

## BACKGROUND

Information and Communication Technologies (ICTs) play a vital role in natural resource management, environmental planning, risk and disaster management, as well as increased energy efficiency.

For instance, ICTs support the monitoring of environmental pollution, are the technical baseline for general-purpose spatial data infrastructures and environmental databases, support human end users with decision making aids and can be used to communicate information about environmental degradation to stakeholders like government, citizens and the private sector.

Environmental Information and Decision Support Systems, or short **Enviromatics Systems** are built to support humans to make better-informed decisions.



## THE WORKSHOP

Natural resource management, energy efficiency, pollution, disasters and related themes are important issues in Jordan and its neighbouring countries.

This workshop addresses recent developments in Enviromatics and Geomatics in the field of environmental management and planning, and is particularly targeted at applications in the region. It aims at bringing together relevant stakeholders, practitioners as well as academia, and will serve as a platform for discussion on challenges for ICT in Natural Resource Management.

The workshop is jointly organized by the *GJU School of Informatics and Computing* and *Hochschule für Technik und Wirtschaft des Saarlandes*, within the framework of the GJU IT Network. It is co-sponsorship by the Jordanian Ministry of ICT, Jordanian Ministry of Environment, and the EU- Tempus.

## IMPORTANT DATE

September 1, 2009, Submission deadline –  
Extended abstract  
September 15, 2009, Notification of acceptance  
November 10, 2009, Full paper - Camera ready due  
November 18-19, 2009, Workshop

## CONTACT

Paper submission – send email to:  
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URL: <http://www.gju.edu.jo/workshops/INRM2009>



# Workshop on ICT for Natural Resource Management

German-Jordanian University

Amman – Jordan  
18 - 19 November 2009

Call for Papers

## APPLICATION EXAMPLES

Air pollution monitoring  
Water quality monitoring

Environmental and urban planning  
Public cadastres, master planning, zoning

Natural resource management  
Management of river catchments

Risk and disaster management

Sustainable energy production  
Energy efficiency

## GOALS

To foster international R&D in the field of enviromatics and geomatics in the region

To raise awareness of ICT potentials for the field

To create new collaboration with partners in Europe

To enhance scientific collaboration of GJU with German and European partners

To incubate R&D as a genuine part of the GJU IT Network

To explore innovative models for international R&D collaboration of GJU

## TECHNOLOGY EXAMPLES

Environmental information systems  
Environmental decision support systems  
Spatial data infrastructures

Monitoring  
Environmental databases

Environmental reporting

Modeling and simulation

Visualization

Earth observation

Risk modeling and risk assessment

Decision support systems

## STAKEHOLDERS

Government

Cities, communities

Mapping agencies

Utility companies (water companies, waste companies, energy)

Citizens, NGOs

Service providers

GIS / modeling service companies

Scientific institutes

IT companies with specialization in the field

## TOPICS

### General terms, enviromatics

- environmental information system
- environmental decision support system

### General terms, geomatics

- geographic information system (short GIS)
- geomatics
- geomatics system
- spatial data infrastructure (short SDI)

### Methodology and tools, general terms

- monitoring, monitoring system
- environmental database
- geographic database
- visualization
- environmental reporting
- environmental modeling
- risk modeling
- risk assessment
- environmental and urban planning
- decision support system (short DSS)
- earth observation

### Applications, general terms

- environmental management
- natural resource management
- risk management
- disaster management
- meteorology

### Applications, application specific terms and sub-terms

- public cadastres
  - master plan, zoning
  - environmental planning
- pollution monitoring
  - air pollution monitoring
  - water quality monitoring
  - soil monitoring
  - bio-monitoring
  - noise monitoring
  - radiation monitoring
- pollution inventory
  - traffic inventory
  - emission inventory
  - pollutant inventory
  - chemical database
- water resource management
  - catchment management
  - water resource and catchment modelling
  - water quality
- sustainable energy production / conservation of energy
- disaster management systems
  - geo hazards
- IT in agriculture



## TENTATIVE AGENDA

**Wednesday – November 18, 2009**

**9.00 Registration**

**10.00 – 11:00 Opening ceremony**

- Dr. Salem Al-Agtash, German-Jordanian University
- Dr. Ralf Denzer, Hochschule für Technik und Wirtschaft des Saarlandes
- Dr. Labib Khadra, German- Jordanian University
- His Excellency Patrick Renauld – Ambassador/Head of EU Delegation
- His Excellency Khaled Irani, Minister of Environment

**10.45 – 11.15 Coffee Break**

**11.15 – 01.00 Session 1**

- General terms, enviromatics
- General terms, geomatics

**01.00 – 02.00 Lunch**

**02.00 – 04.00 Session 2**

- Methodology and tools, general terms
- Applications, general terms

**04.00 – 04.30 Coffee break**

**04:30 – 6:30 Session 3**

- Applications, application specific terms and sub-terms

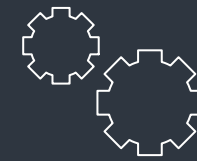
**06:30 – 07:00 Open Discussions**

**Thursday - November 19, 2009**

**09.00 – 12:00 Dissemination - GJU**

**EU tempus project**

**Networking, Individual Meetings**



## Organizing Committee

Ralf Denzer - Chair  
Hochschule für Technik und  
Wirtschaft des Saarlandes (DE)

Salem Al-Agtash – Co-Chair  
German-Jordanian University (JO)

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IFIP Working Group  
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