Call for Participation Fifth International Workshop on Self-Organizing Systems (IWSOS 2011) KIT, Karlsruhe, Germany, 23.-24. February 2011 http://iwsos2011.tm.kit.edu

IWSOS 2011 is the fifth workshop in a series of multidisciplinary events dedicated to self-organization in networks and networked systems.

Program is online
*** http://iwsos2011.tm.kit.edu/program.html ***

Registration is now open (early registation until 21. Feb) *** http://iwsos2011.tm.kit.edu/registration.html ***

Call for posters and student research competition still running *** http://iwsos2011.tm.kit.edu/callforposters.html ***

Keynotes speakers:

* Prof. em. Dr. rer. nat. Dr. h.c. mult. Hermann Haken, founder of Synergetics

* Hod Lipson, associate professor at the Cornell Computational Synthesis Lab

The concept of self-organization is becoming increasingly popular in various branches of technology. A self-organizing system may be characterized by global, coordinated activity arising spontaneously from local interactions between the system's components. This activity is distributed over all components, without a central controller supervising or directing the behavior. Self-organization relates the behavior of the individual components (the microscopic level) to the resulting structure and functionality of the overall system (the macroscopic level). Simple interactions at the microscopic level may give rise to complex, adaptive, and robust behavior at the macroscopic level.

The necessity of self-organization in networks and networked systems is caused by the growing scale, complexity, and dynamics of future networked systems. This is because traditional methods tend to be reductionistic, i.e., they neglect the effect of interactions between components. However, in complex networked systems, interactions cannot be ignored, since they are relevant for the future state of the system. In this sense, self-organization becomes a useful approach for dealing with the complexity inherent in networked systems.

Chairs

General chairs:

- * Martina Zitterbart, KIT, Germany
- * Hermann de Meer, University of Passau, Germany

Program chairs:

- * Christian Bettstetter, University of Klagenfurt and Lakeside Labs, Austria
- * Carlos Gershenson, Universidad Nacional Autónoma de México

Keynote Speaker:

- * Hermann Haken, professor emeritus, University of Stuttgart and founder of synergetics
- * Hod Lipson, associate professor at the Cornell Computational Synthesis Lab