In Critical Systems the necessary effort for V&V frequently exceeds the core development time when using traditional methods. The “soft” IT industry rapidly turns to system integration based on the reuse of hardware and software components, but for safety related applications this will still evolve primarily due to the lack of composable V&V and certification. All this poses serious difficulties to companies, which are on one hand constrained to meet predefined quality goals, whereas, on the other hand, are required to deliver systems at acceptable cost and time to market. Large companies mainly follow a brute-force approach by focused large volume investment into tooling and in-house training, but even high-tech SMEs are highly vulnerable to the new challenges. Definition of methods, strategies and tools assuring an adequate and simultaneously productive V&V is one of the most challenging goals. It is hard to establish a proper tradeoff between achievable quality with a particular technique (in terms of RAMS attributes) and the costs required for achieving it. The situation is even worse in the case of integration of existing SW in a safety critical system to be certified, since, assessing products which encompass COTS software is a challenge although modern standards consider this possibility. An additional concern is the usage of recently adopted methods for SW development like MDD, since the certification of systems using software developed with these supports is at the limit of the applicability of the existing standards, and only the most recent ones are aligned with these ‘modern’ methods.

Topics of particular interest include, but are not limited to:

- Model-based design and certification
- Experimental assessment of safety, reliability and security
- Effort evaluation and prediction models for V&V activities
- SW-FMEA methodologies
- Certifiability of critical architectures based on diversity of HW and SW COTS
- Component integration and V&V
- Tool certification
- Human skill aspects of V&V
- Design for certifiability
- Interactions and contradictions between safety and security from a certification point of view
- Techniques for dependable and secure services

**SUBMISSION GUIDELINES:** Authors should prepare a Portable Document Format (PDF) version of their full paper. Regular papers must be no longer than 12 pages, following Instruction for LNCS Authors provided by Springer, available at:
http://www.springer.com/computer/lncs/lncs+authors?SGWID=0-40209-0-0-0. Papers are submitted electronically using the EasyChair online submission system: https://www.easychair.org/conferences/?conf=devvarts2014.

**PUBLICATION:** All submitted papers will be peer-reviewed and the accepted papers will be included in a Workshop Proceedings distributed at the SAFECOMP conference. The SAFECOMP organization team will provide companion proceedings covering all the papers of DEVVARTS workshop and plan to make all workshop papers published by Springer in the LNCS series.

**SPECIAL ISSUE:** A special issue of best papers from this workshop will be published in the International Journal of Critical Computer-Based Systems (IJCCBS). Authors of accepted papers for the workshop will be provided an opportunity to submit significantly extended versions of their workshop papers, which will undergo a separate, rigorous review.

For more details, contact the organizing committee or visit:
http://www.ceris-project.eu/DEVVARTS
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