

## **CURRICULUM VITAE** **of Prof. Luca Settineri**

### ***Professional address:***

DIGEP-Politecnico di Torino  
C.so Duca degli Abruzzi, 24  
10129 TORINO, Italy  
Tel. +39 011 0907230  
Fax +39 011 0907299

e-mail [luca.settineri@polito.it](mailto:luca.settineri@polito.it)

### ***Current Role:***

- Full Professor of Manufacturing
- Vicerector for Policy Planning and Implementation of the Politecnico di Torino, Italy

### ***General information and main professional experience:***

- 1988: Master of Science Degree Magna cum Laude in Mechanical Engineering from the University of Palermo, with a thesis on interrupted cutting.
  - 1990 to 1994: Researcher of the ILM – CNR (Institute for Metal Machining of the National Research Council).
  - 1994: PhD in Production Engineering with a thesis on Monitoring and Control of Machine Tools.
  - 1994 - 2000: Assistant Professor of Manufacturing in the Department of Production Systems and Economics of the Politecnico di Torino.
  - 2000 - 2010: Associate Professor of Manufacturing in the Department of Production Systems and Economics of the Politecnico di Torino.
  - 2003 - 2008 Coordinator of the Turin branch of the Institute for Science and Technology of Ceramics of the National Research Council.
  - From January 2011: Full Professor of Manufacturing in the Department of Management and Production Engineering of the Politecnico di Torino.
  - 2015-2018: Head of the Department of Management and Production Engineering of Politecnico di Torino.
  - 2016 – 2017: Coordinator of the Heads of Department of Politecnico di Torino.
  - March 2018-to date: Vicerector for Policy Planning and Implementation of Politecnico di Torino
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- Fellow Member of CIRP (International Academy for Production Engineering)
  - Member AITEM (Italian Association for Manufacturing Technology)
  - Member ATA (Autovehicle Technical Association)

### ***Foreign languages:***

Italian mother tongue, fluent English, discrete French, elementary Spanish, elementary German.

### ***Teaching activities:***

- 1994 – to date: Courses of “Manufacturing technologies”, “Manufacturing cycles”, “Fabrication technologies”, “Product Industrialization” “Analysis and Management of Production Systems” and “Sustainable Manufacturing” for the Politecnico di Torino, the University of Palermo, the University of Bolzano and, as a Visiting Professor, the Université Catholique de Louvain La Neuve and the Tongji University of Shanghai.
- 2008 – to date: Teacher of the Courses of Manufacturing and of Computer Assisted Manufacturing for the Sino-Italian Campus PoliTong, situated in the Tongji University of Shanghai.
- 2002 – to date: Member of the teaching board of the Doctorate in Management, Production and Design.
- 2004 - to date: Teacher of the Doctoral Courses “Advanced coatings for anti-wear applications”, “Advanced Manufacturing Systems and Processes”, “Production Systems”, “Elements of Green Manufacturing”.

### ***General Organization and Management Activities***

- 1998 - 2000: Member of the Board of Directors of the Politecnico di Torino.
- 2005 – 2010 and 2015-2018: Member of the Academic Senate of the Politecnico di Torino.
- 2008 – 2012: Coordinator of the Sino-Italian Campus of Politecnico di Torino in the Tongji University of Shanghai.
- 2010-to 2016: Coordinator of the Doctoral Program in Management, Production and Design of Politecnico di Torino.
- 2015-to 2018: Head of the Department of Management and Production Engineering of Politecnico di Torino.
- 2013-to date: Member of the Board of the Italian Association of Manufacturing Technologies (AITeM).
- 2017-2018: Vicepresident of the Italian Association of Manufacturing Technologies (AITeM).

### ***International Experiences***

- 1992: Visiting Student at the University of Michigan in Ann Arbor, USA, 12 months.
- 1994: Invited Scientist at the University of Michigan, 1 month.
- 1996: Visiting Scientist at IKP (Research Institute on Polymeric Materials) of the University of Stuttgart, 3 months.
- 1997 - 2003: Responsible of the Mechanical Engineering Council of the Politecnico di Torino for the International Relationship and for Student and Teachers exchanges.
- 2003: Visiting Professor in the Université Catholique de Louvain La Neuve, 3 months.
- 2005 to 2015: Member of the Internationalization Staff of the Politecnico di Torino.
- 2007-2010: Coordinator of the Mechanical and Production Engineering Program for the Sino-Italian Campus PoliTong, with the Tongji University of Shanghai, China.
- 2010 – 2012: Operating Manager of the PoliTong Project for Politecnico di Torino.
- 2012-2015: Responsible for the International Exchanges of the Department of Management and Production Engineering of the Politecnico di Torino.
- 2008, 2010, 2012, 2014: Visiting Professor at Tongji University of Shanghai, China, in total 15 months.

### ***Coordination of Research-related Activities:***

- 2002 to date: Member of the Scientific Committee of the Laboratory on Machine Tools of the Politecnico di Torino
- 2003 - 2008: Coordinator of the research activities of the ISTECCNR (Institute for Science and Technology of Ceramic Materials of the National Research Council), site of Torino.
- 2006 to date: Member of the Board of the Piedmontese Section of the Autovehicle Technical Association.
- 2007: Organiser of the Workshop on Machining tools and technologies, held in Torino, February 22<sup>nd</sup>, 2007.
- 2007-2011: Founder and Coordinator of the Section “Machining” of the Italian Association of Manufacturing Technology.
- 2007-2010: Vice-coordinator of the Doctorate in Industrial Production Systems Engineering.
- 2007: Member of the International Scientific Committee of the 10th CIRP International Workshop on Modeling in Machining Operations, Reggio Calabria, Italy, 27-28 August 2007.
- 2008: Organiser of the Workshop on Machining tools and technologies, held in Torino, February 19th, 2008.
- 2008: Member of the International Scientific Committee of the 11th CIRP Conference on Modelling of Machining Operations, Gaithersburg MD, USA, 16-17 September 2008.
- 2008: Member of the International Scientific Committee of the 7th “THE” Coatings International Conference, Kassandra-Chalkidiki, Greece. 1-3 October 2008.
- 2009: Member of the Scientific Board of the 9<sup>th</sup> AITEM Conference, Torino, Italy, September 7<sup>th</sup>-9<sup>th</sup>, 2009. Organiser of the Workshop
- 2010: Member of the International Scientific Committee of the 4th International Conference on “Sustainable Energy & Environmental Protection”, Bari, 29 June – 2 July 2010.
- 2012: Member of the International Scientific Committee of the PROMED - 1st International Conference on Design and PROCesses for MEDical Devices, Padenghe sul Garda - Brescia - Italy - May 2-4, 2012.
- 2013: Chairman of the 14<sup>th</sup> CMMO – CIRP Conference on Modeling of Machining Operations, Torino, June 13-14, 2013.
- 2014: Member of the International Scientific Committee of the 11th “THE” Coatings International Conference, Thessaloniki, Greece. 1-3 October 2014.
- 2015: Member of the International Scientific Committee of the 4<sup>th</sup> CIRP Global Web Conference Understanding the Life Cycle Implications of Manufacturing, 29 September-1 October.
- 2016: Member of the International Scientific Committee of the 5<sup>th</sup> CIRP Global Web Conference Research and Innovation for Future Production, 4-6 September.
- 2017: Member of the International Scientific Committee of the 15<sup>th</sup> GCSM “Global Conference on Sustainable Manufacturing”, Technion, Haifa, Israel, 25-27 September.
- 2017: Member of the International Scientific Committee of the KES-SDM’2017 International Conference on Sustainable Design and Manufacturing, Bologna, 26-28 April.

## ***Management of Funded Research Projects***

### ***National and Regional Projects***

- 2003-2005: coordinator of 4 Industrial Regional Research Projects, on the development of innovative cutting tool materials and coatings for difficult machining operations, in dry and MQL conditions. Total Budget: € 100.000.
- 2006-2008: coordinator of the activities of ISTECCNR for the project NANOMAT, (Nanomaterials and their applications). Total Budget: € 6.000.000; Budget of ISTECCNR: € 470.000.
- 2007-2010: coordinator of the activities of ISTECCNR for the project Micromachining, funded by the Ministry of University and Research. Total budget: €1.100.000; Budget of ISTECCNR: € 138.000.
- 2008-2009: Coordinator of the research projects: “Analysis of the value chain for the made in Italy luxury products”, and “Technology, innovation and design in Piedmont: borderless organization and adaptive enterprise” funded with two Lagrange Grant of the Cassa di Risparmio Foundation of Torino; Total budget: €40.000.
- 2009-2012: Coordinator of the Lab ECOPROLAB, in the framework of the project “GREAT 2020” (GReen Engine for Air Transport in 2020), funded by the Region Piedmont. Total budget: €5.000.000,00; Budget of the Unit: € 125.000,00.
- 2009-2012: Coordinator of the Research Unit of Torino of the project PROTIAL (Developing a new concept for optimal production and machining of aerospace components in TiAl), funded by the Region Piedmont. Total budget €1.800.000,00; Budget of the Unit: € 270.000,00.
- 2010-2013: Coordinator of the Research Unit of Torino of the project LAVOECO (Sustainable manufacturing of thermo-resistant alloys for aerospace applications), funded by the Region Piedmont. Total budget €1.925.400,00; Budget of the Unit: € 270.000,00.
- 2010-2012: Coordinator of the Research Unit of Torino of the project PROCOPAFO (Continuous Process for Photovoltaic Panels), funded by the Region Piedmont. Total budget €476.439,66; Budget of the Unit: € 77.886,16.
- 2011-2015: Coordinator of the Research Unit of Torino of the project FLEX-PROD (Flexible Production), funded by the Ministry of Economic Development. Total budget €4.929.850; Budget of the Unit: € 141.061,01.
- 2012-2015: Coordinator of the Research Unit of Torino of the project OPTADI (Ottimizzazione del processo di produzione e dei sistemi di lavorazione di particolari in ghisa duttile austemperata (ADI) per l’industria dei trasporti), funded by the Region Piedmont. Total budget € 1.163.876; Budget of the Unit € 114.719,40.
- 2015: Coordinator of the Research Unit of the Politecnico di Torino of the project: "Lavorazione di materiali a base di titanio con sistemi a basso impatto ambientale" (MINIMALTITAN), funded by the Region Piedmont in the framework POR-FESR - Action 1. Activity I.1.3 (Feasibility studies, call 2014). Total budget: Total Budget: € 36.750. Budget of the Research Unit: € 5250.
- 2015- 2016: Coordinator of the Research and Education Project: "Integration of Additive Manufacturing and Machining Processes in View of Green and Sustainable

- Development" (INTEGRA-GREEN). ASP (Alta Scuola Politecnica - High Polytechnical School) research and training multidisciplinary project - call 2015. Total Budget: €5.200.
- 2015-2017: Experts in the framework of the project: "Study and development of high performance cutting blades for metallic alloys". Research project funded by the companies: Moreschi s.r.l. and OME s.r.l.. Total budget: €360.000. Unit Budget: €12.000.
  - 2017: Project "Sustainable integration of additive/subtractive manufacturing processes for automotive applications". Research Project funded by FCA Group. Budget €55.000 Euro.
  - 2017-2019: Project "Manufacturing sostenibile per compositi ad elevate prestazioni" GREENCOMPO. Research Project funded by Region Piedmont, Coordinated by Fiat Research Center. Budget: € 35.075.
  - 2017-2019: Project "Sviluppo Tecnologico dell'Additive Manufacturing in Piemonte", Research Project funded by Region Piedmont, Coordinated by PRIMA Industrie. Budget: € 28.750.

***European and International Projects:***

- 2000-2003: Coordination of the Unit of Torino in the framework of the EU project "NACODRY" (Dry stamping and dry machining of difficult to-cut materials by means of Superhard Nanocomposite Coatings).  
Partner Budget: € 446.000,00.
- 2001-2004: Coordination of the Unit of Torino in the framework of the EU project "KNIWOOD" (Innovative and efficient Knives surfaces modification in first transformation of wood, chipper centre and peeling machine).  
Partner Budget: € 80.000,00.
- 2001-2004: Coordination of the Unit of Torino in the framework of the EU project "COMING DRY" (Organic matrix composites and inconel alloys: improvements in their machining under low coolant flows and dry conditions).  
Partner budget: € 347.700,00.
- 2001-2005: Coordination of the Unit of Torino in the framework of the EU project "MANTYS" (Thematic Network on Manufacturing Technologies).  
Partner budget: € 28.000,00.
- 2002-2004: Coordination of the Unit of Torino in the framework of the EU CRAFT "LOTHISS" (Low temperature near-net powder metallurgy route for the manufacture of complex shaped wear resistant parts).  
Partner budget: € 190.000,00.
- 2005-2007: Participation to the EU STREP Project "VERDI" (Virtual Engineering for Robust manufacturing with Design Integration), in the "machining simulation" group of Politecnico di Torino.  
Partner budget: € 37.000,00
- 2008-2011: Coordinator of the Unit of Torino in the framework of the EU Project "APPLICMA" (Development of wear resistant coatings based on complex metallic alloys for functional applications).  
Partner budget: € 281.000,00.
- 2009-2012: Coordinator of the Research Unit of the Politecnico di Torino of the Project NANOTOOLGA (Nanocoating tools for Gamma titanium aluminide alloys machining), funded by the European Union. Total budget: €1.050.000,00.  
Partner budget: € 90.000,00.

- 2012-2015: Coordinator of the Research Unit of the Politecnico di Torino of the Project “Advanced ultra-hard Nanostructured Coatings for innovative applications in mechanical and chemical industries”, funded by the Qatar National Research Fund. Total budget: €1.035.393,00. Partner budget: € 92.500,00.
- 2017-2019: Coordinator of the Project “Sustainable integration of hybrid additive/subtractive manufacturing for difficult-to-cut materials”, Research Project in answer to the MANUNET 2017 call, funded by the European Union. Total Budget: € 1.046.358. Budget of the Unit: € 119.750.

***Research products:***

Prof. Settineri is author or co-author of more than 180 printed papers published on national and international journals and on the proceedings of national and international conferences on the following main subjects:

- 1) Manufacturing processes and technologies, with particular references to machining processes and coatings;
- 2) Rapid Prototyping;
- 3) Alternative joining techniques;
- 4) Sustainability in Manufacturing

Torino, December 2018

Luca Settineri .....