The 1st International Workshop on Self-Managing Pervasive Service Systems (SeMaPS 2012)

https://sites.google.com/site/semapsworkshop/

There is a growing trend for the convergence of different computing paradigms, such as cloud computing, pervasive and mobile computing, and service-oriented computing. The applications of Internet of Things (IoT), Internet of Services (IoS), Internet of People (IoP) at a large scale are gaining increasing attention in the converged computing world with unprecedented complexities as a result: the management of applications becomes much more difficult due to large number of involved devices, events and contexts, due to the heterogeneity of networking, hardware and software; the shifting of storage and processing to cloud systems, and security and privacy concerns become more challenging. All in all, applications and systems tend to become more complex than before to manage and operate in the converged world. These challenges call for useful self-managing capabilities to alleviate existing problems. The realization of self-managing pervasive service systems needs cross-discipline research, including pervasive and mobile computing, autonomic computing, artificial intelligence, cloud computing, software engineering, service oriented computing, which are complementary with and often cross-fertilizing each other.

For this year's SeMaPS, we received 11 submissions in total. We accepted 5 full papers (45% acceptance rate) and one short paper. We had two keynote speeches: in the morning session, Professor Yan, Department of Computing, Macquarie University, presented a talk on 'Optimal Social Trust Path Selection in Social Networks'. In the afternoon session, Professor Flavio De Paoli, Università Milano-Bicocca, presented 'The Role of Non-Functional Descriptions in Cloud Systems Management'.

Of the accepted papers, we had two papers on context awareness, e.g. indoor positioning and behavior recognition. To achieve easy integration of self-managing systems, one paper discussed the usage of REST as a communication mechanism to unify interactions. We also had one paper discussing the security aspects of information access protection in pervasive systems. A paper on the supporting system architecture using cloud service, thus making use of the converged computing paradigm, was presented. Finally, a possible research roadmap was presented to discuss challenges and issues for self-managing pervasive service systems in the near future.

Workshop Organisers

Weishan Zhang   Department of Software Engineering, China University of Petroleum, China.
Klaus Marius Hansen   Department of Computer Science, University of Copenhagen, Denmark.
Paolo Bellavista   Department of Computer Science and Engineering (DISI), Università di Bologna, Italy.

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