SOUTH-EAST EUROPEAN RESEARCH CENTRE

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OPEN SEMINAR SERIES

Thursday 25 February 2010
11:00 – 12:00

Conference room
7th Floor Leontos Sofou Bldg

"A Formal Approach to Modeling Critical Systems"

By
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Serres Technical Education Institute

ABSTRACT

The presented work proposes a formal model of a generic scheme which can be used both as a fault-tolerance technique and as a mechanism for displaying graceful degradation in real-time critical systems. In order to deal with the complex forms of interaction that typically arise between the components of such systems, the proposed scheme is based on the concept of Coordinated Atomic Actions – a software engineering concept for structuring complex concurrent activities and supporting cooperative error recovery between multiple interacting processes. The scheme is expressed in the process algebra timed CSP. The presentation will also discuss how the proposed scheme can form the basis of a formal model of a dynamic authorization system in cloud computing.

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