

2021 JOINT IEEE INTERNATIONAL SYMPOSIUM ON ELECTROMAGNETIC COMPATIBILITY, SIGNAL & POWER INTEGRITY, AND EMC EUROPE



27 JULY - 13 AUGUST 2021

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CALL FOR PAPERS

The IEEE EMC Society and EMC Europe are seeking original, unpublished papers covering all aspects of EMC and technologies that are affected by EMC.

Join your colleagues online but with a Scottish theme, where you can share your insight, ask questions, learn from the experts/innovators and see new products at the 2021 Joint IEEE International Symposium on Electromagnetic Compatibility, Signal & Power Integrity and EMC Europe. Your published paper will be seen by thousands in the EMC community and across the wide array of disciplines that look to the IEEE EMC Society for technical guidance. In addition, it will be uploaded to IEEE Xplore with the exposure and recognition that brings.

In addition to Traditional Papers, the Symposium also invites authors to participate through other formats. Authors who wish to present their work without the burden of writing a full manuscript may submit an extended abstract (see Abstract-Reviewed Papers) instead. Abstract authors are invited to submit a full-length paper (up to 4 pages) for publication in the IEEE Letters on Electromagnetic Compatibility Practice and Applications (L-EMCPA) via <https://mc.manuscriptcentral.com/l-emcpa-ieee> under the category Abstract Reviewed Letter by March 22, 2021. The full paper shall contain substantial additional technical material compared to the one-page abstract published in the symposium proceedings. Contributions that are accepted for publication in the L-EMCPA are also accepted as abstract reviewed papers. Abstracts of papers that are not accepted for publication in the L-EMCPA and those of Authors that choose not to submit a full paper for the L-EMCPA are considered for the technical program.

If there is a Special Topic Area that warrants a dedicated session with papers from a variety of excellent authors, organizers should work with one of the Technical Committees to propose a Special Session with invited papers (you are advised to discuss this with one of the Technical Committees to act as the sponsor). Workshops and Tutorials offer another way to cover a topic area. Presentations from invited speakers are submitted instead of abstracts or papers. Contributors who prefer to present their work as a live experiment or demonstration can submit a proposal for Experiments & Demonstrations.



TOPICS OF INTEREST

TC-1 EMC Management

- Personnel & Laboratory Accreditation
- EMC Education
- Legal Issues

TC-2 EMC Measurements

- Test Instrumentation & Facilities
- Measurement Techniques
- Standards and Regulations

TC-3 EM Environment

- EM Signal Environment
- Atmospheric & Man-Made Noise
- Characterization of the EM environment

TC-4 EM Interference Control

- Shielding, Gasketing & Filtering
- Cables and Connectors
- Circuit & System EMC Analysis
- Grounding
- PCB Layout

TC-5 High Power Electromagnetics

- ESD & Transients
- EMP, IEMI & Lightning
- Information Leakage
- Electric Power EMC

TC-6 Spectrum Engineering

- Spectrum characterization and modeling
- Design for spectrally efficient systems
- Adaptive interference mitigation

TC-7 Low Frequency EMC

- Power Quality and Power System EMC
- Conducted emissions due to Power Converters
- Transportation and Electrical Vehicles
- Renewables and Smart Grid
- Topics for future standardization

TC-8 Aeronautics and Space EMC

- Aircraft
- Atmospheric environment
- Drones
- Spacecraft
- Space environment
- Launch vehicles
- Missiles
- Other aerospace topic

TC-9 Computational Electromagnetics

- Computer Modeling and Circuit Simulation Methods
- Multi-Physics Techniques, Tools and Applications
- SI/PI/EMC Co-Simulation
- Best Practice and Validation Methods
- Surrogate Modeling and Optimization Techniques
- Design of Experiments (DoE) and Statistical Analysis

TC-10 Signal and Power Integrity

- High-Speed Interconnects
- Device Modeling & Characterization
- Crosstalk, Jitter, Noise Coupling, BER Analysis
- 3D IC & TSV
- Power Distribution Networks & Decoupling
- SI/PI/EMI Co-Design
- Simulation and Modeling Techniques
- Chip-level advanced packaging
- Topics for future standardization

TC-11 Nanotechnology & Advanced Materials

- Nanomaterials & Nanostructures
- Smart Materials
- Topics for future standardization

TC-12 EMC for Emerging Wireless Technologies

- EMC Planning/Testing/Specifications
- Wireless Coexistence
- Intra-System Interference
- RF desense

SC-1 Smart Grid EMC

- Renewable Generation
- Grid Communications

SC-5 Power Electronics EMC

- AC/DC, DC/Dc, DC/AC and AC/DC power conversion
- Passive components and semiconductor devices
- Automotive, aerospace, and communication systems, wireless power transfer
- Medical, aviation, consumer electronics and power applications
- Topics for future standardization

GUIDELINES FOR AUTHORS & SESSION ORGANIZERS

TRADITIONAL PAPERS

A preliminary manuscript (4 – 6 pages), including all relevant results and conclusions.

All paper and proposal submissions will be uploaded into the Review System using the link provided on the symposium website (www.emc2021.org) beginning 1 December 2020. During the electronic submission process, a unique author code is created for tracking purposes. Failure to comply with submission requirements may result in rejection.

Delivery will be by 20-minute pre-recorded presentation and 10-minute live question and answer. Further details will be communicated to authors in due course.

ABSTRACT-REVIEWED PAPERS

An extended abstract (one page), including relevant results and conclusions.

SPECIAL SESSIONS

A proposal that includes:

- Title of Special Session
- Abstract detailing the content of the session
- Statement of what makes the session special
- List of planned authors and paper subjects with titles, if available
- Primary and secondary audience

WORKSHOPS & TUTORIALS

A proposal that includes:

- Title of Workshop or Tutorial
- Format: Workshop or Tutorial
- Abstract describing the workshop/tutorial, including objectives, content, and novelty
- List of planned presenters and affiliations with topic titles
- Primary and secondary audience

EXPERIMENTS & DEMONSTRATIONS

A proposal that includes:

- Title of Experiment or Demonstration
- Abstract describing the experiment or demonstration with sufficient detail for the chairs to review
- List of presenters and affiliations
- A detailed listing of any test equipment required

PAPER ACCEPTANCE PROCEDURES & CRITERIA

PAPER ACCEPTANCE WILL BE BASED ON THE FOLLOWING CRITERIA

- **Importance of Topic:** Does it have direct significance to the EMC community?
- **Technical Sophistication and Depth:** Does it present information that is a significant contribution, advancement, application, or refinement of the state of the art? Does it expose the reader to a higher knowledge level than currently available from other sources? Is it clear that the work has been substantially completed or is the submission an interim progress report on a long-term project?
- **Readability, Clarity, and Presentation:** Is the value of the submission clearly defined? Is the material written in clear and concise English with topics presented in an organized and logical manner?
- **Novelty and Originality:** Does it propose a new and unique concept or expand on an existing premise from a unique point of view? Does it present new information on an EMC issue that is still in the developmental stage?

STUDENT PAPER CONTEST

Graduate and undergraduate authors are eligible for the Best Student Paper contest. The student must be the primary author and should indicate that they wish to be considered for the contest when submitting the preliminary manuscript. Each student's professor will be asked to certify that the paper is primarily the work of the student.

STUDENT DESIGN CONTEST

A Student Design Contest is also being held. Obtain the design kit, rules, and award details from the website.

AUTHOR SUBMISSION SCHEDULE



LEGEND:

Submission Deadline

Notification

Regular Papers

Abstract-Reviewed Papers

Special Sessions

Workshops & Tutorials

Experiments & Demos

		Regular Papers	Abstract-Reviewed Papers	Special Sessions	Workshops & Tutorials	Experiments & Demos
Submission Portal Open	Dec. 1, 2020					
Regular Paper & Proposal (SS & W/T) Submission	Deadline Extended Feb. 1, 2021					
Proposal Acceptance	Feb. 8, 2021					
Paper Decision Notification	Mar. 8, 2021					
Abstract-Reviewed & SS Paper & E/D Proposal Submissions Due	Mar. 22, 2021					
Revised Papers Due	April 4, 2021					
Final Decision Notifications	May 3, 2021					
Final Materials Due	May 17, 2021					

SEE WEBSITE FOR MORE DETAILS
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