

Curriculum Vitae

Personal information



First name / Surname **Simone PASINETTI**
Affiliation Laboratory of Optoelectronics (OPTOLAB)
Department of Information Engineering (DII)
University of Brescia
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Academic – simone.pasinetti@unibs.it
Nationality Italian
Date of birth 06.08.1985

Research Interests

- Robotics
- Medical engineering, human body kinematics, rehabilitation robotics
- 2D and 3D vision systems
- Augmented reality, human-machine interaction

Research experience

Date **From January 2017 to today (ending date December 2017)**
Position Postdoc
Project title Study of Depth From Focus based measurement methods
Institution University of Brescia, Laboratory of Optoelectronics (OPTOLAB), Dep. Of Information Engineering (DII)

Date **From January 2016 to December 2016**
Position Postdoc
Project title Characterization of liquid lens objective for health and wealth applications
Institution University of Brescia, Laboratory of Optoelectronics (OPTOLAB), Dep. Of Information Engineering (DII)

Date **From January 2015 to December 2016**
Position Postdoc

Project title	Validation of an image analysis system for monitoring laser welding processes
Institution	University of Brescia, Laboratory of Optoelectronics (OPTOLAB), Dep. Of Information Engineering (DII)

Education

Dates **From November 2011 to April 2015**

Title of qualification awarding	Ph.D. in Applied Mechanics. Thesis titled "Development of protocols for the measurement and analysis of mobility and functional rehabilitation in biomechanics field"
Principal subjects/occupational skills covered	Biomechanics, 3D vision systems, rehabilitation robotics, human-robot interaction, human body modeling
Name and type of organization providing education and training	University of Brescia – Dep. Of Mechanical and Industrial Engineering (DIMI), Brescia (BS), Italy
Level in national or international classification	ISCED-97 6

Dates **From February 2014 to May 2014**

Condition	Project "Biomechanical models of human posture based on the dynamics of a disturbance" during the Ph.D. period
Principal subjects/occupational skills covered	Postural analysis, 3D vision systems, human body kinematics
Name and type of organization providing education and training	Université Pierre et Marie Curie (UPMC), Paris, France

Dates **From September 2008 to March 2011**

Title of qualification awarding	Master of Engineering in Industrial Automation, project "Mechatronic System for rehabilitation". Thesis titled "The control of mechanical devices toward the EMG signal"
Principal subjects/occupational skills covered	Computer science, robotics, medical engineering
Name and type of organization providing education and training	University of Brescia – Dep. Of Mechanical and Industrial Engineering (DIMI), Brescia (BS), Italy
Level in national or international classification	ISCED-97 5A

Dates **From September 2009 to January 2010**

Condition	Erasmus student for "Mechatronic system for rehabilitation" project
Principal subjects/occupational skills covered	Biomechanics, rehabilitation devices, image processing
Name and type of organization providing education and training	Université Pierre et Marie CURIE, Paris, France

Dates **From September 2005 to May 2009**

Title of qualification awarding	Bachelor of Engineering in Industrial Automation. Thesis titled "Logical and mechanical implementation and optimization of an hydroforming process"
Principal subjects/occupational skills covered	Electronics, Mechanics
Name and type of organization providing education and training	University of Brescia – Dep. Of Mechanical and Industrial Engineering (DIMI), Brescia (BS), Italy
Level in national or international classification	ISCED-97 5A

Dates **From September 1999 to June 2004**

Title of qualification awarding	Diploma in electrical and industrial automation engineering
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Principal subjects/occupational skills covered	Electrotechnics
Name and type of organization providing education and training	I.T.I.S. B. Castelli, Brescia (BS), Italy
Level in national or international classification	ISCED-97 3A

Publications on International Journal

Date	In press
Authors	Pasinetti S., Bodini I., Lancini M., Docchio F., Sansoni G.
Title	A depth from defocus measurement system using a liquid lens objective for extended depth range
Journal	IEEE Transaction on Instrumentation and Measurements
Date	August 2016
Authors	Bodini I., Sansoni G., Lancini M., Pasinetti S., Docchio F.
Title	A novel optical apparatus for the study of rolling contact wear/fatigue based on a high speed camera and multiple-source laser illumination
Journal	Review of scientific instruments, 87, (8), 083701
Date	June 2016
Authors	Lancini M., Serpelloni M., Pasinetti S., Guanziroli E.
Title	Healthcare sensor system exploiting instrumented crutches for force measurement during assisted gait of exoskeleton users
Journal	IEEE Sensors Journal, 16, (23), pp. 8228-8237
Date	December 2015
Authors	Lancini M., Bodini I., Vetturi D., Pasinetti s., Mazzù A., Solazzi L., Petrogalli C., Faccoli M.
Title	Using vibration measurements to detect high wear rates in rolling contact fatigue tests
Journal	Acta Imeko, 4, (4), pp. 66-74
Date	November 2015
Authors	Pasinetti S., Lancini M., Bodini I., Docchio F.
Title	A novel algorithm for EMG signal processing and muscle timing measurement
Journal	IEEE Transaction on Instrumentation and Measurements, 64, (11), pp. 2995-3004
Date	December 2014
Authors	Sardini E., Serpelloni M., Lancini M., Pasinetti S.
Title	Wireless instrumented crutches for force and tilt monitoring in lower limb rehabilitation
Journal	Procedia Engineering, 87, pp. 348-351
Date	June 2013
Authors	Vetturi D., Lancini M., Bodini I., Pasinetti S
Title	Relationship between measurement uncertainty and verifiability of geometric specifications: the case study of drilled hole orthogonality
Journal	International Journal of Metrology and Quality engineering, 4, (1), pp. 35-39

Publications on International Proceedings

Date	August 2016
Authors	Serpelloni M., Tiboni M., Lancini M., Pasinetti S., Vertuan A., Gobbo M.
Title	Preliminary study of a robotic rehabilitation system driven by EMG for hand mirroring
Congress	2016 IEEE International Symposium on Medical Measurements and Applications (MeMeA2016) – Proceedings, Benevento, Italy, May 2016
Date	July 2016
Authors	Pasinetti S., Bodini I., Sansoni G., Docchio F., Tinelli M., Lancini M.
Title	A fast autofocus setup using a liquid lens objective for in-focus imaging in the macro range
Congress	Proceedings of the 12th international A.I.V.E.L.A. Conference on vibration measurements by laser and noncontact techniques, Ancona, Italy, June-July 2016
Date	June 2015
Authors	Pasinetti S., Lancini M., Pasqui V.
Title	Development of an optomechanical measurement system for dynamic stability analysis
Congress	6th IEEE International Workshop on Advances in sensors and Interfaces (IWASI2015), Gallipoli, Italy, June 2015, pp. 199-203
Date	June 2015
Authors	Lancini M., Serpelloni M., Pasinetti S.
Title	Instrumented crutches to measure the internal forces acting on upper limbs in power exoskeleton users
Congress	6th IEEE International Workshop on Advances in sensors and Interfaces (IWASI2015), Gallipoli, Italy, June 2015, pp. 175-180
Date	September 2013
Authors	Lancini M., Bodini I., Pasinetti S., Vetturi D.
Title	Definition of a measurability threshold of geometric tolerances in relation to measurement uncertainty and dimensional parameters
Congress	11th International Symposium on Measurement and Quality Control (ISMQC2013), Cracow, Poland, September 2013, pp. 301-304
Date	September 2013
Authors	Lancini M., Bodini I., Pasinetti S., Vetturi D.
Title	Mimo non-linear sensors calibration based on genetic algorithms
Congress	11th International Symposium on Measurement and Quality Control (ISMQC2013), Cracow, Poland, September 2013, pp. 116-119
Date	August 2013
Authors	Pasinetti S., Lancini M., Da Re C., Vetturi D., Borboni A.
Title	EMG signal-only gait cycle detection algorithm
Congress	XXIV Congress of the International Society of Biomechanics (ISB2013), Natal, Brazil, August 2013
Date	August 2013
Authors	Lancini M., Guanziroli E., Pasinetti S., Bodini I.
Title	Modified forearm crutches for load bearing measurement in assisted gait
Congress	XXIV Congress of the International Society of Biomechanics (ISB2013), Natal, Brazil, August 2013
Date	June 2013

Authors Bodini I., Lancini M., Pasinetti S., Vetturi D.
Title Techniques for on-board vibrational passenger comfort monitoring in public transport
Congress IMEKO 2013, Firenze, Italy, June 2013, pp. 118-123
Date **October 2012**
Authors Pasinetti S.
Title Near-markerless position measurement using genetics and point-tracing algorithms
Congress 23rd DAAAM International Symposium in Intelligent Manufacturing and Automation, Zadar, Croatia, October 2012, pp. 557-560

Publications on National Proceedings

Date **October 2016**
Authors Pasinetti S., Bodini I., Sansoni G., Docchio F., Lancini M.
Title A New System for 3D Measurement with Extended Depth Range, Liquid Lens Objective and Depth from Defocus Algorithm
Congress XXIV National congress of the Italian association of laser velocimetry and non-invasive diagnostic (AIVELA2016), Brescia, Italy, October 2016

Date **October 2016**
Authors Bodini I., Lancini M., Pasinetti S., Petrogalli C., Mazzù A., Faccoli M., Sansoni G., Docchio F.
Title On-line 2D monitoring of Rolling Contact Fatigue phenomena in dry tests
Congress XXIV National congress of the Italian association of laser velocimetry and non-invasive diagnostic (AIVELA2016), Brescia, Italy, October 2016

Date **November 2015**
Authors Bodini I., Sansoni G., Lancini M., Pasinetti S., Docchio F.
Title Feasibility study of a vision system for on-line monitoring of rolling contact fatigue tests
Congress XXIII National congress of the Italian association of laser velocimetry and non-invasive diagnostic (AIVELA2015), Perugia, Italy, November 2015

Date **November 2015**
Authors Pasinetti S., Sansoni G., Docchio F.
Title A novel approach to 3D measurement: a system with variable focus lens and a depth from defocus algorithm
Congress XXIII National congress of the Italian association of laser velocimetry and non-invasive diagnostic (AIVELA2015), Perugia, Italy, November 2015

Date **September 2014**
Authors Lancini M., Bodini I., Vetturi D., Pasinetti s., Mazzù A., Solazzi L., Petrogalli C., Faccoli M.
Title Vibration measurements for contact topology assessment in a rolling contact fatigue bench
Congress IX National congress of the Italian group of mechanical and thermal (GMMT2014), Ancona, Italy, September 2014

Date **September 2014**
Authors Bodini I., Baronio G., Bonomi G., Donzella A., Fallavollita F., Lancini M., Pasinetti S., Vetturi D., Vitulo P., Zenoni A., Zumerle G.
Title Monte Carlo simulations of a stability monitoring system based on tracking cosmic rays
Congress IX National congress of the Italian group of mechanical and thermal (GMMT2014), Ancona, Italy, September 2014

Date	September 2014
Authors	Bodini I., Borboni A., Lancini M., Pandini S., Pasinetti S., Vetturi D.
Title	Measurement of forces exerted by a polymeric shape-memory stent for biomedical applications
Congress	IX National congress of the Italian group of mechanical and thermal (GMMT2014), Ancona, Italy, September 2014
Teaching	
Date	From January 2017 to June 2017
Course title	"Electrical instrumentation" exercise lessons
Institution	University of Brescia – Dep. Of Mechanical and Industrial Engineering (DIMI), Brescia (BS), Italy
Date	From January 2017 to June 2017
Course title	"3D vision systems" exercise lessons
Institution	University of Brescia – Dep. Of Information Engineering (DII), Brescia (BS), Italy
Date	From January 2017 to June 2017
Course title	"2D vision systems" exercise lessons
Institution	University of Brescia – Dep. Of Information Engineering (DII), Brescia (BS), Italy
Date	From September 2016 to December 2016
Course title	"Mechanical and thermal Measurements" practical lessons
Institution	University of Brescia – Dep. Of Mechanical and Industrial Engineering (DIMI), Brescia (BS), Italy
Date	From January 2016 to June 2016
Course title	"Electrical instrumentation" exercise lessons
Institution	University of Brescia – Dep. Of Mechanical and Industrial Engineering (DIMI), Brescia (BS), Italy
Date	From February 2015 to June 2015
Course title	"Electrical instrumentation" exercise lessons
Institution	University of Brescia – Dep. Of Mechanical and Industrial Engineering (DIMI), Brescia (BS), Italy
Date	From May 2014 to June 2014
Course title	"Electrical instrumentation" exercise lessons
Institution	University of Brescia – Dep. Of Mechanical and Industrial Engineering (DIMI), Brescia (BS), Italy
Date	From September 2013 to January 2014
Course title	"Mechanical and thermal Measurements" practical lessons
Institution	University of Brescia – Dep. Of Mechanical and Industrial Engineering (DIMI), Brescia (BS), Italy
Date	From February 2013 to June 2013
Course title	"Electrical instrumentation" exercise lessons
Institution	University of Brescia – Dep. Of Mechanical and Industrial Engineering (DIMI), Brescia (BS), Italy
Date	From September 2012 to January 2013
Course title	"Mechanical and thermal Measurements" practical lessons
Institution	University of Brescia – Dep. Of Mechanical and Industrial Engineering (DIMI), Brescia (BS), Italy
Work experience	

Dates **From May 2011 to October 2011**
 Occupation or position held Software and hardware engineering for industrial automation systems
 Main activities and responsibilities PLC programming for heavy industry
 Name and address of employer AIC (Automazioni Industriali Capitano), Odolo (BS), Italy

Dates **From September 2005 to December 2005**
 Occupation or position held Electrical implants designer
 Main activities and responsibilities Industrial and civil electrical implants design
 Name and address of employer Studio elettrotecnico "Marco Cornali", Brescia (BS), Italy

Courses

TITLE	DATE	INSTITUTE
Java programming	January-June 2016	University of Brescia
NI FPGA	July 2014	National Instruments
NI Real Time 2	December 2013	National Instruments
NI Real Time 1	December 2013	National Instruments
NI Core 3	September 2013	National Instruments
Science communication	September 2013	University of Brescia
Measure analysis and interpretation	June-July 2013	University of Brescia
Mechanics of man-machine system	May-June 2013	Polytechnic of Milan
Industrial robots and vision system applications	April 2013	University of Brescia
NI Vision	November 2012	National Instruments
Biomechanics in human-robot interaction	July 2012	Scuola superiore S. Anna
Basic of HTML	May 2012	University of Brescia
Design of Experiments	May 2012	University of Brescia
CLAD certification	March-April 2012	National Instruments

Personal skills and competences

Mother tongue(s) **Italian**

Other language(s) **English, French**

Self-assessment

European level (*)

English

French

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Listening		Reading	
B2	Independent user	B2	Independent user	B2	Independent user	B2	Independent user	B2	Independent user
A2	Basic user	A2	Basic user	A2	Basic user	A2	Basic user	A2	Basic user

(*) [Common European Framework of Reference for Languages](#)

Language Certification Trinity grade 7, obtained in Brescia at 10.07.2006

SOFTWARE	DESCRIPTION	Competence Level
Matlab, Simulink	Software for the simulation of complex systems	Excellent
LabView	Software for signal acquisition and analysis	Excellent
Power PLC Bridge	Software for machine automation	Good
MS Word, MS Excel, MS PowerPoint	Software to make documents, presentation, etc.	Good
Simatic Step 7, RS logix	Software for the automation of Siemens and Allen-Bradley PLC	Good
Simatic WinCC, Factory talk	Software for Siemens and Allen-Bradley HMI development	Good
Minitab	Statistical analysis software	Good
Maple	Software for the mathematical and numerical analysis	Basic
Solidworks, AutoCAD	Software for technical drawings	Basic
Java, Python	Basic programming software	Basic
C, C++	Basic programming software	Basic
Html	Web pages programming software	Basic

Obtained certification

- **Professional Engineering Qualification** obtain at 05.10.2012
- **Certified LabVIEW Associate Developer (CLAD)** obtained at 21.05.2012
- **Basics of HTML** obtained at 27.04.2012

Signature

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Brescia 04/01/2017

