



CENTER FOR SENSORIMOTOR NEURAL ENGINEERING

Improving lives by connecting brains and technology

August, 2017

Honors and Awards

- Congratulations to Howard Chizeck, Josh Smith and Blake Hannaford for being awarded 2017 Amazon Catalyst Fellowships:
<http://www.ee.washington.edu/spotlight/8-faculty-named-2017-amazon-catalyst-fellows/>
- CSNE partner DO-IT receives the Susan M. Daniels Mentoring Hall of Fame award:
<http://www.washington.edu/uwit/about-us/stories/do-it-honored-with-national-award-for-mentoring-youth-with-disabilities/>

Upcoming Seminars, Lectures, Courses, Conferences

- Thursday, August 3, 4:30 pm, Guggenheim Hall 220, Rudy L. Horne, Associate Professor of Mathematics, Morehouse College, Math Consultant for the movie “Hidden Figures”, “Hidden Figures: Bringing Math, Physics, History and Race to Hollywood.”
- 2017 CSNE summer researchers in the Research Experience for Undergraduates, Research Experience for Veterans, Research Experience for Teachers, and Young Scholars Program will give short talks and participate in a poster session on Wednesday, August 16, 2017, at the CSNE (9 am to 2 pm). Everyone is invited to attend.

New CSNE Publications

- Zhang, C.Y., Aflalo, T., Revechkis, B., Rosario, E.R., Ouellette, D., Pouratian, N. and Andersen, R.A., Partially mixed selectivity in human posterior parietal association cortex, *Neuron*, doi: 10.1016/j.neuron.2017.06.040.
- Gilbert, F., Goddard, E., Noel, J., Viaña, M., Carter, A. and Horne, M. I miss being me: phenomenological effects of deep brain stimulation. *AJOB Neuroscience*, 8:96-109, 2017.
- Wang, J., Narain, D., Hosseini, E. and Jazayeri, M., Flexible control of speed of cortical dynamics, bioRxiv 155390; doi: <https://doi.org/10.1101/155390>
- Sullivan, L.S. and Illes, J., Models of engagement in neuroethics programs: Past, present and future, in *Debates About Neuroethics: Perspectives on its Development, Focus, and Future* (edited by Eric Racine and John Aspier, Cham (Switzerland): Springer International Publishing, 2017.
- Moritz, C.T., and Ambrosio, F., Regenerative rehabilitation: Combining stem cell therapies and activity-dependent stimulation, *Pediatric Physical Therapy*. 29:S10–S15, 2017.



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CSNE in the News

- Brainiacs on the brain:
http://www.dailyuw.com/science/article_77600d9c-6d8c-11e7-a631-7b38f21dc2e7.html
- UW team achieves a factor of 10 performance improvement for BCI Recording Systems:
<https://www.ee.washington.edu/spotlight/researchers-advance-state-of-the-art-neural-recording-for-bci-applications/>

New CSNE Blog Posts

- Engineering data security for brain-computer interfaces:
<http://csne-erc.org/engage-enable/post/engineering-data-security-brain-computer-interfaces>
- Inviting neural engineers to proactively consider the ethical implications of their work:
<http://csne-erc.org/engage-enable/post/inviting-neural-engineers-proactively-consider-ethical-implications-their-work>

Recent Papers of Interest to the CSNE Community

- Pels, E.G.M., Aarnoutse, E.J., Ramsey, N.F., Mariska, D., and Vansteensel, J., Estimated prevalence of the target population for brain-computer interface neurotechnology in the Netherlands, *Neurorehabilitation and Neural Repair*, 31:677 – 685, 2017.
- Bendel, M.A. et al., Spinal cord stimulator related infections: Findings from a multicenter retrospective analysis of 2737 implants, *Neuromodulation*. 2017 Jul 20. doi: 10.1111/ner.12636.
- Miranda, P.C., Salvador, R., Wenger, C. and Fernandes, S.R., Optimizing electric-field delivery for tDCS: Virtual humans help to design efficient, noninvasive brain and spinal cord electrical stimulation, *IEEE Pulse*. 2017 Jul-Aug;8:42-45. doi: 10.1109/MPUL.2017.2701259.

Grant Opportunities

- Sloan Research Fellowship:
<https://sloan.org/fellowships>
- BRAIN Initiative: New Concepts and Early - Stage Research for Large - Scale Recording and Modulation in the Nervous System (R21):
<https://grants.nih.gov/grants/guide/rfa-files/RFA-EY-17-002.html>

Please send additional news and events items for inclusion in this newsletter to Dr. Eric Chudler (CSNE, Executive Director) at chudler@uw.edu.