



UNIUNEA EUROPEANĂ



GUVERNUL ROMÂNIEI
MINISTERUL MUNCII, FAMILIEI
ȘI PROTECȚIEI SOCIALE
AMPOSDRU



Fondul Social European
POSDRU 2007-2013



Instrumente Structurale
2007-2013



MINISTERUL
EDUCAȚIEI
CERCETĂRII
TINERETULUI
ȘI SPORTULUI

OIPOSDRU



Universitatea
POLITEHNICA
din Bucuresti

SEM – The first interdisciplinary master program in Service Management and Engineering

Silviu Raileanu

University POLITEHNICA of Bucharest

**Strategic Program for Promoting Innovation
in Services by Open and Continuous Education (INSEED)**
POSDRU/86/1.2./S/57748

*The Project co-financed by the Social European Found by Sectoral
Operational Programme Human Resources Development 2007-2013*

FONDUL SOCIAL EUROPEAN

Investește în
OAMENI



Service Engineering and Management



**University POLITEHNICA of Bucharest
Romania**



Bucharest

SEM Director:

Professor Theodor Borangiu

Strategic Program to Promote Innovation in Services through Open,
Continuous Education INSEED, 20 September 2013, Bucharest



Service Engineering and Management



Summary

- Background
- Master Program Description
- European dimension

Strategic Program to Promote Innovation in Services through Open,
Continuous Education INSEED, 20 September 2013, Bucharest





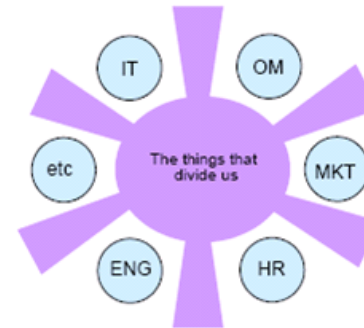
Service innovation

- improve customer-provider interactions
- enhance the capability of organizations to create value with key stakeholders
- improve the quality of life
- enable self service that eliminates waiting and allows 24/7 access via modern devices

Service innovation requires new skills and deep knowledge that underpins the skill set .



The knowledge gap



- IT – Information Technology
- OM – Operations Management
- MKT – Marketing
- HR – Human Resources
- ENG – Engineering



T-shaped education

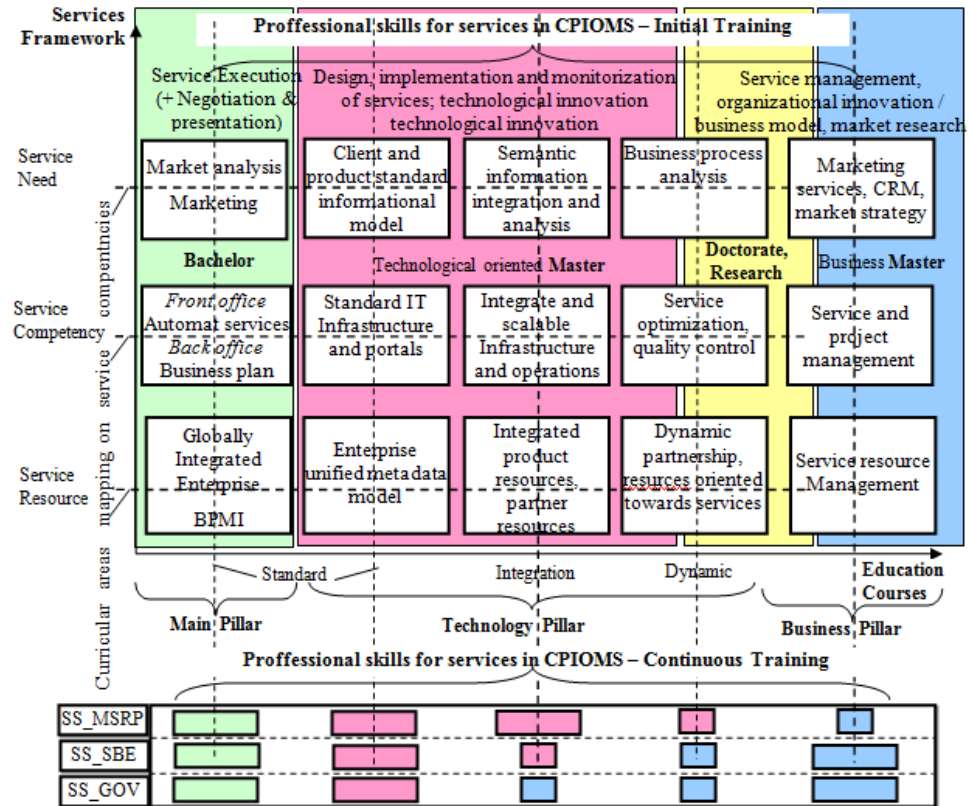
Complex communication

Expert thinking

- problem solvers in their home discipline
- interact with and understand specialists from a wide range of disciplines and functional areas
- adaptive innovators



Educational Model for SS



Master Programs conforming to the SS Model



No.	Title of Master program	University	Study domain	Program type
1	Service Engineering & Management (SEM)	UPB-AES	System_E.	Tech-o
2	Sci., Design & Serv. Engn. in ETTI	UPB	Electron_E.	Tech-o
3	Advanced Software Services	UPB	CS & IT	IT-o
4	Information Protection & Management	UPB	System_E.	IT-o
5	Business Service Management	AES	Bus_Admin.	B-o
6	Advanced Data Mgmt for Bus. Sustainability	UTBv	System_E.	Tech-o
7	Information Systems & Services in Medicine	UPB-UMF	System_E.	IT-o
8	Service Oriented Architectures for Enterprise	UPB	System_E.	Tech-o
9	e-Government	UPB	CS & IT	IT-o
10	Management of Public Services	AES	Admin. & Public_Mngmt	Public_Adm-o
11	Services for Energy Efficiency	UTBv	Power_E.	Tech-o
12	Service Engn. in Telecommunication Networks	UPB	Electron_E.	Tech-o
13	Multimedia Services and Signal Processing	UPB	System_E.	IT-o

Strategic Program to Promote Innovation in Services through Open, Continuous Education INSEED, 20 September 2013, Bucharest



Master Program Description



Structure

2 YEARS





Occupations

- 213103 – Information system designer
- 213104 – Consultant on informatics
- 213908 – Specialist in security procedures and instruments for information systems
- 213906 – Information project manager
- 231001 – Professor assistant
- 250101 – Researcher in informatics
- 251413 – Researcher in computers
- 251416 – Researcher in automatic control
- 241115 – Investment analyst
- 241227 – Specialist in organizational development
- 241919 – Project manager ,
- 241922 – Client services analyst
- 241929 – Industrial strategy specialist



General competencies

- New technologies
 - design, understand and evaluate innovative technologies and processes
- New interaction modes or services
 - understand user and consumer needs
 - meet requirements and quality expectations
- New business models
 - leadership and management capacity to meet stakeholder interests
 - demand for organization flexibility, effectiveness and accountability

Master Program Description



Specific competencies

ICT Information & Communication Technologies	PSA Psychology, Sociology and Arts	OMM Operations, Management & Marketing
Mobile technologies Information systems Human-Computer Interaction Internet technologies Multimedia technologies	Sociology of Organizations Cognitive Psychology Communication Information science and management Design	Service marketing Service Operations and Management Financial management Management of Innovation Service design and development

Master Program Description



Teaching Staff

- Florin Anton, Lecturer Ph.D.
- Anamaria Ciobanu, Prof. Ph.D.
- Adrian Curaj, Prof. Ph.D.
- Liliana Dobrica, Prof. Ph.D.
- Monica Dragoicea, Assoc. Prof. Ph.D.
- Anca Ionita, Prof. Ph.D.
- Sanda Maiduc, Ph.D. Ec.
- Maximilian Nicolae, Lecturer Ph.D.
- Virginia-Ecaterina Oltean, Assoc. Prof. Ph.D.
- Laura Pana, Prof. Ph.D.
- Florin Pop, Assoc. Prof. Ph.D.
- Florin Radulescu, Prof. Ph.D.
- Silviu Raileanu, Lecturer Ph.D.
- Doina Serban, Prof. Ph.D.

Master Program Description



1st Semester

Courses

C11: Mathematical Modelling of Economic Processes

C12: Data Mining and Data Warehousing

C13: Architecture of Service Oriented Information Systems

C14: Marketing and Financial Performance of Business

C15: Network and Systems Security

Total: 18 hours

Research: 10 hours

Master Program Description



2nd Semester

Courses

C21: Business Process Modelling

C22: Supply Chain Management and Logistics

C23: Communication Management and Cognitive Psychology

C24: Foundations of Service Science

C25: Accounting and Financial Management for Services

Total: 18 hours

Research: 10 hours

Master Program Description



3rd Semester

Courses

C31: Enterprise Integration and Management Architectures

C32: Business Service Integration and Management

C33: Knowledge Engineering and Services Ecosystem

C34: Service Operations and Customer Relationship Management

C35: Intellectual Property and Entrepreneurship

Total: 18 hours

Research: 10 hours

Master Program Description



4th Semester

Courses

NO teaching activities

Preparing the Dissertation: 14 hours

Research: 16 hours



Laboratories

- Cloud Computing
- Instrumentation, signals and systems
- Open Standard system Architecture for production networks and integrated services
- Computing systems and information technology
- Distributed Process Control, Robotics and Artificial Intelligence
- Communication Networks and Data Transmission
- Software Engineering and Application Management
- Industrial Information Systems

Master Program Description



Research

- Automated computer network security breach detection system.
- Network IDS system
- Just In Time optimization in supply chains
- Virtual enterprise concept
- Collaboration in wireless systems.
- Optimal assignment paradigms in economic processes and manufacturing
- Business process modelling and requirement management
- Effects of cultural factors on service organizations
- Study of the key enterprise performance factors in services
- Financial planning of service firms
- Current approaches in distributed project management. Case study for a SOA project
- Design and development of Web services
- Meta model design for information project planning tools
- Privacy preserving Data Mining
- Opinion mining, sentiment analysis and opinion extraction
- Communication and inter-personalization processes in the virtual groups and communities that evolve in the ecology of the Web
- ERP implementing in a retail / distribution firm. Case studies

Strategic Program to Promote Innovation in Services through Open, Continuous Education INSEED, 20 September 2013, Bucharest





Agreements

■ Double degree diploma

Students that have been enrolled to study abroad at FEUP and have had a minimum of 6 months of study there, will get not only a degree from the Faculty of Automatic Control and Computers but also for the Faculty of Engineering from the University of Porto.



SEM Service Engineering
and Management



MESG Master on Service Engineering
and Management



Comparison between UP and UPB master programs



Strategic Program to Promote Continuous Education II

European dimension



Similar masters

- [SSME – Service Science, Management, and Engineering](#), Masaryk University/ Faculty of Informatics/ Cehia 
- [Business Process Management Systems](#), University of Vienna/ Fakultät für Informatik/ Institut für Knowledge and Business Engineering/ Austria 
- [ICT Service Management](#), Katholieke Universiteit Leuven, Belgia 
- [Service Management and Service Engineering](#), Karlsruhe Institute of Technology (KIT)/ Karlsruhe Service Research Institute (KSRI)/ Germania 
- [European MSc in Business Informatics](#), Dublin City University/ School of Computing/ Ireland 



Recognition

Strategic Program to Promote Continuous Education INSEED



Portál věnovaný problematice řízení na bázi služeb



[Home](#) ▶ [SSME](#) ▶ [SSME a univerzity](#) ▶ Bucharest Polytechnic University

Bucharest Polytechnic University

Bucharest Polytechnic University zavedla koncem roku 2009 nový studijní program SSME, detaily následují. Na stránkách příslušné fakulty však ještě uveden není.

Service Engineering and Management Master at UPB (Bucharest Polytechnic University)

Faculty of Automatic Control and Computers - Computer Science and Engineering Department with partners from Portugal, UK, Austria, and the support of industry (IBM)

Professional 2-year Master Program, industry-supported

Provides the following components in the education of service professionals:

- **New technologies** (i.e. the ability to design, understand and evaluate innovative technologies and processes)
- **New interaction modes or services** (i.e. understand user and consumer needs and be able to meet requirements and quality expectations)
- **New business models** (i.e. leadership and management capacity to meet stakeholder interests and the demand for organization flexibility, effectiveness and accountability)

- 3 complementary training modules:
- ICT (**Information and Communication Technologies**),
- PSO (**Psychology** and **Sociology**),
- OMM (**Operations, Management** and **Marketing**)

1st SEM Program Structure

1st Year – 1st Semester

C11. Mathematical Modelling of Economic Processes (4 ECTS)

C12. Business Process Modelling, Strategies and Communication (3 ECTS)

C13. Information Management and Data Warehousing (3 ECTS)

Main Menu

- ▶ [Domů](#)
- ▶ [Service oriented management](#)
- ▶ [Service management](#)
- ▶ [Odborná skupina ČSSI](#)
- ▶ [SSME](#)
 - ▶ [Kontakt a informace](#)
 - ▶ [Konference, semináře](#)
 - ▶ [SSME a univerzity](#)
 - ▶ [Informační zdroje](#)
 - ▶ [Organizace se zaměřením na SSME](#)
 - ▶ [Aktuality, příspěvky](#)
 - ▶ [Dokumenty ke stažení](#)
- ▶ [SOEA](#)
- ▶ [O portálu](#)

Reklama

Business Dictionary
Zlepšete svoje znalosti o více než 2000 výrazů používaných v praxi pomocí aplikace pro Android.

Osobnostní test MBTI
Jste vůdce, dobyvatel, umělec nebo bavič? Otestujte se pomocí našeho osobnostního testu MBTI

More Information



http://sske.cloud.upb.ro/sskemw/index.php/SEM_Master_Program

SSKE

Home Service Domain Fundamentals Activities for services Learning Service Innovation

Last visited: Studies | Training Centers and Programs | Academic Institutions | University Politehnica of Bucharest |

SEM Master Program

Keywords	
Documents	
Articles	
Books	
Journals	
Reports & Thesis	
Projects	
Research	
Studies	
Education	
Commercial	

Program name: Service Engineering and Management

Acronym: SEM

Language: English

Double Degree Agreement: with MESG Master Program at Faculty of Eng

Program director: Theodor Borangiu



<http://sem.cimr.pub.ro/>

SEM Service Engineering and Management Master
Faculty of Automatic Control and Computers

SEM Admission Study Plan Faculty Partners Links Contact



Strategic Program to Promote Innovation in Services through Open, Continuous Education INSEED, 20 September 2013, Bucharest





The Master program "Service Engineering and Management" – taught in English - responds to the present worldwide demand of service innovation. The scale and complexity of globally dispersed service systems is growing rapidly and the importance of using resources efficiently, effectively and in a sustainable manner is rising, as service activities become an ever greater part of value creation in modern economies. Graduates will be prepared to conceive, design, implement and operate (CDIO) complex value-added engineering systems.



Thank you!

CORE COURSES

- Foundation of Service Science
- Business Process Modelling
- Marketing and Financial Performance of Business
- Service Operations and Customer Relationship Management
- Business Service Integration and Management
- Accounting and Financial Management
- Enterprise Integration and Management Architectures
- Supply Chain Management and Logistics
- Data Mining and Data Warehousing

SKILLS & ACQUIRED COMPETENCES

- Service management, web services
- Business ecosystem analysis and modelling
- Lifecycle management of applications
- Internal and external consulting for enterprise management
- Service value chain for enterprise, supply chains and logistics
- Enterprise modelling and integration
- Service Oriented Enterprise Architectures

Master program accredited by ARACIS

ECTS: 120
Duration: 4 semesters
Enterprise stage:
3 months

MASTER SEM 2012

Service Engineering and Management

This program offers one - semester course units at the University of Porto



Faculty of Automatic Control and Computer Science
University Politehnica of Bucharest
<http://acs.pub.ro/index.php?site=prezentation&lg=english>

