


PERSONAL INFORMATION



ANTONELLA MENEGHETTI


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Gender F | Date of birth September 17th 1968 | Nationality Italian

WORK EXPERIENCE

- Dec 2022 – Present **Full Professor of Industrial Systems Engineering**
SSD Italian Scientific-Disciplinary Sector (SSD) ING-IND/17 Impianti Industriali Meccanici
Institution University of Udine, Italy
- Oct 2014 – Nov 2022 **Associate Professor of Industrial Systems Engineering**
SSD Italian Scientific-Disciplinary Sector (SSD) ING-IND/17 Impianti Industriali Meccanici
Institution University of Udine, Italy
- Nov 1998 – Sept 2014 **Assistant professor of Industrial Systems Engineering**
SSD Italian Scientific-Disciplinary Sector (SSD) ING-IND/17 Impianti Industriali Meccanici
Institution University of Udine, Italy
- Aug 1993 – Aug 1994 **Junior consultant**
Company Andersen Consulting Group, Bologna, Italy
Development of logistics management systems

EDUCATION AND TRAINING

- a.y. 1994/95-96/97 **Ph.D. program in Industrial Engineering**
Dottorato di Ricerca in Ingegneria Gestionale
Institution University of Padua, Italy
06 July 1998 National final dissertation, Rome, Italy
- 1993 **Italian professional practice examination**
Engineering license, 1st session
- a.y. 1987/88-91/92 **M.S. program in Industrial Engineering**
Laurea (ciclo unico) in Ingegneria Gestionale
Institution University of Udine, Italy
04 March 1993 Final dissertation, Summa cum laude

ACADEMIC POSITIONS

National Board Coordination

Vice-President of AIDI (The Italian Association of Professors in Industrial Systems Engineering) since Oct 2023. Previously Executive board member and Secretary of AIDI, Oct 2015-Sept 2019.

National Evaluation Committees

Member of the Evaluation Committee for the National Scientific Qualification of Italian university professors in Industrial System Engineering, 2023-25.

International Degree Program Coordination

Head of the double degree program in Laurea Magistrale in Ingegneria Gestionale (University of Udine) - Master of Science in Information Management (University of Klagenfurt)

Ph.D. program teaching board membership

Member of the Ph.D. program in Environmental and Energy Engineering Science board, University of Udine. Supervisor of 6 PhD students.

TEACHING

Engineering Program Courses

Facilities Planning (Gestione degli Impianti Industriali in Italian) for the Bachelor degree programs in Management Engineering and in Industrial Engineering for Environmental Sustainability, Master of Science degree program in Mechanical Engineering.

Industrial Systems Engineering and Management (Sistemi di Impiantistica Industriale in Italian) for the Master of Science degree programs in Management Engineering and Mechanical Engineering.

University of Udine, Polytechnic Department of Engineering and Architecture

Theses and Internships

Supervisor of about 200 theses in Management and Mechanical Engineering at University of Udine, most of them related to internships in North-Eastern Italian enterprises (e.g. Luxottica, Electrolux Professional, Fincantieri, Faber, Bofrost).

RESEARCH

Main Research Topics

- sustainable logistics
- sustainable production
- energy recovery and renewable energy integration
- industrial and urban symbiosis

I'm particularly interested on design and control of energy-efficient automated warehouses, material handling and transports, also with renewable energy integration. Waste heat recovery from industrial facilities and its exploitation in industrial and urban symbiotic systems is also a favourite research theme.

Research Methodologies

Constraint Programming, Mixed Integer Programming, Local search, Multi-criteria optimization, Simulation

International Research Collaboration

Nanyang Technological University, Energy Research Institute, Singapore

University of Klagenfurt, Department of Operations, Energy and Environmental Management, Austria.

Scientific Awards

“Burbidge Award in recognition of excellence in research” by IFIP WG5.7 for the paper “Sustainable storage assignment in AS/RSs” presented at the International Conference on Advances in Production Management Systems (APMS) 2010.

“Applied Energy ICAE2013 Best Paper Award of Excellence” for the paper “PCM-based energy recovery from Electric Arc Furnaces”, Applied Energy, 2014, Vol. 136.

“Best Paper Award for an outstanding manuscript at the conference submission” for the paper “Integrating industrial waste heat recovery into future sustainable Smart Energy Systems”, at the SDEWES 2018: 13th Conference on Sustainable Development of Energy, Water and Environment Systems.

Recent funded research project membership

NRRP (National Recovery and Resilience Plan), Mission 4, Component 2 Investment 1.4, Next Generation EU, project “Interconnected Nord-Est Innovation Ecosystem (iNEST)”, spoke “Green and Digital Transition for Advanced Manufacturing Technology”, research topic “Energy”, leader of the task “Integration of renewable energy sources, alternative fuel/vector production and energy efficient management in industrial and logistic systems”, duration 36 months from September 2022.

ENEA funded research project on models for feasibility analysis of low-temperature industrial waste heat recovery in a water-energy nexus perspective (2020-21).

POR-FESR Friuli Venezia Giulia funded research project MAESTRI (2017-19) for the development of a new concept and assembly process of modular cruise ships, Fincantieri, Marinoni, Mare (Maritime Technology Cluster) FVG, University of Trieste and University of Udine.

Guest Editing, Program and Scientific Committees, Reviewing

Guest Editor for the Special Issue “Energy Transition and Hydrogen: Challenges and Opportunities” (Jul 2021 - Jan 2024) and for the Special Issue 2020 on “Selected papers from PEM 2019” in the journal Sustainability.

Scientific Committee of the International Conference on Industry 4.0 and Smart Manufacturing (ISM 2024), and of the International Conference on Production Engineering and Management (PEM) 5th Edition PEM 2015, 7th edition PEM 2017, 9th edition PEM 2019. Program committee of the International Conference “Maintenance and Facility Management 2006”.

Reviewer for the following international journals: Annals of Operations Research; Applied Energy; Applied Mathematical Modelling; Computers and Industrial Engineering; Energies; Engineering Optimization; International Journal of Physical Distribution and Logistics Management; International Journal of Production Research; International Journal of Shipping and Transport Logistics; Journal of Cleaner Production; Journal of Food Engineering; Processes; Ships and Offshore Structures; Sustainability; Sustainable Futures; Transportation Research Part E.

ADDITIONAL INFORMATION

Main publications 2012-24

1. Chinese C., Cortella G., Meneghetti A., Giordano L., Tomasinsig E., Benedetti M., 2024. Environmental and economic assessment of industrial excess heat recovery collaborations through 4th generation district heating systems. *Energy*, Vol. 307, 132630;
2. Ceschia S., Gansterer M., Mancini S., Meneghetti A., 2024. Solving the Online On-Demand Warehousing Problem. *Computers and Operations Research*, Vol. 170, 106760;
3. Chivilò M., Meneghetti A., 2023. An Industry 5.0 Perspective on Feeding Production Lines. *Sustainability*, 15(22), 16088;
4. Ceschia S., Gansterer M., Mancini S., Meneghetti A., 2022. The on-demand warehousing problem. *International Journal of Production Research*, 7543, Vol. 61(10), pp. 3152-70;
5. Chinese C., Orrù P.F., Cortella G., Meneghetti A., Giordano L., Benedetti M., 2022. Symbiotic and optimized energy supply for decarbonizing cheese production: an Italian case study. *Energy*, Vol. 257, 124785;
6. Fonda E., Meneghetti A., 2022. The Human-Centric SMED. *Sustainability*, Vol. 14(1), art. No. 514;
7. Meneghetti A., Pagnin C., Simeoni P., 2021. Decarbonizing the cold chain: Long-haul refrigerated deliveries with on-board photovoltaic energy integration. *Sustainability*, Vol. 13(15), art. No. 8506;
8. Meneghetti A., Dal Magro F., Romagnoli A., 2021. Renewable energy penetration in food delivery: coupling photovoltaics with transport refrigerated units. *Energy*, Vol. 213, 120994;
9. Simeoni P., Ciotti G., Cottes M., Meneghetti A., 2019. Integrating industrial waste heat recovery into sustainable Smart Energy Systems. *Energy*, Vol. 175, pp. 941-951;
10. Dal Borgo E., Meneghetti A., 2019. Production and shipment planning for Project Based Enterprises: Exploiting learning-forgetting phenomena for sustainable assembly of Curtain Walls. *Computers and Industrial Engineering*, Vol. 131, pp. 488-501;
11. Meneghetti A., Dal Magro F., Simeoni P., 2018. Fostering renewables into the cold chain: how photovoltaics affect design and performance of refrigerated automated warehouses. *Energies*, Vol. 11(5);
12. Dal Magro F., Savino S., Meneghetti A., Nardin G., 2017. Coupling waste heat extraction by phase change materials with superheated steam generation in the steel industry. *Energy*, Vol. 137(15), pp. 1107-1118;
13. Zhang C., Zhou L., Chhabra P., Garud S.S., Aditya K., Romagnoli A., Comodi G., Dal Magro F., Meneghetti A., Kraft M., 2016. A novel methodology for the design of waste heat recovery network in eco-industrial park using techno-economic analysis and multi-objective optimization. *Applied Energy*, Vol. 184, pp. 88-102;
14. Dal Magro F., Meneghetti A., Nardin G., Savino S., 2015. Enhancing energy recovery in the steel industry: matching continuous charge with off-gas variability smoothing. *Energy Conversion & Management*, Vol. 104, pp. 78-89;
15. Meneghetti A., Dal Borgo E., Monti L., 2015. Rack shape and energy efficient operations in automated storage and retrieval systems. *International Journal of Production Research*, Taylor & Francis Ltd, Vol. 53(21), pp. 6567-87;
16. Meneghetti A., Monti L., 2015. Greening the food supply chain: an optimisation model for sustainable design of refrigerated automated warehouses. *International Journal of Production Research*, Vol. 53 (21), pp. 6567-6587;
17. Meneghetti A., Dal Borgo E., Monti L., 2015. Decision support optimization models for design of sustainable automated warehouses. *International Journal of Shipping and Transport Logistics*, Vol. 7(3), pp. 266-294;
18. Nardin G., Meneghetti A., Dal Magro F., Benedetti N., 2014. PCM-based energy recovery from Electric Arc Furnaces. *Applied Energy*, Vol. 136, pp. 947-955;
19. Meneghetti A., Monti L., 2014. Multiple-weight unit load storage assignment strategies for energy efficient automated warehouses. *International Journal of Logistics Research and Applications*, Vol. 17(4), pp. 304-322;
20. Meneghetti A., Monti L., 2013. Sustainable storage assignment and dwell-point policies for automated storage and retrieval systems. *Production Planning & Control*, Vol. 24(6), pp. 511-520;
21. Meneghetti A., 2013. Exploiting fashion features for floor storage systems in the shoe industry. *International Journal of Engineering Business Management*, InTech, ISSN 1847-9790, Vol. 5;
22. Meneghetti A., Nardin, G., 2012. Enabling industrial symbiosis by a facilities management optimization approach. *Journal of Cleaner Production*, Vol. 35, pp. 263-273.