COMMITTEE:

ITEM: Demonstration of the nationally acclaimed research by Dr. Jose Luis Contreras-Vidal, Director of the Laboratory for Non-invasive Brain-Machine Interface Systems

DATE PREVIOUSLY SUBMITTED:

SUMMARY:

Dr. Jose Luis Contreras-Vidal is developing a non-invasive device that the human brain could use to control prosthetic limbs. His earlier research has demonstrated that movement intentions related to the legs – such as walking, turning and sitting – can be decoded with high accuracy through a scalp electroencephalogram (or EEG), which records the brain’s electrical activity through a skullcap fitted with electrodes that touch the scalp.

This non-invasive technique, Contreras-Vidal said, is counter to what most researchers have long believed: That decoding movement intentions in the brain would require invasive technologies, such as electrodes implanted in the skull.

Contreras-Vidal is director of the Laboratory for Noninvasive Brain-Machine Interface Systems and a professor of electrical and computer engineering. His research has recently been featured by local and national media, including The Economist, the Houston Chronicle (front-page), the Houston Business Journal, KUHF-TV and KTRK-TV.

SUPPORTING DOCUMENTATION: None

FISCAL NOTE: None

RECOMMENDATION/ACTION REQUESTED: Information

COMPONENT: University of Houston System

Renu Khator

CHANCELLOR

DATE 7/26/12

08/15/12
BOR - B1