

**Date: July 28, 2009**

**Liaison Report from the Motor Sub-Committee (MSC) of the IEEE PES Electric Machinery Committee**

**To: Generator Sub-Committee (GSC) of the IEEE-PES-EMC**

**Introduction:** The Motor Sub-Committee (***MSC***) of the IEEE-PES-EMC was formed in 2006. It has thus far had active participations from the members, and held meetings during the three annual PES conferences, namely in (1) Montreal, Quebec, Canada, (2) Tampa, Florida, USA, and (3) Pittsburgh, Pennsylvania, USA.

**The MSC currently has the following officers:**

Past Chair: Prof. M. Azizur Rahman (from the Memorial University of Newfoundland, Canada)

Chair: Dr. M. Abul Masrur (from US Army RDECOM-TARDEC, Michigan, USA)

Chair-Elect: Dr. Nick Stranges (from General Electric, Canada)

Vice-Chair: Prof. Akira Chiba (from Tokyo University of Science, Japan)

Secretary: Prof. Z. Q. Zhu (from University of Sheffield)

**MSC currently has the following Working Groups:**

WG 1 Awards & Recognition: Dr. Haran Karmaker (to be replaced)

WG 2 PM Motors: Prof. Alfio Consoli

WG 3 Advanced Control: Prof. M. N. Uddin

WG 4 Induction Motors: Prof. Chunting (Chris) Mi

WG 5 DC Motors: Dr. Vijay Garg (to be merged with PM Motors)

WG 6 Special Motors: Prof. Fazlur Rahman

WG 7 EMC and Radiation Issues in Electrical Machines: Mr. Mark Steffka (from General Motors, Michigan)

WG 8 Switched Reluctance Motors: Prof. Nasrudin Abd Rahim

WG 9 Standardization for the Testing of PM Motors: Dr. Haran Kamaker (from TECO Westinghouse)

**Present and Past Activities:**

During the years 2006, 2007, and 2008, the MSC was able to attract significant number of people from both the academia and the industry to participate in the various paper and panel sessions during the annual meetings, through submission and ultimately the presentation of papers. In 2009 also, it has been able to attract people with submissions of highly relevant papers in the areas of: (1) Characteristics And Control Strategies of Magnetic Bearing Machines and Brushless Machines, (2) Permanent Magnet Motors, (3) Shunt Characteristics, Fuzzy Logic, Transient Improvements of

Induction Machines. The papers to be presented this year and the ones presented in years 2006 -08, were by experts from a varied geographical areas of the world. This helped the MSC interface with different schools of thought, thus enriching the overall content of the technical materials in the conference.

In the list of Working Groups indicated above, two are relatively new. Dr. Haran Karmaker from Westinghouse is leading this group on Standardization for the Testing of Permanent Magnet motors. He is replacing Mr. Calum Cossar from University of Glasgow who could not continue due to pressing demand on his time in his own organization. The other working group is on EMC (Electro-Magnetic Compatibility). EMC phenomenon is of great concern in the industry, with particular reference to the automotive industry, and also others. Mr. Mark Steffka from the General Motors, who is an expert in this area, is serving as the WG Chair for this group. Although MSC and GSC have their own agendas, it is believed that there are good amount of activities between them which can be synergistic in nature. Standardization and EMC working groups are particular examples on that.

It is very important that we should proactively try to find the various aspects where GSC and MSC can continually work together in a synergistic manner. A mechanism for that is necessary. Perhaps off-line, after this meeting, the various members of the two executive committees can discuss the areas of cooperation and take those up. This can happened through electronic and other means after the conference is over.

Finally, due to worldwide economic situation which has been felt by everyone, it has become more and more difficult for quite a good number of people from the membership to attend various meetings and conferences. It was mentioned in the past and ought to be reiterated that with the internet and other electronic technologies, not only during the annual conference, but also during other periods of the year, it is possible for the membership to connect to each other not just by email, but also by other interactive media. This will help all of us attract people from different parts of the world to more actively engage in the process. Physical presence may not really be always necessary these days to successful activities in various committees. Of course, all of these need funding and some resources, which probably are not too much. We should now more seriously think in these terms and come up with a solution. Otherwise the objectives of various committees, including GSC and MSC are likely to suffer.