



The Vision of Industry on Digital Evolution in Her Words

June 17, 2020 – h.14:00-15:30

IEEE MELECON 2020 – 20th IEEE Mediterranean Electrotechnical Conference
Electronic Virtual Conference



A satellite event in the frame of IEEE MELECON 2020
<http://melecon2020.org> – 20th IEEE Mediterranean
Electrotechnical Conference, Palermo, Italy, June 16-18, 2020.

Brief description

The plenary session is organized in five presentations of 20-minute each by five distinguished speakers. Four women industry managers will give technical presentations on the vision of the future and their company's strategy in one of the IEEE MELECON 2020 reference topics: *Smart Mobility*, *Industry 4.0*, *Smart HealthCare* and *Smart Grids*. The fifth presentation will provide a cross-sectional view on digital evolution and future directions. Due to the COVID-19 emergency, the conference will be held in virtual electronic mode and the plenary session is organized in two parts: recorded presentations and a live session. The five recorded presentations (slides with audio commentary) will be made available on **June 12th** and must be attended prior to the live event scheduled on **June 17th**. The live event consists of a 60-minute telematic debate on the topics proposed in the recorded presentations. Participation in this WIE event is **FREE OF CHARGE!**

Dates and scheduled activities

From June 12th, 2020 - Prior on-demand access to the talks:

- | | |
|----------------------------------|---|
| Track 1: Smart Mobility | Smart city: transforming cities in the digital age
<i>Renata MELE, Head of Smart city ecosystem development- Global e-City - Enel X</i> |
| Track 2: Industry 4.0 | 'Industry 4.0', a new Human-AI partnership
<i>Daniela SCARAMUCCIA, Director, Industry LTS Business Development - IBM Italy</i> |
| Track 3: Smart HealthCare | Smart Healthcare: Solutions for renal patients @ Fresenius Medical Care
<i>Silvia CIVARDI, CEO Fresenius Medical Care Italy</i> |
| Track 4: Smart Grids | Smart Grids and Beyond
<i>Debora STEFANI, Head of Optic Fiber Program, Enel Global Infrastructure and Networks</i> |
| The Digital Evolution | Digital Reality is becoming Reality
<i>Roberto SARACCO, IEEE Future Direction Board</i> |

June 17th, 2020

Live Panel Session

- | | |
|-------------------------------|--|
| 14:00 – 14.30 | Opening and Interactive Session (www.menti.com) |
| 14:30 – 15:15 | Live Panel Discussion with Renata MELE, Daniela SCARAMUCCIA, Silvia CIVARDI, Debora STEFANI and Roberto SARACCO |
| 15:15 – 15:30 | Closing Interactive Session |
| Moderator | <i>Dajana CASSIOLI, Chair of the WIE AG IEEE Italy Section</i> |
| Interactivity Director | <i>Patrizia LAMBERTI, Vice-Chair of the WIE AG IEEE Italy Section</i> |

Venue

Electronic Virtual Conference – visit the websites <http://melecon2020.org> and <https://site.ieee.org/italy-wie/>

Organized by

IEEE Italy Section WIE AG, in collaboration with AICA and AEIT. Info: cassioli@ieee.org



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Online Presentations Details (available from June 12th, 2020)

Smart city: transforming cities in the digital age

Urbanization is one of the global transformative phenomena of the contemporary society: urban population growth will put an enormous pressure on the infrastructures and the challenge of powering cities in a sustainable way, now and in the future, is a key issue.

But how to drive the sustainable energy transition in cities? And how can companies help cities deliver their services? The pillars of the sustainable energy transitions in cities are in decarbonization, electrification, energy efficiency and digitalization: in the talk, the Enel X vision on sustainable urban transition will be presented, with a focus on the role of digital platform. The integrated approach to urban services can foster the decarbonization and electrification of cities, while leveraging digitalization to enhance resilience and closer interaction between PAs and citizens.

'Industry 4.0', a new Human-AI partnership

Exponential technologies can support operational agility and flexibility and allow companies to respond to market changes. Thanks to technologies such as sensors, drones, wearables, augmented reality (AR), virtual reality (VR), AI, cloud and edge computing real-time signals and information can be collected, connected and analyzed, providing insights that can create new services, business models and revenue streams, cost efficiency and personalized experiences for customers and employees and build agile and intelligent processes. This is in a nutshell Industry 4.0. Successfully Industry 4.0 transformation can be found in various sectors (e.g. from construction, to manufacturing and to healthcare) and functions (e.g. from predictive maintenance to cognitive manufacturing, from operational efficiency to knowledge management and smart supply chains).

A revolution is underway, made possible by the convergence of vision and skills coupled with technology. It is a new human-AI partnership, where artificial intelligence can increase human intelligence.

Smart Healthcare: Solutions for renal patients @ Fresenius Medical Care

Kidney disease is a global epidemic that is straining healthcare systems and diminishing the quality of life for millions of people who are coping with cardiovascular diseases, diabetes, and other related chronic conditions. The scope and complexity of the problem requires an unprecedented level of collaboration to attack root causes of kidney disease, galvanize diverse peer communities, and better identify innovation wherever it occurs worldwide. As a vertically integrated global healthcare company, Fresenius Medical Care is working to transform renal care worldwide and pioneer solutions that can have a large-scale impact on patient care. Three key areas will be addressed during the talk:

- ✓ **Emerging trends in healthcare and digitalization impacts:** how healthcare spending and care delivery will change the way the systems works and is organized
- ✓ **Identifying innovations for care transformation:** use the potential of modern technologies to contribute to healthcare transformation through industry changes and new business models
- ✓ **Providing holistic renal care:** increase access to care, contribute to sustainability, innovate the delivery of care through digital solutions and patient's centric approach

The opportunity to bring emerging science and technologies into standard patient care is a unique value of a vertically integrated company like Fresenius Medical Care whose domain includes science, product development, manufacturing, service provision, patients' management worldwide.

Smart Grids and Beyond

Enel Group operates in 34 countries with 63000 people and is a leader in the energy sector. Global Business Line Infrastructure & Networks is the first private network operator in the world with 73 million of end customers, operating in 8 countries, in Europe and South America.

In the transition of the energy market, the Distributor is going to play a role more and more decisive as a manager of electrical assets but also as a key driver for improving the relationship with the customer. Scenarios as decentralisation, electrification, decarbonisation are significantly shaping the future evolution of the distributor, by making smart grids essential for strengthening our resilience and capability of enabling a flexible ecosystem.

Thanks to digitalization, electricity is becoming increasingly accessible for everyone, changing customer-network interaction, driving and promoting the sustainable development of future digital cities, and contributing to the decarbonisation of the economy.

Getting an increasingly digitalized and resilient network is our top priority.

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Digital Reality is becoming Reality

The countermeasures to the pandemic have accelerated the Digital Transformation. Business moved as much as possible to the cyberspace, so did education and social life. What was already benefitting from a life in the cyberspace picked up steam, what was not scrambled to shift to the cyberspace. In the process we discovered that we had the technology to support business and life in the cyberspace. We also discovered that we would be better off if we could have better technology. The pandemic will be over, let's hope sooner than later, but the shift will not be reversed, at least not completely, hence we will feel the gap between the tech we have and the one we would like to have. It is this gap that in the coming 2-3 years will steer innovation. The talk will address the gap and the expected tech evolution we can reasonably expect in the near future, from sensors to intelligence, from communication to communication fabric, from automation to autonomous systems, from learning to leveraging distributed knowledge, from societal data analytics to personal digital twins.

The participants



Renata MELE - After completing a PhD in Physics at the University of Milan, she has carried out research activities on materials for energy applications working within either academia or industry. As R&D Manager at the Pirelli Group, she developed innovative technologies for power grids, telecommunication and wireless sensor networks. Formerly Deputy Director at Enel Foundation, the research and study center of the Enel Group, she was leading the cross-disciplinary international research programs on Sustainable Urban Development, managing the whole project portfolio of Enel Foundation in Latin America.

She is currently responsible for the smart city ecosystem development, at Global e-City within Enel X, the Business Line of the Enel Group dedicated to energy solutions and services.



Daniela SCARAMUCCIA, in IBM since 2017, leads the IBM Italy Business Development Team. This unit is focused on supporting Companies from all sectors and Institutions in their large innovation and digital transformation projects, leveraging on the deep and breath IBM portfolio of solutions, resources and competencies, from consultancy to new technologies. Her team enables the smooth implementation of state-of-the-art IBM research solutions, from AI to computational biology and quantum computing, from pilot projects to complex business problems. Throughout 20 years of working experience, Daniela served multiple industries and geographies on strategy, marketing, sales and organization issues, leading Italian and multinational companies, especially in the Healthcare, Life Sciences, Infrastructure and Energy sectors. Daniela holds a PhD in Energy Studies and a Nuclear Engineering M.Sc. Degree from Politecnico di Torino University (Italy).



Silvia CIVARDI received the M. Sc. Degree in Electronic Engineering from the Politecnico of Milano (Italy) in 1985 and the Ph.D on Biomedical Engineering from the same University in 1989. Since 1990 she has been working in the Medical Device Market holding several positions in Marketing and Sales with Amplifon, Sorin Biomedica, Bellco and Fresenius Medical Care. With Fresenius Medical Care, she was appointed in 2011 Chief Executive Officer of the Italian Subsidiary taking responsibility for the commercial organization and the development of the Italian Market. Fresenius Medical Care is the world's largest provider of products and services for renal diseases and the leading provider of dialysis products such as dialysis machines or dialyzers. Along with its core business, the company provides related medical services in the field of Care Coordination. Fresenius Medical Care is listed on the Frankfurt Stock Exchange (FME) and on the New York Stock Exchange (FMS).

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Debora STEFANI is Head of Optic Fiber Program in Global Infrastructure and Networks in the ENEL Group. Graduated in Electronic Engineering from the University of Florence, she began her career in the High-Vacuum Area of Officine Galileo (1990), a historical company leader in the technological excellence. She joined Enel in 1991 and held several roles in Distribution, including Head of Emilia Romagna and Marche Area, Head of Tuscany and Umbria Area, Head of North Area. In 2018 moved on to the Headquarters as Head of Environment, Health and Safety for e-distribution, and then Head of Fiber Optic Project Italy, until the current position of Head of Optic Fiber Program within the Global Infrastructure & Networks. She is General President of AEIT, as well Vice President of CEI and Vice President of IMQ Association. She is mother of two sons, is passionate about reading and travelling, and is very interested in yoga.



Roberto SARACCO fell in love with technology and its implications long time ago. His background is in math and computer science. Until April 2017 he led the EIT Digital Italian Node and then was head of the Industrial Doctoral School of EIT Digital up to September 2018. Previously, up to December 2011 he was the Director of the Telecom Italia Future Centre in Venice, looking at the interplay of technology evolution, economics and society. At the turn of the century he led a World Bank-Infodev project to stimulate entrepreneurship in Latin America. He is a senior member of IEEE where he leads the Industry Advisory Board within the Future Directions Committee and co-chairs the Digital Reality fostering Digital Transformation Initiative. He teaches a Master course on Technology Forecasting and Market impact at the University of Trento and he is a COMSOC Distinguished Lecturer. He has published over 200 papers in journals and magazines and 30 books/ebooks. He writes a daily blog, <https://cmte.ieee.org/futuredirections/category/blog/>, with commentary on innovation in various technology and market areas.



Dajana CASSIOLI is the Chair of the WIE AG of the IEEE Italy Section. She is an Associate Professor of Telecommunications Engineering at the DISIM - University of L'Aquila, Italy. Her research interests span over wireless communications, 5G/B5G Networks and Cybersecurity. She is the Coordinator of L'Aquila's Node of the CINI National Laboratory on Cybersecurity. In 2010 and 2016 she has been awarded the ERC-StG VISION and the ERC-PoC iCARE. She is author and co-author of tens of publications on prestigious International Journals and Conferences. She served as the Industry Co-Chair of PIMRC 2018, WIE Chair for RTSI 2018, RTSI 2019, RTSI 2020, MELECON 2020 and 2020 IEEE Int. Workshop for Industry 4.0 and IoT, and as TPC member of several International Conferences (ICC, PIMRC, VTC, GLOBECOM). She is an Editor of the IET Elec. Lett. and IEEE Comm. Lett., and ITL and ETT John Wiley & Sons Ltd.



Patrizia LAMBERTI is the vice-Chair of the WIE AG of the IEEE Italy Section. She is Associate Professor of Electrotechnique at the Dept. of Information and Electrical Engineering and Applied Mathematics - University of Salerno (UniSA), Italy. She is vice-dean of the interdepartmental center NanoMates and scientific representative for UniSA in the Italian interuniversity center ICEmB (Interaction between Electromagnetic fields and biological systems). She is co-founder of the spin-off AI4Health S.r.l. Her research interests concern tolerance analysis and design optimization of electromagnetic (EM) devices, EM modeling and characterization of novel nanomaterial, EM treatment of biological cells and systems by means of Pulsed Electric Field. The research activities lead to more than 50 journal papers, 3 book chapters, 3 Italian, 2 European and 1 USA patents. She was involved in more than 30 national and international scientific projects and she is currently principal investigator from UniSA-side for 5 EU-H2020 founded projects.