# DESCRIPTION

The discipline of neurodesign is a highly interdisciplinary one, while at the same time in the process of maturing towards real-life applications. The breakthrough about to be achieved is to close the loop in communication between neural systems and electronic and mechatronic systems and actually let the nervous system adapt to the feedback from the man-made systems. To master this loop, scientists need a sound understanding of neurology, from the cellular to the systems scale, of man-made systems and how to connect the two. These scientists comprise medical scientists, neurologists and physiologists, engineers, as well as biophysicists. And they need the topics in a coherently written work with chapters building upon another.

# ABOUT THE AUTHOR

Ranu Jung holds the Wallace H. Coulter Eminent Scholars Chair in Biomedical Engineering at Florida International University, USA where she is Professor and Chair of the Biomedical Engineering Department. She joined Florida International in 2011 from Arizona State University where she was founding co-director of the Center for Adaptive Neural Systems. She has also co-founded Advensys LLC, a small business R&D company and previously was President of the Organization for Computational Neurosciences, Inc. a non-profit that serves a global community of computational neuroscientists. Jung received her first degree in Electronics & Communication Engineering from National Institute of Technology-Warangal, India and her Masters and Doctorate degrees in Biomedical Engineering from Case Western Reserve University, USA. She is actively engaged in the development
of neurotechnology that is inspired by biology, is adaptive and could be used to promote adaptation in the nervous system to overcome neurological disability or trauma.

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