



IEEE Italy Section Industrial Distinguished Lecture (virtual) and IEEE PES Italy Chapter Awards 2021 Ceremony

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Eng. Riccardo Lama

Enel Global Infrastructure and Networks

Intrinsic safety

Electrical distribution activities, as all work activities on electrical installations, are potentially dangerous. To perform them safely, engineering practices, work procedures and protective equipment have been historically adopted following a risk-based approach: the main inherent risks related to the distribution business (electrocution, electrical arc flash, fall from height, etc.) have therefore been either eliminated or reduced, and their consequences have been avoided or mitigated.

The Intrinsic Safety approach stresses the “risk avoidance” component as opposed to the “consequence mitigation”; the idea behind it is to design a system, including infrastructure, processes, and equipment, robust enough to tolerate one or more operational errors without exposing workers to risk, irrespective of their voluntary actions. It implies a new perception of trade-off between risk reduction actions, a more focused engineering approach to components, equipment and installations, a systemic view to risk evaluation taking into account complex parameters such as intelligibility, ergonomics, and so on.

This lecture approaches some Intrinsic Safety dimensions, starting from the concept itself; other relevant topics include methodologies and examples for component design and infrastructure construction, assessment methodologies for existing installations and work procedures definition according to Intrinsic Safety principles.

After his Lecture, Eng. R. Lama will be presenting the **IEEE PES Italy Chapter Best Thesis Award 2021**, the IEEE PES Italy **Outstanding Chapter Volunteer Award 2021**, and the IEEE PES Italy Chapter **Outstanding Engineer Award 2021**.

[Registration link](#)



Riccardo Lama has over three decades of experience in the electrical sector. He has developed a significant expertise in several aspects of electrical engineering, operating in Italy and abroad both as a Technical and as a General Manager. His fields of interest include network planning and development, renewables' integration, smart grid infrastructures and functionalities, components' engineering and standardization, materials' quality and testing, integrated management systems, biodiversity compatibility with electrical installations and of course health and safety systems and organization, mostly related to the distribution business.

Alongside with his position in Enel, he has played and plays an active role in key organizations of the energy community, among which: CIREN, CEI and AEIT. In 2009 he was appointed by ERGEG among the 11 members of an ad hoc expert group on electricity grid connection, as part of the process for the development of framework guidelines.

In July 2019 he was elected as President General of CEI (Italian Electrotechnical Committee), the Italian body for the standardisation in the fields of electrotechnics, electronics and telecommunications and, as NC Representative, is institutionally involved in IEC and CENELEC governance and activities. Eng. Lama received the IEEE Italy Section Industrial Distinguished Lecturer Award in 2021.