

Shashank Sathyanarayana

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Current Position

Research Assistant, Department of Radiology, Johns Hopkins University, Interventional MRI: microcoil design and characterization, sequence development for real-time imaging.

Educational Background

- Ph.D. Candidate (2003–present) *Expected graduation: June 2009*, Electrical and Computer Engineering, Johns Hopkins University. Advisor: Dr. Paul A. Bottomley. [CGPA: 3.52].
- M.S. (2001), ECE, Rutgers University, NJ, USA. [CGPA: 3.56]. Advisor: Dr. James L. Flanagan.
- B.E. (1998), ECE, Mysore University, India. [First class with distinction]

Publications

Journal papers

1. **Shashank Sathyanarayana**, Paul A. Bottomley, “MRI endoscopy using intrinsically localized probes”, *Medical Physics*, vol. 36, pp 908-919 (2009)
2. **Shashank Sathyanarayana**, Pelin Aksit, Aravind Arepally, Parag Karmarkar, Meiyappan Solaiyappan, Ergin Atalar, “Tracking Planar Orientations of Active MRI Needles”, *Journal of Magnetic Resonance Imaging*, vol. 26, pp 386-391 (2007)
3. Refaat ElSayed Gabr, **Shashank Sathyanarayana**, Michael Schär, Robert G. Weiss, Paul A. Bottomley, “On Restoring Motion-Induced Signal Loss in Single-Voxel Magnetic Resonance Spectra”, *Magnetic Resonance in Medicine*, vol. 56, pp754-760 (2006)

Conference proceedings and Technical reports

1. **Shashank Sathyanarayana**, Michael Schär, Meiyappan Solaiyappan, Paul A. Bottomley, “Real-time intravascular MRI endoscopy at 3T”, pp 65, *Proceedings of the International Society for Magnetic Resonance in Medicine*, 17 (2009)
2. **Shashank Sathyanarayana**, Michael Schär, Paul A. Bottomley, “MRI endoscopy at 3T”, pp 279, *Proceedings of the International Society for Magnetic Resonance in Medicine*, 16 (2008)
3. **Shashank Sathyanarayana**, Michael Schär, Paul A. Bottomley, “An MRI endoscope?”, pp 492, *Proceedings of the International Society for Magnetic Resonance in Medicine*, 15 (2007)
4. **Shashank Sathyanarayana**, Pelin Aksit, Aravind Arepally, Parag Karmarkar, Meiyappan Solaiyappan, Ergin Atalar, “Tracking Planar Orientations of Active Interventional Devices for Realtime Image Guided Procedures”, pp 3351, *Proceedings of the International Society for Magnetic Resonance in Medicine*, 14 (2006)
5. **Shashank Sathyanarayana**, “A Method for Electronic Mail Dictation & Retrieval Over the Telephone”, CAIP Technical Report, TR-261, Piscataway, NJ., July 2001. *Advisor*: Dr. James L. Flanagan

6. Christopher V. Alvino, Deborah M Grove, James T. Kleban,, **Shashank Sathyanarayana**, “Speech/nonspeech discrimination in reverberant teleconferencing environments for acoustical source location”, The Journal of the Acoustical Society of America, Volume 107, Issue 5, May 2000, pp.2790

Honors

- *Patent Application*: Pelin Aksit, Shashank Sathyanarayana, Meiyappan Solaiyappan, Ergin Atalar, “System And Method For Image-based Interventional Device Tracking And Scan Plane Guidance.” (filed by GE Medical Systems, application 20070249934).
- *Patent Application*: Paul A Bottomley, Shashank Sathyanarayana, “Methods, Systems And Devices For Local Magnetic Resonance Imaging.” (filed by Johns Hopkins University, application 2007026499)

Work Experience

- Microsoft Corporation, USA (2001–2002). Test Engineer, Speech division.
- Wipro InfoTech, India (1998–1999) Systems Engineer, Telecom Division.

Additional Skills

Pulse sequence programming on Philips 3T, scanning experience on GE 1.5T. Experience with RF test equipment - Network Analyzer, Oscilloscope. Familiar with numerical electromagnetic simulation (FEKO). Programming in C, Perl on Windows/LINUX. Proficient in MATLAB.

Relevant Courses

- Magnetic Resonance in Medicine
- Random Signal Analysis
- Analog Integrated Circuits
- Introduction to Micro/Nanotechnology
- Medical Imaging Systems
- Image Processing and Analysis
- Robot Sensors and Actuators
- Matrix Analysis

References:

1. Paul A. Bottomley. Director, Division of MR Research, Department of Radiology, Johns Hopkins University. Phone: 410-955-0366, e-mail: bottoml@mri.jhu.edu
2. William A. Edelstein. Visiting Professor, Division of MR Research, Department of Radiology, Johns Hopkins University. Phone: 410-955-9617, e-mail: w.edelstein@gmail.com