

Curriculum Vitae

Mohan Raghavan, PhD

Assistant Professor

Dept. of Biomedical Engineering

IIT Hyderabad

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CAREER HIGHLIGHTS

- Asst. Prof., Dept. of Biomedical Engg, IIT Hyderabad (2014- present)
 - Founding member of Centre for Healthcare Entrepreneurship at IITH (2014 - present)
 - Post-Doctoral Fellow at National Centre for Biological Sciences-TIFR, Bangalore (2014)
 - Interdisciplinary PhD in Computational Neuroscience at IISc, Bangalore (2008 – 2014)
 - All-India-Rank 12 in Graduates Aptitude Test in Engineering (GATE)- Computer Science - 2008
 - 7 years professional experience in embedded systems and DSP at Motorola India (2001-2008)
 - “Bachelor of Engineering” in Computer Science and Engineering from Bangalore University
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RESEARCH INTERESTS

- Theoretical and Computational Neuroscience
- Computational Physiology and Visualization
- Biomedical Engineering

PUBLICATIONS

Journal

Raghavan Mohan, Amrutur Bharadwaj, Srinivas K.V, Sikdar K. Sujit, "A study of epileptogenic network structures in rat hippocampal cultures using first spike latencies during synchronization events."

Physical Biology 9.5 (2012): 056002.

<http://iopscience.iop.org/1478-3975/9/5/056002>

Sankaranarayani R, **Raghavan Mohan**, Nalini A, Laxmi T.R, Raju T.R, "Reach task associated excitatory overdrive of motor cortical neurons following infusion with ALS-CSF."

Journal of Neural Transmission (2013): 1-10.

<http://link.springer.com/article/10.1007/s00702-013-1071-4>

Raghavan, Mohan, Bharadwaj Amrutur, Rishikesh Narayanan, and Sujit Kumar Sikdar. "Synconset Waves and Chains: Spiking Onsets in Synchronous Populations Predict and Are Predicted by Network Structure." *PloS one* 8, no. 10 (2013): e74910.
<http://dx.plos.org/10.1371/journal.pone.0074910>

ACADEMICS

PhD

Interdisciplinary PhD in Computational Neuroscience, jointly in the departments of Electrical Communication and Molecular Biophysics.

Title: "First-spike-latency codes: Significance, relation to neuronal network structure and application to physiological recordings"

Indian Institute of Science
Bangalore, India
2008 – 2013

Advisors

Dr. Bharadwaj Amrutur
Electrical Communication Engineering
Indian Institute of Science

Dr. Sujit K. Sikdar
Molecular Biophysics Unit
Indian Institute of Science

GRADUATION

Bachelor of Engineering
Computer Science and Engineering
1997-2001
First Class with Distinction (**80.15 %**)
Bangalore University

PROFESSIONAL EXPERIENCE

Motorola India Electronics Limited

Senior Software Engineer
Embedded Systems and DSP
2001-2008

Highlights

- Led a small team of developers in implementation, optimization and support of the AAC-LC audio codec (2006-2008) on TI C55x and C64x
- Optimization of time critical modules in 3G L1 DSP chain on Freescale StarCore processors for Motorola mobile phones and testing/deployment of the same (2005-2006)
- Evaluation and performance testing of audio and speech codecs (2005-2008)

- Design and evaluation of message passing architectures for inter-component communication and implementation of Message sequence charts(MSC) (2003-2005)
- Design and implementation of Bootstrap loaders, serial UART, flash and USB device drivers for Motorola MCore processors and deployment of the same in Motorola factories. (2001-2003)

AWARDS AND RECOGNITIONS

- National Talent Search Examination – Karnataka State Scholar 1995
- All India Rank **12** in Graduates Aptitude Test in Engineering (GATE) – 2008 in the Computer Science and Engineering (CSE) stream.