Massimiliano LENARDI – PhD

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I was born in Gorizia (Friuli, Italy) on the 31st of December 1970.

CURRENT POSITION (at April 2022)

Innovation Manager at HITACHI, European R&D Centre,
*"**Autonomy and Circularity Laboratory**" (ACL)*, Sophia Antipolis (France) & Munich (Germany).
INNOVATE.hitachi.eu

PROFILE & DOMAIN KNOWLEDGE

- Experienced in interactions between R&D, innovation dept., engineering and business divisions,
- Experienced in business path creation and in strategy development
- Experienced in coordinating researchers and managing an industrial R&D Laboratory (currently 15+ people).
- Excellent communication and team-working skills, promoter of Team building and cooperation.
- Intelligent Transport Systems (ITS) and Smart Mobility
- Automotive communication and information systems
- Smart Manufacturing and Industry4.0
- Big Data generation, injection, storage, analysis and redistribution
- Standardization (ETSI) and policy/regulation
- (Wireless) Mobile Ad-Hoc Networks and Machine-to-Machine Networks (M2M)

PREVIOUS POSITIONS (June 2002 – March 2015)

All at Hitachi Europe R&D,

- 2009-2015 Laboratory Manager, EU ICT and Big Data Labs (France, UK, DK)
- Within 2009 Deputy Lab. Manager of the ICT Laboratory (France)
- 2008- Senior Research Engineer and Team Leader at the ICT Laboratory (France)
- 2006-2008 "Cooperative Systems" Team Leader at the ICT Laboratory (France)
- 2002-2006 Research Engineer at the ICT Laboratory (France)

PROFESSIONAL SUMMARY:

- I currently manage two R&D sites of HITACHI in Europe, under the same Laboratory, in Sophia Antipolis, France, and in Munich, Germany. We conceive, specify, develop and validate innovative IT technologies and solutions for the Transport and Manufacturing sectors.
  - we innovate towards the vehicle autonomy in the Transport domain (including the related Standardization), and their integration within Smart Cities and indoor spaces.
  - we innovate with smart automotive components for next generation green powertrains.
  - we innovate for next generation smart manufacturing processes and value chains, with the application of IoT/M2M for Industrie4.0 domain.
- I previously managed two R&D Big Data sites of HITACHI in Europe for Innovation:
  - In Manchester, we innovate with Big Data for eHealth (disease prevention and data federation network).
  - In Copenhagen, we innovate with Big Data applied to logistics and management of Super Hospitals.
- I also contribute as *Senior Research Engineer* to Hitachi, and I act as bridge towards European potential customers of the *Hitachi Group Business Divisions*, my Teams providing business technical support to them.
- I represent Hitachi in several European or French public projects' Steering Committees, where I also contribute to, together with my Teams.
- I have been the Coordinator of the EU FP7 project "*eCo-FEV*", and my Team is a major contributor to the project.
- Hitachi Europe was until Dec 2021 Full Member of ETSI, the *European Telecommunications Standardization Institute*, with me appointed as the Contact for the entire Hitachi Group within ETSI.
- Hitachi Europe was Associate Member of the industrial *Car-2-Car Communication Consortium* (C2C-CC) with me appointed as Contact for the Hitachi Group, and where I am active in the Technical Committee and in some WGs.
- I contributed to Consortia publications and was Reviewer within several Conferences' Technical Committees.
- I coordinated some Sessions at different Conferences, and I was invited as Panellist several times.
- I am Associated Editor of the IEEE "Transactions on Intelligent Vehicles" (T-IV).

LANGUAGES

English: Fluent (spoken and written)
French: Fluent (spoken and written)
Italian: Mother tongue
German: Basic knowledge

EDUCATION

Ph.D. on Mobile Communications

01/1999 - 05/2002 At EURECOM Institute – Mobile Communications Department, in Sophia Antipolis, France (www.eurecom.fr). Research subject under Prof. Dirk Slock: *Mobile reception and channel estimation for 3rd generation mobile systems, in the context of UMTS (FDD/WCDMA) telecommunication standard*. External collaboration within the RNRT (Réseau National de Recherche en Télécommunications) AUBE project ("Nouvelles Architectures Umts en vue de l'intégration sur silicium des fonctions Bande de base du terminal").

Doctoral School – Master **(fellowship after selection)**

10/1997 - 06/1998 Graduate School in Telecommunication Systems at EPFL federal Institute in Lausanne, Switzerland (www.epfl.ch).
Project: *Distributed Antennas in Wireless/Cellular Systems* at the Mobile Communications Laboratory (LCM).

"Laurea" (M.S c.) degree in Electronic Engineering **(specialization in telecommunications)**

06/1997 at University of Trieste (www.univ.trieste.it). Final grade: 107/110.
Degree Project: *Image analysis in the multidimensional space of its features, application to the segmentation of digital video sequences*, in a 7-months collaboration with Signal Processing Laboratory (LTS), EPFL, Lausanne – Switzerland.

DETAILS

Research Projects/Consortia:

- European:
  - Car-to-Car Communication Consortium (**C2C-CC**, www.car-to-car.org)
  - **ETSI** Technical Committee on Intelligent Transport Systems (ITS), www.etsi.org
  - **EPoSS,** the European Technology Platform on Smart Systems Integration
  - "**GeoNet**": Geoaddressing and Georouting for Vehicular Communications, www.GeoNet-project.eu
  - "**PRE-DRIVE C2X**": PREparation for DRIVing implementation and Evaluation of C2X communication technology, www.PRE-DRIVE-C2X.eu
  - "**iTETRIS**": An Integrated Wireless and Traffic Platform for Real-Time Road Traffic Management Solutions, www.ict-iTETRIS.eu
  - "**COVEL**": Cooperative Vehicle Localization for Efficient Urban Mobility, www.covel-project.eu
  - "**DRIVE C2X**": DRIVing implementation & Evaluation of C2X communication technology, www.drive-c2x.eu
  - "**eCo-FEV**": efficient Cooperative infrastructure for Fully Electric Vehicles, http://www.eco-fev.eu
    (I am **Coordinator** of eCo-FEV)
  - "**Autonet2030**": Co-operative Systems in Support of Networked Automated Driving by 2030, http://www.autonet2030.eu
  - "**DENSE**": aDverse wEather eNvironmental Sensing system, from June 2016, http://www.dense247.eu
  - "**HumanDrive**": using Machine Learning to develop natural, human-like vehicle control, humandrive.co.uk
  - "**ServCity**": follow-up of the HumanDrive project, https://www.servcity.co.uk/
  - "**EVENTS**" : Horizon Europe project to start September 2022.
- French:
  - **SCORE@F**: Système Coopératif Routier Expérimental en France, the French Field Operational Test (FOT) project for ITS Cooperative Systems, http://www.scoref.fr
  - **SIECLE** - Labelized by the SCS Competitivity Cluster, see (French) http://www.pole-scs.org

Reviewer/contributor to

- "Car2Car Communication Consortium Manifesto"
- "Embedded WiSeNts Research Roadmap"

Technical Program Committees and Associate Editor

- Med-Hoc-Net 2006-2008-2009-2010-2011, the IFIP Annual Mediterranean Ad Hoc Networking Workshop

- ITST 2007-2008-2009-2010, the International Conference on ITS Telecommunications
- V2VCOM 2008, the 4th IEEE Workshop on Vehicle to Vehicle Communications
- UNA'08, 1st International Workshop on Urban Networks and Applications
- WiMob 2008-2009, IEEE International Conference on Wireless and Mobile Computing, Networking & Comms
- WiVec 2008-2011, the IEEE International Symposium on Wireless Vehicular Communications
- AutoNet 2008, the 3rd IEEE Workshop on Automotive Networking and Applications
- WEEDEV 2009, the 2nd edition of Experimental Evaluation and Deployment Experiences on Vehicular NETs
- VTC 2009-Spring, the 69th IEEE Vehicular Technology Conference
- BWA WS 2009, 5th IEEE BWA WS co-located with Globecom 2009
- VNC 2009-2011-2012,Vehicular Networks Conference. IEEE VNC is a new conference established with the merger of IEEE V2VCOM and IEEE AutoNet Workshops under IEEE ITS Society and IEEE ComSoc.
- PIMRC 2011, IEEE Intelligent Transportation Networks Symposium
- ICC 2012 Workshop: "Re-think ICT infrastructure designs and operations (RIDO), Disaster Recovery Lessons Learned from Great East Japan Earthquake".
- ICCVE 2012, International Conference on Connected Vehicles & Expo
- VCSN 2013, International Workshop on Vehicular Communication Systems and Networks
- IEEE Wireless Communication Magazine (special issue On The Road Communication)
- IEEE Transactions on Vehicular Technology
- Associate Editor for IV'11, IV'12, and IV'21
- Associate Editor for IEEE "Transactions on Intelligent Vehicles" since 2018

Session Chairman

- Vehicular Ad-Hoc Networks (VANETs) session at Med-Hoc-Net 2006
- Vehicular Ad-Hoc Networks (VANETs) session at ITST 2007
- Radio Technologies for VANETs session at ITST 2007

Panelist at

- "Vehicle Communications in 2017: Needs, Applications, Business Models (and a Research Agenda until Then)" at WONS 2007
- "The Fully Networked Car", session on Cooperative Systems, ITU Workshop 2007
- "Car2Car Communication Consortium Forum 2007"
- "Mobile Communications and Intelligent Transportation Systems", at EuWiT 2008, European Wireless Technology Conference, representing the Car2Car Communication Consortium.
- "3rd Dialogue for Global Innovation, Urban Mobility, Smart Energy and Healthcare", Oct. 2014, Graz, Austria.
- "IS AUTO 2016", April 2016, Cologne, Germany.
- "Connected Car Day", April 2021, Sophia Antipolis, France

Router and Private Network Designer/Configurator

Previous-to-Hitachi (1998) work experience: the customer requested to conceive, deploy and configure a local area network (LAN) depending on her/his financial and logistic constraints. My role was first to find multiple solutions by means of computer-aided design and secondly to install the selected one.

LEISURES

Sports: basket, ski, football, swimming, and bowling.
Others: reading (news and books), cinema, traveling and cuisine.

PUBLICATIONS (list and download at http://www.lenardi.eu)

GRANTED PATENTS:

1. "Method and Apparatus for Disseminating Data in a Communication Network"
2. "Method and Apparatus for Determining whether a Moving Entity is moving in a Predetermined Direction"
3. "Method and Apparatus for Determining a Distribution of Neighbour Nodes around a First Node in a Communication Network"
4. "Method and apparatus synchronizing clocks of network nodes"
5. "Method and apparatus for estimating a travel time of a travel route"