Lalit Manam

C-235, Computer Vision Lab
Electrical Engineering
Indian Institute of Science Bengaluru
Karnataka, INDIA - 560012

lalitmanam@iisc.ac.in
l.manam1995@gmail.com
linkedin.com/in/lalitmanam

Education

Ph.D. - Electrical Engineering (9.1/10) 2018–present
Indian Institute of Science Bengaluru
Advisor: Prof. Venu Madhav Govindu

B.Tech. - Electronics and Communication Engineering (9.41/10) 2013–2017
National Institute of Technology Silchar

Experience

Teaching Assistant

- *NPTEL, IIT Kharagpur* Fall 2022
  - Course: Computer Vision (NOC22-CS89)
  - Instructor: Prof. Jayanta Mukhopadhyay
- *Indian Institute of Science Bengaluru* Spring 2021, 2022
  - Course: Computer Vision (E1-216)
  - Instructor: Prof. Venu Madhav Govindu
- *Indian Institute of Science Bengaluru* Fall 2020
  - Course: Stochastic Models and Applications (E1-222)
  - Instructor: Prof. P S Sastry

Software Developer

- *AMDOCS Development Center India LLP* Jul 2017–Jul 2018

Projects

- Camera motion estimation in volumetric rendering methods Aug 2022–present
  - Developing methods to estimate camera motions efficiently while keeping the rendering quality similar with known motion case
- Motion averaging in 3D reconstruction problems Aug 2019–present
  - Developing methods to estimate camera motions efficiently in the structure-from-motion problem
- Restoration of images corrupted by various noises using fuzzy based approaches Jul 2016–May 2017
  - Developed different methods for removal of impulse noise from colour images
  - Work published in various journals/conferences
- K-Map Windows app Mar 2015
  - Developed an application to solve 4 variable K-Map in Sum-of-Product (SOP) form
  - https://www.youtube.com/watch?v=lqLGpYOKIwQ

Research Papers

- **L. Manam**, V.M. Govindu, "Correspondence reweighted translation averaging", European Conference on Computer Vision, pp. 56-72, 2022

- A. Roy, **L. Manam**, R.H. Laskar, "Removal of 'Salt & Pepper' noise from color images using adaptive fuzzy technique based on histogram estimation", Multimedia Tools and Applications, vol. 79, no. 47, pp. 34851-34873, Dec. 2020

- A. Roy, **L. Manam** and R.H. Laskar, "Region adaptive fuzzy filter: an approach for removal of random valued impulse noise", IEEE Transactions on Industrial Electronics, vol. 65, no. 9, pp. 7268-7278, Sept. 2018

- **L. Manam**, A. Roy, R. H. Laskar and F. A. Talukdar, "Removal of fixed valued impulse noise using global noise statistics based adaptive histogram fuzzy filter", TENCON 2017 - 2017 IEEE Region 10 Conference, pp. 2231-2235, 2017

- A. Roy, J. Singha, **L. Manam**, R.H. Laskar, "Combination of adaptive vector median filter and weighted mean filter for removal of high density impulse noise from color images", IET Image Processing, vol. 11, no. 6, pp. 352-361, Jan. 2017

Skills & Technologies

- C, C++, Python, MATLAB
- Basic ability with SQL, LaTeX

Relevant Courses

- Computer Vision
- Stochastic Models and Applications
- Linear and Non-linear Optimization
- Convex Optimization
- Machine Learning

Honours and Awards

-Granted Prime Ministers Research Fellowship for the duration of Ph.D. (Aug 2018)
-Received Academic Excellence Award and a Silver Medal at NIT Silchar for scoring highest CPI (May 2017)
-Awarded Best Volunteer 2015 in Administration at Children of Hope India (Silchar based NGO) (Feb 2016)
-Invited for Dewang Mehta felicitation of engineering students at Kaziranga University Jorhat (Aug 2015)
-Received Academic Excellence Award and a Silver Medal at Delhi Public School Dhanbad (July 2013)

Extra Curriculars

- Represented Computer Vision Lab at the Open Day 2020 and EE Summer School 2022 held at IISc
- Volunteer in Administration at Children of Hope India (March 2015–April 2016)
- 1st runner up of Bang Bang; event under Tronix Week 2014, NIT Silchar
- Conducted C Programming classes under Robotics Club, NIT Silchar (Aug–Nov 2014)
- Organised events under ECS Society and Robotics Club, NIT Silchar
- Participated in NITS-MUN in Sept 2014

Hobbies and Interests

Technology, Programming
Volunteering, Organising, Management

References

- Prof Venu Madhav Govindu, Indian Institute of Science Bengaluru
- Prof Rabul Laskar, National Institute of Technology Silchar
- Prof Fazal Talukdar, National Institute of Technology Silchar