ICSY is one of the first Computer Sciences working groups to use the OLAT e-learning platform (1/2)

ICSY successfully started organizing its lectures with the virtual campus Rhineland-Palatinate’s OLAT - Online Learning and Training platform. ICSY is one of the first working groups in the Department of Computer Science to make use of the University’s e-learning services.

In summer 2012, ICSY started to use OLAT for its lecture “Service-oriented Architectures”. Because of the gain in flexibility and efficiency, now all of ICSY’s lectures will be managed via this platform.

ICSY’s students had no difficulties in adapting to this new environment. Now, students have a central platform for managing all their lectures, building virtual learning groups and cooperate on documents. The question is:

Why do not more working groups of the Computer Science Department make use of this modern system?

In OLAT students find general information about lectures as well as additional course materials and recent announcements. Each week students download the next exercise tasks description, submit their solutions, and get information about their current score. In addition, students find features to improve their study like Wikis, internal mail, calendars.

For years, many working groups from other departments used
ICSY organized a workshop “Social media – security in enterprise networks” on March 21, 2012, at the 20th „Technologie- und InnovationsFORUM Pfalz” that took place at the University of Kaiserslautern.

The subject of the event was “Challenge ‘enterprise security’ – products, services, and methods to repel security risks”. The goal of ICSY’s workshop “Social media – security in enterprise networks” was to create a level of awareness about the security and privacy implications of using social media.

Social media is a current topic with high importance for people as well as companies. Although social media enable personal communication and information on a new level, the topic of personal privacy is of high relevance for everybody using social media. All users have to decide for themselves how important privacy is for them and how much information they are willing to publish on a social network. In order to make a well-founded decision, it is important to understand the implications of using social media. Additionally, companies need to think about the implications of their employees using social media, because of the impact on enterprise security. Not only do employees publish private information about themselves, but also private and potentially secret information about the company. Moreover, employees with little experience in online activities quickly download “useful” add-ons that are eventually containing viruses or open up backdoors for attackers to the company’s network.

Germany has a highly specialized economy and as such is particularly vulnerable to security risks. Communication networks are an objective to criminal activities as well as products and services of all branches of economy. The 20th „Technologie- und InnovationsFORUM Pfalz” – organized at the University of Kaiserslautern in cooperation with the chamber of industry and commerce for the Palatinate – focused on presentation, workshops, and exhibitions with respect to enterprise security. Speakers from economy as well as research provide information and solutions on how to repel security risks to the participants.

(Text: Joachim Götze)
ICSY’s PhD Course was very well received

ICSY organized a Euro-NF sponsored PhD course on „Future Network Architectures and Experimentation“. It took place on 5th to 9th of March in the University of Kaiserslautern in Germany.

Experts from four Future Internet research groups presented their scientific findings and explained their approaches. The course covered problems with the current Internet architecture, differences between evolutionary and clean slate approaches, research challenges, experimentation tools and techniques, and several currently proposed approaches.

The PhD students enjoyed several interesting talks and joined a hands-on tutorial on a Future Internet experimentation facility organized by Prof. Paul Müller and Dennis Schwerdel.

Prof. Peter Steenkiste from Carnegie Mellon University presented the eXpressive Internet Architecture (XIA) approach, Miguel Ponce De Leon, the chief technologist of Telecommunications Software & Systems Group (TSSG), together with Prof. John Day from Boston and Eduard Grasa from i2CAT Foundation in Barcelona explained their approach on Recursive Internetwork Architecture (RINA), Dr. Bernd Reuther from ICSY described the Service Oriented Network Architecture (SONATE) approach, and Dr. Martin May, the director of Technicolor Research Lab Paris, introduced the Autonomic Network Architecture (ANA).

In total, eighteen students from five EU countries (Italy, Portugal, Germany, Austria and Sweden) and seven lecturers (two via video conferencing) contributed to the PhD course.

In many discussions students could talk about scientific findings, different view points about future network architectures, and innovative ideas.

In addition to the theoretical parts of the course, the participants attended a hands-on tutorial of the experimental facility as well. At the end of the course, all participants joined to compare the presented future network architectural approaches. This step fulfills the learning objective of this course.

Participation certificates signed by all lecturers were distributed at the end of the course. One of the student participants summarized his impression of the course by saying “first of all I would like to say thank you for the great time that I had during the last week. The course was well-organized and I really enjoyed it.”

(Text: Rahamatullah Khondoker)
Application Composition with SCA

ICSY cooperates with the Fraunhofer IESE in order to transform theoretical concepts into marketable products (project: Venice4IESE). As part of the project ICSY utilizes **Service Component Architecture (SCA)** to build powerful applications based on service-oriented architecture (SOA) principles.

SCA is a set of specifications offering a programming model to support the development of flexible composite applications based on the SOA paradigm. Composite applications are applications integrating existing services and new capabilities to provide value-added services.

SCA covers both the process of component creation and mechanisms for describing how components communicate with each other to provide a desired capability. The components in an SCA application can be implemented in a variety of languages, including Java, C++, and even BPEL. Independent from the implementation technology, SCA defines how such heterogeneous components communicate with each other using different protocols, like SOAP/HTTP, JSON-RPC, and RMI.

SCA separates implementation details from the composite application capabilities through the definition of a so called **composite file**. This file uses a XML-based notation to describe only which components are integrated and how they relate to each other. The business function of a component is published as a service. The relations to services of other components are defined as references. The access to a service is defined in a binding. A component can specify one or more bindings for each of its services and references. Each binding defines a specific protocol that can be used to communicate with services or references. Thus, a component can use the same implementation and configure different methods of access to the underlying business logic.

(Text: Aneta Kabzeva)

### ICSY Alumni

ICSY wishes to stay in contact with former colleagues, students, and student researchers in order to build a strong alumni network. Alumni receive the ICSY report in order to get a regular update of ICSY’s activities.

We report about selected highlights of the past months, present current research topics, and inform former ICSY members about news in research and lecture.

ICSY hopes you enjoy reading the report and would like to stay in touch with ICSY.

If you have any questions or would like to give feedback about the ICSY report please send an email to alumni@icsy.de

Please inform other former colleagues and students about ICSY Alumni.

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