

## RESEARCH STUDENTS' SEMINAR SERIES

**Friday 22 March 2013**  
**11:00 – 12:00**

**SEERC Conference Room**  
**3<sup>rd</sup> Floor Strategakis Bldg**

**“A self-adaptation framework to address evolution and change in service-based cloud environments”**

**By**

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### **ABSTRACT**

As service-based computing systems evolve and mature, they are also expected to grow in size and complexity. With the continuing paradigm shift towards cloud computing, these systems have already reached the stage where the human effort required to maintain them at an operational level is unsupportable. Therefore, the development of appropriate mechanisms for run-time monitoring and adaptation is essential to prevent cloud application platforms from quickly dissolving into a non-reliable environment. As a possible solution to the problem of managing the complexity of ever-expanding service-based cloud environments, a self-adaptation framework will be introduced. The proposed framework will implement the MAPE-K reference model for creating adaptation loops based on a novel concept of viewing cloud platforms as sensor networks, which will allow transferring existing solutions from the Sensor Web research community and apply them to the problem domain of cloud application platforms. In this context, the presentation will introduce and explain benefits of employing techniques from the Semantic Sensor Web domain to enable run-time monitoring and analysis of cloud application platforms.

*The seminar series is open to all members of staff and students of CITY and to any externals that wish to attend.*