



## **INVITED LECTURE**

**Ismail Toroslu** (Professor, Department of Computer Engineering, Middle East Technical University, Ankara, Turkey) is going to lecture on

### **Web Usage Mining and Using Ontology for Capturing Web Usage Semantic**

at Room A, Department of Informatics, Aristotle University of Thessaloniki, **Ethnikis Antistaseos 16 (2<sup>nd</sup> floor), Thessaloniki 55133** on **Wednesday May 18<sup>th</sup>, 2011 at 12:00.**

### **ABSTRACT**

Web usage mining can be defined as the application of data mining techniques to web log data in order to discover user access patterns. Unlike the simple session concepts in the time and navigation based approaches, where sessions are sequences of web pages requested from the server or viewed in the browser, in the approach discussed, sessions define sets of paths traversed in the web graph that correspond to users' navigations among web pages. Session construction is modeled as a new graph problem and a new algorithm, the so-called Smart-SRA, is used to solve this problem efficiently.

With the increasing use of dynamic page generation, it is possible to capture more information for web usage analysis. While these advances seem a great opportunity to collect more information about web user, the complexity of the usage data also increases. As a result, traditional page-view based web usage mining methods have become insufficient to fully understand web usage behavior. In order to solve the problems with current approaches, the proposed framework incorporates semantic knowledge in the usage mining process and produces semantic event patterns from web usage logs. In order to model web usage behavior at a more abstract level, the concept of semantic events is defined, e.g., event-based sessions and frequent event patterns.

## About the Speaker:

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**Ismail Toroslu.** He received his BS and MS degrees in Computer Engineering from Middle East Technical University and from Bilkent University in 1987 and in 1989, respectively. He was granted a PhD in Computer Science from North-western University, USA in 1993. He has joined the Department of Computer Engineering at METU and has also been a visiting Professor at University of Central Florida from 2000 to 2002. Professor Toroslu's current research interests include data mining with emphasis to web mining and inductive logic programming.

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