

Objectives

This master program takes into account the multi-layered nature of the labor market and the different requirements raised by different types of companies working with Business Information Systems – from IT and BP outsourcing, consultancy, start-ups and product developers to private-public partnerships or research projects. Consequently, the master program develops three categories of competences: (a) business analysis and process improvement skills based on Business Process Modeling tools, Enterprise Architecture frameworks and Process Automation platforms; (b) implementations skills for distributed and smart information systems, leveraging Artificial Intelligence tools and Big Data analytics; (c) scientific research competences for those who want to occupy positions in research projects or to pursue a doctoral degree.

Contents and structure

The curriculum consists of three topical tracks and one research-oriented meta-track. The Business Modeling Track includes topics regarding Business Process Improvement, Enterprise Architecture and Knowledge Management with the help of various modeling tools, languages and automation platforms. The Distributed Computing Track develops skills for working in Cloud, Internet of Things and High Performance Computing environments (students have access to the highest performance computing cluster in a Romanian University). The Artificial Intelligence Track investigates state-of-the-art methods for Machine learning, Big Data analytics, Web mining and Social Networks analysis. The Research Meta-Track covers best practices for organizing and communicating research, towards writing a dissertation that provides publishable results.

Career perspectives

The curriculum consists of three topical tracks and one research-oriented meta-track. The Business Modeling Track includes topics regarding Business Process Improvement, Enterprise Architecture and Knowledge Management with the help of various modeling tools, languages and automation platforms. The Distributed Computing Track develops skills for working in Cloud, Internet of Things and High Performance Computing environments (students have access to the highest performance computing cluster in a Romanian University). The Artificial Intelligence Track investigates state-of-the-art methods for Machine learning, Big Data analytics, Web mining and Social Networks analysis. The Research Meta-Track covers best practices for organizing and communicating research, towards writing a dissertation that provides publishable results.

International perspectives

The business analysis and process improvement skills will enable students to work for Business Process Outsourcing providers, in advisory departments for companies that provide consulting on enterprise architecture or business process improvement or in Model-driven Systems development. The implementation skills will enable students to take on positions that employ Artificial Intelligence tools or must manage distributed architectures (Cloud, Data Fabrics, Internet of Things etc.). The scientific research competences will empower students for the type of work that is expected in research projects or PhD programs.

Contact

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„The Business Modeling and Distributed Computing master program is a great opportunity for students who want to expand their knowledge regarding state-of-the-art technologies and methodologies for Business Informatics. The master’s curriculum ranges from Parallel Programming, Artificial Intelligence to the latest concepts and practices in Enterprise Modeling.”

DAN-CLAUDIU NEAGU

CURRICULUM

| 1 <sup>st</sup> Semester (30 credits)       | 2 <sup>nd</sup> Semester (30 credits)          | 3 <sup>rd</sup> Semester (30 credits) | 4 <sup>th</sup> Semester (30 credits)                    | Elective Courses                                         |
|---------------------------------------------|------------------------------------------------|---------------------------------------|----------------------------------------------------------|----------------------------------------------------------|
| Distributed Systems                         | Methods in Data Science                        | Cloud and High Performance Computing  | Advanced Research Project in Informatics                 | Elective Course 1                                        |
| Business Process Modeling                   | Intelligent Agents and Algorithmic Game Theory | Internet of Things                    | Scientific Research for the Elaboration of Dissertation  | • Design and Implementation of Enterprise Modeling Tools |
| Research Methodologies and Academic Writing | Big Data and Web Computing                     | Elective Course 1                     | The Preparation Stage of the Elaboration of Dissertation | • Advanced Searching and Optimization Techniques         |
| Parallel Programming                        | Semantic Business Process Management           | Elective Course 2                     | Internship in Business Modeling                          | Elective Course 2                                        |
|                                             |                                                |                                       |                                                          | • Social Media Analysis                                  |
|                                             |                                                |                                       |                                                          | • Advanced Parallel Algorithms                           |