



Dear PhD students and professors,

The Doctorate in Telematics Engineering of the UPC invites you to attend this Seminar, organized by the Department of Telematic Engineering.

**Seminar title:** *Access Control and Privacy for Data Management Systems*

**Professor:** Elena Ferrari

Full professor at University of Insubria (Italy)

<http://www.dicom.uninsubria.it/~elena.ferrari/>

**Dates:** 29/06/10 – 02/07/10 (16:00-18:30)

**Total hours:** 10 hours

**Room:** C3-304

### **Contents:**

The first part of the course will review basic notions of access control and will present the most significant access control models (DAC, MAC, RBAC, credential-based).

The second part will focus on access control for relational data management systems. The access control of System R will be briefly presented together with relevant extensions, such as positive/negative authorizations and non-cascading revoke operations. Moreover, access control support provided by the SQL:2003 standard will be discussed.

The third part will focus on privacy issues in database systems and will discuss access control models specifically tailored to privacy protection (e.g., hipocratic databases, purpose-based access control).

Finally, the fourth part of the course will focus on some recent developments in the field of Web 2.0 data protection. In particular, the course will review some recent proposals for the protection of Social Networks data and relationships. The use of Semantic Web technologies for personalizing web access will also be discussed.

### **Short CV:**

**Elena Ferrari** is a full professor of Computer Science at the University of Insubria, Italy, where she heads the Database & Web Security Group. From 1998 until January 2001, she has been an assistant professor at the Department of Computer Science of the University of Milano (Italy). She received the MS degree in Computer Science from the University of Milano (Italy) in 1992. In 1998, she received a Ph.D. in Computer Science from the same university. During summer 1996 she has been a visiting researcher at the Department of Computer Science of George Mason University, Fairfax (Virginia). During summers 1997 and 1998 she has been a visiting researcher at Rutgers University, Newark (New Jersey). She received the IEEE Computer Society's prestigious 2009 Technical Achievement Award for "outstanding and innovative contributions to secure data management". Her research activities are related to various aspects of data management systems, including web security, access control and privacy, multimedia databases, and temporal databases. On these topics she has published more than 130 scientific

publications in international journals and conference proceedings. She gave several invited lectures and tutorials in Italian and foreign universities as well as on international conferences and workshops. Dr. Ferrari has served as Program Chair of the 4th ACM Symposium on Access Control Models and Technologies (SACMAT'04), Software Demonstration Chair of the 9th International Conference on Extending Database Technology (EDBT'04), Co-Chair of the third IFIP WG 11.11 International Conference on Trust Management, the first and second ACM SIGKDD International Workshop on Privacy, Security, and Trust in KDD, the first COMPSAC'02 Workshop on Web Security and Semantic Web, the first ECOOP Workshop on XML and Object Technology (XOT 2000), and the first ECOOP Workshop on Object-oriented Databases. She has also served as Program Committee member of several international conferences and workshops. Prof. Ferrari is in the Editorial Board of the IEEE Transactions on Knowledge and Data Engineering, the Transactions on Data Privacy, and the International Journal of Information Technology (IJIT). She is a member of the ACM and senior member of IEEE.