

Enrico SAVIO

Professor, Ph.D.

Address

Università degli Studi di Padova
Dipartimento di Ingegneria Industriale (DII)

Education

2000: Ph.D. in Industrial Manufacturing Engineering with dissertation on "Traceability of freeform measurements on coordinate measuring machines", University of Parma (Italy).

1996: M.Sc. in Management and Industrial Engineering (cum Laude), University of Padua (Italy).

Awards

F.W. Taylor Medal from CIRP (International Academy for Production Engineering), 2003.

Research activity

Research activity is in the area of Precision Engineering, with focus on Manufacturing Metrology. Research topics include on-machine and in-process metrology, advanced coordinate metrology, calibration and verification procedures for coordinate measuring systems, metrology of freeform surfaces and complex parts, nanometrology of surfaces and microparts, economics of measurements in industry. He is author of five patent applications and of more than 150 publications on international journals or proceedings of international conferences.

He is part of the Precision Manufacturing research group (<https://research.dii.unipd.it/tecno>) at the University of Padua, ranked as first large university at national level according to VQR 2004-10 and 2011-14. Within the group he is responsible of the Laboratory of Industrial and Geometrical Metrology, which has a world-class reputation for research in advanced coordinate metrology, including in-process metrology, computed tomography and metrology of freeform shapes and additive manufactured parts.

Responsible of contract work with industry, national and international research projects, including:

- H2020-EMPIR "EUCoM - Standards for the evaluation of the uncertainty of coordinate measurements in industry" (2018-21).
- Erasmus+ KA2 "PREFAM - European framework for continuous professional development in precision engineering for advanced manufacturing" (2019-22).
- Coordinator, Erasmus+ KA2 "CoMeT - European Training for Coordinate Metrology 4.0" (2016-19).
- Erasmus+ KA2 "WINGS+ - Geometrical Quality Control and Large Scale Metrology in the Aeronautic Industry" (2016-19).
- Erasmus+ KA2 "GPSToolbox - Geometrical Product Specification and Verification as toolbox to meet up-to-date technical requirements" (2015-18).
- EUROSTARS "HOTGAUGE - Measurement of complex and freeform shaped parts at elevated temperature" (2011-14).

- EU project LLP Leonardo “ μ VoT - Blended Learning course on Measurement Uncertainty for advanced vocational training” (2011-12).
- Coordinator, MIUR project PRIN “INDACO - Innovative geometrical control: efficiency, globalization and robustness for the quality of the Italian manufacturing industry” (2010-11).
- Responsible of the Research Unit of Padua, EU project Erasmus “SAM-EMU - Statistical Analysis of Measurement Data for the Evaluation of Measurement Uncertainty” (2008-2009).
- Responsible of the Research Unit of Padua, EU project “OP3MET Optical 3D Metrology - Automated in-line metrology for quality assurance in the manufacturing industry” (2006-2008), coordinated by 3shape A/S, Copenhagen, Denmark.
- Responsible of the project “Nanometrologia e standard per certificazione di strati depositati” (2007-2008), Veneto Interuniversity Coordination for Nanotechnology (CIVEN), Venice, Italy.
- Responsible of the Research Unit of Padua, MIUR project PRIN “Microassembly - Sviluppo di tecnologie innovative per l'assemblaggio di microprodotti ibridi” (2006-2007), coordinated by prof. Marco Santochi, University of Pisa, Italy.
- Technical secretary and local coordinator, EU project Eureka-Factory “FANSYS - Development of Quiet and Eco-Efficient Fans by Accurate Prediction of Noise Emission and Functional Performances” (2002-2005), coordinated by ASKOLL Holding, Vicenza, Italy.
- Collaboration as Critical Friend, EU project Socrates-Minerva “METROeLEARN - European e-Learning for Manufacturing Metrology” (2002-2004), coordinated by prof. Albert Weckenmann, QFM - University of Erlangen-Nuremberg, Germany.
- Technical Expert, EU project Growth: Contract No: G6RD-CT-2000-00188 “EASYTRAC - Easier and cheaper traceability in industry by up to date methods of calibration” (2000-2002) at the Technical University of Denmark, coordinated by Dr. Eugen Trapet, UNIMETRIK S.A., Spain.

MEMBERSHIPS, SCIENTIFIC AND EDITORIAL SERVICE

- Fellow of CIRP (International Academy for Production Engineering), in which he served as Chairman of the Scientific Technical Committee “Surfaces”.
- President of EUSPEN (European Society for Precision Engineering and Nanotechnology), Member since 1999 and Member of the Board of Directors since 2013.
- Member of CMM Club Italia (Italian Association related to Coordinate Metrology) since 1998 and former member of the Steering Committee (2004-13).
- Member of AITeM (Associazione Italiana di Tecnologia Meccanica) since 1997.
- Founding member of CMTrain (Training for Coordinate Metrology e.V.) since 2005.
- Associate Editor of Precision Engineering, Journal of the International Societies for Precision Engineering and Nanotechnology, 2015-19.
- Member of the Scientific Committees of several International Conferences, including: 18th euspen Int. Conference and Exhibition, 4-8 June 2018, Venice, Italy (Chairman and local host).
- Reviewer for several international journals.

University service

- President, Bachelor and Master Degree Courses in Mechanical Engineering, 2013-20.
- Coordinator, Education Committee of the Department of Industrial Engineering, 2014-17.
- Coordinator, Curriculum “Chemical, Materials and Mechanical Engineering”, Doctoral School of Industrial Engineering, 2011-15.
- Coordinator, Curriculum “Manufacturing Engineering”, Doctoral School of Industrial Engineering, 2008-12.
- Responsible of the Laboratory of Industrial and Geometrical Metrology, since 2000.

Padua, December 2019