

AMEREM/EUROEM Memos
Memo 02

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Description of Technical Committees for EUROEM 2012

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In the earlier Memo 1 in this series, the formation of the Technical Program Committees (TPC) was described. There have been some revisions to the Technical Committees (TC). The purpose of this Memo is to describe the topics covered by each TC.

Description of TCs for EUROEM 2012

Technical Committee	Broad Area	Description	Chairperson, Vice Chairperson
TC 1	HPEM	<p>Sources, Antennas and Facilities -(both wideband and narrowband) Concerns the creation of large fields to carry out system level tests.</p> <ul style="list-style-type: none"> - HPEM and UWB sources, - HPEM and UWB antennas - HPEM test facilities (EM simulators, Mode stirred chambers, EM installations ...) <p>*UWB antenna design subjects must be submitted to TC9. *This TC includes all EMP and lightning related aspects</p>	<i>Prather, Giri</i>
TC 2	HPEM	<p>Applications of Coupling to Structures and Cables Concerns applications at large system level</p> <ul style="list-style-type: none"> - HPE coupling on transportation systems and ground installations - HPE Test results and procedures - Numerical simulation and results of HPE <p>* Aspects related to lightning must be addressed in TC6</p>	<i>Bäckström, Fichte</i>

TC 3	HPEM/UWB	<p>Measurement Techniques</p> <p>Concerns all the issues related to the quality, reliability and methodology of HPEM and UWB measurements</p> <ul style="list-style-type: none"> - Sensors - Data transmission - Procedures - Metrology <p>*Specific lightning measurement techniques must be addressed in TC6</p> <p>Specific medical measurement techniques must be addressed in TC8</p>	<i>Sabath, Wraight</i>
TC 4	HPEM	<p>IEMI Threats, Effects and Protection</p> <ul style="list-style-type: none"> - HPE EM susceptibility - HPE effects on electronics - HPE protection of electronics - HPE tests on electronics - Standardization <p>*System level is addressed in TC5</p>	<i>Radasky, Hoad</i>
TC 5	HPEM	<p>System-level Protection and Testing</p> <p>Includes the problem of testing and protection of transportation systems and ground installations.</p> <ul style="list-style-type: none"> - HPE System level EM susceptibility - HPE System level effects - HPE System level protection - Standardization <p>*Electronics issues are to be addressed in TC4</p> <p>*Does not include lightning protection and testing</p>	<i>Kaelin, Månsson</i>
TC 6	HPEM	<p>Lightning EM Effects</p> <p>Includes any lightning related topic except sources and simulators to be addressed in TC1.</p> <ul style="list-style-type: none"> - Lightning susceptibility - Lightning effects - Lightning measurements - Lightning protection - Lightning standardization <p>*Concerns both electronic equipment and systems</p>	<i>Rachidi, Rubinstein</i>
TC 7	HPEM	<p>Analytical and Numerical Models and Modeling</p> <p>Concerns the development of EM coupling and effects models and their validation.</p> <ul style="list-style-type: none"> - Models and numerical modelling - Validation of models (with measurements, numerical simulation cross-comparisons) <p>*Numerical applications on complex systems (i.e. EM simulation) must be addressed in TC2 for HPE and TC6 for lightning</p>	<i>Tkachenko, Parmantier</i>

TC 8	HPEM	<p>Bioeffects and Medical Applications of EM Fields</p> <p>Concerns all of the effects on the human body.</p> <ul style="list-style-type: none"> - EM concepts - Models - Measurements 	<i>Lovetri, Venkataraman</i>
TC 9	UWB	<p>Antenna Design, Radiation and Propagation</p> <p>Concerns UWB antennas with the following sub-topics</p> <ul style="list-style-type: none"> - Concept of UWB antennas - Design concepts - Performance and characteristics - Models of antennas - Validations (with measurements, with numerical simulation) <p>*HPEM antenna issues are to be addressed in TC1.</p>	<i>Giri, Farr</i>
TC 10	UWB	<p>Radar Systems (Signal Processing and Security Aspects)</p> <p>Concerns all the problems related to radars, the fields and the waveforms they radiate.</p> <ul style="list-style-type: none"> - Waveforms - Signal processing - Specific related effects - Standardization <p>*HPE related issues must be addressed to TC1</p> <p>*This topic includes HIRF on aircraft certification related issues</p>	<i>Mokole, Baker</i>
TC 11	UWB	<p>Target Detection, Discrimination and Imaging</p> <ul style="list-style-type: none"> - Identification of targets - Waveform optimization - Imaging and classification 	<i>Serafin</i>
TC 12	UXO	<p>Landmine and IED Detection and Neutralization</p> <ul style="list-style-type: none"> - Concepts - Applications - Numerical simulation and measurements - Neutralization 	<i>Rhebergen, Carel</i>
TC 13	HPE/ UWB/ UXO	<p>Poster session</p> <p>Any of the topics addressed form TC1 to TC12</p>	<i>Besnier, Vollaire</i>

Major Functions of the TC Chair and Vice 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.