

# Alwyn Mathew

## 3D Computer Vision Researcher

🐙 [alwynm.github.io](https://github.com/alwynm)

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Last updated on June 22, 2021

📍 Kerala, India

## Education

Ph.D. in Computer Vision (3D Computer Vision)

[Indian Institute of Technology \(IIT\) Patna](#)

📅 Aug 2021

📍 Patna, India

Masters in Technology (Image Processing)

[College of Engineering Karunagappally](#)

📅 May 2016

📍 Kerala, India

Bachelors in Technology (Information Technology)

[Tamilnadu College of Engineering](#)

📅 April 2012

📍 Coimbatore, India

## Research Experience

3D Computer Vision for Autonomous Vehicles

[Indian Institute of Technology \(IIT\) Patna](#)

📅 2016 – 2021

📍 Patna, India

- **Dense Depth Estimation** from single calibrated/uncalibrated camera.
- **Vulnerabilities** of monocular depth estimators against adversaries.
- Advisor: [Dr. Jimson Mathew](#)
- Supported by Ministry of Human Resource Development, Government of India.

Demand Side Management in Smart Grids

[Indian Institute of Technology \(IIT\) Patna](#)

📅 2018 – 2021

📍 Patna, India

- **RL based Intelligent Agent** for load shifting in residential grids.
- Design of optimal **DSM RL environment** for the agent.
- Advisor: [Dr. Jimson Mathew](#)
- Supported by Ministry of Human Resource Development, Government of India.

## Research Publications

- [Mathew, A.](#), Jolly, MJ. and Mathew, J., Improved Residential Energy Management System Using Priority Double Deep Q-learning, Sustainable Cities and Society, (2021).
- [Mathew, A.](#), Patra, A., and Mathew, J., Monocular Depth Estimators Vulnerabilities and Attacks, IEEE Intelligent Systems, (2020).
- [Mathew, A.](#), Roy, A., and Mathew, J., Intelligent Residential Energy Management System Using Deep Reinforcement Learning, IEEE Systems Journal, (2020).
- [Mathew, A.](#), and Mathew, J., Monocular Depth Estimation with SPN loss, Image and Vision Computing, (2020).

for more details [click here](#)

## Areas of Interest

- 3D Computer Vision
- Adversarial Machine Learning
- Reinforcement Learning
- Demand Side Management

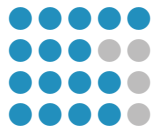
## Skills

Python

C

C++

C#



Pytorch

TensorFlow

OpenCV



Jetson TX2

Raspberry Pi



## Awards

IoT Grand Challenge Runner-up

[Indian Institute of Technology \(IIT\) Patna](#)

📅 2016

Bosch DNA Challenge Finalist

[Bosch India](#)

📅 2017

Patna Ideathon Top 35

[Government of Bihar](#)

📅 2018

## Scholarships

Senior Research Fellowship

[Ministry of Human Resource Development, Government of India](#)

📅 2018 - 2021

Junior Research Fellowship

[Ministry of Human Resource Development, Government of India](#)

📅 2016 - 2018

Post Graduate Fellowship

[Institute of Human Resources Development, Government of Kerala](#)

📅 2014 - 2016