

Avinash Sharma

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Work Experience

- **Assistant Professor, Center for Visual Information Technology, IIIT Hyderabad**
May 2015 Onward
- **Research Scientist, Xerox Research Center India, Bangalore**
April 2013-April 2015
- **Visiting Researcher, Max Plank Institute (MPI) Saarbrucken, Germany**
April 2012-June 2012
- **Research Assitant, INRIA, France**
October 2008-Oct 2012

Education

- **Ph.D. in Applied Mathematics, Université de Grenoble and INRIA, France**
October 2008-October 2012
 - Title: Representation, Segmentation and Matching of 3D Visual Shapes using Graph Laplacian and Heat-Kernel
- **M.S. by Research in Computer Science, IIIT Hyderabad**
July 2005-July 2008
 - Title: Projected Texture for 3D Object Recognition

Selected Publications

- **Resting state dynamics meets anatomical structure: Temporal multiple kernel learning (tMKL) model, NeuroImage** 184, 609-620, 2019.
SG Surampudi, J Misra, G Deco, RS Bapi, A Sharma, D Roy
- **SplineNet: B-spline neural network for efficient classification of 3D data, ICVGIP**, 2018.
SS Jinka, A Sharma
- **Towards View-Invariant Intersection Recognition from Videos using Deep Network Ensembles, IROS**, 2018.
- **Deep Textured 3D Reconstruction of Human Bodies, BMVC**, 2018.
A Venkat, SS Jinka, A Sharma
- **Fast multi model motion segmentation on road scenes, IEEE Intelligent Vehicles (IV)**, 2131-2136 1 2018.
M Sandhu, N Haque, A Sharma, KM Krishna, S Medasani
- **Multiple Kernel Learning Model for Relating Structural and Functional Connectivity in the Brain, Scientific reports** 8 (1), 3265 2 2018.
SG Surampudi, S Naik, RB Surampudi, VK Jirsa, A Sharma, D Roy
- **MKL Based Local Label Diffusion for Automatic Image Annotation, NCVPRIPG**, 2018.
A Kumar, AA Shenoy, A Sharma
- **Multi-trajectory pose correspondences using scale-dependent topological analysis of pose-graphs, IROS**, 2017.
S Datta, A Sharma, KM Krishna
- **Combining Multi-scale Diffusion Kernels for Learning the Structural and Functional Brain Connectivity. Brains and Bits: Neuroscience Meets Machine Learning (NIPSW)**, 2016.
S. G. Surampudi, S. Naik, A. Sharma, R. B. Surampudi, D. Roy.

- **Multi-Trajectory Pose Correspondences Using Scale-Dependent Topological Analysis of Pose-Graphs.** In Intelligent Robots and Systems (**IROS**), IEEE, 2017.
S. Datta, A. Sharma, and K. M. Krishna.
- **SLAM pose-graph Robustification via Multi-scale Heat-Kernel Analysis.** In Decision and Control (**CDC**), , pp. 2912-2919. IEEE, 2016.
S. Datta, S. Tourani, A. Sharma, and K. M. Krishna.
- **Image Annotation using Multi-scale Hypergraph Heat Diffusion Framework,** *International Conference on Multimedia Retrieval (ICMR), 2016.*
V. N. Murthy, A. Sharma, V. Chari and R. Manmatha.
- **3D Shape Registration Using Spectral Graph Embedding and Probabilistic Matching,** *Image Processing and Analyzing With Graphs: Theory and Practice, CRC Press, 2011*
Avinash Sharma, Diana Mateus and Radu Horaud
- **Topologically-Robust 3D Shape Matching Based on Diffusion Geometry and Seed Growing,***Computer Vision and Pattern Recognition (CVPR), 2011, USA.*
Avinash Sharma, Jan Cech, Radu P. Horaud and Edmond Boyer
- **Learning 3D Shape Segmentation Using Constrained Spectral Clustering and Probabilistic Label Transfer,***European Conference on Computer Vision (ECCV), 2010, GREECE*
Avinash Sharma, Etienne Von Lavante and Radu P. Horaud
- **Inexact Matching of Large and Sparse Graphs Using Laplacian Eigenvectors,** *Graph-based Representations in Patterns Recognition (GbR), 2009, ITALY*
David Knossow, Avinash Sharma, Diana Mateus and Radu Horaud
- **Projected Texture for classification of 3D Texture Surface,** *European Conference on Computer Vision (ECCV), 2008, FRANCE,*
Avinash Sharma and Anoop Namboodiri