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Proposal for IECON 2012 Special Session
Send your proposal to the SS chairs

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Special Session on: **Electric Machines for Electric and Hybrid Vehicles**

Special Session Organizers (names and contact emails):

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Technical Outline of the Session (50 words) and Topics:

Electric and hybrid vehicles have been identified to be the most viable green transportation in the foreseeable future. Traditional electric machines, including motors and generators, cannot satisfy the stringent requirements for vehicular operation which desires high efficiency over wide speed range, high power and torque densities, high reliability and controllability, and maintenance free. This special session aims at showcasing the latest development of electric machines in the area of electric and hybrid vehicles.

Topics of interest include, but not limited to:

- Induction machines, permanent magnet brushless machines and switched reluctance machines
- Transverse flux machines, axial flux machines, vernier machines and hybrid machines
- In-wheel motors with and without gears
- Magnetic gears and magnetic-geared machines
- Integrated-starter-generators (ISG)
- Electric variable transmission systems
- Fault-tolerant machine design and control
- Electromagnetic, thermal and mechanical design aspects and analysis methods
- New breeds of magnet-less machines
- Special machines for vehicular operation