ΠΑΡΟΥΣΙΑΣΗ ΜΑΣΤΕΡ

ΗΜΕΡΟΜΗΝΙΑ: Παρασκευή, 1 Φεβρουαρίου 2013

ΩΡΑ: 10:30 – 11:30

ΑΙΘΟΥΣΑ: Αίθουσα Σεμιναρίων (ισόγειο Ι1-Ι2)
Κτήριο Τμήματος Πληροφορικής

ΟΜΙΛΗΤΗΣ: Πέτρος Μανούσης

Θ έ μ α

«Database Evolution and Maintenance of their Dependent Applications via Query Rewriting»

Περίληψη

Data-intensive ecosystems are collections of databases and application programs that heavily depend on the underlying databases for their operation, thus, containing queries. The goal of this Thesis is to provide the means for the smooth evolution of the ecosystems in the presence of potential changes in their database part; specifically, we assess the impact of a potential change and present the result of the adaptation of the affected queries to its new structure. To this end, we trace all the components and interdependencies of the ecosystem via a single, uniform representation, which we call Architecture Graph. Our approach is also based on a language for annotating the ecosystem’s modules with policies for their adaptation to future events. We provide a confluent algorithm for assessing the impact of a tested event as well as an algorithm for providing rewritings for views and queries of the ecosystem. All these algorithms have been incorporated into the existing Hecataeus system that allows the modeling, visualization, and evolution management of data-intensive ecosystems. In the context of this effort, the system was significantly extended with a new model for software modules (facilitating the increased modularity of the representation), along with novel, extensible parts responsible for policy annotation and impact assessment.

Επιβλέπων: Π. Βασιλειάδης