

Samtel Avionics Ltd.

Job Title: Manager - Hardware Design- Papis

Experience: 8+ years

Qualification: B.E. / B. Tech / M. Tech in Electrical or Electronics Engineering

Location: Gurgaon

Function: Research & Development (R&D)

Role Objective: To lead the design, development, prototyping, and testing of advanced electronic systems such as Public Address (PA), Passenger Information Systems (PIS), Human-Machine Interfaces (HMI), and Train Management Systems for applications in Metro, EMU, MEMU, and Vande Bharat trains, including system failure analysis.

Principal Accountabilities:

- Design and develop electronics systems such as PA/PIS, SMPS, HMI, firmware, and train communication systems
- Drive prototyping, testing, and validation of designs
- Collaborate with cross-functional teams to enable type testing and field trials
- Analyze existing technologies and enhance or upgrade them to meet latest international standards
- Ensure effective configuration and documentation management throughout the development lifecycle
- Lead, mentor, and align team efforts with organizational objectives
- Support succession planning and capability development within the team

Essential Fitment Criteria:

- Proven experience in the design and development of intelligent electronics systems used in the railway sector (e.g., PA, PIS, HMI, Train Management Systems)
- Strong understanding of circuit modeling and simulation
- Hands-on exposure to implementation of PA/PIS systems in rolling stock environments
- Familiarity with Indian Railways and metro systems such as EMU, MEMU, and Vande Bharat

Key Skills:

- Analog and Digital Electronics
- SMPS and power supply design
- PA/PIS and HMI systems
- Circuit simulation and modeling (e.g., MATLAB)
- LED/LCD display systems
- Communication protocols: CAN, RS485, RS232, TCN, MODBus, MVB, Ethernet
- Basic understanding of embedded firmware

Key Qualities:

- Strong technical acumen
- Quick learner with adaptability
- Confident communicator and collaborator
- High sense of accountability and ownership