

**SPECIAL ISSUE ON:  
NON-INVASIVE ELECTROMAGNETIC BRAIN STIMULATION**

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For many decades, electromagnetic brain stimulation for clinical applications has been investigated mainly with invasive techniques and this has limited its applicability. Non-invasive methods for brain stimulation can make this technique more amenable to clinical practice and present new application possibilities. Accordingly, recent research has focused on non-invasive magnetic or electric stimulation using either DC, AC or more general current stimulation methods (generalized transcranial current stimulation or tCS). To explore the possibilities and limitations of these approaches, we call for papers in the field and ask the authors to present new findings on non-invasive transcranial electromagnetic brain stimulation, including new modeling approaches for current distribution and related electromagnetic fields and their effects. We are interested in experimental as well as clinical studies on the effect of transcranial electromagnetic stimulation using various stimulation patterns. Examples of specific areas of interest include:

- EEG/EMG correlates of tDCS or tACS
- Applications in neuropsychiatric disorders (e.g., Parkinson's disease, dementia, minimally conscious state (MCS), pervasive vegetative state (PVS), pain and depression)
- Applications in memory/learning consolidation, applications in sleep-wakefulness management, new instrumentation developments related to tCS, and applications in computer-brain interaction.

We expect a set of high-level manuscripts that will form a special focus issue of the IEEE Transactions on Neural Systems and Rehabilitation Engineering entitled "Non-invasive Electromagnetic Brain Stimulation: State-of-the-Art and Future Prospects".

The papers should follow the guidelines for authors of papers submitted to IEEE journals.

**Submission Deadline: September 30, 2011.**

**Expected Publication: May 2012.**

IMP: Kindly note that all submissions are required to be online through the manuscript central for TNSRE. Any privately emailed manuscript will not be considered a valid submission. Thank you.