

# PROGRAM

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## The Fourth IEEE International Workshop on Mobile Vision

June 23<sup>th</sup>, 2013, Columbus, OH, USA

**General Chairs:** *Zhengyou Zhang (Microsoft Research),  
Marc Pollefeys (ETH Zurich)*

**Program Chairs:** *Gang Hua (Stevens Institute of Technology),  
Matthew Turk (University of California, Santa Barbara),  
Kari Pulli (NVIDIA Research)  
Raja Bala (Xerox Corporation)*

**8:25 am-8:30 am (5mins)**      **Chairs' opening remarks, by Gang Hua**

**8:30am-9:30am**      **Session 1: Mobile Visual Recognition and Search**

**Session Chair:**      *Gang Hua*

8:30am-8:50am (20 mins)

1. Fast Target Recognition on Mobile Device: Revisiting Gaussian Elimination for the Estimation of Planar Homographies

*Hamid Bazargani, Olexa Bilaniuk, Robert Laganiere (University of Ottawa)*

8:50am-9:10am (20 mins)

2. Cascade of Box (CABOX) Filters for Optimal Scale Space Approximation

*Victor Fragoso (UCSB), Gaurav Srivastava (Samsung Electronics), Abbasbek Nagar (Samsung Electronics), Zhu Li (Samsung Electronics), Matthew Turk (UCSB)*

9:10am-9:30am(20min)

3. Real-time Mobile Facial Expression Recognition System - A Case Study

*Myunghoon Suk (University of Texas at Dallas), Balakrishnan Prabhakaran (University of Texas at Dallas)*

**9:30am-10:15am**      **Invited Talk: Achintya Bhowmik, Intel Corporation**

**Talk Title: "Towards ubiquitous embedded 3D visual sensing in mobile devices"**  
**Introduction of Speaker by Kari Pulli**

**10:15am-10:45am (30mins)**      **Coffee Break**

**10:45am-11:45am**      **Session 2: Mobile Computational Photography and Multiview Analysis**

**Session Chair:**      *Zhengyou Zhang*

10:45am-11:05am (20 mins)

4. Dense View Interpolation on Mobile Devices using Focal Stacks

*Parikshit Sakurikar (IIT - Hyderabad), P Narayanan (IIT-Hyderabad)*

11:05am-11:25am (20min)

5. Dynamic Image Stacks

*David Jacobs (Stanford), Orazio Gallo (NVIDIA Research), Kari Pulli (NVIDIA Research)*

11:25am-11:45pm (20min)

6. Robust Three-view Triangulation Done Fast

*Johan Hedborg (Linköping university), Andreas Robinson (Linköping University), Michael Felsberg (Linköping University)*

**12:00pm-13:40pm (105 mins)**      **Lunch Buffet (Provided by Conference)**

**13:45pm-14:25pm** **Invited Talk: Edward J. Delp, Purdue University, USA**  
**Talk Title: "Mobile Imaging: The Future Of The Image"**  
**Introduction of Speaker by Raja Bala**

**14:25pm-15:25pm** **Session 3: Mobile 3D Modeling and Other Mobile Related Applications**  
**Session Chair: Dr. Marc Pollefeys**

14:25pm-14:45pm (20min)

7. 3D Hallway Modeling Using A Single Image  
*Gregory Olmschenk (CUNY Graduate Center)*

14:45pm-15:05pm (20min)

8. Estimating Gaze Direction of Vehicle Drivers using a Smartphone Camera  
*Meng-Che Chuang (University of Washington), Raja Bala (Xerox Research), Edgar Bernal (Xerox Corporation), Aaron Burry (Xerox Corporation), Peter Paul (Xerox Corporation)*

15:05pm-15:25pm (20min)

9. GPS Refinement and Camera Orientation Estimation from a Single Image and a 2D Map  
*Hang Chu (Cornell University), Tsuban Chen (Cornell.University), Andrew Gallagher (Google.com)*

**15:25pm-15:55pm (30 mins) Coffee Break**

**15:55am-16:35pm** **Session 4: Other Mobile Related Applications**  
**Session Chair: Matthew Turk**

15:55pm-16:15pm (20min)

10. Fast and Robust Object Detection Using Visual Subcategories  
*Eshbed Ohn-Bar (UCSD), Mohan Trivedi (UCSD)*

16:15pm-16:35pm (20min)

11. Vision on Wheels: Observing Driver and Surroundings to Predict Overtake Intent  
*Ashish Tawari (UCSD), Eshbed Ohn-Bar (UCSD), Sujitha Martin (UCSD), Mohan Trivedi (UCSD)*

**16:40am-17:30pm** **Session 5: Demos**  
**Session Chair: Matthew Turk and Gang Hua**

16:40pm-16:50pm (10min)

12. Space-variant image deblurring on smartphones using inertial sensors  
*Ondrej Sindelar (UTLA), Filip Sroubek (UTLA), Peyman Milanfar (UCSC)*

16:50pm-17:00 pm (10min)

13. Offline 1000-Class Classification on a Smartphone  
*Yoshiyuki Kawano (Univ. of Electro-Comm., Tokyo), Keiji Yanai (Univ. of Electro-Comm., Tokyo)*

17:00pm-17:10 pm (10min)

14. A compact 3D camera suited for mobile and embedded vision applications  
*Stefano Mattoccia (University of Bologna)*

17:10pm-17:20 pm (10min)

15. Fast and Robust Perspective Rectification of Document Images on a Smartphone  
*Williem Williem (Inba University), Christian Simon (Inba University), In Kyu Park (Inba University)*

17:20pm-17:30 pm (10min)

16. Correcting Photometric Distortion of Document Images on a Smartphone  
*Christian Simon (Inba University), Williem Williem (Inba University), In Kyu Park (Inba University)*

**17:30pm-17:40pm (10 mins) Best Paper Award Announcement (Sponsored by Microsoft Research)**