



## MARATHON EMC 2021 Binational Edition

### Part 3: Poland - Switzerland, 20<sup>th</sup> April 2021

MARATHON EMC2021 Binational Edition is continuation of the series of on-line courses initiated by the IEEE EMC-S PL Board of the Electromagnetic Compatibility Society Polish Chapter of the IEEE (USA)

### Main theme: Protection of electrical installations against electromagnetic disturbances

#### AGENDA

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| Topic I     | <b>Electromagnetic shielding of civil and military installations: theoretical and practical considerations</b>   |
| Date        | 20th April 2021, 9:00 - 10:15  |
| Description | The presentation will focus on the measurement and modelling of shielding effectiveness for military and civilian site applications and the future prospects for electromagnetic shielding. Measurement techniques of various complexities are discussed as well as their limitations. Then, some modelling tools and their results are presented and discussed, as well as references. Finally, a perspective on the future of practical shielding is presented, as well as measurements of alternative shielding techniques and a discussion of the future of electromagnetic shielding. |
| Speaker     | Carlos Romero<br>Armasuisse Science and Technology, NEMP Laboratory  |
| Topic II    | <b>Practical measurements of shielding effectiveness in medical applications</b>   |
| Date        | 20th April 2021, 10:30 - 11:15   |
| Description | Hints on the Standard IEEE 299 ( Method for Measuring the Effectiveness of Electromagnetic Shielding Enclosures), Why perform shielding effectiveness measurements in MRI environments ( The Artifacts ), How to measure the attenuation of a shield: Dedicated system Vs generic systems  |
| Speaker     | Łukasz Halbiniak - Product Manager - ASTAT, Jan Bulli - CEO - MPB Group  |

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| <b>Topic III</b> | <b>PLC - Definition of phenomena and testing methods (EMC protection of and against)</b>   |
| Date             | 20th April 2021, 11:30 - 12:15   |
| Description      | Definitions of phenomena, distortions in the home environment, what EMC standards have already been developed, what we have to test and what we should, major group of phenomena caused by PLC and related standards with testing methods.   |
| Speaker          | <b>Grzegorz Modrykamień</b><br>EMC-FORTO   |
| <b>Topic IV</b>  | <b>Protection against lightning disturbances</b>   |
| Date             | 20th April 2021, 12:30 - 13:15   |
| Description      | Direct and indirect lightning hazards require complex protective measures. Understanding and consideration in the design of lightning protection electromagnetic effects of lightning on the current buildings heavily saturated microprocessor technology significantly increased their level of safety even in direct lightning discharge. There are still areas that require clarification of effective measures of protection against lightning disruptions due to the existence of other protection measures in one facility, e.g. against electrostatic discharge. |
| Speaker          | <b>Mirosław Zielenkiewicz, RST</b>   |
| <b>Moderator</b> | <b>Krzysztof Sieczkarek</b><br>Łukasiewicz Research Network - Institute of Logistics and Warehousing<br>Chairman of IEEE EMC-S PL  |

Event organized by IEEE EMC-S PL in co-operation with IEEE EMC-S CH

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