

## SURYANSH KUMAR

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### EDUCATION

- **The Australian National University**, Canberra. PhD in Computer Science and Engineering, Sept 2015- Present.  
Supervisors: **Dr. Yuchao Dai**, **Prof. Richard Hartley**.  
Chair of Panel: **Prof. Hongdong Li**.
- **IIIT-Hyderabad**, India. M.S in Computer Science and Engineering, Aug. 2013.  
GPA: 8.71 on 10.0 scale.  
Advisor: **Prof. K Madhava Krishna**.

### RESEARCH INTERESTS

- **Computer Vision:** 3D Reconstruction, Structure from Motion, Motion Segmentation.
- **Robot Vision:** Visual SLAM, Mobile Object Tracking & Segmentation.
- **Statistical Learning:** Convex Optimization, Compressed sensing and Probabilistic Graphical Models.

### PUBLICATIONS

- **Multibody Non-rigid Structure from Motion.** **3DV 2016**, Stanford University, USA.  
Authors: **Suryansh Kumar**, Yuchao Dai, Hongdong Li.
- **Markov Random Field based Small Obstacle discovery over Images.** **ICRA 2014**, Hong Kong, China.  
Authors: **Suryansh Kumar**, Siva Karthik M, K. Madhava Krishna.
- **Small Obstacle Discovery and Recognition using Actively Guided Robots.** **ICPR 2014**, Stockholm, Sweden.  
Authors: Sudhanshu Mittal, Siva Karthik M, **Suryansh Kumar**, K. Madhava Krishna.
- **A Bayes filter based adaptive floor segmentation with homography and appearance cues.** **ICVGIP 2012**, IIT-B.  
Authors: **Suryansh Kumar**, Ayush Dewan, K. Madhava Krishna. **(Oral)**.
- **An open framework for human like autonomous driving using Inverse Reinforcement Learning.** **VPPC 2014**, Portugal.  
Authors: Dizan Vasquez, Yufeng Yu, **Suryansh Kumar**, Christian Laugier. **(Oral)**.
- **CRF based Frontier Detection using Monocular Camera.** **ICVGIP 2014**, IISc. Bangalore.  
Authors: Sarthak Upadhyaya, **Suryansh Kumar**, K. Madhava Krishna. **(Oral)**.

### PROFESSIONAL EXPERIENCE

- Certification on Machine Learning offered by Stanford University on Coursera. License Number: FBXH2KPEU44M.  
Course Instructor: **Prof. Andrew Ng**.
- Uurmi Systems Pvt. Limited, Hyderabad. Image Understanding Group, Consultant Engineer, July'14 – June'15.  
Project Advisor: **Dr. B.S Venkatesh**.

### RESEARCH EXPERIENCE

- **INRIA-Rhône-Alpes Grenoble.** Research Intern, Sept 2013-Feb 2014.  
Supervisors: **Dr. Dizan Vasquez**, **Prof. Christian Laugier**.
- **IIIT-Hyderabad.** Research Assistant, July 2011- August 2013.  
Supervisor: **Prof. K. Madhava Krishna**.
- **IIT-Hyderabad.** Project Associate, July 2010-Dec. 2010.  
Supervisor: **Dr. P. Rajalakshmi**.

### AWARDS & ACHIEVEMENTS

- Recipient of "Australian National University Higher Degree Research" Merit Scholarship Award.
- Recipient of "Best Innovative Group 2014", by Uurmi Systems Private Limited, India.
- Full-Time Funded Student by "Campus France", for research internship at INRIA, Grenoble-France.
- Full-Time Scholarship Student for MS program in IIIT-Hyderabad, India.
- Winner of "8085 Programming" and "Project Demonstration" contest organized at TITIKSHA 2008, SMVDU, J&K India.

Detailed CV and References available on request.