

# NANDAM SATYA BHASKAR

Linkedin: <https://www.linkedin.com/in/nandam-satya-bhaskar/>

Email: [satyabhaskarnandam@gmail.com](mailto:satyabhaskarnandam@gmail.com)

Mobile: +91 7780603821

## SKILLS

**Programming & Simulation:** C, C++, MATLAB/Simulink, AutoCAD

**Core Electrical Knowledge:** Power Electronics, Electrical Machines, Power Systems, Control Systems

**Soft Skills:** Strong Analytical & Problem-Solving Skills, Project Management, Adaptability

## TRAINING

### Internship – Power System Distribution | HNTech FO, Hyderabad

Jun' 25 – Jul' 25

- Learned about distribution network structures (radial, ring, interconnected systems).
- Studied voltage regulation standards (+/-6%) and methods of minimizing transmission & distribution losses.
- Understood practical applications of SCADA, capacitors, FACTS devices (STATCOM, SVC, UPFC) for efficient power delivery.
- Gained exposure to modern challenges in electrical distribution including safety, reliability, and underground vs overhead systems.

## PROJECTS

### Modelling and Simulation of Solar PV System with MPPT Control | MATLAB

Mar'25

- Developed MATLAB/Simulink model of solar photovoltaic cell using single-diode equivalent circuit.
- Implemented temperature and irradiation dependent photo-current modeling.
- Simulated I–V and P–V characteristics under varying environmental conditions.
- Analyzed performance variation with changes in series resistance and temperature.

### Smart Street Lighting with Adaptive Control | Arduino, IoT

May' 25

- Developed a microcontroller-based smart street lighting system with motion and ambient light sensing.
- Implemented sensor fusion (LDR + PIR) for automated ON/OFF and dynamic brightness control.
- Designed MOSFET-based switching circuit for efficient LED power management.
- Enhanced lamp lifespan and minimized energy wastage through adaptive control algorithms.
- Real-time power monitoring.

### Autonomous Underground Power Cable Inspection Robot with Real-Time Fault Detection

| Electronics, Embedded Systems

Nov'25

- Developed an autonomous underground cable inspection robot for preventive maintenance of power distribution systems.
- Implemented intelligent fault detection using thermal and environmental condition monitoring.
- Enabled real-time remote surveillance to reduce operational cost and manual intervention.
- Proposed a scalable robotic solution for smart city underground grid infrastructure.

## CERTIFICATES

### MATLAB Onramp | MathWorks

May' 24

### Introduction to IoT | Cisco Networking Academy

Jan' 24

### Digital Electronics | NPTEL

Mar' 23

## EDUCATION

### Lovely Professional University

Bachelor of Technology

Electrical and Electronics Engineering; CGPA: 6.23

Phagwara, Punjab

Aug' 24 – Present

### Anurag Engineering College

Kodad, Telangana

Diploma  
CGPA: 8.22

Jun' 21 – May' 24

**Nagarjuna High School**  
CGPA: 10

Pedavadilapudi, Andhra Pradesh  
Apr'20