FiSMA
Finnish Software Measurement Association

For better management

FINLAND HOSTS THE SC7 PLENARY IN MAY 2019!

Events

Available trainings

- Scope Manager course, starting 27.9.2018
- Hyvä Järjestelmäkuvaus (HJK), 4-5.10.2018
- SPICE Update, 14.11.2018

Work group meetings

- Research Forum, 25.9.2018.
- Annual meeting 23.11.2018
- Scope Manager Forum, 11.12.2018.

Details of the events could be checked in the web www.fisma.fi when final dates have been confirmed.

FiSMA has been an active stakeholder in the software and systems engineering standards since early 1990´s. The main global standardization organization in this area is ISO/IEC JTC1/SC7. Earlier we hosted the SC7 Plenary meeting in 2005, attracting 150 participants from 30 countries. Currently, the national responsible organization in Finland is SFS (The Finnish Standards Association) for JTC1 including the SC7 standards. FiSMA is a very active partner and the key resource in the Finnish mirror committee for SC7, SR314.

Finland hosts the next SC7 Plenary in Espoo. It is a combination of general and workgroup meetings. At present, SC7 has 12 active workgroups and some ad hoc or temporary groups.

Contact

Interested in software processes, international standards or joining FiSMA?
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Software Safety and Security: a hot potato now and in the future

How good quality is good enough for software components to be embedded into your system? How can the users of your system trust that there are no serious vulnerabilities hiding inside? How can you as a software vendor confirm your customers to feel safe and secure? One vulnerable component makes the whole system, and any 'system of systems' where it's present, equally vulnerable. Several communities, including European Union and its member countries, have started to pay attention to these questions. There are different opinions about the quality required, and different tools and methods to help the quality evaluators, but no standards to give guidance for the tool selection.

Turku University of Applied Sciences (TUAS) is one of the newest members of FiSMA. Safety and Security Management Research Group of TUAS represents Finland in an EU project called VESSEDIA. The project started in the beginning of 2017 and will continue till the end of 2019, focusing on different aspects of software safety and security verification tools and their use. Increasing complexity of IoT related systems and number of safety and security critical software components within these systems require increasing automation from evaluation and verification processes. One of the most challenging responsibilities appointed to TUAS in the VESSEDIA project is to help and guide experts of the consortium to provide a new ISO/

IEC standard for Software Safety and Security Verification Tools. This is where the FiSMA experience and expertise came to the picture.

The purpose of new standard is to protect the users and to give guidance to the vendors of verification tools. Typical users of such tools are the organizations who want to get safety and security certification for their software products or components. Another group of users are the third-party evaluators, often working in certifying bodies. The very first achievements from VESSEDIA standardization activities were the adoption of the project to the ISO/IEC JTC1 SC7 Working Group WG4, and the nomination of project editor and co-editors representing seven countries. Both TUAS and VESSEDIA are represented within the editorship, and Senior Advisor Pekka Forselius from FiSMA is the Project Editor. So far, the editors have provided the Working Draft (WD) version of base document. It was submitted to the first international ballot in July 2018, and the combined New Work Item Proposal and Committee Draft ballot will close in October 2018. Especially the FiSMA members, but also other experts and organizations that have knowledge and experience, and/or are interested in more information about the Software Safety and Security Verification Tools, are warmly welcome to contact the Project Editor through TUAS or FiSMA.

By Pekka Forselius, senior advisor,FiSMA

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Newsletter   Winter / 2018-19

FiSMA around the world, part 4

ISO/IEC JTC1/SC7 (Software and Systems Engineering) held its 31st Plenary in India, New Delhi, May 6-11, 2018. The meeting had over 100 participants from 18 countries. Finnish participants were Pekka Forselius (AG, Plenary, WG4, WG10) and Timo Varkoi (AG, Plenary, WG7, WG10, SWG5) of FiSMA, and Mikko Huttunen (AG, Plenary) of SFS.

The Advisory Group (AG) discusses future interest areas. One of the trends is merging Agile and DevOps to support continuous integration, delivery and testing. Serverless architecture provides infrastructure only when needed. Assisted transportation requires wide-ranging systems thinking. Real-life systems will have digital twins for simulation. A new project was set up to study framework standards for Autonomous systems.

A new topic in WG 4 (Tools and methods) is Model based software and systems engineering. There is a special article by Pekka on Software safety and security verification tools.

WG7 (Life cycle management) continues to maintain supporting standards due to changes in software and systems engineering lifecycle models. Also, System of Systems standards are progressing.

WG10 (Process assessment) managed to push forward major changes in the process capability mod-

The sturdy Finnish delegation: Timo, Mikko and Pekka in New Delhi, India

el to support process assurance. Development of the 33060 Process assessment model for systems life cycle processes continued.

More detailed information on the development of the standards can be obtained at FiSMA/SFS SR 314 Software and systems engineering committee meetings. The next SC7 Plenary meeting will be held in Espoo at Aalto university, see special article by Risto.

Timo Varkoi, senior advisor, FiSMA

Software industry suffers from poor documentation – Stop suffering now!

Poor or missing specifications are the most common reason for wasted time and money in software development projects. Poor or missing documents make software maintenance slow, expensive and vulnerable.

FiSMA offers now a two days training course for GOOD PRODUCT DOCUMENTATION. The attendees receive an impressive set of methods and

tools, which they already get to try during the days, October 4 and 5. Teaching language is Finnish. The instructors are Senior Advisor Pekka Forselius and Board Member Anne Valsta from FiSMA.

Read more on www.fisma.fi.

FiSMA members: University of Helsinki

University of Helsinki is the highest ranking multi-disciplinary science university in Finland and the Department of Computer Science is a leading unit in its area. The number of professors at the Department has grown in recent years and there are now 28 professorships. The research groups address significant research challenges in their areas of data analytics, AI, and security and privacy, for example. The research in software engineering is inspired by problems and challenges with industrial relevance or origin and empirical methods are used to gain deep understanding of software development.

The Department has extensive international collaboration with companies and universities. Within teaching, the department's professors and staff are in charge of the bachelor's, master's, and doctoral programmes in computer science, as well as the separate master's programme in data science, in which the other faculty departments also participate. Most of the teaching in the master's and doctoral programmes is given in English. The department has been a pioneer in developing massive, open, on-line learning in Computer Science.

By *Antti-Pekka Tuovinen, PhD., University Lecturer, University of Helsinki*
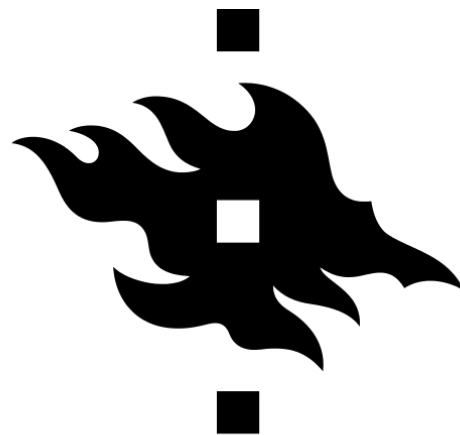
**HELSINGIN YLIOPISTO
HELSINGFORS UNIVERSITET
UNIVERSITY OF HELSINKI**

Finland hosts the SC7 Plenary in May 2019, Front page continued

Plenary and workgroup meetings will last a whole week, from 19th to 24th of May, 2019. The meeting venue is Aalto university, the Finnish main education and research organization combining science and art together with technology and business.

Standardization is an open and voluntary activity. Basically, anyone can participate in plenaries and workgroup meetings. However, all participants shall be recognized and nominated by a national standards body. If you want to see us in the SC7 Plenary 2019, you first need to contact your own national body! Participation is rewarding and an excellent opportunity for networking and knowledge sharing. Some of the well-known results of SC7 are SPICE, SQUARE and the lifecycle models 12207 and 15288.

By *Risto Nevalainen, senior advisor, FiSMA*

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