AMEREM/EUROEM Memos
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Proposal to Organize a Technical Program Committee for the AMEREM/EUROEM Symposium

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Introduction

The AMEREM/EUROEM meetings have a rich history behind them. In 1978, Dr. Carl Baum organized the first Nuclear Electromagnetic Pulse Meeting or the NEM in Albuquerque, NM with support from Summa Foundation. This first meeting brought together scientists/engineers from the U.S. and Western Europe. At some point, the NEM was renamed as High-Power Electromagnetics Meeting or HPEM. When this meeting was held in 1994 in Bordeaux, France, it was renamed as EUROEM and subsequently, the meetings in North America have been called the AMEREM. These meetings have been held in every even year since 1978.

With regards to Ultra-wideband/Short Pulse or UWB/SP, the first two meetings were held in Brooklyn Polytechnic, in New York. After these initial meetings Prof. Leo Felsen asked Carl Baum to include them in AMEREM/EUROEM and presentations in these meetings have been turned into full–length papers resulting in the publication of 9 books, titled ***Ultra-Wideband, Short Pulse Electromagnetics***. In recent times, these books have been published by Springer.

All of the above has been possible by the dedicated efforts of several individuals, somewhat on an *adhoc* basis. Going forward, it is desirable to formalize the organization of these meetings. Bill Radasky made a strong and eloquent presentation on how to go about formalizing the organization of future meetings, at the Permanent NEM Committee meeting held during AMEREM 2010 in Ottawa.

Todate, AMEREM/EUROEM meetings have been held in two continents, i.e., North America and Europe. It is likely that this may extend to Asia in the future.

Formation of Technical Program Committee

This proposal follows from the presentation by Bill Radasky at the end of the AMEREM 2010 Conference in Ottawa. The basic proposal was to create a standing Technical Program Committee (TPC) for our conference (as done by most major conferences such as EMC Zurich, IEEE EMC, and Asia-Pacific EMC) so that there is more consistency in the papers received and less overlap between sessions. This avoids

giving all of the technical responsibility to the Conference Chairman, who has enough work as it is. The Chairperson of the TPC will work closely with the Conference Chairman, and he will develop lessons learned from each Conference to help the technical organization of the next conference. The TPC Chairperson will be assisted by a Vice-Chairperson. It is important to create a permanent foundation for the technical aspects of the conference, so it can continue in the future as active participants retire.

The Summa Foundation officers in Ottawa gave approval to the idea of forming a TPC and asked for volunteers to prepare a paper to develop and describe how the TPC would be organized. Dave Giri, Jean-Philippe Parmantier and Bill Radasky accepted this task. The plan was to develop a first draft of the proposal (this document), which would then be more widely circulated for final approval and implementation.

During the early discussions within our committee there was some sentiment to create 3 major technical committee chairs for HPE, UWB and UXO, but it was decided upon later reflection that it would be better to organize separate TCs that would be responsible for specific technical areas and to not create an extra layer of bureaucracy. The papers within the TCs could still be organized into the three topical areas, depending on the number of papers accepted. The initial suggestions for TCs and prospective Chairs are listed at the end of this paper.

It was decided in Ottawa that it would be good to identify at the beginning of this process the Chair of the Technical Program Committee (TPC). Dave Giri was nominated as TPC Chair, and he accepted. It has also been decided to identify a TPC Vice-Chair who can assist the TPC Chair. Bill Radasky has graciously agreed to serve as TPC Vice-Chair.

Major Functions of the TPC Chair:

The TPC Chair has the responsibility to organize the schedule of paper submissions (done this year by the Conference Chair) and the overall review process for the TPC Technical Committees. He will allocate submitted papers that are not well defined to particular TCs, as needed. He will also coordinate with the Conference Chairman regarding the number of papers accepted, regarding the organization of parallel sessions, and to provide suggestions (in consultation with the TC Chairs) for keynote (if desired) and plenary presentations. It is also possible that the TPC Chair may need to recommend to the TC Chairs changes in the acceptance rate or number of poster papers due to too many or too few papers submitted for a particular conference.

Major Functions of the TC Chairpersons:

With regard to the TC Chairs, they are responsible for encouraging their colleagues to submit papers to their TC area, they may suggest and advertise special or invited sessions within their scope area (or in cooperation with another TC), they must organize the technical review of papers within their TC (and decide on accept/reject/poster), they should suggest the order of accepted papers to be presented in their session, and they should be prepared to chair the session at the conference (or suggest someone else). If a given TC is found not to attract many papers at a conference,

then the TPC Chair, in consultation with all of the TC Chairs, may decide to delete a TC for the next conference. Of course new TCs may also be added in the future.

Initial TC Recommendations and Chairs (some vice-chairs are listed)

Technical Committee	**Broad Area**	**Description**	**Proposed Chairperson(s)**
TC 1	HPEM	Sources, Antennas and Facilities (both wideband and narrowband)	Prather , Serafin
TC 2	HPEM	Applications of Coupling to Structures and Cables	Bäckström, Fichte
TC 3	HPEM/UWB	Measurement Techniques	Sabbath , Kaelin
TC 4	HPEM	IEMI Threats, Effects and Protection	Radasky, Hoad
TC 5	HPEM	System-level Protection and Testing	Wraight, Månsson
TC 6	HPEM	Lightning EM Effects	Rachidi
TC 7	HPEM	Numerical Models and Modeling	Tkachenko Parmantier
TC 8	HPEM	Bioeffects and Medical Applications of EM Fields	Lovetri
TC 9	UWB	Antenna Design, Radiation and Propagation	Giri, Farr
TC 10	UWB	Radar Systems (Signal Processing and Security Aspects)	Mokole
TC 11	UWB	Target Detection, Discrimination and Imaging	?
TC 12	UXO	Landmine and IED Detection and Neutralization	Rhebergen