Call for Papers for the Thematic Track on Quality Evolution in ICT

http://www.fe.up.pt/quatic2010/quality_evolution

ICT systems evolution accounts for the majority of the whole lifecycle cost. Successful systems have to be maintained, to cope with the rapidly changing requirements of customers which regard efficiency and functionality improvements as essential elements of long-lived systems. With the increasing importance of component-based development, in which third-party components are regarded as important competitiveness assets, evolution is often becoming distributed among several organizations. While these organizations are not necessarily coordinated, they contribute to a common ICT ecosystem, bringing new challenges to evolution analysis and control. Meanwhile, the adoption of new development approaches, such as Model-Driven Development (MDD), Software Product Lines (SPLs) or Aspect-Oriented Software Development (AOSD) are expected to ease evolution, but those claims must be validated.

We seek contributions on how to describe, explain, predict, and control ICT systems evolution, with a special emphasis on the quality perspective. In the context of this track, ‘quality evolution’ is to be understood both as the evolution of the system’s quality (e.g. how to prevent or correct decay of the quality attributes) and as the quality of the system’s evolution (e.g. how to sustain an effective evolution process over a long time span).

Suggested topics of interest include, but are not restricted to:

• Evolution processes and their qualities (effectiveness, efficiency, sustainability, etc.)
• Quality assurance in the context of evolving systems
• Evolution quality with new approaches (MDD, SPLs, open software ecosystems, etc.)
• Quality in the context of dynamic evolution and self-adaptive ICT systems
• Techniques for mining (e.g. from code repositories), modeling (e.g. through time-series analysis), measuring, analyzing and visualizing evolution quality
• Formal aspects, theories and principles of ICT systems’ evolution quality
• Empirical studies concerning ICT systems’ evolution quality

Paper submission

Authors should submit a PDF version of their paper, in IEEE format, to http://www.easychair.org/conferences/?conf=quatic2010. Papers must not exceed 6 pages, including figures, references, and appendices. Submissions must be original and will be reviewed by the Track Program Committee. Accepted papers will be published in the electronic IEEE proceedings of QUATIC’10, subject to one of the authors registering for the conference. The authors of the 3 best papers of each thematic track will be invited to submit extended versions to the main track of the conference.