



ICEM2022 – Valencia, Spain, September 5-8, 2022

Special Session on

Additive Manufacturing Approach in Electric Motor Design, Its Opportunities and Challenges

Organized and co-chaired by:

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Call for Papers

The additive manufacturing approach is considered a new manufacturing technology method and is evolving dynamically in recent years. It is advancing and achieving as the key enabling technology in a wide range of applications, such as the aerospace and automotive industries. This novel approach opens a new path to overcome the conventional manufacturing problems and challenges in the design of electric motors by providing more design freedom, new ranges of materials, lightweight and complex geometries. According to demands metrics such as lightweight and high-power density motors. This offers clear motivation to develop advanced design methods with new materials and a novel additive manufacturing (AM) approach.

Contrary to the mechanical industry where the AM is used actively, AM manufacturing is making its first steps in electrical machine production. Therefore, this special session on "Additive Manufacturing Approach in Electric Motors Design, Its Opportunities and Challenges" provides a forum for researchers and practitioners to exchange their latest theoretical and technological achievements and identify critical issues and challenges for future investigation in the design of electric machine drives using AM approach. The submitted papers are expected to raise original ideas and potential contributions to theory and practice.

Topics of interest include, but are not limited to:

- Iron core;
- Winding and insulations materials;
- Permanent magnet;
- Mechanical and structural parts;
- Thermal management systems;
- Integrated electrical machines and drives (IMD);
- The multi-material systems for the fully additively manufactured electrical machines.

Submission of papers: deadline follows the deadline for the regular papers.

All the instructions for paper submission are included in the conference website:

<http://www.icem.cc/2022>