16:00-16:40	A traceability approach for building valid safety arguments	Vikash Katta
7	16:40-17:20	FBD_FTA: An Automatic Assistant for Fault Tree Analysis of Function Block Diagrams	Youngju Seo
8	17:20-18:00	Software V&V Paradigm for Q-Class Optical MODEM	Jangyeol Kim
9	18:00-18:30	Discussion	Jangsoo Lee

(18:30-21:00: Banquet, Place: TBD)

## **Technical Session III (Friday. 27<sup>th</sup>. Sep. 2013, INTEC meeting room 102)**

**Technical session III** will address the following issues:

- (Morning) TFT Meeting for preparing the IEC Hazard Analysis TR
- (Afternoon) Summary session: the research collaboration methods, a task-force team to establish a long-term project of the dependable software engineering.

### **Organization**

The workshop is being held in the Korea Atomic Energy Research Institute (KAERI), Daejeon, Korea.

### **Language**

The presentations and discussions will be in English and Korean.

### **Program Committee**

The Program Committee members are:

Mr. Christian Raspotnig (IFE, Norway)

Mr. Vikash Katta (IFE, India)

Ms. EunKyoung Jee (KAIST, Korea)

Mr. JunBeom Yoo (KunKuk University, Korea)

Mr. WooJin Lee (KyoungPook Nat. University, Korea)

Mr. JangYeol Kim (KAERI, Korea)

Mr. JangSoo Lee (KAERI, Korea)