

Stanford

Prasanth Ganesan

Postdoctoral Research Fellow, Cardiovascular Medicine

Bio

BIO

Prash Ganesan is a Postdoctoral Research Scholar at Stanford University Cardiovascular Medicine. He is a versatile problem-solver at the intersection of engineering and medicine with experience in performing research and development in both academia and medical device industry. He was previously a research fellow at the US National Institutes of Health working on conditions such as cervical cancer and Pneumonia using Deep Learning approaches. In 2019, he was awarded the "Impactful Bioengineering Research" scholarship for his research on atrial fibrillation therapy. His work on atrial fibrillation also received the best paper finalist award from IEEE Engineering in Medicine and Biology society. He is a co-inventor of patents on novel mapping approaches for atrial fibrillation, and has presented his work at prestigious venues such as the Heart Rhythm Society scientific session. In his free time, he enjoys hiking, reading biographies and non-fictional books, and songwriting.

PROFESSIONAL EDUCATION

- PhD, Florida Atlantic University , Electrical Engineering (2019)
- MS, Rochester Institute of Technology , Electrical Engineering (2015)
- BE, Anna University , Electronics Engineering (2013)

STANFORD ADVISORS

- Sanjiv Narayan, Postdoctoral Faculty Sponsor

LINKS

- Computational Arrhythmia Research Lab: <http://web.stanford.edu/group/narayanlab/cgi-bin/wordpress/>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Signal processing, Pattern recognition, Atrial fibrillation, Arrhythmia Mapping

Publications

PUBLICATIONS

- **Atrial fibrillation source area probability mapping using electrogram patterns of multipole catheters** *BIOMEDICAL ENGINEERING ONLINE*
Ganesan, P., Cherry, E. M., Huang, D. T., Pertsov, A. M., Ghoraani, B.
2020; 19 (1): 27
- **Re-evaluating The Multiple Wavelet Hypothesis for Atrial Fibrillation.** *Heart rhythm*
Ganesan, P., Narayan, S. M.
2020
- **Locating Atrial Fibrillation Rotor and Focal Sources Using Iterative Navigation of Multipole Diagnostic Catheters** *CARDIOVASCULAR ENGINEERING AND TECHNOLOGY*
Ganesan, P., Cherry, E. M., Huang, D. T., Pertsov, A. M., Ghoraani, B.
2019; 10 (2): 354–66

- **Iterative navigation of multipole diagnostic catheters to locate repeating-pattern atrial fibrillation drivers** *JOURNAL OF CARDIOVASCULAR ELECTROPHYSIOLOGY*
Ganesan, P., Salmin, A., Cherry, E. M., Huang, D. T., Pertsov, A. M., Ghoraani, B.
2019; 30 (5): 758–68
- **Assessment of Data Augmentation Strategies Toward Performance Improvement of Abnormality Classification in Chest Radiographs.** *Conference proceedings : ... Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society. Annual Conference*
Ganesan, P., Rajaraman, S., Long, R., Ghoraani, B., Antani, S.
2019; 2019: 841–44
- **Performance Evaluation of a Generative Adversarial Network for Deblurring Mobile-phone Cervical Images**
Ganesan, P., Xue, Z., Singh, S., Long, R., Ghoraani, B., Antani, S., IEEE
IEEE.2019: 4487–90
- **Assessment of Data Augmentation Strategies Toward Performance Improvement of Abnormality Classification in Chest Radiographs**
Ganesan, P., Rajaraman, S., Long, R., Ghoraani, B., Antani, S., IEEE
IEEE.2019: 841–44
- **Performance Evaluation of a Generative Adversarial Network for Deblurring Mobile-phone Cervical Images.** *Conference proceedings : ... Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society. Annual Conference*
Ganesan, P., Xue, Z., Singh, S., Long, R., Ghoraani, B., Antani, S.
2019; 2019: 4487–90
- **Developing an Iterative Tracking Algorithm to Guide a Catheter Towards Atrial Fibrillation Rotor Sources in Simulated Fibrotic Tissue**
Ganesan, P., Zilouchian, H., Cherry, E. M., Pertsov, A. M., Ghoraani, B., IEEE
IEEE.2018
- **Development of a Rotor-Mapping Algorithm to Locate Ablation Targets During Atrial Fibrillation**
Ganesan, P., Cherry, E. M., Pertsov, A. M., Ghoraani, B., IEEE
IEEE.2018: 41–44
- **Simulation of Spiral Waves and Point Sources in Atrial Fibrillation with Application to Rotor Localization**
Ganesan, P., Shillieto, K. E., Ghoraani, B., Bamidis, P. D., Konstantinidis, S. T., Rodrigues, P. P.
IEEE.2017: 379–84
- **Characterization of Electrograms from Multipolar Diagnostic Catheters during Atrial Fibrillation.** *BioMed research international*
Ganesan, P., Cherry, E. M., Pertsov, A. M., Ghoraani, B.
2015; 2015: 272954