ESSoS Doctoral Symposium 2013

Maritta Heisel[1] and Eda Marchetti[2]

[1] paluno - The Ruhr Institute for Software Technology
University Duisburg-Essen,
Duisburg, Germany
`maritta.heisel@uni-duisburg-essen.de`
[2] Istituto di Scienza e Tecnologie dell'Informazione "A. Faedo", CNR
via G. Moruzzi 1,
56124, Pisa, Italy
`eda.marhetti@isti.cnr.it`

Preface

These proceedings contain the accepted contributions of the second Doctoral Symposium of the International Symposium on Engineering Secure Software and Systems (ESSoS). The ESSoS Doctoral Symposium 2013 was held in Paris (Rocquencourt), France on Wednesday, February 27, 2013 in conjunction with the ESSoS 2013 Symposium.

Following the aim of the ESSoS-DS past edition, the scope of the current event was focused on providing PhD students an opportunity to discuss their research in Engineering Secure Software and Systems in an international forum, and with a panel of well-known experts in the field. In a welcoming and informal atmosphere, students could discuss the goals already achieved or planned, the research challenges they are interested in, the projects they are working on, the facilities they are developing, and the problems they want to solve in their doctoral work. During the Doctoral Symposium students received feedback from senior researchers, industrial partners and experts. The symposium was also a good opportunity for meeting and sharing experiences with other PhD students, who are addressing similar topics or are at a similar stage in their doctoral work.

All papers contained in these proceedings have been peer-reviewed by 3–4 programme committee members. They cover a wide spectrum of topics.

Francisco Moyano, Carmen Fernandez-Gago and Javier Lopez treat the topic of trust and reputation, which plays an important role in security-critical applications.

Naod Duga Jebessa, Guido van't Noordende, and Cees de Laat discuss how to construct secure virtual machines from declarative descriptions.

Jonathan Woodruff, Simon W. Moore, and Robert N. M. Watson propose a capability model to support memory segmenation, which enhances security.

Jan Stijohann and Jorge Cuellar aim at a systematic generation of security tests. They propose a two-step method, bridging the gap between risk analysis and security testing.

Christian Mainka, Vladislav Mlandeno, Juray Somorovsky, and Jörg Schwenk introduce a penetration test tool for XML-bse Web Services, which serves to secure service-oriented architectures.

Harsha K. Kalutarage, Siraj A. Shaikh, Qin Zhou and Anne E. James discuss a Bayesian approach to monitor nodes in computer networks for slow suspicious activities.

Tong Li, John Mylopoulos and Fabio Massacci consider socio-technical systems (STS), consisting of people, software, and hardware. They aim at developing a comprehensive framework for designing secure STS.

Alexander van den Berghe, Riccardo Scandariato and Wouter Joosen describe a procedure for a systematic literature review in the area of secure software design.

Katsiaryna Labunets and Fabio Massacci propose to conduct a series of empirical studies to aid practitioners in selecting an appropriate security requirements engineering method and to support method designers in improving their methods.

The diversity of the considered topics and applied techniques of the thesis research contained in these proceedings shows that the area of Engineering Secure Software and Systems is a lively one, offering challenging research opportunities.

Duisburg and Pisa, February 2013
Maritta Heisel and Eda Marchetti

Acknowledgments

Program Committee

Benoit Baudry	IRISA INRIA, Rennes
Ruth Breu	University Innsbruck, Innsbruck,
Jorge Cuellar	Siemens AG, München
Sandro Etalle	Technical University of Eindhoven, Eindhoven
Wouter Joosen	DistriNet Research Group KU, Leuven
Nora Koch	Ludwig-Maximilians-Universität München, München
Yves Le Traon	University of Luxembourg, Luxembourg
Javier Lopez	Universidad de Malaga
Fabio Martinelli	IIT-CNR, Pisa
Fabio Massacci	Università di Trento, Trento
Aljosa Pasic	Atos Origin, Madrid
Joachim Posegga	Passau University, Passau
Michaël Rusinowitch	LORIA-INRIA, Villers les Nancy
Christoph Sprenger	ETH Zurich
Ketil Stolen	SINTEF
Yijun Yu	Open University, Milton Keynes