

## ***Scientific Research Activity of the Applied Informatics Team***

**Dr. Elena TÎRZIMAN**

The Chair of Applied Informatics of the Faculty of Letters, University of Bucharest  
E-mail: etirziman@yahoo.com

*Dr. Elena Tîrziman is a senior lecturer at the Chair of Applied Informatics of the Faculty of Letters, University of Bucharest and General Director of the Resource Centre for Building, Architecture, Urban and Territorial Planning, CDCAS Bucharest. She teaches courses on electronic documents and library automation. Her main research fields are digital information and specialized information and documentation systems.*

### **Abstract**

The specialists in the field of Information Sciences of the Bucharest University have been and are still involved in numerous research projects at national and international levels through teams of the University or of research teams of other institutional structures.

As of November 2006 the research activity of the Applied Informatics Team has been carried out within the **Research Centre for Digital Information - DIGINFO**.

The following projects are presented:

- Prototype project for public services in informatized libraries. Project developed by a research team of the Bucharest University and the Polytechnic University of Bucharest in the framework of the National Program RELANSIN 2004-2006.

- Management system of the National Fund of Technical Regulations. Project developed by a research team of the Bucharest University and of CDCAS - Resource Centre for Building, Architecture, Urban and Territorial Planning, CDCAS, Bucharest, within the National Program AMTRANS, 2004-2006.

- Specialized information system for urban data bases. Project carried out by a research team of the Bucharest University in the framework of the National Program AMTRANS, 2003-2005.

- National Management System of digital resources in science and technology based on grid structures - SINRED a project in the framework of the Research of Excellence Program. The project is in progress since October 2005.

**Keywords:** *Research Projects; Specialized Information System; Data bases.*

Specialists in the field of Information Sciences of the University of Bucharest, members of the Applied Informatics Chair, had been involved in numerous research projects at national and international levels in teams of the university or in research teams of other institutional structures.

The starting point of scientific research is the requirement of information society and is corroborated with the requirements of the national strategy and coordinated by the national research programs INFOSOC, AMTRANS, CERES, RELANSIN, CNSIS etc. which launch competitions for the selection of projects.

The projects of the Applied Informatics Team focus mainly on issues related to new technologies, to the development of digital content, of integrated systems of data bases, to applications of the information and communication technologies in various fields of activity and last but not least to the improvement of information and documentation flows etc.

As of November 2006 the research activity of the Applied Informatics Team is being carried out within the **Research Centre for Digital Information** - DIGINFO.

We present below some of the main projects that impact on the economic and social environment and that involve multidisciplinary teams of the Faculty of Letters, the Applied Informatics Team, the Chair of Information Sciences (1):

- *Prototype project for public services in informatized libraries.* Project developed by a research team of the Bucharest University and the Polytechnic University of Bucharest in the framework of the National Program RELANSIN 2004-2006.

Director of the project is Prof.dr. Doina Banciu and part of the research team of the University are Prof.dr. Mircea Regneala, Conf.dr. Elena Tirziman, Lect.dr. Rodica Mandea, Lect.dr. Agnes Erich, Assist.dr. Octavia Porumbeanu, eng. Cristian Ciortan.

The objective of the project is to develop the procedures for the implementation of a set of public services for the information of users of an informatized library, resulting in the optimal valorization of data stored in the data bases of the library, and in the data bases of other information structures, via Internet. The outcomes of the project may be extended to other public libraries, with the direct consequence of increasing their role in the development of culture and of the information-documentation system at national level.

The issues proposed to be solved are linked to the following specific objectives:

- assessment of the information needs of the community that the informatized library addresses to;

- designing the data bases of the specialized services for the users of the library;
- ensuring connectivity with the other components of the information system of communication of the institution and data transfer between the various information structures;
- developing a prototype documentation for the implementation of public services offered by an informatized library to a specific community.

This project was conceived in the spirit of the main objective of the RELANSIN program i.e. launching Romania on the path of integration in the economic space of the European Union.

- *Management system of the National Fund of Technical Regulations.* Project carried out by a research team of the University of Bucharest and of CDCAS - Resource Centre for Building, Architecture, Urban and Territorial Planning, CDCAS, Bucharest, in the framework of the National Program AMTRANS, 2004-2006.

Director of the project is Prof.dr. Doina Banciu and members of the team are Conf.dr. Elena Tirziman, Lect.dr. Rodica Mandea, Lect.dr. Agnes rich, Ass. Mihail Dumitrache, eng. Cristian Ciortan.

The main objective of the project is to develop a specialized urban-data base in the fields of construction, architecture, urban and territorial planning and housing, a unitary system for the most efficient and accessible management of information contained in the regulations of the *National Fund of Documentation, Information in the fields of construction, architecture, urban and territorial planning and housing.*

The project was broken down to stages with the following main operations aiming at the fulfillment of the objective:

- Documentation on the management of national funds of technical regulations; structuring of the reference domain and establishing the types of specific regulations (phase I)
- Conception of the data base, testing of the system (phase II)
- Finalizing the data base, operationalizing the system and dissemination of information (phase III).

- *Specialized information system for urban data bases.* Project carried out by a research team of the Bucharest University in the framework of the National Program AMTRANS, 2003-2005.

Director of the project is Conf.dr. Elena Tirziman and members of the research team of the University are Conf.dr. Emil Ionescu, Conf. dr. Adriana Ichim, Lect.dr. Liviu Groza, Lect. drd. Niculina Vargolici, Lect.dr. Rodica Mandea, Ass. Drd. Cristina Albu, eng. Cristian Ciortan.

The project is part of the current national and international trends and concerns for the development of content accessible through multiple sides. The theme of the project is an interdisciplinary one and involves both a good knowledge of urban management, with a view to identifying and organizing relevant information and competencies in Information Science - processing, storing and terminology control of information - and in informatics - new information technologies, equipment and software applications.

**Objectives:**

- developing a flexible information structure, namely simple and multiple links between the main and auxiliary tables of the data bases, in order to allow for associations between the registrations in those tables;
- specification and development of the terminology control tool, in order to find information according to a certain search criterion - subject;
- developing strategic models for information retrieving.

*Organizations involved in the implementation and management of a specialized information system* may be those that actually carry out research: universities, R&D institutions, research laboratories of public and private entities.

*Potential users of the specialized information system* in Romania or other countries may be:

- researchers and specialists in the respective domain and/or other domains;
- entities for consultancy and services, active in the domains of research and technology;
- information intermediaries (documentation centers and information offices);
- planners and policy makers in the respective domains.

- *National Management System of digital resources in science and technology based on grid structures - SINRED* a project in the framework of the Research of Excellence Program. The project is in progress since October 2005.

Coordinator of the project is the University of Bucharest and director of project is Prof.dr. Doina Banciu.

The project aims at developing a national system for the management of digital resources in science and technology based on GRID structures. The derived objectives are: definition and substantiation of solutions for the creation of digital libraries based on the networks of university, public and

academic libraries (the Library of the Romanian Academy and Libraries of the Institutions of the Academy); definition of methods and methodologies for the development of a unitary system at national level in the domain of info-documentation based on digital documents; analysis and testing of valorization of GRID technologies in info-documentation; adopting a solution which is compatible both at national level for the networks of libraries and between those and the related international systems; development of a unique portal and of unitary ways of access to digital information irrespective to the location of its storage; definition of procedures for the creation of data bases in accordance with national and international standards and regulations in the domain.

The project will enable various users (administrations, education and research units, individuals of various professions) to access and use digital information and documentation resources.

#### *Potential users*

The area of beneficiaries of the project has already been defined at the level of university and research population and would be considerably enlarged in the future. This way all users specific to each information-documentation system would use this type of services; they would benefit of the same digital products and services in similar conditions of access.

#### *Partners of the research consortium*

*The University of Bucharest - UB* coordinator of the project proposes a research team of large experience in bibliology and information science, involved in a series of national and European projects for the development of shared data bases and digitized information services for the community. *Polytechnic University of Bucharest - UPB*, proposes for the project a team from an R&D unit institutionally and nationally accredited by CNCSIS, involved in projects for the implementation of university management systems including Phare projects. *The Technical University of Cluj-Napoca - UTCN*, is also involved in organizing, processing and disseminating digital information. *The National Institute for Information and Documentation - INID* is at national level the reference institute in information and documentation issues. *The Western University of Timisoara* is a high education unit with a library undergoing a full modernization process both structurally and operationally and the proposed team is involved in projects in similar research domains.

#### **Note**

(1) The presentations include only projects in which the author was involved.