

IEEE Transactions on Neural Systems and Rehabilitation Engineering

SPECIAL ISSUE ON:

CLOSING THE LOOP VIA ADVANCED NEUROTECHNOLOGIES

We are soliciting original contributions that discuss advanced technologies addressing the challenges involved in closed-loop operation of neural interfaces and neurotechnologies. Topics of interest for the special issue include (but are not limited to):

- Emerging applications of closed-loop neural interfaces and their potential challenges
- Microelectrode technologies for simultaneous recording and stimulation
- Stimulus-resistant neural recording front-ends
- Activity-dependent neural stimulation and its physiological effects
- Advanced technologies for suppression/rejection of stimulus artifacts
- Closed-loop operation with biomimetic systems
- Neurotechnologies that heavily rely on biofeedback

Papers should include experimental results from pre-clinical tests with laboratory animals or *in vitro* tests in cell-culture studies to evaluate the efficacy of the proposed neurotechnology in addressing closed-loop operation challenges. Papers will be reviewed according to the standard peer review process of the IEEE Transactions on Neural Systems and Rehabilitation Engineering (TNSRE). Manuscripts should conform to the standard requirements for IEEE Transactions and should be submitted electronically through the TNSRE webpage (<http://tnsre.bme.jhu.edu>) following the same steps for submission as for regular papers.

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Important Dates:

Manuscript submission: **August 1, 2011 (EXTENDED)**

Notification of acceptance: November 1, 2011

Final manuscript submission: January 1, 2012

Tentative publication date: March 2012