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The **JOURNAL OF INFORMATION SYSTEMS & OPERATION MANAGEMENT (ISSN 1843-4711)**, published two times annually by the Romanian American University, is specialized in IT domains. The articles published, apply to the scientists, researchers and users of IT (field), interested in enlarging the knowledge horizon with specialty notions, new work papers and reference studies, to apply in their own field. Through the presentation of some scientific paper works and IT&C culture promotion, necessary for a functional market economy, the review intends to be a favorable space for debates and a challenge at the same time. Any study or opinion that can contribute to the development of the understanding degree of the IT&C as a science is welcome. JISOM encourages cross-disciplinary research work of Romanian and foreign scholars.

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# SUCCEEDING IN SOFTWARE DEVELOPMENT PROJECTS

Dan Bența<sup>1</sup>  
Ștefan Ioan Nițchi<sup>2</sup>

## Abstract

*In the past few decades, a large number of different approaches to software development have been introduced in order to adapt and satisfy customer needs and requirements that change during the development project. A wide variety of software development frameworks have evolved, each with its own strengths and weaknesses. A certain approach is not necessarily suitable for use by all software development projects. Choosing the best methodology for software development depends on several factors as project size and complexity, level of innovation, internal and external factors, available technology, organizational culture or project and team considerations. Agile software development methods are accepted worldwide as cost-effective and time-sensitive methodologies for software development in organizations in order to face the new challenges in this competitive environment. The aim of this paper is to identify, analyze and characterize traditional and agile software development approaches with practice use cases from our software development project and lifecycle.*

**Keywords: software development life cycle, traditional methods, agile software development, Scrum, project and risk management**

## A COLLABORATIVE MODEL FOR VIRTUAL ENTERPRISE

Lucia Rusu<sup>3</sup>  
Simona Kleinhempel<sup>4</sup>  
Razvan Costin<sup>5</sup>  
Sergiu Jecan<sup>6</sup>

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## Abstract

*Collaborative process characteristics have three dimensions: actors, activities and action's logic. The aim of this paper is to present a virtual portal's model that helps managing consortiums. Our model based on dynamic e-collaboration and it has a modular structure, multilayer approach. System's functionality of virtual enterprise is collaborative model is concern on users' login, based on role and access control, searching and providing distributed resources, accessibility, metadata management and improved information's management. Our proposal for developing solution offers a functional architecture of a virtual enterprise using dynamic e-collaboration and shared space.*

**Keywords: dynamic e-collaboration, multilayer solution, modular approach**

## A HIERACHICAL MODEL FOR MEDICAL REGISTRATIONS

Lucia Rusu<sup>1</sup>  
Marius Podean<sup>2</sup>  
Szabolcs Szabo<sup>3</sup>  
Razvan Costin<sup>4</sup>

## Abstract

*The aim of this paper is to improve solutions for developing and improving medical and pharmaceutical services. We made a SWOT analyze of SIUI in order to build a document management system and create medical registration papers, based on collaborative editing and international medical standard. This model was focused on hierarchical decomposition of PHR and EHR records, using modular solution, which stores all data in XML files. It requires a system that is simple to use and allows users to focus their efforts on the content rather than on the technology used to create it. This approach allows a great flexibility in handling document and user interaction.*

**Keywords: medical registrations, HME standards, PHR, SIUI, hierarchical decomposition**

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# LINEAR DISCRETE CONVOLUTION AND ITS INVERSE. PART 2. DECONVOLUTION

Mircea I Cîrnu<sup>1</sup>

## Abstract

*We present here several ways for calculating the linear discrete convolution and its inverse - the deconvolution, by direct methods, generator functions, Z-transform, using matrices and MATLAB. These notions was used by author in a series of papers, especially for solve several types of equations.*

**Keywords: complete and truncated linear discrete convolution and deconvolution.**  
**2000 Mathematics Subject Classification: 40-04, 40A05**

# INTELLIGENT RISK MANAGEMENT - A NEW PRINCIPLE IN RISK MANAGEMENT BASED ON USING BI IN RM

Valentin Petru Măzăreanu<sup>2</sup>

## Abstract

*The need for a system able to store information about the risks faced by the organization along its entire existence, the history of decisions on past risk management activities (along with an analysis of the implications of those decisions – “lessons learned”) and able to record and analyze business information from external environment and provide various patterns on the evolution of market phenomena is undeniable. Business intelligence does so. The practice of implementing a business intelligence system since the earliest days of a company’ life that would assimilate information and after that to deliver these to be used in the process of reducing the risks to which the organization is exposed may be considered a new rule of good business practice. Therefore, let us consider this practice a new principle in risk management, named the intelligent risk management.*

**Keywords: risk, BI, intelligence, approach, principle**

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# COLLABORATIVE PORTAL MODEL FOR INTERCULTURAL TEAMS KNOWLEDGE MANAGEMENT

Claudiu Brandas<sup>1</sup>

## Abstract

*In the multinational organizations, more groups of individuals are being involved in the process of knowledge creation in a collaborative manner, of sharing knowledge and learning from it. These individuals can have heterogeneous cultures and they must use a common language. IT has created and is developing the infrastructure for cross-cultural communications and intercultural knowledge management. Nowadays, intercultural knowledge management can be realized with support of Collaborative Technologies and Knowledge Management Support Systems (KMSS). In this respect Collaborative Technologies and Intercultural Knowledge Management Support Systems (IKMSS) will be the appropriate way for supporting intercultural communication, learning and collaborative knowledge management in organizations. In this paper we present a conceptual model of a collaborative portal for Intercultural Team Knowledge Management as a powerful support for increasing team's performance.*

**Keywords:** collaborative support, collaboration, knowledge management, intercultural teams, intercultural knowledge management, intercultural knowledge management portal. **JEL Classification:** M21,Z00.

## CONVERGENCES AND CONTROVERSY ON THE FINANCIAL STATEMENTS

Victor Munteanu<sup>2</sup>  
Marilena Zuca<sup>3</sup>  
Alice Țință<sup>4</sup>

## Abstract

*The standardization issue starts with the accounting theories and the interface between them and accounting practices. The plural of accounting theories is explained by the fact that literature defines several theories, which differ both in their content and their origin and genesis. Although it seems an extravagant expression, the notion of accounting theory underlying the accounting literature, particularly the Anglo-Saxon one and less the Continental one, is true. The accounting theory is described by J. F. Imke as an organized group of knowledge, characterized by order, motivations, connections, objectives and methods used in accounting. A classification of accounting theories addresses the*

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following classes: descriptive theories, regulatory theories and explanatory theories.

**Keywords: financial statements, harmonization, convergences. Cod JEL: M41 – Accounting**

## **THE DECISION SUPPORT SYSTEMS FOR THE INFORMATION SOCIETY (i-Society)**

Virgil Chichernea<sup>1</sup>

### **Abstract**

*The globalization process needs exact information flows that should be collected in due time. The Information Society ensures the communication between people with different expertise from various geographical areas that have similar interests. The increase of the companies' activities leads implicitly to the increase of the volume and the complexities of databases, as well as the continuous modernization of the integrated information systems in order to collect the information in due time, that is requested by the decision takers and the frequent use of DSS. The paper presents the DSS structure, the main facilities offered by the associated software products, an evolution of the databases technologies, as well as a list of the program products used to process the statistical data and data mining in order to obtain the main sources of information that is necessary to take decisions.*

**Keywords: Information Society (i-Society); Data Base; Information Systems; Decision Support Systems (DSS); Statistical Package, Portal technology;**

## **THE ADVANTAGES OF WRITS AND ELECTRONIC SIGNATURE IN NATIONAL AND INTERNATIONAL TRANSACTIONS**

Florea Măgureanu<sup>2</sup>  
George Măgureanu<sup>3</sup>

### **Abstract**

*Ever increased use of the PC has engendered a series of issues in commercial and civil matters, in general, because many legal provisions imply the existence of writs, of copies signed and authenticated. It is undoubtedly obvious the practical use of drawing up pre-conflict writs, fact which reflects the truth, to a great extent, being drawn up before the conflict between the subjects of the legal report under judgment might arise. Given the major importance of the evidence in clarifying the factual data, the law regulates in detail the procedure of managing the evidence. This represents a guarantee of the right to parties' defense. The international system has also influenced the evidentiary system, by using new opportunities and possibilities of giving evidence for supporting the parties' allegations in the civil lawsuit.*

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**Keywords: Evidence, means of giving evidence, evidentiary system, informational system, possibilities of giving evidence, writ, electronic writ, electronic signature, national commercial transactions, international commercial transactions, secured device for creating digital signature, certification elements.**

## **STATIC CODE ANALYSIS**

*Alexandru G. Bardas<sup>1</sup>*

### **Abstract**

*A lot of the defects that are present in a program are not visible to the compiler. Static code analysis is a way to find bugs and reduce the defects in a software application. This paper gives you an overview on static code analysis, well-known tools and the benefits of this practice.*

## **RESEARCH ISSUES CONCERNING ALGORITHMS USED FOR OPTIMIZING THE DATA MINING PROCESS**

*Ion Lungu<sup>2</sup>  
Alexandru Pîrjan<sup>3</sup>*

### **Abstract**

*In this paper, we depict some of the most widely used data mining algorithms that have an overwhelming utility and influence in the research community. A data mining algorithm can be regarded as a tool that creates a data mining model. After analyzing a set of data, an algorithm searches for specific trends and patterns, then defines the parameters of the mining model based on the results of this analysis. The above defined parameters play a significant role in identifying and extracting actionable patterns and detailed statistics. The most important algorithms within this research refer to topics like clustering, classification, association analysis, statistical learning, link mining. In the following, after a brief description of each algorithm, we analyze its application potential and research issues concerning the optimization of the data mining process. After the presentation of the data mining algorithms, we will depict the most important data mining algorithms included in Microsoft and Oracle software products, useful suggestions and criteria in choosing the most recommended algorithm for solving a mentioned task, advantages offered by these software products.*

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**Keywords:** data mining optimization, data mining algorithms, software solutions.

## **HEURISTIC AND OPTIMUM SOLUTIONS IN ALLOCATION PROBLEMS**

*Iulian Mircea<sup>1</sup>  
Radu R. Șerban<sup>2</sup>*

### **Abstract**

*In this paper we present some models and algorithms for solving some typical production planning and scheduling problems. We present the Resource-Constrained Project Scheduling Problem (RCPS) and algorithms for the determination of maximal couplings with minimal arch length in the graph attached to an allocation problem, and for the determination of the solution of Dirichlet problem and of the potential-voltage problem which appear in a production planning. We develop a model for allocating work among potential VO partners, taking into account fixed and variable work costs and transportation costs.*

**Keywords:** Dirichlet's problem, conex graph, maximal coupling, RCPS problem, virtual organization, allocation problem. **JEL Classification:** C610, L230

## **LIFECYCLE BASED AUDIT PROCESS FOR DISTRIBUTED APPLICATIONS**

*Mihai Doinea<sup>3</sup>*

### **Abstract**

*The paper wishes to present the audit process as part of a distributed framework in which a new set of metrics are built. The requirements for an audit process are described and on each of the lifecycle stages, the audit process is emphasized. The existing quality characteristics models from the literature are analyzed based on which a new set of metrics are built for sustaining the overall audit process.*

**Keywords:** audit process, distributed applications, metrics and lifecycle.

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# STATISTICAL METHODS UTILIZED IN THE EVALUATION OF COMPANY FINANCIAL RESULTS

Mihaela Gruiescu<sup>1</sup>

## Abstract

*This paper is a practical study based on econometric analysis models that capture the causal link between the labor productivity and a company's probability to make a profit. The objective of this research was to identify the level and the evolution of the different variables that have an impact on the size of a company's profit.*

*Therefore we will use a database, divided into 4 types of enterprises, on their size and on the regression model with the dependent variable binary. Such a model can be interpreted as a way to model the probability that the dependent variable could.*

**Keywords:** *Financial Results, Labour Productivity, Linear Probability Model, Probit Model, Logit Model*

## A NEW SECURITY SOLUTION IMPLEMENTED BY THE USE OF THE MULTILAYERED STRUCTURAL DATA SECTORS SWITCHING ALGORITHM (MSDSSA)

Alexandru Tăbușcă<sup>2</sup>

## Abstract

*The present paper is a short extract from my PhD thesis and presents two different security field solutions: a conceptual one (an algorithm) and a practical one (a software application). I introduce the MSDSSA algorithm and a software application usable for encrypting different data files in the Microsoft Windows environment. The application was created as a new version of an application introduced at the time of my university graduation, upgraded to the second version for commercial use, upgraded to the third version at the time of some major modifications implementations in 2007 and now, finally, upgraded to its fourth version after the implementation of the MSDSSA algorithm.*

**Keywords:** *encryption key, cipher, code, methods and techniques for creating encryption results, attacks, cryptography, cryptanalysis, integration, security solutions, phishing*

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# SOFTWARE PIRACY AND HOW IT IS INFLUENCED BY THE CORRUPTION LEVEL FOR ANY GIVEN COUNTRY. OPEN SOURCE AND FREE SOFTWARE AS SOLUTIONS TO THE PROBLEM.

*Dragos-Paul Pop*<sup>1</sup>

## **Abstract**

*Today's IT world is slowly driving towards open source and open software trends. Even Microsoft is taking such approach with some of its software products (the MSDNAA program is the best example). Although everyone is happy that software is becoming cheaper or even open source, we must ask ourselves what led to this trend. Why are software companies giving out software products for free when just a few years ago they were charging us big money for it? The answer is, of course, marketing issues. But another big factor is the piracy factor.*

**Keywords:** software piracy, corruption, open source, free software, statistic, test

# ARTIFICIAL NEURAL NETWORKS AND THEIR APPLICATIONS IN BUSINESS

*Iordache Ana Maria Mihaela*<sup>2</sup>

## **Abstract**

*In modern software implementations of artificial neural networks the approach inspired by biology has more or less been abandoned for a more practical approach based on statistics and signal processing. In some of these systems, neural networks, or parts of neural networks (such as artificial neurons), are used as components in larger systems that combine both adaptive and non-adaptive elements. There are many problems which are solved with neural networks, especially in business and economic domains.*

**Key words:** neuron, neural networks, artificial intelligence, feed-forward neural networks, classification

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# DATA MINING TECHNOLOGIES

*Tittrade Cristina-Maria<sup>1</sup>*

## **Abstract**

*Knowledge discovery and data mining software (Knowledge Discovery and Data Mining - KDD) as an interdisciplinary field emersion have been in rapid growth to merge databases, statistics, industries closely related to the desire to extract valuable information and knowledge in a volume as possible. There is a difference in understanding of "knowledge discovery" and "data mining." Discovery information (Knowledge Discovery) in the database is a process to identify patterns / templates of valid data, innovative, useful and, in the last measure, understandable.*

**Keywords: data mining, knowledge discovery, data warehouse, data mining tools, data mining applications.**

## **INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTs) IN THE SERVICES OF HEALTHCARE SECTOR IN EUROPE**

*Pavel (El Baaboua) Florentina Ramona<sup>2</sup>*

## **Abstract**

*Information and Communication Technologies (ICTs) consists of all technical means used to handle information and aid communication, including both computer and network hardware as well as necessary software. Information and Communication Technologies tools and services are used in many sectors like development, education, e-services, policy, health and medicine and so one. This paper links the ICTs tools and services for health. ICTs has the potential to impact almost every aspect of the health sector. Information and Communication Technologies (ICTs) have an important role in service engineering, improving medical knowledge and practice, and defining new fields of research.*

**Keywords: eHealth, healthcare sector, telemedicine services, health portals, health information networks, digital health infrastructure**

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# ENHANCEMENT OF VIRTUAL TEAMS THROUGH SOFTWARE SELECTION: A PROPOSAL

Joița Alin-Cristian<sup>1</sup>

## Abstract

*The concept of virtual team gains importance in world economy as the process of globalization advances. This article presents the virtual team as a drive force through the improvement of the collaborative work processes. Substantial features are presented here, in regard to the assembly of the virtual team, the stages of its development and an empirical contrast analysis against the traditional team. In the virtual environment, an emphasis is set on trust, management and planning. These three objectives can be mainly acquired through communication and an accurate representation of the information. In an attempt to estimate the general software necessities required by a virtual team, a model is created that reunites a series of applications considered optimal for telework.*

**Keywords:** Virtual team, software solutions, telework, project management JEL  
**Classification** L86, O14

## THE INTERNET ACCESS AS A FUNDAMENTAL RIGHT

Silvia Tăbușcă<sup>2</sup>

## Abstract

*Since its creation, the Internet has been an important platform of information and communication, growing and becoming, in the same time, an indispensably part of our lives. The World Wide Web could not stay apart of many problems the society tries to cope with, such as the protection of fundamental rights. New context of technoglobalization and techno-capitalism means that there are new situations in which fundamental rights have to be defined, limited, ensured, and protected. In the very last years, there was started an international controversial debate on the issue of the Internet access as a fundamental right. It should not be conceived as a new and independent right, but rather as part of the freedom of expression. Key elements of the right to Internet access includes access to online media, equitable access to the means of online communication, the right to freely access online information, the right to be free of undue restrictions on content and privacy rights. However, even if we are in the era of promoting the Internet access as a fundamental right, there are many countries around the World which are not willing to recognize, respect and implement such a right, or they have no necessary infrastructure and financial resources to implement it.*

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**Keywords: Internet access, fundamental rights, freedom of expression, online access, World Wide Web, Internet censorship, ISPs.**

## INTERDISCIPLINARITY

Mariana Coancă<sup>1</sup>  
Elena Museanu<sup>2</sup>

### Abstract

*Terminology deals with the specialized communication, which is achieved in a certain scientific, technical and professional domain. **Interdisciplinarity** is considered another orientation specific to modern sciences, in which the terms of a specific science, could be found in another science or in many sciences. It becomes relevant when a specialist in a specific field of study, knows a few characteristics of the concepts he needs, in order to have a professional interaction with the users of the concepts. The role of the **domain** is highly important, if it is registered in dictionaries, we could establish the interdisciplinarity of various scientific domains.*

**Keywords: terminology, interdisciplinarity, term, concept, semantics, interaction, domain**

## BUSINESS ETHICS – A QUESTION OF INTEGRITY

Alexandru Bodislav<sup>3</sup>

### Abstract

*On ethics there were created many organizational cultures, MBA and PhD courses, but can we live by respecting it, is it worthy to be mentioned in the company's business plan, is it found in the employee's manual or in his job description. There are many view points on ethics and moral and the majority of the population that use the above phrase mean something different from what they understand through ethics and moral. Ethics is an asset of a company, this can become a competitive advantage in the case if you reach a "fine tuning" on the relation between the company and its competitors. This article follows the idea of ethics, moral and integrity as being the long term evolution basis and offers a finite number of solutions for these to be maintained on the long term.*

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**Key words: conflict of interest, ethics, integrity, the Sarbanes-Oxley law, strategic planning.**

## **SOCIAL MEDIA- THE ALL PICTURES**

*Beatrice Sion*<sup>1</sup>  
*Cezar Mihălcescu*<sup>2</sup>

### **Abstract**

*Currently, when “googling” the words “social media” approximately 169 000 000 hits appear. At least once a day discussions are held regarding online social media sites, either in the newspaper, on TV or on the radio. The discussions bring up everything from how companies, politicians, culture, people and so on should use social media, to acquisition rumors of several hundred million dollars for one social media site.*

*The number of users is steadily increasing among categories such as private users, but especially among companies and organizations. Statistics show that social networking sites constitute the second leading web category after search sites measured on daily traffic. Asking how many that would be willing to pay a monthly fee to get access to their accounts allows a further look into how valuable different websites are considered to be for the users. Google proved to be the most valuable one closely followed by Yahoo. Top three to five on the list were all community driven sites – in sequence YouTube, Wikipedia and Facebook.*

*Another aspect of the usage of social media shows that companies who work with these platforms benefit from saving money in marketing, sales, support and production development.*

**Keywords: Social Media, Google, Internet, Facebook, MySpace**

## **OWL ONTOLOGY REPRESENTATION UNDER A SECURE MOBILE CONTEXT**

*Silvia Trif*<sup>3</sup>  
*Madalina Zurini*<sup>4</sup>

### **Abstract**

*This paper aims to assess ontology representations under a secure mobile applications context. Mobile applications security aspects are defined, identifying the vulnerabilities and threats. Mobile devices limits are presented. Modalities of assuring security process*

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*are presented. Cryptographic algorithms are presented. The ontology term is described in the context of evolution that time generated upon it. The main standard language, OWL, is applied for creating an ontology that describes the mobile applications' security aspects. The need of ontology in security of mobile applications is highlighted at the conclusions' level of the paper.*

**Keywords: mobile applications security, ontology, vulnerabilities, threats, OWL representation.**

## **COMPANIES ECONOMY IN CONTEXT OF THE ECONOMIC CRISIS**

*Petrea Daniel Constantin <sup>1</sup>*

### **Abstract**

*In this article I try to express components of the market economy which may affect an organization of the companies into a period with decline and resignation reign in human activities. The economic crisis that is the a current world is the climax of financial turmoil which make integral part a normal legislative and the economic calculation which configures a demand and supply of goods.*

**Keywords: organizational arrangements; company; contracts; legislation; demand; supply; Microeconomics; economic calculation.**

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**At the end of edition:**

## **TECHNICAL DAY IBM AT THE ROMANIAN-AMERICAN UNIVERSITY**

*Virgil Chichernea<sup>1</sup>*

On December 9th, 2010, in the presence of Mr. Mihai Iordache, Group software Manager IBM Romania, Phd. Ovidiu Folcut, Rector of the Romanian-American University, Phd. Theodor Borangiu, University Relations Coordinator – IBM Romania, Decision-makers and professors from the Romanian-American University and IBM representatives, it was organised „**IBM- Technical Day at the Romanian-American University**” on the topic "**Business Analytics & Optimization & OO Application Design with IBM Rational**", this event's goal being to enhance students' abilities in business applications. At the opening of this event Prof. Th. Borangiu presented the mission, tools, learning resources, benefits and offers of the „IBM Academic Initiative and Global Education Programs” ([www.ibm.com/academicinitiative](http://www.ibm.com/academicinitiative)).

**The program of this conference was the following:**

- 9:00-9:30: **Registration of participants. Welcome coffee**
- 9:30-9:40: **Welcome message**, Ph.D. *Ovidiu Folcut, Rector of the Romanian-American University*
- 9:40-9:50: **Message of IBM**, *Bogdan Balaci, Country Manager Sales and Distribution, IBM Romania*
- 9:50-10:10: **Educational programs at the Romania-American University. Priorities in IT & Business Management student training**, *Virgil Chichernea, Ph.D. Romanian-American University*
- 10:10-10:40: **IBM solutions for Information Management**, *Cristian Apa, Software Group IBM Romania*
- 10:40-11:10: **Modern Development Platform with IBM Rational**, *Eugen Pislaru, Software Group IBM Romania*
- 11:10-11:40: **Service Oriented Architectures for on demand business integration**, *Carmen Raileanu, Software Group IBM Romania*
- 11:40-12:10: **IBM Strategy for Business Analytics & Optimization**, *Teodor Marcu, Global Business Solutions, IBM Romania*
- 12:10-12:40: **IBM Academic Initiative and Global Education Programs**, *Dr. Theodor Borangiu, Coordinator University Relations, IBM Romania*
- 12:40-13:10: **Round Table. Cooperation plans IBM - Romanian-American University**

**Activities and directions undertaken at national universities in 2009-2010**

**IBM Romania- Academic Initiative Activities:**

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- Model Driven Services & Business Processes Development (University Politehnica of Bucharest, May 2009)
- IBM Websphere Portal Administration 1 & 2 and IBM WebSphere Portal Application
- Programming (University Politehnica of Bucharest, June 2009)
- Desktop Virtualization Pilot Platform (Q4 2009 → operational, utilisation on request)
- Project Management and Rational Portfolio Manager (Academy of Economic Studies, November 2009)
- Desktop Virtualization Pilot Platform (Q4 2009 → operational, utilisation on request)
- Business Analytics & Optimization with Cognos (University Politehnica of Bucharest,, December 2010)
- Opening *IBM Rational Software Development Labs* at: Technical University of Cluj-Napoca, Transilvania University Brasov, Academy of Economic Studies, West University Timisoara.
- 16 *training sessions* for professors & students in universities (80 days on IBM technologies: Rational, DB2, Websphere, Lotus & open-source solutions)
- 2 new *Master programs* initiated in 2009 with IBM SWG support (PUB, AES):
- Service Engineering & Management (DB2, Rational, WebSphere)
- SOA for Enterprise Management & Control (DB2, Lotus, Tivoli, SAP, JADE)
- 12 *IBM Technical Days* in road shows on: Smarter Planet, Cloud Computing, Open
- Education, Green&Beyond, Service Science and Innovation (1 day per university)

### **IBM's University Programs Key Directions 2010**

- **University Programs** are a key focus for enabling IBM initiatives
  - **Smarter Planet**, with emphasis on Smarter Cities
  - **Cloud Computing**, increasing adoption by students and faculty to provide a pipeline for IBM's Cloud Academy
- All of IBM's Business Units, across all the geographies, are involved in *establishing partnerships* and relationships
- Universities serve as innovation centers – a foundation for IBM to add to its value proposition in the business world
- The Smarter Planet program will need to leverage *Universities* to serve as a key piece of the puzzle, *along with governments, enterprises, and consumers* to be successful

### **IBM Global University Programs 2010 Key Directions:**

- Smarter Cities
  - Holistic Modelling, STEM Education, Jobs & Entrepreneurship
  - Urban Service Systems and Societal Networks Research Centers
- Cloud Computing



- IBM Cloud Academy, IBM Academic Skills Cloud, Massive Analytics
- Ecosystem Alignment
  - Internal and external
- IBM on Campus
  - IBM Centers for Advanced Study, IBM Innovation Centers, IBM Open Collaborative Research
- Awards Programs
  - IBM SUR, OCR, FA, PhD Fellowships, UIMA, RTA, Best Linux Student Application  
[http://download.boulder.ibm.com/ibmdl/pub/software/dw/university/awards/IBM\\_awards.pdf](http://download.boulder.ibm.com/ibmdl/pub/software/dw/university/awards/IBM_awards.pdf)

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