

Kshitiz Kumar

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- Research Interest** Signal Processing, Statistical Learning, Speaker Identification in presence of Channel-Mismatch, Biometric Recognition
- Education**
- Carnegie Mellon University** 2005 - Present
PhD Candidate in Electrical and Computer Engineering
 - Indian Institute of Technology Kharagpur** 2000 - 2004
BTech in Electrical Engineering GPA : 9.14/10
- Work Experience**
- IBM T J Watson Research Labs** Yorktown Heights, NY
Summer Inter Summer 2008
Audio-Video synchronization detection
 - Samsung India Software Operations** Bangalore, India
Software Engineer 2004-2005
Multimedia application development and integration of voice recognition application
 - Georgia Institute of Technology** Atlanta, GA
Laboratory Intern Summer 2003
Equalization of 10GbE multimode fiber link
- Publications**
- Compensation Approaches for Far-field Speaker Identification** NIST SRE 2008
Qin Jin, Kshitiz Kumar, Tanja Schultz, Richard Stern
 - Noise robust speaker identification using Bhattacharya distance in adapted gaussian models space** EUSIPCO 2008
Kshitiz Kumar, Qi Wu, Yiming Wang, Marios Savvides
 - Binaural and Multiple-Microphone Signal Processing Motivated by Auditory Perception** HSCMA 2008
Richard Stern, Evandro Gouvea, Chanwoo Kim, Kshitiz Kumar, Hyung-Min Park
 - Environment-Invariant Compensation for Reverberation using Linear Post-Filtering for Minimum Distortion** IEEE ICASSP 2008
[Awarded 2008 IEEE Spoken Language Processing Grant]
Kshitiz Kumar, Richard Stern
 - Profile View LipReading** IEEE ICASSP 2007
Kshitiz Kumar, Tsuhan Chen, Richard Stern
 - Complementary Code Keying in Optical Access Network in Presence of Inband Crosstalk** IEEE SPCOM 2004
Kshitiz Kumar, Baijayanta Ray, S Sen, Saswat Charkrabarti
 - Equalization of 10GBE Multimode Fiber Links** IEEE LEOS 2003
Ravish Khosla, Kshitiz Kumar, Ketan M. Patel, Stephen E. Ralph
- Other Projects**
- Image Mask based Cell Detection with Bounded Nearest Neighbor for Cell Tracking**
Developed a fully automatic and robust algorithm for cell segmentation and tracking
 - Improved Speech Recognition Using Auditory Model with Machine Learning**
Improved speech recognition with novel features obtained by maximizing the Gaussian observation probability

Awards and Achievements 2008 IEEE Spoken Language Processing Grant
MINOR degree in Electronics and Electrical Communication at IIT Kharagpur
Best (Second) Award in National Design Contest 2003 held at IIT Kharagpur
Best (Second) Award in Ideas Contest 2003 held at IIT Kharagpur

Reviewer ETRI Journal

Activities IEEE Student member

Graduate Courses Applied Stochastic Processing - 18751
Estimation and Detection - 18752
Information Theory and Coding - 18753
Digital Signal Processing - 18791
Advanced Digital Signal Processing - 18792
Pattern Recognition Theory - 18794
Image and Video Processing - 18798
Machine Learning - 10701
Probabilistic Graphical Models - 10708
Advanced Probability - 36754
Optimization* - 10725
General Topology* - 21651
* indicates Courses Audited