

IEEE Transactions on Electromagnetic Compatibility (T-EMC)

IEEE Letters on EMC Practice and Applications (L-EMCPA)



## LINKED SPECIAL ISSUES – "AI, MACHINE LEARNING, AND DEEP LEARNING: ADVANCES AND APPLICATIONS FOR EMC"



**Artificial Intelligence (AI)** is almost ubiquitous. It's something that most people have interacted with, knowingly with generative AI applications seeing common use, or unknowingly through such applications as customer segmentation activities. Equally, AI for science and engineering is gaining fresh traction. Not surprisingly, it is a topic that is seeing growing interest within the EMC and SIPI communities as evidenced by the increasing numbers of papers presented at conferences and within journals such as these.

The discussions within the EMC Society have clearly shown that there is a growing body of research on techniques and how they can be used, and a growing body of activity applying machine learning and AI to solve practical problems facing industry right now. The purpose of these linked special issues of the *IEEE Transactions on Electromagnetic Compatibility (Transactions)* and the *IEEE Letters on Electromagnetic Compatibility Practice and Applications (Letters)* is to provide a picture of the current state of the subject as it applies within our communities, and to do so in a way that captures **original research and innovation** (through the <u>Transactions route</u>) and **applications and case studies** (through the <u>Letters route</u>).

The linked special issues are looking for submissions that cover the breadth of activity across (but not limited to):

- The development of new methodologies and techniques in AI/ML/ DL
- The evolution of techniques to enable them to address problems related to EMC and SIPI
- Case studies of applications in industry

All techniques spanning the AI/ML/ DL space are encouraged. All applications spanning the AI/ML/ DL space for EMC and SIPI are encouraged.

These linked special issues will provide a valuable reference for researchers and practitioners in the field and a foundation on which developments in the coming years will be built.



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## **IMPORTANT DATES**

Please note these important dates

April 15, 2024: Deadline for submitting manuscripts
December 2024: Anticipated date for publication of both the L-EMCPA and the T-EMC

Papers will be submitted online via the Author Portal to the relevant publication, selecting "Special Issue on AI, Machine Learning, and Deep Learning: Advances and Applications for EMC" for the <u>Transactions route</u> and "Special Section Letter" for the <u>Letters route</u> and must conform to the relevant publication guidelines.

- Papers submitted to the *Transactions* will be up to eight pages in length including the title, author affiliations, abstract, and figures. Overlength charges will be paid by authors if the Transaction paper length exceeds eight pages.
- Papers submitted to the *Letters* will be up to five pages in length including the title, author affiliations, abstract, *visual summary*, *take home messages* and figures. Overlength charges will be paid by authors if the Letters paper length exceeds five pages.

## **Guest editors:**

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The orginal two pictures are created by an AI-powered text-to-image creator.