

Vittorio Ferrari, Ph.D.

Professor of Electronics
at the University of Brescia, Italy

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General:

- *Date and place of birth:* October 3, 1962; Milan, Italy.
- *Citizenship:* Italian

Education:

- 1988: Laurea degree *cum laude* in Physics at the University of Milan, Italy.
- 1993: Research Doctorate (PhD) degree in Electronic Instrumentation at the University of Brescia, Italy.

Employment and positions:

- 1988-1989: Postgraduate research scholar with Istituto Nazionale di Fisica Nucleare at the University of Pavia, Italy.
- 1993-2001: Assistant Professor with the Department of Electronics for Automation (DEA) at the University of Brescia.
- 1994: Visiting fellow at the HP Laboratories, Palo Alto, CA, USA.
- 2001-2006: Associate Professor of Electrical and Electronic Measurements with the DEA at the University of Brescia.
- 2006-present: Full Professor of Electronics with the DEA (DII since 2010) at the University of Brescia.
- 2017: Visiting Professor at the Institut Polytechnique de Grenoble, France.
(July; December)

Research activity:

- The research activity of Vittorio Ferrari deals with the design and characterization of sensors, microsystems, and the related signal-conditioning interface electronics.
- Present topics of interest include thick-film piezoelectric acoustic-wave devices and sensors, energy harvesting techniques and devices for autonomous and wearable sensors, MEMS and microsystems, passive resonant sensors with contactless interrogation, low-

noise electronic circuits for sensors, circuit interfaces and instrumentation for quartz-crystal microbalances and microresonator sensors, sensing systems for fluidics, microfluidics and biomedical applications.

▣ Since 1990, participation in national and international research projects on sensors and electronic instrumentation with both academic and industrial presence, often with coordination roles.

▣ From 1994 to 1996, involvement in the working group that in HP Laboratories started the activity on what lately became the IEEE 1451.2 *Standard for a Smart Transducer Interface for Sensors and Actuators*.

▣ Author of more than 200 publications in international peer-reviewed journals and conference proceedings, invited presentations, book chapters, edited books and journal issues, 6 patent applications (5 of which are under industrial exploitation).

▣ Recent and ongoing research collaborations with:

CERN – Geneva. / Danube University Krems. / Institute of Microelectronics A*STAR - Singapore. / Johannes Kepler University - Linz. / Otto-von-Guericke Universität - Magdeburg. / Politecnico di Milano. / SPAWAR San Diego. / Universidad Politécnic de Catalunya (UPC). / Universidad Politécnic de Valencia (UPV). / Università di Catania. / VU University Amsterdam. / Vienna University of Technology (TUV) / Institut Polytechnique de Grenoble (INP).

▣ Selected funded projects based on competitive evaluations:

- Linz Center of Mechatronics (LCM), Austria, project K2-COMET center (2018-2021) on sensors for mechatronics,
- EU project PETRA II (2004-2007) on piezoelectric transducers and applications,
- MIUR-PRIN Italian projects (2009-2010) on nonlinear energy harvesting techniques for sensor applications (2011-2013) on energy harvesting from broadband vibrations,
- MISE Italian project (2011-2013) on ICT for territorial security,
- Regione Lombardia project (2018-2020) on sensor systems for indoor air quality monitoring,
- Regione Lombardia project (2006-2008) on smart kitchenware based on sensors.

▣ Selected funded collaborative research with companies:

Accent, Angelo Po Grandi Cucine, Beretta, Bialelli Industrie, Camozzi, CESI, COBO, CSMT, Entech, Finmek, Gefran, Hewlett Packard, Intellimech, Logimec, Markos Mefar-Air Liquide, Meggit-Ferropem, Raccorderie Metalliche, ST-Microelectronics, Technobiochip, Tecnint HTE, Tenaris-Dalmine, Zinco Global.

□ Teaching activity:

▣ Vittorio Ferrari has been teaching several university courses in the field of sensors, microsystems, electronics and measuring instrumentation, including class lectures, laboratory activities and project-based learning.

▣ For the academic year 2017/18 he is in charge of three courses within the University of Brescia:

- Fundamentals of Electronics and Instrumentation;
- Instrumentation Electronics, Sensors and Microsystems;
- Electronics and Sensorics in Healthcare and Wellness;

plus one additional course upon invitation from another Italian university.

▣ Supervisor and thesis director of more than 30 Master and PhD students in Italy and abroad (Uruguay, Brasil, Colombia) within international co-tutorship programmes.

▣ From 2010 to 2013, coordinator of the academic board of the PhD program in *Electronic Engineering, Sensors and Instrumentation* at the University of Brescia.

▣ From 2013 to 2016, coordinator of the academic board of the PhD program in *Information Engineering* at the University of Brescia (<http://drii.unibs.it/>).

▣ Occasionally involved in teaching courses on sensors and measuring instrumentation to professionals and engineers in industry.

▣ **Selected academic offices and responsibilities:**

▣ From 2012 to 2016, member of the Quality Assurance Committee of the University of Brescia.

▣ Since 2016, Rector's delegate for Research Quality Management and Postgraduate Studies at the University of Brescia.

▣ **Services and recognitions:**

▣ Invited member in the Technical Program Committee of prominent international conferences, including:

Euroensors / IEEE Sensors / Ph.D. Research in Microelectronics & Electronics – PRIME / Sensordevices / IEEE Int. Conf. on Sensors, Circuits and Instrumentation Systems – SSD SCI / Mechatronics / IEEE ISQED / IEEE-ISSNIP: Intelligent Sensors / EDERC / ECMS.

▣ Invited member of:

Editorial board of Sensors & Transducers journal; scientific committee of the EIA journal; editorial board of Sensors; editorial board of Journal of Sensors.

▣ Reviewer on a regular basis for the most prominent international journals and conferences on sensors and electronic instrumentation.

▣ Project evaluator for the Italian MIUR and other international Organizations, including:

Agence Nationale de la Recherche (ANR), France / Agencia Nacional de Promoción Científica y Tecnológica - FONCyT, Argentina / Research Foundation - Flanders (FWO), Belgium / Dutch Technology Foundation (STW), The Netherlands. / Netherlands Organisation for Scientific Research (NWO), The Netherlands.

▣ Affiliations and membership:

Institute of Electrical and Electronic Engineers - IEEE *Senior Member* / IEEE Instrumentation and Measurement Society / IEEE Ultrasonics, Ferroelectrics, and Frequency Control Society / IEEE Sensors Council / Associazione Società Italiana di Elettronica - SIE / Associazione Gruppo Misure Elettriche ed Elettroniche - GMEE / Istituto Nazionale di Ottica (INO) in Consiglio Nazionale delle Ricerche - CNR / Istituto Nazionale di Fisica Nucleare - INFN.

▣ From 2008 to 2013, member of the scientific advisory board for the Institute for Integrated Sensor Systems at the Austrian Academy of Sciences.

▣ From 2012 to 2014, chairman of the scientific advisory committee of the EU FP7-FET project ZEROPOWER.

▣ From 2014 to 2017, elected Italian national coordinator of the research line on *Sensors, Microsystems and Instrumentation* and member of the governing board in the Associazione Gruppo Italiano di Elettronica (GE), now Società Italiana di Elettronica (SIE).

▣ Since 2018, elected member of the governing board of the Società Italiana di Elettronica (SIE).

▣ Since 2012, member of the steering committee of the Associazione Italiana Sensori e Microsistemi (AISEM).

▣ Since 2016, Member of the directing board in the Associazione Microelettronica Elettronica Semiconduttori (AMES-AEIT).

▣ Co-chair of the 17th AISEM Annual Conference in 2013 (www.aisem2013.it/).

- ▣ Co-chair of the Electric, Electronic and Electromechanical Engineering track and program committee member in European Conference on Modelling & Simulation in 2014.
- ▣ Program chair of the 28th EUROSENSORS Conference 2014 (www.euroensors2014.eu/).
- ▣ Coordinator of the 48th Annual Meeting of Associazione Gruppo Italiano di Elettronica (GE) 2016 (<http://ge2016.unibs.it/>).
- ▣ Invited lecturer in national and international schools on the topic of sensors, energy harvesting, sensor electronics and instrumentation.
- ▣ Invited examiner and member of the evaluation panels of doctoral theses in Italy and abroad (Australia, Austria, France, Germany, Portugal, Spain, Suisse, Uruguay).
- ▣ Most recent invited and keynote presentations (international):
 - *Performances of Ferroelectric Printed Films in Sensors and Energy Harvesting*
Invited presentation at the Ceramics Congress, CIMTEC-2014, Montecatini Terme, Italy, June 8-13, 2014.
 - *Techniques and Devices for Improved Energy Harvesting from Vibrations and Motion for Battery-less Sensors*
Invited presentation at the 1st International Symposium on Energy Challenges and Mechanics, Aberdeen, Scotland UK, July 8-10, 2014.
 - *Energy Harvesting from Vibrations and Motion for Battery-less Sensors*
Invited presentation at Journées Nationales sur la Récupération et le Stockage d'Énergie JNRSE'2015, Orsay, Paris FR, May 20-21, 2015.
 - *Sensors and Energy Harvesting based on Ferroelectric Printed Films*,
Invited presentation at 40th International Microelectronics and Packaging IMAPS Poland 2016 Conference, Wałbrzych, PL, September 25-28, 2016.
 - *Sensors and Energy Harvesting for Untethered Transducers*
Invited lecture, *Detecting Signals into the Noise - In Memoriam: Franco Manfredi*, Pavia, December 5, 2016.

▣ Achievements and awards:

- ▣ Co-author of the book “*Applied Structural and Mechanical Vibrations: Theory, Methods and Measuring Instrumentation*”, P.L. Gatti, V. Ferrari, 1999, CRC Press.
- ▣ Co-author of 3 papers in the Highly Cited Papers in ISI-WoS ranking in the top 1% in Engineering.
- ▣ Co-author of 3 papers that in different times ranked in the Most Cited Papers of the journal *Sensors and Actuators A* (ISSN: 0924-4247).
- ▣ Co-author of 1 paper that in 2012 ranked in the Most Cited Papers of the journal *Smart Materials and Structures* (ISSN: 0964-1726).
- ▣ Outstanding Poster Presentation Award for “Autonomous Sensor Module Powered by Impact-Enhanced Energy Harvester from Broadband Low-Frequency Vibrations” at *TRANSDUCERS 2013-Euroensors XXVII*.
- ▣ Best Paper Award for “A Microfluidic Device with Embedded Capacitive Sensor for Fluid Discrimination and Characterization” at *SENSORDEVICES 2010*.
- ▣ Best Poster Award for “Piezoelectric Energy Harvesting From Von Karman Vortices” at *AISEM 2013*.
- ▣ Best Poster Award for “Piezoelectric Actuators for Microfluidic Acoustic-Wave Manipulation of In-Liquid Particles” at *SIE 2017*.

▣ Extended publication list: [OpenBS archive](#)

□ Selection of most significant publications from 2013 to present:

▣ *International Journals*

RI-64 E. Tonoli, M. Baù, V. Ferrari,
Contactless Time-Gated Technique for Electromagnetic Interrogation of Micromechanical Resonator Sensors,
Sensor Lett., **11**, 2, (2013) 294-298. ISBN/ISSN: 1546-198X (Print); EISSN: 1546-1971 (Online).

RI-65 M. Ferrari, M. Baù, E. Tonoli, V. Ferrari,
Piezoelectric resonant sensors with contactless interrogation for mass-sensitive and acoustic-load detection,
Sensors and Actuators A, **202**, (2013) 100–105. ISBN/ISSN: 0924-4247.

RI-66 D. Zappa, S. Dalola, G. Faglia, E. Comini, M. Ferroni, C. Soldano, V. Ferrari, G. Sberveglieri,
Integration of ZnO and CuO nanowires into a thermoelectric module,
Beilstein J. Nanotechnol., **5**, (2014) 927–936. ISBN/ISSN: 2190-4286.

RI-67 D. Picchi, D. Strazza, M. Demori, V. Ferrari, P. Poesio,
An Experimental Investigation and Two-Fluid Model Validation for Dilute Viscous Oil in Water Dispersed Pipe Flow,
Experimental Thermal and Fluid Science, **60**, (2015) 28–34. ISBN/ISSN: 0894-1777.

RI-68 D. Alghisi, M. Ferrari, V. Ferrari,
Battery-Less Noncontact Temperature Measurement System Powered by Energy Harvesting from Intentional Human Action,
IET Circuits, Devices & Systems, **9**, 2, (2015) 96–104. ISBN/ISSN: Print 1751-858X; Online 1751-8598.

RI-69 B. Andò, S. Baglio, A. R. Bulsara, V. Marletta, V. Ferrari, M. Ferrari,
A Low-Cost Snap-Through Buckling Inkjet Printed Device for Vibrational Energy Harvesting,
IEEE Sensors Journal, **15**, 6, (2015) 3209 - 3220. ISBN/ISSN: 1530-437X.

RI-70 H. Campanella, M. Narducci, J. Soon, S. Merugu, M. Ferrari, V. Ferrari, N. Singh,
Multi-sensitive temperature sensor platforms using aluminum nitride MEMS resonators,
J. Micromech. Microeng., **25**, (2015) 115016 (12pp). ISBN/ISSN: 0960-1317 (print); 1361-6439 (online).

RI-71 D. Alghisi, S. Dalola, M. Ferrari, V. Ferrari,
Triaxial Ball-Impact Piezoelectric Converter for Autonomous Sensors Exploiting Energy Harvesting from Vibrations and Human Motion,
Sensors and Actuators A, **233**, (2015) 569–581. ISBN/ISSN: 0924-4247.

RI-72 M. Farran, D. Modotto, S. Boscolo, A. Locatelli, A.D. Capobianco, M. Midrio, V. Ferrari,
Compact Printed Parasitic Arrays for WLAN Applications,
IEEE Antennas and Wireless Propagation Letters, **15**, (2016) 918 - 921. ISBN/ISSN: 1536-1225.

RI-73 M. Farran, S. Boscolo, A. Locatelli, A.D. Capobianco, M. Midrio, V. Ferrari, D. Modotto,
Compact quasi-Yagi antenna with folded dipole fed by tapered integrated balun,
Electron. Lett., **52**, 10 (2016) 789-790. ISBN/ISSN: 0013-5194.

RI-74 M. Baù, M. Ferrari, V. Ferrari,
Analysis and Validation of Contactless Time-Gated Interrogation Technique for Quartz Resonator Sensors,
Sensors, **17**, (2017) 1264. ISBN/ISSN: 1424-8220.

RI-75 D. Alghisi, V. Ferrari, M. Ferrari, F. Touati, D. Crescini, A.B. Mnaouer, A new nano-power trigger circuit for battery-less power management electronics in energy harvesting systems,

Sensors and Actuators A, **263**, (2017) 305–316. ISBN/ISSN: 0924-4247.

RI-76 D. Alghisi, V. Ferrari, M. Ferrari, D. Crescini, F. Touati, A.B. Mnaouer, Single- and multi-source battery-less power management circuits for piezoelectric energy harvesting systems,

Sensors and Actuators A, **264**, (2017) 234–246. ISBN/ISSN: 0924-4247.

RI-77 M. Demori, M. Ferrari, A. Bonzanini, P. Poesio, V. Ferrari, Autonomous Sensors Powered by Energy Harvesting from von Karman Vortices in Airflow,

Sensors, **17**, (2017) 2100. ISBN/ISSN: 1424-8220. **Open Access**

RI-78 R. Marco-Hernández, M. Baù, M. Ferrari, V. Ferrari, F. Pedersen, L. Søyby, A low-noise charge amplifier for the ELENA trajectory, orbit and intensity measurement system,

IEEE Trans. on Nucl. Sci., **64**, 9, (2017) 2465-2473. ISBN/ISSN: 0018-9499.

RI-79 M. Farran, S. Boscolo, A. Locatelli, A. D. Capobianco, M. Midrio, V. Ferrari, D. Modotto,

High-gain printed monopole arrays with low-complexity corporate-feed network,

IET Microwaves, Antennas & Propagation, **11**, 11, (2017), 1616 – 1621. ISBN/ISSN: Print ISSN 1751-8725, Online ISSN 1751-8733.

RI-80 F. Cerini, M. Ferrari, V. Ferrari, A. Russo, M. Azpeitia Urquia, R. Ardito, B. De Masi, R. I. P. Sedmik,

Electro-Mechanical Modelling and Experimental Characterization of a High-Aspect-Ratio Electrostatic-Capacitive MEMS Device,

Sensors and Actuators A, **266**, (2017) 219–231. ISBN/ISSN: 0924-4247.

RI-81 V. Ferrari,

Distortion-free probes of electric field,

Nature Electronics – News & Views article, **1**, (2018) 10–11. ISBN/ISSN: 2520-1131.

▣ **International Conference Proceedings**

CI-114 M. Ferrari, F. Cerini, V. Ferrari,

Autonomous Sensor Module Powered by Impact-Enhanced Energy Harvester from Broadband Low-Frequency Vibrations,

Proceedings of the 17th International Conference on Solid-State Sensors, Actuators and Microsystems - Transducers & Eurosensors XXVII, Barcelona, Spain, June 16-20, 2013, 2249-2252. ISBN: 978-1-4673-5981-8, Catalog number: CFP13SSA-USB. **Recipient of the Poster Award**

CI-115 D. Alghisi, M. Ferrari, V. Ferrari,

Portable Battery-Less Noncontact Temperature Measurement System Powered On Demand by Human Action,

Proceedings of IEEE 18th Conference on Emerging Technologies & Factory Automation (ETFA), Cagliari, Italy, September 10-13, 2013, 1-4. ISBN/ISSN: 978-1-4799-0862-2.

CI-116 D. Alghisi, M. Ferrari, V. Ferrari,

Wireless Noncontact Temperature Measurement System Powered by Intentional Human Action,

Proceedings of ENSSys 2013 Conference, Rome, Italy, November 14, 2013, 20:1-2. ISBN/ISSN: 978-1-4503-2432-8.

CI-117 D. Alghisi, M. Baù, M. Ferrari, V. Ferrari,

Multi-Frequency Nonlinear Converter Array for Energy Harvesting in Autonomous Sensors, *Proceedings of the First National Conference on Sensors*, Rome, Italy, 15-17

February, 2012, Lecture Notes In Electrical Engineering, Vol.162, 2014, 239-244.

ISBN/ISSN: 978-146143859-5.

CI-118 S. Dalola, G. Faglia, E. Comini, M. Ferroni, C. Soldano, D. Zappa, V. Ferrari, G. Sberveglieri,

Investigation of Seebeck Effect in ZnO Nanowires for Micropower Generation in Autonomous Sensor Systems,

Proceedings of the First National Conference on Sensors, Rome, Italy, 15-17 February, 2012, Lecture Notes In Electrical Engineering, Springer International Publishing, Vol. 162, 2014, 245-250. ISBN/ISSN: 978-146143859-5.

CI-119 M. Demori, V. Ferrari, P. Poesio, D. Strazza, R. Pedrazzani, G. Mazzoleni, N. Steimberg,

Microfluidic Capacitive Sensors for Noncontact Particle Detection in a Microchannel,

Proceedings of the First National Conference on Sensors, Rome, Italy, 15-17 February, 2012, Lecture Notes In Electrical Engineering, Springer International Publishing, Vol. 162, 2014, 315-320. ISBN/ISSN: 978-146143859-5.

CI-120 M. Baù, M. Ferrari, V. Ferrari, D. Marioli, E. Tonoli,

Contactless Electromagnetic Interrogation of Quartz Crystal Resonator Sensors,

Proceedings of the First National Conference on Sensors, Rome, Italy, 15-17 February, 2012, Lecture Notes In Electrical Engineering, Springer International Publishing, Vol. 162, 2014, 439-444. ISBN/ISSN: 978-146143859-5.

CI-121 S. Dalola, G. Faglia, E. Comini, M. Ferroni, C. Soldano, D. Zappa, V. Ferrari, G. Sberveglieri,

Investigation of Seebeck Effect in Metal Oxide Nanowires for Powering Autonomous Microsystems,

Sensors and Microsystems, Proceedings of 17th National Conference AISEM, Brescia, Italy, 5-7 February, 2013, Lecture Notes in Electrical Engineering, Springer International Publishing, Vol. 268, 2014, 3-7. ISBN: 978-3-319-00683-3; e-ISBN: 978-3-319-00684-0.

CI-122 M. Demori, V. Ferrari, P. Poesio, R. Pedrazzani, N. Steimberg, G. Mazzoleni, Microfluidic Sensor for Noncontact Detection of Cell Flow in a Microchannel,

Sensors and Microsystems, Proceedings of 17th National Conference AISEM, Brescia, Italy, 5-7 February, 2013, Lecture Notes in Electrical Engineering, Springer International Publishing, Vol. 268, 2014, 29-33. ISBN: 978-3-319-00683-3; e-ISBN: 978-3-319-00684-0.

CI-123 P. Colombi, A. Borgese, M. Ferrari, V. Ferrari,

Dielectric Layers for MEMS Deposited at Room Temperature by HMDSO-PECVD,

Sensors and Microsystems, Proceedings of 17th National Conference AISEM, Brescia, Italy, 5-7 February, 2013, Lecture Notes in Electrical Engineering, Springer International Publishing, Vol. 268, 2014, 273-276. ISBN: 978-3-319-00683-3; e-ISBN: 978-3-319-00684-0.

CI-124 F. Cerini, M. Baù, M. Ferrari, V. Ferrari,

Impact-Enhanced Multi-beam Piezoelectric Converter for Energy Harvesting in Autonomous Sensors,

Sensors and Microsystems, Proceedings of 17th National Conference AISEM, Brescia, Italy, 5-7 February, 2013, Lecture Notes in Electrical Engineering, Springer International Publishing, Vol. 268, 2014, 377-381. ISBN: 978-3-319-00683-3; e-ISBN: 978-3-319-00684-0.

CI-125 D. Alghisi, M. Baù, M. Ferrari, V. Ferrari,

Nonlinear Multi-frequency Converter Array for Energy Harvesting from Broadband Low-Frequency Vibrations,

Sensors and Microsystems, Proceedings of 17th National Conference AISEM, Brescia, Italy, 5-7 February, 2013, Lecture Notes in Electrical Engineering, Springer International

Publishing, Vol. 268, 2014, 393-396. ISBN: 978-3-319-00683-3; e-ISBN: 978-3-319-00684-0.

CI-126 M. Demori, V. Ferrari, S. Farisè, P. Poesio,
Piezoelectric Energy Harvesting from von Karman Vortices,
Sensors and Microsystems, Proceedings of 17th National Conference AISEM, Brescia, Italy, 5-7 February, 2013, Lecture Notes in Electrical Engineering, Springer International Publishing, Vol. 268, 2014, 417-421. ISBN: 978-3-319-00683-3; e-ISBN: 978-3-319-00684-0. **Recipient of the Poster Award**

CI-127 M. Farran, M. Baù, D. Modotto, M. Ferrari, V. Ferrari,
Design, simulation and testing of planar spiral coils for the time-gated interrogation of quartz resonator sensors,
Proceedings of the 28th European Conference on Modelling and Simulation – ECMS2014, Brescia, Italy, 27 - 30 May, 2014, 147-152. ISBN/ISSN: 978-0-9564944-8-1.

CI-128 G. Sberveglieri, V. Ferrari,
Editorial,
Proceedings of the Eurosensors XXVIII Conference, Brescia, Italy, 7-10 September, 2014, in *Procedia Engineering*, 87, (2014) 1-2. ISBN/ISSN: 1877-7058.

CI-129 M. Ferrari, M. Baù, V. Ferrari,
Resonant Piezo-layer (RPL) Sensors with Contactless Interrogation for Food Monitoring from Outside Sealed Packages,
Proceedings of the Eurosensors XXVIII Conference, Brescia, Italy, 7-10 September, 2014, in *Procedia Engineering*, 87, (2014) 684-687. ISBN/ISSN: 1877-7058.

CI-130 M. Demori, M. Ferrari, V. Ferrari, S. Farisè, P. Poesio,
Energy Harvesting from Von Karman Vortices in Airflow for Autonomous Sensors,
Proceedings of the Eurosensors XXVIII Conference, Brescia, Italy, 7-10 September, 2014, in *Procedia Engineering*, 87, (2014) 775-778. ISBN/ISSN: 1877-7058.

CI-131 F. Cerini, M. Ferrari, V. Ferrari, A. Russo, M. Azpeitia Urquia, R. Ardito, B. De Masi, A. Almasi, D. Iannuzzi, R.I.P. Sedmik,
Investigation of the Effects of Hydrodynamic and Parasitic Electrostatic Forces on the Dynamics of a High Aspect Ratio MEMS Accelerometer,
Proceedings of the Eurosensors XXVIII Conference, Brescia, Italy, 7-10 September, 2014, in *Procedia Engineering*, 87, (2014) 827-830. ISBN/ISSN: 1877-7058.

CI-132 M. Narducci, M. Ferrari, V. Ferrari, H. Campanella,
Aluminum Nitride SOI Lamb-wave Resonators towards Multi-frequency, Multi-sensitive Temperature Sensor Platform,
Proceedings of the Eurosensors XXVIII Conference, Brescia, Italy, 7-10 September, 2014, in *Procedia Engineering*, 87, (2014) 1152-1155. ISBN/ISSN: 1877-7058.

CI-133 G. Pellegrinelli, M. Baù, F. Cerini, S. Dalola, M. Ferrari, V. Ferrari,
Portable Energy-logger Circuit for the Experimental Evaluation of Energy Harvesting Solutions from Motion for Wearable Autonomous Sensors,
Proceedings of the Eurosensors XXVIII Conference, Brescia, Italy, 7-10 September, 2014, in *Procedia Engineering*, 87, (2014) 1230-1233. ISBN/ISSN: 1877-7058.

CI-134 D. Alghisi, M. Ferrari, V. Ferrari,
Trigger Circuits in Battery-less Multi-source Power Management Electronics for Piezoelectric Energy Harvesters,
Proceedings of the Eurosensors XXVIII Conference, Brescia, Italy, 7-10 September, 2014, in *Procedia Engineering*, 87, (2014) 1286-1289. ISBN/ISSN: 1877-7058.

CI-135 D. Alghisi, S. Dalola, M. Ferrari, V. Ferrari,
Ball-impact Piezoelectric Converter for Multi-degree-of-freedom Energy Harvesting from Broadband Low-frequency Vibrations in Autonomous Sensors,
Proceedings of the Eurosensors XXVIII Conference, Brescia, Italy, 7-10 September, 2014, in *Procedia Engineering*, 87, (2014) 1529-1532. ISBN/ISSN: 1877-7058.

- CI-136** M. Farran, D. Modotto, S. Boscolo, A. Locatelli, A.D. Capobianco, M. Midrio, V. Ferrari,
Microstrip-fed quasi-Yagi antennas for WLAN applications,
Proceedings of the 44th European Microwave Association Conference, Rome, Italy, 5-10 October, 2014, 1687-1690. ISBN/ISSN: 978-2-87487-034-7.
- CI-137** M. Ferrari, M. Baù, M. Pagnoni, V. Ferrari,
Compact DDS-Based System for Contactless Interrogation of Resonant Sensors Based on Time-Gated Technique,
Proceedings of IEEE Sensors 2014 Conference, Valencia, Spain, November 3-5, 2014, 907-910. E-ISBN: 978-1-4799-0161-6, Catalog number: CFP14SEN-USB.
- CI-138** M. Baù, M. Ferrari, V. Ferrari,
Portable Low-Power System for One-Lead ECG Monitoring and Datalogging,
Proceedings of the Second National Conference on Sensors, Rome, Italy, 19-21 February, 2014, Lecture Notes in Electrical Engineering, Springer International Publishing, Vol. 319, 2015, 377-381. ISBN/ISSN: 978-3-319-09616-2.
- CI-139** D. Alghisi, M. Ferrari, V. Ferrari,
Portable Wireless Distance Measurement System Powered by Intentional Human Action,
Proceedings of the Second National Conference on Sensors, Rome, Italy, 19-21 February, 2014, Lecture Notes in Electrical Engineering, Springer International Publishing, Vol. 319, 2015, 403-407. ISBN/ISSN: 978-3-319-09616-2.
- CI-140** B. Andò, S. Baglio, V. Marletta, E. Pergolizzi, V. Ferrari, M. Ferrari, A. Bulsara,
Nonlinear snap-through-buckling devices for energy harvesting from vibrations,
Proceedings of the Second National Conference on Sensors, Rome, Italy, 19-21 February, 2014, Lecture Notes in Electrical Engineering, Springer International Publishing, Vol. 319, 2015, 409-413. ISBN/ISSN: 978-3-319-09616-2.
- CI-141** M. Farran, S. Boscolo, D. Modotto, A. Locatelli, A.D. Capobianco, M. Midrio, V. Ferrari,
High gain printed monopole arrays for wireless applications,
Proceedings of PIERS, Prague, Czech Republic, 6-9 July, 2015, Vol. UNICO, 2015, 1156-1159. ISBN/ISSN: 978-1-934142-30-1.
- CI-142** L. Sjøby, M.E. Angoletta, R. Marco-Hernandez, J.C. Molendijk, F. Pedersen, J. Sanchez-Quesada, M. Baù, M. Ferrari, V. Ferrari,
Elena Orbit and Schottky Measurement Systems,
Proceedings of the 6th International Particle Accelerator Conference IPAC'15, Richmond, VA (USA), May 3-8, 2015, 1061-1064, MOPTY056. ISBN/ISSN: 978-3-95450-168-7.
- CI-143** M. Baù, M. Ferrari, V. Ferrari, L. Sjøby, R. Marco-Hernandez, F. Pedersen,
Low-Noise Charge Preamplifier for Electrostatic Beam Position Monitoring Sensor at the ELENA Experiment,
Proceedings of the Eurosensors XXIX Conference, Freiburg, Germany, September 6-9, 2015, in *Procedia Engineering*, 120, (2015) 1229-1232. ISBN/ISSN: 1877-7058.
- CI-144** F. Cerini, M. Ferrari, A. Russo, M. Azpeitia Urquia, R. Ardito, B. De Masi, M. Serzanti, P. Dell'Era, V. Ferrari,
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