



## SPECIAL SESSION SS02

**2020 IEEE 19th International Power Electronics and Motion Control Conference (IEEE-PEMC 2020)** will include Special Sessions, which are organized on highly specialized topics within conference scope that were not included in the previous editions of the conference. The organizers of those sessions must observe the scope of the conference and submit session proposal to the Conference secretariat for acceptance. Please provide data of the session included in the form below. At least one (and max. two) session organizer is required to provide contact data and short biography.

### Session details:

<b>Session title: <u>Superconducting machines and energy converters</u></b>	
<p>Session description (session scope, novelty, goals; 100-200 words):</p> <p>This session is intended to bring together specialists in the field of high temperature superconducting motors. Contributions may include simulations and machine designs, and built prototypes with original structures, or other machines under construction. The presentations may also focus on technologies related to the development of superconducting machines, such as pulsed field magnetization techniques, superconducting wires and tapes, cryogenics, rotating joints and energy converters dedicated to superconducting machines.</p>	<p>Keywords, topics:</p> <p><u>High Temperature Superconductors;</u>  <u>Cryogenics; Motors and generators;</u>  <u>Modelling; AC losses; Energy converters;</u></p>

### Organizer(s) details:

First (main) organizer (title, name and surname): <u>Prof. Jean Lévêque</u>	
E-mail: <u>Jean.Leveque@univ-lorraine.fr</u>	Affiliation: <u>GREEN – Université de Lorraine</u>
Short bio: <u>Jean Lévêque</u> is Full Professor at University of Lorraine. His research interests include two main topics, the application of the superconducting materials in electrical engineering, especially superconducting motors and fault current limiters, and electrical characterization and modelling of superconducting materials.	
Second (optional) organizer (title, name and surname): <u>Dr. Kévin Berger</u>	
E-mail: <u>Kevin.Berger@univ-lorraine.fr</u>	Affiliation: <u>GREEN – Université de Lorraine</u>
Short bio: Kévin Berger is Associate Professor at the University of Lorraine, Group of Research in Electrical Engineering of Nancy (GREEN), in France since 2010. His main research topic concerns the magnetization of HTS bulks by Pulsed Field Magnetization for practical applications such as electrical motors and NMR systems. He is the organizing Committee Chair of the 7th edition of the International Workshop on Numerical Modelling of High Temperature Superconductors, will be held in Nancy, France, from May 26th to 29th, 2020. <a href="http://hts2020.eu/">http://hts2020.eu/</a> . K. Berger is currently engaged in two H2020 projects: IMOTHEP related to the “Future propulsion and integration: towards a hybrid/electric aircraft” and SMAGRINET regarding “Smart grid competence hub for boosting research, innovation and educational capacities for energy transition” <a href="https://www.smagrinet.eu/">https://www.smagrinet.eu/</a> . Since many years, he is an expert in the TC 90 of the International Electrotechnical Commission (IEC) which prepare International Standards (IS) related to superconducting materials and devices.	

