

# Global Perspectives on Medicine, Rehabilitation and Robotics Webinar Series

April 16<sup>th</sup>, 2025, 5pm-6pm CAT, 11:00am-12:00pm EST



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TC-Rehabilitation and  
Assistive Robotics

## At-home stroke neurorehabilitation: Design and Validation of a Low-Cost Mobile EEG-Based Brain-Computer Interface



**Jose L. Contreras-Vidal, Ph.D., FIEEE, FAIMBE**

**Hugh Roy and Lillie Cranz Cullen Distinguished Professor; Center Director, NSF IUCRC BRAIN; Co-I, Music, Dementia Research Network; Director, NSF IUCRC BRAIN REU and REM Sites; Director, NIH R25 Neuromotor Training Program Director, Noninvasive Brain-Machine Interface Systems Lab; Department of Electrical & Computer Engineering, University of Houston**

Dr. Jose 'Pepe' L Contreras-Vidal is an elected Fellow of the IEEE and AIMBE for his pioneering contributions to development of brain-machine interfaces for controlling wearable exoskeletons for rehabilitation, and for mapping art-evoked brain activity. He led the first comprehensive knowledge integration assessment of the global state of clinical trials of implantable brain-computer interfaces (iBCI) published in Nature Reviews Bioengineering. His work at the nexus of art and science is opening new windows to study the neural basis of human creativity while advancing the understanding of the arts as an active neuromodulator of brain function with applications to the development of personalized arts prescriptions. His art-science team received the Chamber Music America's 2025 Interdisciplinary Collaboration of the Year for "Meeting of Minds", which was performed at the United Nations' 2024 AI for Good" Summit in Geneva, Switzerland. Dr. Contreras-Vidal is a member of the National Advisory Board for Medical Rehabilitation Research at the U.S. National Institute of Health. His career development in biomedical engineering was highlighted by the journal Science.

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**BRAIN, <http://nsfbrain.org/>; Co-I, Music, Dementia Research Network, <https://mdrn.ucsf.edu>;**

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