



JAPASOBHA J L

CONTACT

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- Ajman, UAE

CORE COMPETENCIES

- Electrical System Design & Load Calculations
- MEP Coordination & BIM (AutoCAD MEP)
- Lighting Design & Dialux Simulations
- Power Electronics & Drives Analysis
- Circuit Simulation (MATLAB / Simulink)
- Electrical Drawings & Documentation
- Engineering Calculations & Technical Reports
- Project Planning & Standards Compliance (IEC, NEC)
- Data Analysis & Problem Solving
- Teaching & Training in Circuit Theory & Electrical Machines

CERTIFICATIONS & TRAINING

- MEP Design Certificate — Carbon Blue Global (Entri), 2025
- C Programming — Manipal University, 2024
- Basic Lighting Software (Dialux) — Self-Study
- MATLAB & Simulink Fundamentals — Online Course

TECHNICAL SKILLS

- Software:** AutoCAD MEP • MATLAB/Simulink • MS Office Suite (Excel, Word, PowerPoint)
- Analysis:** Load Calculations • Voltage-Drop & Short-Circuit Studies • Circuit Simulation • Harmonic Analysis
- Standards:** IEC 60364 • NEC • BS 7671
- Programming:** C (Embedded Systems)

LANGUAGES

- English
- Tamil
- Malayalam



PROFILE

Forward-thinking Electrical & MEP Engineer with a Master's in Power Electronics & Drives and hands-on experience in lighting system design, power distribution, and academic instruction. Proven ability to develop efficient electrical layouts, perform engineering calculations, and leverage MEP design principles to optimize building systems. Skilled in AutoCAD MEP, Dialux lighting simulations, MATLAB circuit modeling, and MS Office. Adept at collaborating with cross-functional teams to deliver reliable, code-compliant solutions within fast-paced environments.



WORK EXPERIENCE

ELECTRICAL DESIGN TRAINEE MAY 2024 - FEB 2025

Amritha Builders & Developers, Kerala, India

- Developed detailed electrical lighting layouts and single-line diagrams using AutoCAD MEP, ensuring compliance with IEC and local regulations.
- Performed load calculations, voltage-drop analyses, and short-circuit studies to size conductors, protective devices, and panelboards.
- Assisted in preparation of bill of quantities (BOQ) and technical specifications for lighting fixtures, distribution panels, and cable routes.
- Conducted Dialux simulations to validate illuminance levels and energy-efficiency targets in commercial spaces.
- Collaborated with architectural and HVAC teams to resolve MEP clashes and streamline coordination workflows.

ASSISTANT PROFESSOR MAY 2022 - APR 2024

Annai Vailankanni College of Engineering, India

- Delivered lectures and laboratory sessions in Circuit Theory and Electrical Machines to cohorts of 50+ undergraduates, achieving consistent student satisfaction scores
- Designed practical lab experiments on transformer testing, DC motor control, and power electronics, reinforcing theoretical concepts.
- Evaluated student projects and assignments; provided mentorship in MATLAB-based circuit modeling and simulation.
- Developed course materials, assessments, and technical documentation in accordance with academic and accreditation standards.



EDUCATION

Master of Engineering (M.E.) in Power Electronics & Drives

Bachelor of Engineering (B.E.) in Electrical & Electronics Engineering



PROJECTS

Efficient Load Shedding Reduction System

- Architected a consumer-side load management solution to prevent grid overloads by sending reset codes via SMS when consumption limits are exceeded.
- Implemented automatic main disconnection and secure password-based reconnection workflows to protect distribution networks.

19-Level Asymmetrical Single-Phase Multilevel Inverter

- Designed and modeled a nineteen-level inverter topology to minimize switching frequency and device count.
- Simulated circuit performance, waveform quality, and harmonic spectrum in MATLAB/Simulink, demonstrating >95% total harmonic distortion (THD) reduction.