

CENTER FOR SENSORIMOTOR NEURAL ENGINEERING

Improving lives by connecting brains and technology

January, 2017

Honors and Awards

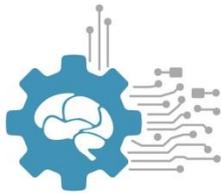
- Congratulations to **Nile Wilson** who wrote a successful University of Washington Student Tech Fee (STF) grant application. STF grants are funded and evaluated by UW students. Nile's STF grant will be used to purchase new equipment at the CSNE, including a laser cutter, an ultrasound-based haptic feedback device, hololenses, soldering stations, and new computers.
- **DiOnetta Jones Crayton** (Associate Dean for Undergraduate Education and Director of the Office of Minority Education, MIT) has been appointed as the CSNE Diversity Co-Director. Ms. Crayton will work with **Sheryl Burgstahler** (CSNE co-Diversity Director) and **Scott Bellman** (CSNE Diversity Manager) to inspire and educate the next generation of neural engineers.

Upcoming Seminars, Lectures, Courses, Conferences

- **James Elder, Ph.D.** (Professor, York University) will present a UW Psychology Department seminar titled "Perceptual Organization of Shape," January 11, 2017, 3:30-4:30pm, Physics-Astronomy A-114.
- **Christine Schmidt, Ph.D.** (Pruitt Family Professor & Department Chair, J. Crayton Pruitt Family Department of Biomedical Engineering, University of Florida) will present a UW BioE Department Seminar titled "Engineering Materials for Functional Nerve Regeneration," January 19, 2017, 12:30-1:20 p.m., Foege S060.
- **2017 Neural Computation and Engineering Connection** will be held January 19-20, 2017. Registration (free) is required (<http://uwin.washington.edu/2016/12/12/register-for-the-2017-neural-computation-and-engineering-connection/>).
- **Carol A. Barnes, Ph.D.** (Regents' Professor, Psychology, Neurology and Neuroscience; Director, Evelyn F. McKnight Brain Institute) will present a Graduate Program in Neuroscience seminar titled "Impact of Aging on Neural Circuits Critical for Memory," January 23, 2017, 3:30-4:30 p.m., UW Health Sciences Center T-747.
- **Kat Steele, Ph.D.** (Assistant Professor, Department of Mechanical Engineering, UW) will present a UW BioE Department Seminar titled "The Ultimate Machine: Engineering to Improve Movement for Children with Cerebral Palsy," January 26, 2017, 12:30-1:20 p.m., Foege N130A.

New CSNE Publications

- **Collins, K.L., Guterstam, A., Cronin, J., Olson, J.D., Ehrsson, H.H. and Ojemann, J.G.,** Ownership of an artificial limb induced by electrical brain stimulation. PNAS 2016 ; published ahead of print December 19, 2016, doi:10.1073/pnas.1616305114



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- Eaton, R.W., **Libey, T. and Fetz, E.E.**, Operant conditioning of neural activity in freely behaving monkeys with intracranial reinforcement, J Neurophysiol. 2016 Dec 28;:jn.00423.2016.

CSNE in the News

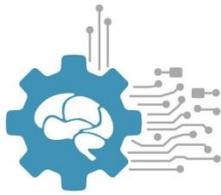
- No peeking: Humans play computer game using only direct brain stimulation
<http://www.washington.edu/news/2016/12/05/no-peeking-humans-play-computer-game-using-only-direct-brain-stimulation/>
- Playing Blind: A Video Game Played via Direct Brain Stimulation
<http://www.labroots.com/trending/neuroscience/4785/playing-blind-video-game-played-via-direct-brain-stimulation>
- Researchers Are Getting Closer to Making Prosthetic Limbs Feel Real
<https://psmag.com/researchers-are-getting-closer-to-making-prosthetic-limbs-feel-real-812b22ffd935#.o0ihjot1o>

New CSNE Blog Posts

- The CSNE welcomes new Diversity Co-Director
<http://csne-erc.org/engage-enable/post/csne-welcomes-new-diversity-co-director>
- Believing in an encouraging future
<http://csne-erc.org/engage-enable/post/believing-encouraging-future>

Recent Papers of Interest to the CSNE Community

- Soekadar, S.R. et al., Hybrid EEG/EOG-based brain/neural hand exoskeleton restores fully independent daily living activities after quadriplegia, Science Robotics, 06 Dec 2016: Vol. 1, Issue 1, DOI: 10.1126/scirobotics.aag3296
- Willett, F.R., et al., Feedback control policies employed by people using intracortical brain-computer interfaces, J Neural Engineering, Volume 14, Number 1, 2017.
- Flint, R.D., et al., Continuous decoding of human grasp kinematics using epidural and subdural signals, J Neural Engineering, Volume 14, Number 1, 2017.
- Lee, S.W., Fallegger, F., Casse, B.D.F. and Fried, S.I., Implantable microcoils for intracortical magnetic stimulation, Science Advances, Dec 9, 2016, Vol. 2, no. 12, e1600889, DOI: 10.1126/sciadv.1600889
- Meng, J., Zhang, S., Bekyo, A., Olsoe, J., Baxter, B. and He, B., Noninvasive Electroencephalogram based control of a robotic arm for reach and grasp tasks, Scientific Reports 6, Article number: 38565 (2016), doi:10.1038/srep38565



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- Evers, K., The contribution of neuroethics to international brain research initiatives, *Nature Reviews Neuroscience*, 18:1–2, 2017.

Grant Opportunities

- BRAIN Initiative: Development of Next Generation Human Brain Imaging Tools and Technologies (U01):
<https://grants.nih.gov/grants/guide/rfa-files/RFA-EB-17-002.html>
- BRAIN Initiative: Proof of Concept Development of Early Stage Next Generation Human Brain Imaging (R01):
<https://grants.nih.gov/grants/guide/rfa-files/RFA-EB-17-001.html>
- Active NIH funding opportunities related to the BRAIN Initiative:
<https://www.braininitiative.nih.gov/funding/index.htm>
- Applications for the McKnight Endowment Fund for Neuroscience Scholar Awards are due on January 9, 2017:
<https://neuroscience.mcknight.org/newsroom/upcoming-deadlines/2017-scholar-awards>

Join the CSNE Facebook site at:

<https://www.facebook.com/groups/134997836537779/>

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