

2012 Western New York Image Processing Workshop

(WNYIPW 2012)

**Rochester, New York, USA
9 November 2012**



**IEEE Catalog Number: CFP1227M-PRT
ISBN: 978-1-4673-5598-8**

TABLE OF CONTENTS

Welcome Message

Plenary Talk: Smart Transportation Networks via Video Imaging

Robert Loce

Plenary Talk: From Image Data to Function Personalization: An Integrative System Paradigm for Biomedical Imaging

Pengcheng Shi

Lightweight, Low-Cost, Side-Mounted Mobile Eye Tracking System 1

Aun Kei Ariana Hong, Jeff Pelzy and Juan Cockburn

Multi-View Action Classification Using Sparse Representations on Motion History Images 5

Colin Bellmore, Raymond Ptucha and Andreas Savakis

Abstracted Workflow Framework with a Structure from Motion Application 9

Adam J. Rossi, Harvey Rhody, Carl Salvaggio and Derek J. Walvoord

Sphere²: Jerry's Rig, an OpenGL Application for Non-Linear Panorama Viewing and Interaction..13

Tommy P. Keane, Nathan D. Cahill, Harvey Rhody, Bo Hu, John Tarduno, Robert Jacobs, and Jeff Pelz

Video Detection Anomaly via Low-Rank and Sparse Decompositions 17

Lam Tran, Carmeliza Navasca, and Jiebo Luo

A Study of the Use of SIMD Instructions for Two Image PROCESSING Algorithms 21

Eric Welch, Dorin Patru, Eli Saber, and Kurt Bengtson

Hyperspectral Linear Unmixing: Quantitative Evaluation of Novel Target Design and Edge Unmixing Technique 25

Daniel S. Goldberg, John P. Kerekes, and Kelly A. Canham

Detecting Hand-Palm Orientation and Hand Shapes for Sign Language Gesture Recognition Using 3D Images 29

Lalit K. Phadtare, Raja S. Kushalnagar, and Nathan D. Cahill

A Multi-Channel Approach for Segmentation of Solar Corona in Images from the Solar Dynamics Observatory 33

Santosh Suresh and Roger Dube

Color is not a Metric Space, Implications for Pattern Recognition, Machine Learning, and Computer Vision 37

Thomas Kinsman, Mark Fairchild, and Jeff Pelz

Motion Tracking for RealTime, Offline Image Stabilization with Limited Hardware 41

Jeremy W. Sheaffer, Michael J. Moore, Maksim Bobrov, Adam J. Webster and Myra Torres

Efficient SMQT Features for SNoW-Based Classification on Face Detection and Character Recognition Tasks 45

Yusuf Artan, Aaron Burry, Vladimir Kozitsky, and Peter Paul