MARATHON EMC 2021
Binational Edition

Part 5: Poland –Canada, 13th October 2021

MARATON 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: EMC in Military Industry

AGENDA

Topic I	**Onboard compliance - EMC challenges on newly built ships**
Date	13th October 2021, 15:00 – 15:30 (CEST) = 9.00am – 9.30am (EDT)
Description	Ships, that are built and operating today, are very complex structures, combining the issues of mechanics, automatics, electronics and computer science, supplied by various manufacturers, often from different regions of the world. The complexity determines need of the EMC compliance process to begin at an early stage of vessel design. This process must take into account the planning of the onboard deployment of the potential EM field sources as well as resistance of applied technical solutions to possible exposure. At the last stage, EMC engineers face the challenge of verifying design requirements and performing in-situ measurements, often in difficult, hard or even impossible conditions.
Speaker	Rafał Namiotko, PhD.Eng. -Production and Development Division Director, Przemysław Pozański, PhD.Eng - *R&D Deputy Director* *Research and Development Center, Marine Technology Center, Poland*
Topic II	**Military electromagnetic environment, standards, hardening and testing**
Date	13th October2021, 15:45 – 16:30 (CEST) = 09.45am – 10.30am (EDT)
Description	An alternative type of antenna array recently proposed has independently addressable antennas with each radiating 100 GW power in the 1 to 3 GHz band. The antenna array could be scaled to at least 500 GHz. Individual antennas in the array are short (~λ), in comparison to the shortest radiated wavelength making them ideal for space-time pulse-driven arrays. Will current research challenge the reliance on energy over power in the military environment? If the response is, yes, how will the military electromagnetic environment, standards, hardening and testing change.
Speaker	dr. Andrew.S. Podgorski President and Chief ScientistASR Technologies, Ottawa, Canada

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Topic III	On HMP and CW high field strength immunity testing
Date	13th October2021, 16:45 – 17:15 (CEST) = 10.45am – 11.15am (EDT
Description	Extension of the measurement ability of accredited Electromagnetic Compatibility Testing and Electromagnetic Fields Measurements Laboratory of the Military Institute of Armament Technology in Zielonka with the possibility of conducting susceptibility tests of electromechanical and electronic devices to high-power electromagnetic fields, based on the requirements presented in the AECTP-250 standardization document.
Speaker	Mateusz Szafrański – EMC Laboratory Specialist, Military Institute of Armament Technology, Zielonka, Poland
Moderator	**Krzysztof Sieczkarek** Łukasiewicz Research Network - Institute of Logistics and Warehousing Chairman of IEEE EMC-S PL

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

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