



The Department of Electrical & Computer Engineering Seminar

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Talking from the front of the head: The changing face of "P300" BCIs

P300 BCIs have been prevalent in BCI research for almost 25 years. Until very recently, all P300 BCIs relied on the canonical "flash" paradigm, in which users count each time a target letter flashes. Different research groups have recently shown that P300 BCIs function better when characters move, change color, change to faces, or change in other ways. These manipulations generally do not enhance the P300 as much as other components of the ERP, such as the N200 or N400. Hence, so-called "P300" BCIs will probably look significantly different in the next few years. The canonical flash approach is dying, which is a major change in the dominant paradigm.

Brendan Allison received his PhD in Cognitive Science from the University of California, San Diego in 2003. He has been involved in brain-computer interface (BCI) research for over 15 years, including postdoctoral work at Wadsworth Center, The Scripps Research Institute, and Graz University of Technology. He recently finished leading the Future BNCI Project, an EU-funded effort focusing on major issues in the BCI research community. The project produced a roadmap for BCI research, as well as videos and many other materials to help inform the public about BCIs, available at future-bnci.org.

Tuesday, April 10, 2012
Schiciano B @ 2:45pm
(refreshments provided)
Hosted by Professor Leslie Collins