



A graduate student takes part in a simulated hearing test in the social sciences sound-proof audiometric testing chambers. Photo by Kouros Saberi, cognitive sciences.

CENTER FOR COGNITIVE NEUROSCIENCE

INVESTIGATE

The Center for Cognitive Neuroscience uses advanced brain imaging, computer modeling and neuromorphic engineering to investigate how brain function enables mental abilities such as language, learning and memory, vision, hearing, movement, emotion, attention, decision making, brain plasticity and more.

Center scholars study how dysfunctions of the brain cause mental disorders such as Alzheimer's disease, autism, stroke-induced language deficits, stuttering and hearing loss.

INNOVATE

The center uses an innovative, interdisciplinary approach that integrates expert knowledge in psychology, neuroscience and neurology, biomedical engineering, quantitative modeling and robotics with a wide range of technologies and research tools/approaches including 3D lesion-symptom mapping, anechoic sound booths, brain-computer interface technologies, diffusion imaging, fMRI, EEG, MEG, TMS, and quantitative and robotic modeling.

IMPACT

Cognitive deficits caused by brain injury or atypical development impact millions of Americans. Research by the center's scholars seeks to understand how the brain creates the mind to enable communication, perceptual understanding, action, learning, memory and thought.

Basic understanding of the mind and brain leads to insights on cognitive disorders and new diagnostic and treatment approaches. It also fosters development of new applied technologies in brain inspired computers.

Recent research has generated new models for understanding stuttering and certain forms of aphasia, and novel methods for diagnosing Alzheimer's disease.

MAKE A DIFFERENCE

A gift to the center has the power to transform individuals and communities and truly make a difference. Contact us today or visit us online at www.socsci.uci.edu to learn how past donations have helped fund our future leaders.