



ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ  
ΕΘΝΙΚΟ ΜΕΤΣΟΒΙΟ ΠΟΛΥΤΕΧΝΕΙΟ  
ΣΧΟΛΗ ΑΓΡΟΝΟΜΩΝ ΚΑΙ ΤΟΠΟΓΡΑΦΩΝ ΜΗΧΑΝΙΚΩΝ

## ΠΡΟΣΚΛΗΣΗ σε ΔΙΑΛΕΞΗ

Η Σχολή Αγρονόμων και Τοπογράφων Μηχανικών και το ΔΠΜΣ «Γεωπληροφορική» σας προσκαλούν την **Παρασκευή 27 Μαΐου 2011 και ώρα 11:00**, στο Μικρό Αμφιθέατρο του Κτιρίου Λαμπαδαρίου σε μια διπλή διάλεξη του Καθηγητή κ. **Yvan Bédard** από το Université Laval του Καναδά – Département des sciences géomatiques, με θέματα:

- 1. Integrating GIS and BI (Business Intelligence), a Powerful Way to Unlock Geospatial Data for Decision-Making**
- 2. Geospatial Data Quality + Risk Management + Legal Liability = Evolving Professional Practices**



**Biography:** **Yvan Bédard**, Ph.D. and P.Eng., is a professor of GIS and Spatial Databases at Laval University, Quebec City, Canada. He is an active member of the Centre for Research in Geomatics and of Canada's GEOIDE network of centers of excellence. He recently completed a major NSERC

Industrial Research Chair in Geospatial Database. Dr Bédard has a multi-million dollars record in both fundamental and applied research. He has contributed to over 150 full-refereed papers with his research team and graduate students. His research interest focuses on geospatial databases modeling, Spatial OLAP and data quality. He co-founded Intelli3, a private company merging GIS and Business Intelligence solutions.

<http://sirs.scg.ulaval.ca/YvanBedard/english/engindex.asp>

**ΘΕΜΑΤΑ ΔΙΑΛΕΞΗΣ**  
**ΚΑΘΗΓΗΤΗ Yvan Bédard**

**1. Integrating GIS and BI (Business Intelligence), a Powerful Way to Unlock Geospatial Data for Decision-Making**

ABSTRACT: Integrating Geographical Information Systems and Business Intelligence technologies is rapidly emerging as a new field with a lot of potential for decision makers and power analysts. It provides new capabilities for the interactive exploration of multi-scales, multi-epochs and multi-themes geographic data. This lecture will present today's state-of-the-art regarding existing solutions as well as the different possibilities to combine GIS and BI technologies. The benefits and problems for each category of solution will be presented as well as remaining research challenges. Examples of applications will also be provided.

**2. Geospatial Data Quality + Risk Management + Legal Liability = Evolving Professional Practices**

ABSTRACT: We have entered an era of ubiquitous geospatial information where geospatial data have become a mass market good. The typical users take geospatial data for granted, assuming their quality is high and fits the intended usage. This attitude increasingly leads to mistakes since all geospatial digital data contain uncertainty, their characteristics vary geographically and their usages may vary widely. Subtleties in spatial referencing methods and technologies are hidden in the data and may lead to inappropriate results. The common practice of providing metadata to help assessing fitness-for-use is insufficient in many situations. Furthermore, existing standards have yet to provide adequate support for upcoming methods to convey information about data quality as well as to support the legal obligations of data producers and systems designers. As a result, an increasing number of accidents and Court decisions are related to spatial data quality.

The goal of this lecture is to present a global picture of today's situation and to describe the challenges we are facing as professionals. Using a risk-based management approach and a geospatial data production workflow, a classification of methods to deal with data quality is presented. Then, since it is our legal responsibility to protect users against inappropriate usages of geospatial data, the lecture will also cover the new quality-aware methods that are emerging to design systems and to communicate about data quality. In addition to these methods, an overview of emerging professional acts especially aimed at dealing with geospatial data quality will be presented and proposed as a natural evolution of our professions.