

# Lalit Manam

C-235, Computer Vision Lab  
Electrical Engineering  
Indian Institute of Science Bengaluru  
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## 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 Fall 2022  
- *NPTEL, IIT Kharagpur*

- Course: Computer Vision (NOC22-CS89)
- Instructor: Prof. Jayanta Mukhopadhyay

  
Teaching Assistant Spring 2021, 2022  
- *Indian Institute of Science Bengaluru*

- Course: Computer Vision (E1-216)
- Instructor: Prof. Venu Madhav Govindu

  
Teaching Assistant Fall 2020  
- *Indian Institute of Science Bengaluru*

- Course: Stochastic Models and Applications (E1-222)
- Instructor: Prof. P S Sastry

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

- Involved in development of billing solutions for telecommunication industry

## Projects

- Motion averaging in 3D reconstruction problems Aug 2019–present

- Working on different methods to estimate camera motions

  
- 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, 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, Nov. 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++, Visual C#, Python, MATLAB
- Basic ability with SQL, L<sup>A</sup>T<sub>E</sub>X

## **Relevant Courses**

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

## **Honours and Awards**

- 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**

- 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 NITSMUN in Sept 2014 as delegate of Nigeria

## **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