

# EFCE Spotlight Talks

Working Party on  
Static Electricity in Industry

20 March  
2024

10:00-11:30  
CET



WP Static Electricity in Industry

## PROTECTION OF ELECTROSTATIC CHARGES AND DISCHARGES: MATERIAL WEB CHARGING AND LIGHTNING

*Static Electricity in Industry has two faces: risks and applications. In the series of EFCE Spotlight Talks proposed during the last years by the Working Party Static Electricity in Industry, we have explored both aspects. In this edition we will focus on the risks of electrostatic charges and electrostatic discharges.*

*Electrostatics risks evaluation and remediation involve a large knowledge on the physics and nature of the phenomena. Besides, the scale of electrostatic discharges in industry can range from some micrometers to several kilometers as in lightning protection. Obviously, the ways to detect, avoid or protect from them are very different.*

*The first talk in this Webinar will address the topic of charging of material webs in the process industry. A deep knowledge on materials properties, triboelectric charging, charge accumulation, dissipation and neutralization is required to avoid disturbances or accidents. Wolfgang Schubert will give a talk on how charging happens on material webs, how to measure it and how to correctly neutralize the charge. He is an expert in the printing industry, but all the methods are applicable to any industry where material webs are handled.*

*The second presentation concerns very large-scale discharges: lightning protection of chemical industry. Lightning can be considered as an extremely long electrostatic discharge completely out of our control. Thus, protection is the only approach to this challenge. Understanding the physics of the problem and the basis of the technical solutions is necessary to achieve a good protection and risks reduction. Prof. Istvan Kiss, with a very large experience in lightning protection, will provide the rules for lightning protection of chemical industries and give some case examples.*

### PROGRAM

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| 10:00 | <b>Welcome and introduction</b><br>Pedro Llovera, Chair Working Party on Static Electricity in Industry<br>Giorgio Veronesi, EFCE President        |
| 10:10 | <b>Charging of Material Webs in the Process Industry</b><br>Wolfgang Schubert, Schubert GMD - Germany  |
| 10:55 | <b>Lightning Protection of Chemical Industry</b><br>Dr. Istvan Kiss, Department of Electric Power Engineering, Deputy Head of Department - Hungary |
| 11:25 | <b>Conclusion</b><br>Pedro Llovera, Energy Technological Institute, Polytechnic University of Valencia - Spain                                     |

[REGISTRATION](#)

free of charge but mandatory

Contact: [martine.poux@toulouse-inp.fr](mailto:martine.poux@toulouse-inp.fr)  
[pedro.llovera@ite.es](mailto:pedro.llovera@ite.es)