CURRICULUM VITAE

Name:	Pedro Pinho Senna
Date of Birth:	13/12/1989
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Education

Oct. 2017 – Dec. 2022

Ph. D. in Engineering and Public Policy, Faculty of Engineering of the University of Porto (FEUP), Porto, Portugal.

Thesis: *Policies for the Digital Era: Digital Technology Adoption, Implementation and the Role of Governments*

Supervisor: Ana Cristina Barros, Ph.D., Senior Innovation Consultant at PNO Innovation, Unipessoal Lda. (PNO Innovation)

Co-Supervisor: Prof. Jaime Bonnín Roca, Ph.D., Assistant Professor of the School of Industrial Engineering at Eindhoven University of Technology (TU/e)

Identification of barriers for adoption of digital technologies, development of digital technology maturity model, development of national implementation roadmap, development of case studies in industrial manufacturing and service sectors, proposal of public policies for adoption of digital technologies.

Mar. 2013 – Aug. 2017

Bachelor of Sciences – Economics Degree, Faculdade de Ciências e Letras de Araraquara, São Paulo State University (UNESP), FCLAr, Araraquara/SP, Brazil.

Portuguese Equivalence: Licenciatura - Faculdade de Economia da Universidade do Porto (FEP), Porto, Portugal. (Registry number: 220200040374 – 23/04/2020).

Thesis: *A Comparative Analysis of the Production Processes of First Generation Ethanol and Second Generation Ethanol.*

Supervisor: Stela Luiza de Mattos Ansanelli, Ph.D.

Best Undergraduate Thesis Award for the Economics Course at UNESP - 2016

Mar. 2007 – Dec. 2010

Bachelor of Sciences – Computer Sciences Degree (incomplete), Department of Computing, Federal University of São Carlos (UFSCar), São Carlos/SP, Brazil

Professional Experience

Jan. 2020 – Today	**Program and Project Manager at the Institute for Systems and Computer Engineering, Technology and Science (INESC TEC)**, Porto, Portugal. Within the TEC4INDUSTRY group, performing program management for the PRR agenda PRODUTECH R3 – WP3 (Smart Factories) and WP9 (Smart Intralogistics), managing the end-to-end development of 27 solutions (PPS). Program manager for the Industrial Vertical Infrastructure within the TestBed 5G NOS, managing 12 different pilots applying 5G communications for multiple industrial solutions. Responsible for securing project management tasks in the early stages of projects secured by the TEC4INDUSTRY business development manager. Previous experience as project manager for European research projects (HEU and H2020), National research projects and National consultancy projects.
Jan. 2020 – Today	**Consultant at the Institute for Systems and Computer Engineering, Technology and Science (INESC TEC)**, Porto, Portugal. Management of tasks within H2020 projects and preparation of H2020 project proposals. Participation and co-management of multiple H2020 and HEU proposals, with two approved projects (SoTecINFactory and ReSChape) and one waiting list proposal (SmartSEED). Participation within EIT Manufacturing projects as consultant for digital maturity assessment and development of technology roadmap for successful digitalization.
Mar. 2018 - Today	**Researcher at the Institute for Systems and Computer Engineering, Technology and Science (INESC TEC)**, Porto, Portugal. Participation within, and co-management of, HEU research projects (ReSChape, RISE-SME) and H2020 research projects (NEXTNET, EIT-M DigTrafoRIS, EIT-M ZeroDefects4.0). Research focused on the combination of digital technology adoption/implementation and public policy.
Oct. 2016 – Sep. 2017	**Internship at Infinity Capital Serviços Especiais Ltda, São Paulo, Brazil**. Internship on retail, technology and bioenergy financial services, with focus on credit feasibility analysis, corporate debt, and macroeconomic trends regarding future scenarios' building & assessment.
Mar. 2013 – Dec. 2015	**Trainee and Senior Consultant for Paulista Jr. Projetos & Consultoria, São Paulo, Brazil.** Working within the administrative-financial office branch. Responsible for financial control, financial and administrative management, and team leadership in internal projects. Participation in consultancy projects and in the elaboration of the financial consultancy service for the company.

Research & Innovation Projects

PowerUp — Megawatt charging for heavy-duty electric vehicles (COMPETE 2030, September 2025–February 2028)

Project Manager, INESC TEC Project Management Office. Coordinates INESC TEC's contribution to a 30-month research and innovation project led by i-charging, in partnership with Mizuru Tech, Petrogal and Galp Energia. The project develops a modular Megawatt Charging System for heavy-duty electric vehicles, combining grid integration and energy management with AI-based fault detection and predictive maintenance. Responsibilities include coordinating the institute's research teams, translating consortium requirements into tasks, providing project management tools and resolving issues with partners that affect technical delivery.

PRR Mobilizing Agendas (PRR | 2022 – Today)

The PRR Mobilizing Agendas are large-scale collaborative innovation programmes bringing together research organisations and industry to develop, validate and deploy new products, processes and services. INESC TEC participates in 22 Mobilizing Agendas, covering activities across multiple industrial and technological domains.

- **Program coordination of INESC TEC's participation across 22 Mobilizing Agendas**, comprising 69 Work Packages and 119 Products, Processes and Services (PPS).
- Responsible for portfolio-level monitoring and coordination involving **358 researchers across 12 INESC TEC research centres**, ensuring alignment between PPS leaders, Agenda coordinators, project controllers, PMO, Executive Board and Technology Transfer Office.
- Responsible for monitoring technical execution and consolidating project evidence, PPS documentation, external expert evaluations, exploitation activities and technology-transfer information across the portfolio.
- Coordination of the industrial exploitation and validation records associated with the Agendas, including **41 technologies and prototypes documented between 2023 and 2025** and direct development, testing or implementation activities involving **119 companies**.

PRODUTECH R3 (PRR | 2022 – Today)

The PRODUTECH R3 Mobilizing Agenda is a Portuguese Recovery and Resilience Plan (PRR) initiative aimed at developing and demonstrating advanced production technologies for the digital and sustainable transformation of Portuguese industry. Within INESC TEC, activities covered the development and industrial demonstration of solutions in areas including smart manufacturing, robotics, intralogistics, simulation, digital twins, artificial intelligence and advanced production planning.

- **Program Manager for WP3 – Smart Factories and WP9 – Smart Intralogistics**, coordinating the development and demonstration of 27 industrial solutions involving 38 partner organisations and approximately €67M in investment.
- Responsible for project planning, monitoring and control, including technical and financial execution, deliverables, milestones, risks, demonstrations and reporting to the Agenda coordination and funding authorities.
- Managed coordination between research teams, technology providers and industrial partners, including resolution of implementation issues, alignment of technical requirements and support to decision-making and project recovery actions.

ReSChape (HEU | 2023 – 2025)	The REshapping Supply CHAins for Positive social impact – ReSChape (Horizon Europe) is an EU-funded project looking to analyse recent social, economic and environmental changes and disruptions, including the COVID-19 pandemic, and evaluate their impact on supply chains. The final outcome of the project is a set of new supply chain models targeting a more streamlined supply chain process to assure a human-centric approach and to incorporate enabling digital technologies. • Project Management for the Portuguese team • Responsible for the analysis of technological trends on European and global supply chains, as well as identification of risks and mitigating actions for businesses and policy makers. • Leader WP4 – Policy Recommendations. Definition of methodology for policy identification, selection and drafting of recommendations.
RISE-SME (HEU | 2023 – Today)	The Resilient Supply Chain Enhancement for SMEs - RISE-SME (Horizon Europe) is an EU-funded project looking to identify critical current and future disruptions in supply chains of industrial ecosystems, create models towards a resilient supply chain, boost the adoption of advanced technologies in SMEs, and build alliances among traditional and tech-savvy SMEs in industrial ecosystems. • Co-Project Manager for the Portuguese team • Responsible for defining the methodology to identify key European industrial ecosystems macro-economic factors, as well as supply chain characteristics • Responsible for conducting systematic literature review on Digital and Agri-food industrial ecosystems aimed at establishing a Resilient and Sustainable Supply Chain Fit model for SMEs
Change2Twin (EU I4MS | 2022 – 2023)	Change2Twin was an I4MS EU-funded project aimed at offering digitalization initiatives for SMEs with intent on deploying digital twins. The project considered manufacturing SMEs for a tailor-made solution, which included analysis of current status, individual mentoring program, and a ready-to-use recipe for digital twin deployment. • Responsible for the analysis and improvements for the Change2Twin assessment and recipe-building tools. • Responsible for conducting the maturity assessment of SMEs for the first and second rounds, with particular emphasis on Twinning capabilities, systems' requirements and integration possibilities. • Responsible for addressing the key-issues faced by manufacturing SMEs and elaborating a set of three tailor-made solutions that gradually implemented the digital twin capabilities, mostly focusing on monitoring, planning and diagnosis solutions.
Industry 4.0 Digital Maturity Model (Internal Project | 2020-2022)	Internal project aimed at the development and validation of an Industry 4.0 digital maturity model for benchmarking purposes considering multiple manufacturing sectors. • Responsible for conducting the systematic literature review towards assessing the highest level of maturity models available, targeting digital technologies and industry 4.0 technologies. • Responsible for the analysis and final maturity model building from the results of the systematic literature review. • Responsible for conducting multiple case studies to validate the model's capability to assess different manufacturing sectors and multiple companies' profiles. • Responsible for documenting and for the scientific editorial process of publishing the model and multi-case analysis.

EIT-M ZeroDefects4.0
(EITManufacturing | 2020)

EIT Manufacturing Advanced Decision Making for Zero Defects Manufacturing (EIT-M 20014) – Project Contract hosted by Institute for Systems and Computer Engineering, Technology and Science (INESC TEC), Porto, Portugal

- Responsible for establishing statistical analysis of the provided data used as basis for the machine learning algorithm development
- Team-member for the algorithm selection and data analysis tasks
- Co-management of the project

EIT-M DigTrafoRIS
(EITManufacturing | 2020)

EIT Manufacturing Digital Transformation in RIS (EIT-M RIS 20173) – Project Contract hosted by Institute for Systems and Computer Engineering, Technology and Science (INESC TEC), Porto, Portugal

- Responsible for conducting digital maturity assessment interviews
- Responsible for developing digital maturity assessment final template report
- Report writing
- Co-management of the project

NEXT-NET
(H2020 | 2018-2019)

Next generation Technologies for networked Europe (H2020-NMBP-CSA-2017) – Research Grant hosted by Institute for Systems and Computer Engineering, Technology and Science (INESC TEC), Porto, Portugal

- Management of project activity for mapping digital technologies into future supply chain scenarios – definition of methodological approach, management of teams for mapping digital technologies, deliverable writing
- Responsible for conducting interviews to assess experts perception of required digital technologies for different future scenarios
- Responsible for organizing and conducting workshop to define future scenarios
- Responsible for developing supply chains strategies for future scenarios
- Responsible for combining econometric evaluation of future scenarios with supply chain strategies for future scenarios
- Responsible for conducting case studies within fashion, aerospace, furniture and retail industries for future supply chains
- Responsible for defining Public Policies methodological definition
- Responsible for assessing and identifying public policies for future supply chains
- Responsible for organizing and conducting workshop to define public policies for future supply chains
- Responsible for writing intermediate and final deliverables
- Main author of chapter related to digital technologies mapping
- Co-author of chapter related to digital technologies identification
- Co-author of chapter related to future supply chain strategies
- Co-author of chapter related to definition of public policies for future supply chains

Consultancy Projects

Roadmap for the Decarbonisation of the Agri-Food Sector (PRR Project nº97 | 2023 - 2025)	The agri-food sector is a critical pillar of the global economy, responsible for a significant share of greenhouse gas (GHG) emissions due to agricultural practices, food processing, transportation, and waste management. Decarbonising this sector is essential to achieving **climate neutrality goals**, enhancing **food security**, and promoting **sustainable economic growth**. This roadmap outlines a **strategic approach** for the decarbonisation of the agri-food sector, identifying key action areas, challenges, and opportunities to transition towards a **low-carbon, resilient, and sustainable food system**. • Co-manager of the Digitalization team. • Responsible for improving the Industry 4.0 Digital Maturity Model and apply it to the agri-food sector in Portugal, by incorporating sustainability, resilience and circular economy aspects into the model. • Team-member for the digital roadmapping design towards enhancing sustainability and resilience through digital technology adoption in the agri-food sector. • Responsible for financially assessing multiple digital and IT technologies, as well as their efforts to be incorporated into agri-food industries of several sub-sectors.
Advanced Production Systems 4.0 – SAP4.0 (2022-2023)	Portugal 2020 Sistemas Avançados de Produção 4.0 (SAP4.0) – AS-IS characterization and strategic roadmap design within the Advanced Production Systems – Project Contract hosted by the Oliveira de Azeméis Entrepreneurial Association (AECOA) and by the Santa Maria da Feira Entrepreneurial Association (AEF), with the service provider Institute for Systems and Computer Engineering, Technology and Science (INESC TEC), Portugal • Responsible for developing a novel Industry 4.0 digital maturity model to be applied to the project's participants in order to assess their current digital maturity level • Responsible for developing and conducting macroeconomic analysis of the Entre Douro e Vouga region • Responsible for developing the roadmapping methodology for designing the set of actions leading to the digitalization of the Entre Douro e Vouga region • Responsible for summarizing the methodology, approach, outcomes, best practices and limitations in an Industry 4.0 Digital Transformation Handbook
AI REGIO (2021 - 2022)	Horizon 2020 AI REGIO I4MS initiative (H2020 IA 952003) - Project Contract hosted by Institute for Systems and Computer Engineering, Technology and Science (INESC TEC), Porto, Portugal • Partially responsible for developing the AI Maturity Model tool to be used within the projects AI experiments
EIT-M DT@QUALITY (2020)	EIT Manufacturing Digital Transformation in RIS (EIT-M RIS 20173) Digital Transformation at Quality – Project Contract hosted by Institute for Systems and Computer Engineering, Technology and Science (INESC TEC), Porto, Portugal • Responsible for performing the digital maturity assessment of the company • Management of team for the digital maturity assessment task • Team-member for the digital roadmapping design activity • Report writing for both activities

EIT-M DT@ENERTERMO (2020)

EIT Manufacturing Digital Transformation in RIS (EIT-M RIS 20173) Digital Transformation at ENERTERMO – Project Contract hosted by Institute for Systems and Computer Engineering, Technology and Science (INESC TEC), Porto, Portugal

- Responsible for performing the digital maturity assessment of the company
- Management of team for the digital maturity assessment task
- Team-member for the digital roadmapping design activity
- Report writing for both activities

EIT-M EIT_MAT40_BULH (2020)

EIT Manufacturing Digital Transformation in RIS (EIT-M RIS 20173) Maturity Assessment for Digital Transformation – Project Contract hosted by Institute for Systems and Computer Engineering, Technology and Science (INESC TEC), Porto, Portugal

- Responsible for performing the digital maturity assessment of the company
- Team-member for the digital roadmapping design activity
- Report writing for both activities

Additional Qualifications

Knowledge of the Project Management Office approach for standardized program and project management: definition of objectives, requirements and risks; leadership; understanding and managing multicultural and multiskilled teams; scheduling preparation; tasks/activities management, monitoring & control; deadline definition; and client close communication.

Knowledge of digital transformation challenges and barriers to adoption on manufacturing and service sectors: adoption-diffusion methodologies, implementation requirements, business model analysis for digital transformation and research team building with multi-disciplinary approaches.

Knowledge of digital technologies and industry 4.0 maturity assessment tool, including: research assessment, consultancy assessment, tool development, tool population, multiple case studies validation and final evaluation. Knowledge of multiple assessment models building methodologies and roadmapping methodologies for the adoption and implementation of digital technologies and industry 4.0 technologies. Knowledge of organizational, strategic, cultural, technological, environmental and contextual requirements for current and future digital technologies adoption scenarios within manufacturing companies.

Knowledge of data sciences methodologies for quality improvement of manufacturing equipment: data understanding, data preparation, statistical analysis, formulation of decision-trees, evaluation of modelling with secondary approaches, deployment.

Knowledge of the Project Management Office approach for standardized project management: definition of objectives, requirements and risks; leadership; understanding and managing multicultural and multiskilled teams; scheduling preparation; tasks/activities management, monitoring & control; deadline definition; and client close communication.

Knowledge of macroeconomic methodologies for scenario building and trend forecasting. Integration of corporate goals and roadmaps with macroeconomic trends, market trends and design of custom-made solutions.

Relevant Certifications

Project Management Professional (PMP)® Certification (2026)

Project Management Institute (PMI)

Internationally recognised professional certification validating competence in leading and managing projects across predictive, agile and hybrid environments, covering people, processes and business priorities. **Certification awarded in August 2026.**

Teaching experience

September 2026 – January 2027 | Invited Lecturer, MSc in Project Management
Escola Superior de Tecnologia e Gestão (ESTG), Polytechnic of Porto, Portugal.

Ferramentas Informáticas de Gestão de Projetos (FIGP), a first-semester, 4-ECTS course unit. Designed and delivered practical sessions on selecting and using project management software. Assessed group projects and live demonstrations covering workspace organisation, allocation of responsibilities, team collaboration, documentation, traceability, usability and accessibility.

Supervision

Maria Carlota Gomes Silva (2025-2026 – M.Sc – FEUP)	*Embedding-Based Topic Modeling for Strategic Research Portfolio Analysis* Co-Supervisor
João Pedro Gonçalves da Silva (2024-2025 – M.Sc – FEP)	*Business model for testbeds: 5G networks in the Industry 4.0* Co-supervisor
Thiago Silveira Alves (2024-2025 – M.Sc – FEP)	*Automação Inteligente e Metodologias Ágeis para a Gestão de Projetos Complexos de Inovação: Perspetivas do Projeto Mobilizador PRR PRODUTECH R3* Supervisor
Inês Sofia Alves Miranda (2024-2025 – M.Sc – FEP)	*Adoção de tecnologias 5G e visão artifical em ambientes de intralogística: desafios e oportunidades* Supervisor
Gonçalo Ferreira Mandim Primavera (2024-2025 – M.Sc – ISEP)	*Desenvolvimento de um plano operacional para um ambiente de Testbed para impulsionar a adoção de redes 5G no contexto da Indústria 4.0* Supervisor
Maria João Nogueira Tavares (2023-2024 – M.Sc – FEP)	*Da procura à eficiência nas análises clínincas especiais: uma abordagem holística* Supervisor
Diana Raquel Moreira Cardoso (2020-2021 - M.Sc – FEP)	*Drivers and barriers for implementing the digital transformation in the Portuguese industry.* Co-supervisor

Ph.D and M.Sc Defence Committees

Ph.D	**Andrea Cristina Elias Ribeiro** (2026) *Estratégia de manufatura na indústria 4.0: Proposta e validação de um modelo conceitual para prioridades competitivas operacionais* PhD in Production Engineering, Universidade Paulista (UNIP), Brazil. External examining committee member.
	William Aparecido Celestino Lopes (2025) *Realidade aumentada e capacidades dinâmicas na indústria 5.0: Framework para transformação digital em ambientes controlados e não controlados* PhD in Production Engineering, Universidade Paulista (UNIP), Brazil. External examining committee member.
M.Sc	**Maria Carlota Gomes Silva** (2026) *Embedding-Based Topic Modeling for Strategic Research Portfolio Analysis* MSc in Informatics and Computing Engineering, FEUP, University of Porto. Participated in the defence as co-supervisor (*co-orientador*).

João Pedro Gonçalves da Silva (2025)

Business model for testbeds: 5G networks in the Industry 4.0

MSc in Economics and Management of Innovation, FEP, University of Porto. Participated in the defence as co-supervisor (*co-orientador*).

Inês Sofia Alves Miranda (2025)

Adoção de Tecnologias 5G e Visão Artificial em Ambientes de Intralogística: Desafios e Oportunidades

MSc in Economics and Business Administration, FEP, University of Porto. Committee member as supervisor (vogal orientador).

Gonçalo Ferreira Mandim Primavera (2025)

Desenvolvimento de um plano operacional para um ambiente de Testbed para impulsionar a adoção de redes 5G no contexto da Indústria 4.0

MSc dissertation, ISEP, Polytechnic of Porto. Participated in the defence as supervisor (*orientador*). The specific degree programme and exact defence date remain unverified.

Thiago Silveira Alves (2025)

Automação Inteligente e Metodologias Ágeis para a Gestão de Projetos Complexos de Inovação: Perspetivas do Projeto Mobilizador PRR PRODUTECH R3

MSc in Economics and Management of Innovation, FEP, University of Porto. Committee member as supervisor (vogal orientador).

Luana Rimes Gonçalves (2024)

The Impact of the Covid-19 Pandemic on E-commerce Distribution Logistics in Brazil: Challenges, Adaptations and Lessons Learned

MSc in Management, FEP, University of Porto. Defence committee member.

Francisco Lopes Rodrigues (2024)

A digitalização das PME's portuguesas: Paradigma, dificuldades e iniciativa

MSc in Economics and Management of Innovation, FEP, University of Porto. Defence committee member.

Luís Pedro Rocha Rodrigues (2024)

Estudo da viabilidade do transporte autónomo na Misturação

MSc in Mechanical Engineering, specialisation in Industrial Management, ISEP, Polytechnic of Porto. Defence committee member (arguente).

Maria João Nogueira Tavares (2024)

Da procura à eficiência nas análises clínicas especiais: uma abordagem holística

MSc in Economics and Business Administration, FEP, University of Porto. Committee member as supervisor (vogal orientador).

António Luís Paredes Fernandes (2024)

Data science in Sports in Sports: A Game-Changer for Performance

MSc in Management, FEP, University of Porto. Examining committee member (*arguente*).

Diogo Gonçalo Barros da Costa (2023)

Redefinição de Governo e de Ferramentas de Suporte do Controlo Interno

MSc in Industrial Engineering and Management, FEUP, University of Porto. Examiner (*arguente*), explicitly identified in the university's jury record.

Publications

Refereed Journal Papers	Si, T., Senna, P., & Bonnin Roca, J. (2026). Resilience: The Need for an Interdisciplinary Research Agenda for Policymaking. *Circular Economy and Sustainability*, *6*(2), 78.
	Silva, A. C., Santos, R., Senna, P. P., Borges, F. M., & Marques, C. M. (2026). Enhancing picking-by-line operations: a simulation-based approach. *The International Journal of Advanced Manufacturing Technology*, 1-14.
	Pessot, E., Muerza, V., Senna, P., Barros, A. C., & Fornasiero, R. (2025). Supply chain strategies in a global context: a customer value-based perspective. In *Supply Chain Forum: An International Journal* (Vol. 26, No. 4, pp. 573-587). Taylor & Francis.
	Senna, P. P., Barros, A. C., Roca, J. B., & Azevedo, A. (2023). Development of a digital maturity model for Industry 4.0 based on the technology-organization-environment framework. *Computers & Industrial Engineering*, 185, 109645.
	Senna, P. P., Roca, J. B., & Barros, A. C. (2023). Overcoming barriers to manufacturing digitalization: Policies across EU countries. *Technological Forecasting and Social Change*, 196, 122822.
	Senna, P.P., Ferreira, L.M.D., Barros, A.C., Bonnín Roca, J., & Magalhães, V. (2022). Prioritizing barriers for the adoption of industry 4.0 technologies. *Computers & Industrial Engineering*, 171, 108428.
	Senna, P.P., Ansanelli, S.L.M. (2018). Second Generation Ethanol – Technological Intensity on the Integrated Cycle. *U. Porto Journal of Engineering*, Vol. 4, No. 1, pp. 67-76
	Senna, P.P., Ansanelli, S.L.M. (2017). First generation or second generation ethanol in Brazil? A comparison through economic and social environmental aspects. *Revista Espacios*, Vol. 38, no. 37, pp. 15-21.
Book Chapters	Senna PP, Stute M, Balech S, Zangiacomi A (2021). Mapping Enabling Technologies for Supply Chains with Future Scenarios. In: *Fornasiero et al (ed) Next generation supply chains: a roadmap for research and innovation*, Springer
	Stute M, Sardesai S, Parlings M, Senna P, Fornasiero R, Balech S (2021). Technology scouting to accelerate innovation in supply chain. In: *Fornasiero et al (ed) Next generation supply chains: a roadmap for research and innovation*, Springer
	Barros AC, Senna P, Marchiori I, Kalaitzi D, Balech S (2021). Scenario-driven supply chain charaterization using a multi-dimensional approach. In: *Fornasiero et al (ed) Next generation supply chains: a roadmap for research and innovation*, Springer
	Zimmermann RA, Barros AC, Senna PP, Fornasiero R, Marchiori I, Pessot E (2021). Policy recommendations on preparing Europe for the supply chains of the future. In: *Fornasiero et al (ed) Next generation supply chains: a roadmap for research and innovation*, Springer
Conference Papers	Gonçalves, P., Simões, A., Senna, P., & Parreira, B. (2026). Designing Sustainable BMs for Testbeds in Industry 4.0: An Empirical 5G Testbed Study. In *IFIP International Conference on Advances in Production Management Systems* (pp. 541-555). Cham: Springer Nature Switzerland.
	Almeida, A., Senna, P., Azevedo, A., & Dinis, R. (2026). 5G Advantages in Manufacturing: A Vision Beyond the Speed and Latency Advantages. *Procedia Computer Science*, *277*, 3673-3679.

	Santos, R., Marques, C., Tavares, A., Coelho, C., Piqueiro, H. (2024). A simulation and optimization approach to dynamic PBL – A retail case study. IAMOT 2024 Conference – Porto, 2024.
	Zimmermann, R., Senna, P., Pereira, P., Fornasiero, R., Zangiacomi, A., & Betto, F. (2024). Developing strategies for sustainable and resilient supply chains. IAMOT 2024 Conference – Porto, 2024.
	Zimmermann, R., Senna, P., & Cardoso, D. (2023, September). How the COVID-19 Pandemic Has Affected Digital Transformation and Its Relationship to Supply Chain Resilience. In *Working Conference on Virtual Enterprises* (pp. 55-67). Cham: Springer Nature Switzerland.
	Simões, A., Ferreira, F., Castro, H., Senna, P., Silva, D., & Dalmarco, G. (2021). Adoption of digital technologies during the COVID-19 pandemic: Lessons learned from collaborative Academia-Industry R&D case studies. In *2021 IEEE 19th International Conference on Industrial Informatics (INDIN)* (pp. 1-7). IEEE.
	Dias, R. C., Senna, P. P., Gonçalves, A. F., Reis, J., Michalaros, N., Alexopoulos, K., & Gomes, M. (2021). PREFAB Framework-PRoduct quality towards zEro deFects for melAmine surface Boards industry. *IFAC-PapersOnLine*, *54*(1), 570-575.
	Senna, P. P., Almeida, A. H., Barros, A. C., Bessa, R. J., & Azevedo, A. L. (2021). Architecture Model for a Holistic and Interoperable Digital Energy Management Platform. *Procedia Manufacturing*, 51, 1117-1124.
	Pessot E., Macchion L., Marchiori I., Fornasiero R., Senna P., Vinelli A. (2021). Collaborative Product and Service Customization in Fashion Companies. *In: Camarinha-Matos L.M., Afsarmanesh H., Ortiz A. (eds) Boosting Collaborative Networks 4.0. PRO-VE 2021. IFIP Advances in Information and Communication Technology*, vol 598. Springer, Cham. https://doi.org/10.1007/978-3-030-62412-5_36
	Senna, P.P., Barros, A.C., Bonnín Roca, J. (2020). Assessing Technological Maturity for the Digital Era. *27th International Annual EurOMA Conference*, June 2020, Coventry, United Kingdom.
	Hernández E., Senna P., Silva D., Rebelo R., Barros A.C., Toscano C. (2020). Implementing RAMI4.0 in Production - A Multi-case Study. In: *Almeida H., Vasco J. (eds) Progress in Digital and Physical Manufacturing*. ProDPM 2019. Lecture Notes in Mechanical Engineering. Springer, Cham.
Refereed Journal Papers in Portuguese	Ansanelli, S.L.M., Senna, P.P., Silva, G.R., Campos, D.A.C. (2017). Sistemas de Inovação Ambiental em Países em Desenvolvimento: Uma Discussão a Partir do Desenvolvimento do Etanol de Segunda Geração no Brasil. *Periódico Pesquisa & Debate* – PUC-SP, Vol. 28, No. 1 (51), pp. 121-139.
Conference Papers in Portuguese	Senna, P.P., Ansanelli, S.L.M. (2016). Etanol de Primeira ou de Segunda Geração? Uma Comparação entre os Ciclos Produtivos. *I Encontro Nacional de Economia Industrial e Inovação*. **Scientific Merit Award.**
	Senna, P.P., Ansanelli, S.L.M. (2016). Aspectos econômicos e socioambientais do Etanol de Primeira Geração e Segunda Geração no Brasil. *XXVIII Congresso de Iniciação Científica (Poster)*. **Honorable Mention Award.**

Courses

PMI PMP Certification Training Course (2025)	Project Management Institute (PMI) Online Course: Official PMP certification training course, in preparation to secure the PMP® certification by mid-2025 (35 certified hours – PDUs).
Advanced Program in Industry 4.0 (2024)	INEGI – INESC TEC

	Formal C-Level course towards providing managers and CEOs with knowledge on multiple Industry 4.0 capabilities, technologies and requirements (200 hours).
ESG for Financial Markets (2022)	AMBIMA Online Course: Providing definitions, best practices and tools to design ESG KPIs and corporate strategy for companies, with focus on their impact in the valuation of assets (physical, virtual and digital), as well as on production process leading to provided products and services.
Data Science with Python (2021-2022)	DataCamp Online Course: Honing data science skills by creating visualizations with Matplotlib package functions and manipulating DataFrames with pandas package Data analysis in Python with focus on the NumPy package
Programming for Data Science - Python (2020)	Udacity Online Course: Introductory course for data science concepts using Python, SQL and R
Essential Project Management (2019)	Portuguese Association for Management and Industrial Engineering (APGEI) 16 hour certified course – intensive overview of all topics related to Project Management
Investments – Basics (2017)	Getúlio Vargas Foundation (FGV) Online Course: (i) Basic Concepts, (ii) Investments Characteristics, (iii) Risk Management, (iv) Investment Funds, (v) Types of Investments, (vi) Foreign Investments
Project Management – Introduction (2016)	Project Management Institute – São Paulo Chapter 30 hour course: PM Framework, Project Life Cycle and Organization, PM Processes, PM Knowledge Areas (Integration, Scope, Time, Cost, Quality, HR, Communications, Risk)

Languages

Portuguese	Native	German	B2 (DSD I)
English	Fluent – C2 (CAE and IELTS)	Spanish	B1 (DELE Intermedio)

Computer Expertise

STATA®, IBM CPLEX, R, Python, C Language, C++ Language, SQL, Prolog, MsOffice Suite

Extra Activities / Interests

2025 – Today	Project Management Institute – Portugal Chapter • Member (2025 – Today)
2023 – Today	European Association for Research & Technology Centres – Technology Foresight Working Group (EARTO-JRC Initiative) • Member and INESC TEC's main point of contact (2023 – Today)
2020 – Today	European Institute of Innovation & Technology Manufacturing Alumni Community (EIT Manufacturing Alumni) • Founding member (2020 – Today) • Advisory Board (2022 – 2024)
2020 – Today	EIT Young Manufacturing Leaders (YML) – City Hub Porto • Founding member • Advisory Board (2022 – 2023)

2020 – Today	European Operations Management Association (EurOMA) • Member (2020 – Today)
2019 - Today	Portuguese Association for Management and Industrial Engineering (APGEI) • Member (2019 – Today)
2005- 2015	Rotary International Interact Club, destined for ages 12-17, acting as head of protocol for three years. • Founding member • Head of Protocol (2005-2008) Rotaract Club, destined for ages 18-29, acting as treasury, CFO and VP. • Founding member • Treasury (2013/05 – 2013/07) • Chief Financial Officer (2013/07 – 2014/06) • Vice-President (2014/07 – 2015/07)