



IRA A. FULTON SCHOOL OF ENGINEERING

“Promoting Neural Plasticity”

Supported by National Science Foundation *SBE-0518697*

Symposium Objective

This symposium is second in a series of three symposia and workshops supported by a grant from the National Science Foundation Science and Learning Centers program to discuss the Science and Engineering of Learning. Our primary goal in this series of symposia discussions is to explore key issues regarding co-adaptation, i.e. the integration of adaptive engineered systems with adaptive biological systems. This goal, in turn, is driven by the desire to design prosthetic devices where adaptive engineered systems are seen as interacting in dynamic ways and across many levels of organization, ranging from the cellular to the behavioral, with adaptive biological systems. The focus on the technology side is on adaptive actuators and sensors and on the IT side on adaptive algorithms and modeling. Plasticity of the living system is a cross-cutting theme. In the symposium life scientists, engineers, mathematicians, and clinician-scientists will discuss limitations and opportunities for anticipated advances in enabling technologies and strategies to promote adaptation and learning in the nervous system.

Agenda : February 15, 2008

- | | |
|------------------|--|
| 8:00 - 8:30 am | Registration |
| 8:30 - 9:00 am | Introductory Remarks
Ranu Jung, PhD Co-Director Center for Adaptive Neural Systems
Associate Professor of Bioengineering |
| 9:00 - 10:00 am | Eberhard E. Fetz, Ph.D.
Professor of Physiology & Biophysics at the University of Washington
http://depts.washington.edu/pbiopage/people_fac_page.php?fac_ID=12
“Adaptive neural control and implantable recurrent brain-computer interfaces” |
| 10:00 - 10:30 am | Break |
| 10:30 - 11:30 am | Leonardo G. Cohen, MD
Chief, Human Cortical Physiology Section and Stroke Neurorehabilitation Clinic. National Institute of Neurological Disorders and Stroke, NIH
http://intra.ninds.nih.gov/Lab.asp?Org_ID=71
“Effects of stimulation of the primary motor cortex on skill acquisition and formation of a motor memory” |
| 11:30 - 12:30 pm | Reggie Edgerton, Ph.D.
Professor in the Department of Physiological Sciences at the University of California at Los Angeles
http://www.physci.ucla.edu/physcifacultyindiv.php?FacultyKey=82
“Bioengineering strategies to recover control of posture and locomotion after a spinal cord injury: solutions at our fingertips” |

Location and Time:

Location: Lattie Coor L1-74, ASU, Tempe, AZ

Date: February 15, 2008

Time: 8:00am - 12:30pm

Contact for further information:

Jeanine Elliott

Phone: 480-965-9489

Fax: 480-727-7624

Map: http://www.asu.edu/map/pdf/asu_tempe_map2007.pdf [Coor Hall COOR 6C]

Parking: http://www.asu.edu/parking/2007-08_ParkingMap.pdf

“designing adaptive engineered systems to promote adaptation in neural systems”