



Application

Every year the Hasso Plattner Institute accepts a new generation of promising scientists in its international Research School. For suitable candidates who want to do their PhD or are aiming at a Post-Doc position we offer scholarships. Applications are accepted until August 15 of each year at: www.hpi.uni-potsdam.de/research_school.

A Special Opportunity

PhD students who have successfully been conferred a doctorate title at the HPI Research School demonstrate that they are able to make their own scientific contributions in their area of expertise, as well as being superbly prepared for cooperation with scientists in various fields worldwide.

Contact

Hasso-Plattner-Institut
IT-Systems Engineering | Universität Potsdam

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HPI Research School

Service-Oriented Systems Engineering

As of november 2013 | Photos: Kay Herschelmann, Dirk Lässig, Charles Yunck



www.hpi.uni-potsdam.de

Design IT. Create Knowledge.

The New Model

The demand for excellent young scientists is continually increasing worldwide. This new generation of researchers often works on very specific topics in their particular fields of research. However, at the same time, they are called to help solve problems and challenges that we are facing in real life, thereby transcending the boundaries of their own discipline. The Hasso Plattner Institute for IT Systems Engineering at the University of Potsdam therefore created this exceptional program in 2005 to promote the doctoral education: In this exemplary new model the traditional guidance by one PhD supervisor has been replaced by the concerted mentoring by a group of professors.

The Approach

Additional weekly doctoral seminars give PhD students a chance to conduct a regular exchange on questions, modes of thought as well as approaches in their individual departments. This practice leads to a greater mutual understanding and results in a fruitful cooper-



ation among the individual researchers. The HPI Research School in Potsdam is focused on the topic of "Service-oriented Systems Engineering", which builds the framework for all the disciplines involved. The young scientists examine the prevailing questions from the different perspectives of their own fields of expertise.

The Internationality

This fundamental idea of the shared mentoring of Ph.D. students by a group of professors has inspired branches of the HPI Research School in South Africa, Israel and in China. The comprehensive topic for HPI scholars at the University of Cape Town is "ICT for Development", for those at the Technion in Haifa it is "Scalable Computing", and for those at Nanjing University it is "Mass Data Analysis and Knowledge Discovery". Regular common workshops at participating universities offer doctoral candidates the chance to be part of an interdisciplinary team in a global research network.



UNIVERSITY OF CAPE TOWN
UNIVERSITEIT VAN KAAPSTAD



The Future SOC Lab

The young scientists of the Research School have access to the HPI's world class research lab "Future SOC Lab". It has been operated since 2010 with renowned industry partners such as EMC, Fujitsu, Hewlett-Packard and SAP. The Lab offers the latest, massively parallel processing multicore machines with enormous main storage capacities as well as especially designed software. These resources have a total value of several million Euros.



EMC²



FUJITSU

Our Thematic Orientation

The essential questions at the HPI Research School all focus on the topic of Service Computing. Simply put, they all deal with loosely interconnected service programs that exchange data in a standardized way. These are gradually replacing the closely linked software applications and processes that presently prevail. Thus, a flexible reconfiguration is possible if changes are necessary, saving the need for a fundamental and expensive reprogramming. Among the fields the scientists at the HPI Research School are working in are:

- Architecture, Modelling, Systems Software Support and Self-Adaptation of Service-Oriented Systems
- Adaptive Process Management
- Service Composition
- Process Planning
- Security Engineering
- Service-oriented Systems in 3D Computer Graphics, Geoinformatics and Human Computer Interaction

