

PERSONAL INFORMATION

Roberto Sala



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Gender Male | Date of birth 22 June 1991 | Nationality Italian

RESEARCH EXPERIENCE

October 2020 – Present

Research Fellow

University of Bergamo, Italy

Research fellow contract titled "Il ruolo delle tecnologie digitali nei processi operativi delle filiere logistiche".

October 2017 – September 2020

PhD in Technology, Information and Management

University of Bergamo and University of Naples Federico II, Italy

Technology, Innovation and Management doctoral program. The research project aimed at developing a framework to support human decision-makers in the data-driven PSS delivery with a special focus on maintenance delivery.

July 2017 – September 2017

Research Fellow

University of Bergamo, Italy

Research Fellow funded by DIVERSITY project (GA 636692 – Call H2020). The project aims at providing a concurrent collaborative environment for product-service design supporting companies from the context sensitive capturing and searching of knowledge to the transformation of these data into product-service functionalities (www.diversity-project.eu).

April 2017 – July 2017

Research Contract

University of Bergamo, Italy

Project in collaboration within a research project funded by Cotonificio Albini S.p.A. The research activities dealt with the improvement of the stock management process.

April 2016 – March 2017

Research Scholar

University of Bergamo, Italy

- CAREL Spa funded project. The research activities consisted in the supervision in the definition of new PSS offering related to the company evolution in the era of Industry 4.0 and in the definition and adoption of structured methodology to support the servitization process of the company
- Bergamo Tecnologica funded project. The project funded by Bergamo Tecnologica was mainly focused on the improvement of the production process of SALF spa (namely SALF project). The research activity concerned the analysis of the production process through an initial mapping of the different activities, the identification of the main issues and the proposal of suitable solutions for the identified problems in the area of production planning and control.
- Support in the project proposal writing for European and regional calls

LECTURING EXPERIENCE

October 2016 – Present Lecturing Support Activities

University of Bergamo, Italy

The activity deals with the support in the theoretical and practical lectures relates to the Value Stream Mapping lean tool. In addition, the activity concerns the conceptualization and writing of a teaching case study related to the Value Stream Mapping for the courses of “Corso integrato di Gestione delle Operations e Sistemi integrati di produzione” (ID code: 37041) and “Operations Management and Supply and Service Chain Management” (ID code: 37154-ENG1) held by Professor Sergio Cavalieri. The case study is based on the identification of the problems related to an imaginary manufacturing process and the related improvement using the lean tools seen during the course.

February 2019 – Present Lecturing Support Activities

University of Bergamo, Italy

The activity deals with the support in the exercise lectures and the conceptualization and writing of a teaching case study for the courses of “Gestione della Produzione Industriale” (ID code: 21033) held by Professor Fabiana Pirola. The case study is based on the identification of the problems related to an imaginary manufacturing production process and the related improvement using the methods and tools seen during the course.

January 2019 – February 2019 Lecturing Contract

Fondazione di Partecipazione dell'Istituto Tecnico Superiore “Area Tecnologica della Mobilità Sostenibile – Logistica e Sistemi e Servizi Innovativi per la Mobilità di Persone e Mercì”, Italy

Two modules for a total of 28 hours of lecturing. The first module of 16 hours of lectures about Service Design and related modelling methodologies and the second module of 12 hours of lectures about Value Stream Mapping. Both modules consisted in theoretical lectures and practical exercises sessions.

January 2018 – February 2018 Lecturing Contract

Fondazione di Partecipazione dell'Istituto Tecnico Superiore “Area Tecnologica della Mobilità Sostenibile – Logistica e Sistemi e Servizi Innovativi per la Mobilità di Persone e Mercì”, Italy

Two modules for a total of 22 hours of lecturing. The first module of 10 hours of lectures about Service Design and related modelling methodologies and the second module of 12 hours of lectures about Value Stream Mapping. Both modules consisted in theoretical lectures and practical exercises sessions.

March 2017 Lecturing Contract

Centro Studi Superiori S.r.l. – Ente Accreditato in regione Lombardia id. 337563, Italy

6 hours of lectures on Value Stream Mapping. The 6 hours consisted in theoretical lectures and practical exercises sessions.

January 2017 – April 2017 Lecturing Contract

Fondazione Istituto tecnico Superiore per le Nuove Tecnologie per il Made in Italy, Italy

20 hours of lectures on production management. The 20 hours consisted in theoretical lectures and practical exercises sessions on stocks management and demand forecast methodologies.

January 2017 Lecturing Contract

Fondazione di Partecipazione dell'Istituto Tecnico Superiore “Area Tecnologica della Mobilità Sostenibile – Logistica e Sistemi e Servizi Innovativi per la Mobilità di Persone e Mercì”, Italy

10 hours of lectures about Service Design and related modelling methodologies. The 10 hours consisted in theoretical lectures and practical exercises sessions.

EDUCATION AND TRAINING

- October 2017 – September 2020 **PhD in Technology, Information and Management**
University of Bergamo and University of Naples Federico II, Italy
Technology, Innovation and Management doctoral program. The research project aims at developing a framework to support human decision-makers in the data-driven PSS delivery with a special focus on maintenance delivery.
Supervisor: Professor Sergio Cavalieri
Title: A Dual-perspective, Data-based, Decision-making approach to manage the Maintenance service delivery process: the D3M framework
- December 2019 – February 2020 **Visiting Scholar**
Blekinge Institute of Technology, Sweden
The visiting period was aimed at carrying out the research validation of the decision-making framework, and related instruments, developed during the PhD. The results of the visiting period are described in a journal papers written in collaboration with Professor Marco Bertoni, hosting professor during the visiting period.
- October 2018 – November 2018 **Visiting Scholar**
The University of Hong Kong, Hong Kong, China
The visiting period was aimed at carrying out the research on decision-making processes and model in the Product-Service System and Industry 4.0 contexts. The results of the visiting period are described in two papers written in collaboration with Professor George Q. Huang, hosting professor during the visiting period.
- July 2017 **NEMO Sumer School**
University of Vienna, Austria
The Summer School (From 16/07/2017 to 28/07/2017. Total lecturing/practice hours: 60) focuses on the Enterprise Modelling in the Age of Internet of Things. A special attention was devoted to the modelling methods able to support a structured and correct modelling in the context on Industry 4.0.
- October 2013 – April 2016 **Master of Science in Management Engineering**
Polytechnic University of Milan, Italy
Supervisor: Professor Mauro Mancini
Thesis: A Real Option investment model for the wind and photovoltaic plants evaluation
- August 2014 – January 2015 **Erasmus+**
Université de Technologie de Compiègne, France
During the period spent in France I had the chance attend four courses focused on the project management and on the creation of innovative start-ups. Besides this I had the chance to attend a course focused on the working relationship and habits in different countries
- October 2010 – September 2013 **Bachelor of Science in Management and Production Engineering**
Polytechnic University of Milan, Italy
Supervisor: Uros Sikimic
Thesis: Business Game

PERSONAL SKILLS

Mother tongue Italian

Other languages	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	TOEIC C1		
French	B1	B1	UTC Test B1		

Levels: A1 and A2: Basic user – B1 and B2: Independent user – C1 and C2: Proficient user
[Common European Framework of Reference for Languages](#)

Communication skills Good interpersonal and dialogue skills obtained thanks to the experiences abroad. The participation in multiple projects, with people from different countries used to have different working habits (during the Erasmus+ program, the DIVERSITY project and the NEMO Summer School), helped me developing the capability to relate with them and mitigate possible incomprehension. Also, I was able to create fruitful relation during the writing of project proposal with multiple international partners.

Organisational / managerial skills Good work organizational skills acquired during the studies and the projects carried out in Italy and abroad. I strengthen my managerial skills participating in the organization of the 2016 CIPR IPSS Conference held in Bergamo. I was part of the international scientific committee of the 2017 CIRP IPSS conference held in Copenhagen. Moreover, thanks to the participation the DIVERSITY project I had the chance to manage the writing and development of a couple of deliverables and overview the implementation of some of the tools developed in the project. I participated in the writing of different project proposal with a consistent number of partners in each consortium being able to manage the relation with them and to coordinate our work.

Computer skills

- Good knowledge of the Microsoft Office suite
- Good knowledge of simulation and modelling software (e.g. Flexsim, Arena)
- Good knowledge of editing software
- Good programming skills in python using packages related to data analysis (e.g. pandas, numPy, scikit-learn)

Driving licence B

PUBLICATIONS, WORKSHOPS AND CONFERENCES

Selected publications in proceedings of Peer-Reviewed Scientific Conferences

- SALA R., PIROLA F., PEZZOTTA G., *Data-Driven Maintenance Delivery Framework: Test in an Italian Company*, IFIP International Conference on Advances in Production Management Systems, Novi Sad, Serbia, August 30 - September 4, 2020, pp. 322-329
- SALA R., BERTONI A., PIROLA F., PEZZOTTA G., *The Data-Driven Product-Service Systems Design and Delivery (4DPSS) Methodology*, IFIP International Conference on Advances in Production Management Systems, Novi Sad, Serbia, August 30 - September 4, 2020, pp. 314-321
- SALA R., PIROLA F., DOVERE E., CAVALIERI S., *A Dual Perspective Workflow to Improve Data Collection for Maintenance Delivery: An Industrial Case Study*, IFIP International Conference on Advances in Production Management Systems, Austin, Texas, USA, September 1-5, 2019, pp. 485-492
- SALA R., PEZZOTTA G., PIROLA F., HUANG G.Q., *Decision-Support System-based Service Delivery in the Product-Service System Context: Literature Review and Gap Analysis*, Procedia CIRP 83, Hong Kong & Zhuhai, China, May 29-31, 2019, pp. 126-131
- SALA R., PEZZOTTA G., PIROLA F., HUANG G.Q., *Service Delivery Process improvement using Decision Support Systems in two manufacturing companies*, Procedia CIRP 83, Hong Kong & Zhuhai, China, May 29-31, 2019, pp. 248-253
- COLLI M., SALA R., PIROLA F., PINTO R., CAVALIERI S., VEJRUM WAEHRENS B., *Implementing a dynamic FMECA in the digital transformation era*, Proceedings of Mim Conference 2019, Berlin, Germany, August 28-30, 2019
- SALA R., ZAMBETTI M., PIROLA F., PINTO R., *How to select a suitable machine learning algorithm: A feature-based, scope-oriented selection framework*, Proceedings of the XXIII Summer School Francesco Turco, Palermo, Italy, September 12-14, 2018, pp. 87-93
- SALA R., PEZZOTTA G., SASSANELLI C., PIROLA F., BERTELÈ C., NEVES-SILVA R., CAMPOS A.R., TERZI S., *The Integrated Design of Product-Service Systems using the DIVERSITY Platform: An Application Case*, IFAC-PapersOnLine 51.11 (2018), Bergamo, Italy, June 11-13, 2018, pp. 1311-1316.
- SALA R., ZANETTI V., PEZZOTTA G., CAVALIERI S., *The role of technology in designing and delivering PSS*, ICE Conference 2017, Funchal, Madeira Island, Portugal, June 27-29, 2017, pp. 1255-1261

Selected publications in Scientific Journals

- SASSANELLI C., PEZZOTTA G., SALA R., MARGARITO A., LAZOI M., CORALLO A., TERZI S., *Using design rules to guide the PSS design in an Engineering Platform based on the Product Service Lifecycle Management (PSLM) paradigm*. International Journal of Product Lifecycle Management, 2018 Vol. 11 No.2, pp. 91-115
- PEZZOTTA G., SASSANELLI C., PIROLA F., SALA R., ROSSI M., FOTIA S., KOUTOUPES A., TERZI S., MOURTZIS D., *The Product Service System Lean Design Methodology (PSSLDM): integrating product and service components along the whole PSS lifecycle*. Journal of Manufacturing Technology Management, 2018 Vol. 29 No. 8, pp. 1270-1295

Participation to International scientific committee

- XXV Summer School Francesco Turco, Bergamo, Italy, September 09-11, 2020
- IPSS Conference 2017, Copenhagen, Denmark, June 19-21, 2017

Participation to conferences

- XXV Summer School Francesco Turco, Bergamo, Italy, September 09-11, 2020
- APMS Conference 2020, Novi Sad, Serbia, September 1-5, 2020
- XXIV Summer School Francesco Turco, Brescia, Italy, September 11-13, 2019
- APMS Conference 2019, Austin, Texas, USA, September 1-5, 2019
- IPSS Conference 2019, Hong Kong & Zhuhai, China, May 29-31, 2019
- XXIII Summer School Francesco Turco, Palermo, Italy, September 12-14, 2018
- INCOM2018, Bergamo, Italy, June 11-13, 2018
- XXII Summer School Francesco Turco, Mondello, Italy, September 13-15, 2017
- PLM Conference 2017, Seville, Spain, July 10-12, 2017
- ICE Conference 2017, Funchal, Madeira Island, Portugal, June 27-29, 2017
- Seminar "Industria 4.0: la grande occasione per l'Italia", Milan, Italy, June 23rd, 2017
- IPSS Conference 2017, Copenhagen, Denmark, June 19-21, 2017
- XXI Summer School Francesco Turco, Naples 13-15 September 2016
- IPSS Conference 2016, Bergamo, Italy, June 19-21, 2016

Participation to workshops

- 2nd "Technology, Innovation and Management" PhD Programme Doctoral Workshop, Bergamo, Italy, September 24-25, 2019
- APMS Conference 2019 Doctoral Workshop, Austin, Texas, USA, September 1, 2019
- PhD On the Go, Benevento, Italy, May 9-10, 2019
- 1st "Technology, Innovation and Management" PhD Programme Doctoral Workshop, Naples, Italy, October 1-2, 2018
- PALM Doctoral Workshop, Lastra a Signa, Italy, June 14-17, 2018
- PhD On the Go, Salerno, Italy, May 3-4, 2018

Peer Reviewer Activities International Journal of Production Research

Courses Course on the Business Model Innovation, June 8-10, 2016, Bergamo, Italy, at quo-d srl

PERSONAL DATA

I authorize the processing of my personal information under Legislative Decree 196/03

Bergamo, November 11, 2020