Pasquale Vena, Ph.D.

Name:	Pasquale Vena
Date of birth:	November 29, 1968
Place of birth:	Taranto, Italy
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Education

- Master degree in Civil Engineering (Structural Engineering) at Politecnico di Milano Cum Laude (with honors), July, 1993;
- PhD in Structural Engineering at Politecnico di Milano, October 1998. Ph.D.
- Postdoctoral Fellow, Politecnico di Milano, Dep. of Structural Engineering, 1998-2001.

Appointments

- 2007-present Associate Professor (permanent position), Department of Structural Engineering, Politecnico di Milano, Italy;
- 2001-2007 Assistant Professor, Department of Structural Engineering, Politecnico di Milano, Italy.

Professional service:

- From June 2011, Associate Editor for the Journal of Biomechanical Engineering, ASME.
- Member of the Editorial Board of "The Open Mechanics Journal" ISSN 1874-1584;
- January 2009-December 2012, member of the Council of the Department of Structural Engineering;
- Member of the teaching body of the PhD School in Structural Engineering and of the PhD School in Materials Engineering.

Scientific activities:

- Advisor of numerous MS theses for students enrolled in the Bioengineering School at Politecnico di Milano and advisor of PhD theses (5 in the last four years);
- Coordinator of the research units within the framework of "Research of national interest - PRIN" granted by the Italian Ministry of Education, University and Research;
- Co-Coordinator of the research unit on Functionally Graded Materials for biomedical applications within the European Network KMM (Knowledge-based multicomponent materials for durable and safe performance) (2006-2008);
- Principal Investigator in the research project " Micro/Macro indentation response of articular cartilage and correlation with the tissue microstructure through numerical simulations of experiments granted by the Italian Ministry of Education, University and Research;
- Member of the steering committee of the National Group of Materials, a group within the Italian Association of Theoretical and Applied Mechanics (AIMETA);
- Member of the organizing committee of the national congress of the "National Group of Materials", GMA09 at Politecnico di Milano, January, 2009;
- Session chair at the 6th World Congress of Biomechanics, Singapore, 2010;
- Co-organizer of the symposium "Mechanical characterization and modeling of tissues and biomedical materials at all length scales" within EUROMAT 2011 (European Congress and Exhibition on Advanced Materials and Processes - Montpellier, France, September 2011);
- Organization of the 10th European Workshop on Nanomechanics (MicroMaterials user meeting) Politecnico di Milano, 2010;

- Organization of the mini-symposium entitled "Advances in Mechanics of Materials" within the Conference of the Italian Association of Theoretical and applied mechanics, Turin, 2013:
- Reviewer for the following international journals: Acta Biomaterialia, Annals of Biomedical Engineering; Computational Material Sciences, IEEE-Transaction of Biomedical Engineering, International Journal of Plasticity, International Journal of Mechanical Sciences, Journal of Applied Biomaterials & Biomechanics, Journal of Biomechanics, Meccanica, Mechanics of Advanced Materials and Structures, Mechanics Research Communications, Medical Engineering and Physics, The Open Mechanics Journal; Journal fo Engineering mechanics.

Research grants

- Analysis and design of ceramic laminates through computational approaches, granted by the Italian Ministry of Education, University and Research (2005 - 2007);
- Mechanical characterization of biomaterials through the nano-microindentation technique (2005-2007: Granted by the CARIPLO Foundation;
- Metal/ceramic functionally graded composites for biomedical devices: manufacturing and modeling, Granted by the CARITRO Foundation (2007-2009);
- Micro/Macro indentation response of articular cartilage and correlation with the tissue microstructure through numerical simulations of experiments, Granted by the Italian Ministry Education, University and Research (2010 - 2012);

  Engineering physiologically and pathologically relevant organ Models for the INvestigation of age related Diseases (MIND) granted by the Italian Ministry of Education, University and Research (2013 - 2015);
- Research contracts with industrial partners on mechanical characterization of materials at small length scale and numerical modeling of devices.

Awards and Invited presentations or seminars

- Graduated summa cum laude, Civil Engineering, 1993;
- Young investigator award, Politecnico di Milano, 2000;
- Advisor for PhD theses awarded as the best PhD theses in the field of biomechanics granted by the Italian Bioengineering National Group (2008, 2010);
- Invited seminars at: University of California at San Diego (2009); Italian Institute of Technology (2009), University of Genova (2009); Università di Pisa.
- Invited and keynote lectures at: IUTAM symposium on Synthesis in Biosolid Mechanics, Lyngby (Danmark), 1998; Danish Center of Applied Mechanics and Mathematics, 2003;
- International Conference on Functionally Graded Materials IX, Oahu Island, Hawail, 2006; 9th European Workshop on nanomechanics (user meeting) Praga, 2009; International Conference on Materials for Advanced Technologies, Singapore 2011.
- 2011 FEM - TR&D Recognition awards by STMicroelectronics

Teaching:

In Bachelor programs

- since Academic year 2003/2004 "Mechanics of Continua and Structures" for students enrolled in the Bioengineering school of Politecnico di Milano;

In Master programs

- From Academic year 2003/2004 to 2012/2013 "Laboratory of Computational Biomechanics" for students enrolled in the Bioengineering school of Politecnico di Milano (Introduced in the Bioengineering M. Sc. program upon proposal by Vena and Prof. A. Redaelli);
- Since Academic year 2009/2010 "Mechanics of Biological Structures" for students enrolled in the Bioengineering School of Politecnico di Milano;
- Since Academic year 2013/2014 “Micromechanics” for students enrolled in the Material Engineering School of Politecnico di Milano.

In PhD programs

- Since Academic year 2008/2009 "Non linear computational mechanics for biomedical applications" for PhD students in Biomedical Engineering (Introduced in the Bioengineering PhD program upon proposal by Vena);
- Since academic year 2002/2003 teaching within the course "Numerical methods for engineering of materials" for PhD students in Engineering of Materials.