Name of Faculty: Prof. (Dr.) JESSY JOHN

Designation: Professor

Qualifications

B. Tech.	Biomedical Engineering with First Class	Cochin University of Science and Technology
M. Tech.	~~M. Tech in~~ Biomedical Engineering with First Class	IIT, Bombay
Ph. D.	Biomedical Engineering	IIT, Bombay

Total Experience in years: Teaching - 24
Research - 5

Professional Membership: Life member of:
1. ISTE
2. Indian Academy of Neuroscience and
3. Biomedical Engineering Society of India

Grants Fetched: MODROBS project by AICTE

Interaction with professional institutions: IIT Bombay, EMBS Kerala Chapter.

Area of Interest:
Digital Electronics~~,~~
Signal, Speech & Image Processing
Biomedical Instrumentation
Computational Neuroscience

Subjects Handled:
Medical Physics
Bioelectric Phenomena
Digital Electronics
Microprocessors & Microcontrollers
Biosensors & Transducers

Principles of Radiodiagnosis & Radiotherapy
Biomaterials
Medical Imaging Techniques
Medical Image & Signal Processing

Details of Publication:

1. Sahal, M. A. Jessy John (2014) A Novel Adaptive Algorithm for Holter ECG Data Compression, IEEE Xplore - Proceedings of 4th International Conference on Advances in Computing and Communications (ICACC-2014) 27-29 August 2014, Kerala, India, pp 9-12.

2. Aswathy P. S., Jessy John (2014) Design and development of a Fiber Optic Evanescent wave sensor to evaluate the degree of fermentation in grape wine, OPTICS 2014, International Conference on Light, NIT Calicut, March 18-21, 2014.

3. Sreelekshmi, T.N. Binesh, T. John, J. (2013) QRS complex processing system for telemetry — A comparative study based on filters, IEEE Xplore - Proceedings of the 2013 Annual International Conference on Emerging Research Areas (AICERA) & 2013 International Conference on Microelectronics, Communications and Renewable Energy (ICMiCR), June 4-6, 2012, Kerala, India, pp 1-6.

4. J. John, J. E. Steephen, R. Manchanda (2012) Inactivation of K_{IR} current modulates subthreshold synaptic inpits in striatal medium spiny neurons: A computational study, IFMBE Proceedings of the World Congress on Medical Physics and Biomedical Engineering May 26-31, 2012, Beijing, China, Volume 39, 2013, pp 2232-2235.

5. John Jessy, Manchanda Rohit (2011) Modulation of synaptic potentials and cell excitability by dendritic K_{IR} and K_{As} channels in nucleus accumbens medium spiny neurons: A computational study, Journal of Biosciences, 36, 309-328.

6. John Jessy, Manchanda Rohit (2010) K_{IR} currents suppress neuronal spiking for unsynchronized distal synaptic inputs in striatal medium spiny neurons: A computational study. BMC Neuroscience 11 (Suppl 1): P153.

7. John J, Manchanda R (2009) N-Methyl-D-aspartate receptor channels influence dendritic calcium signaling in nucleus accumbens medium spiny neurons - A computational study, IFMBE Proceedings of the World Congress on Medical Physics and Biomedical Engineering, Munich, Germany: P1123-1126.

8. John J, Manchanda R (2009) A Computational Study on Effects of Pairing BAPs and EPSPs in Medium Spiny Neurons of Nucleus Accumbens, Proceedings of the 2009 International Conference on Artificial Intelligence and Pattern Recognition (AIPR-09), Orlando, USA: P105-111.

9. John Jessy, Manchanda Rohit (2009) K_{IR} channels in nucleus accumbens MS neurons modulate integration of excitatory synaptic inputs: A computational study. BMC Neuroscience 10 (Suppl 1): P33.

10. John J, Manchanda R (2009) Role of Inward Rectifying Potassium Conductances in Propagation and Integration of Synaptic Inputs in Striatal Medium Spiny Neurons, Proceedings of the Thirteenth International Conference on Cognitive and Neural Systems (ICCNS 2009), Boston University, USA: P129.

11. John J, Manchanda R (2008) Computational Investigations into Role of Inward Rectifying Potassium Conductances in Propagation and Integration of Electrical signals in Striatal Medium Spiny Neurons, International Conference on Advances in Neurosciences, Cochin.

12. John J, Manchanda R (2008) A Computational Study on Effects of Pairing BAPs and EPSPs in Medium Spiny Neurons of Nucleus Accumbens (Abstract), NBNI Workshop on Neurobiology & Neuroinformatics, Cochin.

13. John J, Manchanda R (2008) Forward propagation of signals in Medium Spiny neurons of Nucleus Accumbens: Role of KIR channels (Poster), Okinawa Computational Neuroscience Course (OCNC-2008), Japan.

14. John J, Manchanda R (2004) Propogation of Potential Changes in Skeletal Muscles Incorporating Active Membrane Channels, Proceedings of the International Conference on Scientific and Engineering Computation 2004 (IC-SEC-2004), 30th June – 2nd July, Singapore.

Contact: Professor, Department of Biomedical Engineering
Model Engineering College
Thrikkakara, Kochi-682021
jessyjohn@mec.ac.in
Ph:91-9744560350