Lokender Tiwari

Infosys Center for Artificial Intelligence, IIIT-Delhi
A-513 New Academic Block, Okhla Industrial Estate, Phase-III, New Delhi-110020, India
lokendert@iiitd.ac.in ▪ https://lokender.bitbucket.io/ ▪ [Bitbucket]

EDUCATION

Ph.D. in CSE, IIIT-Delhi, India   Jul 2014 – Jul 2019 (Expected)
- **CGPA:** 9.1/10
- **Thesis:** Robust Statistical Methods for Learning and Vision
- **Adviser:** Dr. Saket Anand

M.Tech in CSE. CDAC, India   Jul 2012 – Jul 2014
- **Thesis:** Robust Camera Captured Image Mosaicking for Document Digitization and OCR Processing
- Graduated with Distinction.

B.Tech in CSE, Faculty of Engineering & Technology, VBSPU, India   Jul 2008 – Jul 2012
- University Gold Medal (Rank-1) for Academic Excellence.

RESEARCH INTERESTS
- Geometric Computer Vision (2D and 3D), Robust Estimation, Scene and Image Understanding, Image Based 3D Modeling, Uncertainty in Deep Neural Networks Models.

RELEVANT COURSES

1. Computer Vision	2. Advanced Computer Vision (Deep learning based approaches)
3. Computer Vision Applications	4. Probabilistic Graphical Model 5. Convex Optimization
6. Advanced Computer Graphics	7. Advanced Multimedia 8. Advanced Algorithms

---

FELLOWSHIPS & AWARDS
- *IEEE WACV'2018 PhD Forum Travel Award.*   2018
- *Best Poster Award* (2nd), Research Showcase 2017, held at IIIT-Delhi.   2017
- *Best Doctoral Symposium Award* (3rd), ICVGIP'2016, held at IIT-Guwahati.   2016
- IEEE Signal Processing Society Travel Award.   2016
- Visvesvarya Ph.D. Fellowship   Jul 2014 – Jul 2019
- Graduate Fellowship, GATE (Top 4% in India)   Jul 2012 – Jun 2014
- University Gold Medal (Rank-1) for Academic Excellence (B.Tech).   Feb 2013
- MHRD & DST Award for 3rd Science Conclave at IIIT-Allahabad   Dec 2010
- Academic Merit Award   2003, 2004, 2005
- Best Student of The Year   2003

PUBLICATIONS

JOURNALS

[1] <u>L. Tiwari</u>, and S. Anand, "Density Driven Robust Multi-Model Recovery," in *International Journal on Computer Vision (IJCV), (**Under Preparation**)*, 2018.

CONFERENCES

[4] <u>L. Tiwari</u>, and S. Anand, DGSAC: "Density Guided SAmpling and Consensus," in *IEEE Winter Conference on Applications of Computer Vision (WACV), (**Accepted**)*, 2018.

[3] <u>L. Tiwari</u>, S. Anand and S. Mittal, "Robust Multi-Model Fitting using Density and Preference Analysis," in *13th Asian Conference on Computer Vision (ACCV), Taipei,Taiwan*, 2016.

[2] <u>L. Tiwari</u>, and S. Anand, "Fast Hypothesis Filtering for Multi-Structure Geometric Model Fitting," in *IEEE International Conference on Image Processing(ICIP)*, Phoenix, Arizona, USA , 2016.

[1] <u>L. Tiwari</u>, B. kumar, and T. Patnaik, "Robust Camera Captured Image Mosaicking for Document Digitization and OCR Processing," in *Proceeding of IEEE International Conference on Information Technology (ICIT)* , Bhubaneswar, India, pp. 100–105, Dec 2014.

WORKSHOPS/SYMPOSIUMS

[2] <u>L. Tiwari</u>, "Robust Estimation in Geometric Computer Vision," in *(Doctoral Symposium), ICVGIP 2016, IIT-Guwahati, India.*,2016 ,

[1] <u>L. Tiwari</u>, and S. Anand, "Geometric Model Fitting Game," in *Symposium on Computation and Optimization in the Sciences and Engineering, IIT-Kanpur*,2016 ,

---

RESEARCH PROJECTS	**SWARATH**, (IIIT-D's Autonomous Car Project) Aug 2014 – (Ongoing)

- This Project is a Mahindra's Rise Prize Challenge. We are in the final 13 teams.

Role: Member Perception Group
- Camera Lidar cross calibration, multiple camera calibration
- Curb and Lane Detection

TECHNICAL SKILLS

- **Programming Languages:** C, C++, Matlab, Python.
- **Libraries:** OpenCV, OpenGL, CVX, PyTorch, Tensorflow, Opti- Optimzation toolbox.
- **Tools:** Qt Creator, MS Visual Studio, CMake, ROS, Unity3D.
- **Operating Systems:** Windows and Linux.

ACADEMIC PROJECTS

Live Face Recognition/ Verification System [Demo],   Monsoon, 2017
Mentor: Dr. Chetan Arora

3D Manhattan Line Arrangements of a Scene from a Single 2D Image,   Monsoon, 2015
Mentor: Dr. Pravesh Biyani

Integrating Line Features in Parallel Tracking and Mapping(PTAM),   Winter, 2015
Mentor: Dr. Saket Anand

Blind Person Navigation Advisory,   Monsoon, 2014
Mentor: Dr. Chetan Arora

TEACHING EXPERIENCE

- Head Teaching Assistant: Machine Learning (UG,PG), IIIT-Delhi   (200 students)   Monsoon 2017
- Head Teaching Assistant: Computer Vision (UG,PG), IIIT-Delhi   Winter 2016, 2017, 2018
- Head Teaching Assistant: Computer Graphics (UG,PG), IIIT-Delhi   Monsoon,2014 and 2015
- Head Tutor: Data Structure & Algorithms (UG, PG), IIIT-Delhi   Summer Term 2016
- Head Teaching Assistant: Technical Communication (UG), IIIT-Delhi   Winter 2015

CO-CURRICULAR ACTIVITIES

Member Organizing Team **Research Showcase**,   2015, 2017
Head Organizer **Engineers Day**,   2011
Coordinator **Ethical Hacking Workshop**,   2010
Head Organizer **Funfair**,   2010