

IEEE SMCS Distinguished Lecturer Program

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BIO



Bio: Dr. Robert Kozma (Fellow IEEE; Fellow INNS). He holds a Ph.D. in Applied Physics (Delft University of Technology, The Netherlands). Since 2000, he has been Professor at the Department Mathematics and Department of Computer Science, the University of Memphis, TN, USA. He is funding Director of the Center for Large-Scale Intelligent Optimization and Networks (CLION), FedEx Institute of Technology, Memphis, TN. Visiting positions include Professor at the Innovation and Research Centre at Obuda University; Professor of Computer Science, University of Massachusetts Amherst, MA; US Air Force Research Laboratory, Sensors Directorate, WPAFB, OH; Lawrence Berkeley Laboratory (LBL), Berkeley, CA; NASA Jet Propulsion Laboratory, Robotics Division, Caltech, Pasadena, CA; Sarnoff Co., Princeton, N.J. Previous affiliations at University of California at Berkeley, EECS and Division of Neurobiology; Otago University, Information Sciences, New Zealand; Tohoku University, Quantum Science and Engineering, Japan.

He has over 40 years of experience with leading research focusing on intelligent signal processing, the design, analysis, and control of artificial and biological intelligent systems, computational neurodynamics, cognitive computing, large-scale graphs and networks, robust decision support systems, robot autonomy and navigation, and brain-computer interfaces. His pioneering work on complex spatio-temporal oscillatory brain dynamics led to the development of the neuropercolation model, a revolutionary approach based on para/ferromagnetic phase transitions, modeled by random graphs and percolation theory over lattice arrays. His decades-long collaboration with the late Walter J. Freeman, UC Berkeley, produced the mathematical model of the cinematic theory of cognition and consciousness.

His research has been funded by National Aeronautics and Space Agency (NASA), US Defense Advanced Research Program Agency (DARPA), Air Force Research Laboratory (AFRL), Air Force Office of Scientific Research (AFOSR), National Research Foundation (NSF), Office of Naval Research (ONR), and others. Dr. Kozma has been the President of the International Neural Network Society (2017-2018), served on the AdCom of the IEEE Computational Intelligence Society (2009-2012), on the Governing Board of IEEE SMC Society (2016-2018, 2020-2025), and International Neural Network Society (2004-2012). He served as Editor-In-Chief of IEEE Transactions of Systems, Man, and Cybernetics – Systems (2020-2025). He received various awards, including the INNS Dennis Gabor Award, IEEE SMCS Meritorious Service Award.