

Kannan Kannappan
Associate Manager / Chennai, India

BASIC INFORMATION

Experience in:	IT Industry
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CAREER CONTOUR

I am unwavering, meticulous, and highly competent in the **IT Industry**. I have a consistent record of delivering results-driven work with a proven ability to implement my projects in an organised manner, spanning **13+ years** of my successful career.

My expertise:- **IT Industry – Hardware Validation, Silicon Characterization, Board Validation, Test Automation, Python Automation, LabVIEW Development, ATE Testing, Hardware Debugging, Board Bring-Up, Instrument Automation, Data Acquisition, Automotive Validation, Industrial Automation, Test Development**. I have in-depth knowledge of all the ethics of management. I possess effective communication skills and am a team player with strong organisational, Logical, and Problem-Solving Abilities.

I have extensive experience working with large-scale organisations, such as **HCL Technologies**. I am well-versed in skills including analysis, problem-solving, and coordination, which have contributed to my success and dedication. Strong influencing and negotiation skills coupled with a proven ability to think in and out of the box, generating new solutions.

I have commenced my profession as an **Executive** and risen myself as **Associate Manager** in a reputable company. I would like to see myself growing with the passing years of hard work and dedication. I have been awarded many accolades for my result-oriented hard work.

Armed with a multitude of competencies and work experiences, I am confident to carry forward any organisation's vision & objectives with sufficient ease and dedication to my job responsibilities.

EXPERIENCE

May 2022 – Jul 2026 | HCL Technologies | Associate Manager

Responsibility:-

- Performed DDR characterization across multiple PVT conditions.
- Conducted validation activities for UART, I²C, DMIC, and SB-TSI.
- Validated power consumption, thermal policies, shutdown/reboot behaviour, CPU stress, Wi-Fi iPerf, and virtual sensor accuracy.
- Developed Python and LabVIEW-based automation solutions for silicon characterization, board validation, and ATE testing.
- Developed reusable Python utilities for automation, data processing, and report generation.
- Automated laboratory instruments for measurement, data acquisition, and validation reporting.
- Developed and executed test cases for hardware platform validation.
- Debugged hardware issues, analysed validation results, and supported board bring-up activities.
- Developed reusable Python modules for data processing, logging, result comparison, and report generation.

- Applied modular programming, reusable functions, exception handling, and object-oriented programming principles in automation development.
- Improved automation workflows and reduced manual analysis effort through reusable validation modules.

Feb 2022 – May 2022 | SpicaWorks | Test Lead

Responsibility:-

- Worked as a Test Lead supporting testing and validation activities.
- Coordinated and managed assigned testing activities in line with project requirements.
- Supported test execution, validation, issue identification, and reporting activities.

Jul 2021 – Feb 2022 | Tessolve Semiconductor | Test Lead

Responsibility:-

- Worked as a Test Lead in a semiconductor testing environment.
- Supported testing and validation activities based on project requirements.
- Gained exposure to Python as a new technical skill, which became relevant to his subsequent automation and validation experience.
- Supported technical testing activities and coordination within the assigned work environment.

Mar 2019 – Jul 2021 | L&T Technology Services | Senior Engineer

Responsibility:-

- Developed LabVIEW-based automated endurance testing applications.
- Implemented CAN bus data logging for validation activities.
- Automated test sequencing for UDS diagnostic validation.
- Supported validation activities for EV and ADAS platforms.
- Worked with automated validation environments involving LabVIEW, NI-XNET, CAN, and Thermal Chambers.
- Supported testing and analysis activities for automotive and engineering validation systems.

Feb 2018 – Mar 2019 | Sanmina SCI | ATE Engineer

Responsibility:-

- Automated EEPROM flashing activities.
- Performed charging-profile validation and protection testing.
- Conducted power-dissipation analysis.
- Supported clock accuracy validation and amplifier gain tuning.
- Performed SNR and board-temperature calibration.
- Developed reusable test modules to improve validation efficiency.
- Reduced manual test execution through automation and reusable testing solutions.

Feb 2015 – Feb 2018 | DatCAM Automation | Application Engineer

Responsibility:-

- Developed PLC-based automated special-purpose machines and conveyor systems.
- Developed endurance-testing solutions involving servo motors and induction motors.
- Worked with VFDs, pneumatic actuators, sensors, and relays.
- Designed electrical control schematics.
- Performed hardware integration, testing, and commissioning activities.
- Configured alarm and event-management functionality.
- Developed graphical representations using HMI.
- Participated throughout the lifecycle from electrical design and programming through commissioning.
- Worked in environments involving LabVIEW, PLC, AutoCAD, HMI, and Modbus.

Nov 2012 – Feb 2015 | Vigneshwaraa M/c Tools | Electrical Engineer

Responsibility:-

- Worked as an Electrical Engineer supporting electrical and engineering-related operations.
- Contributed to technical activities in accordance with assigned engineering and operational requirements.
- Supported the organisation's electrical engineering functions during the tenure.

Key Project:**Wireless Battery Charger Validation**

- Automated EEPROM flashing and charging-profile validation.
- Performed protection testing and power-dissipation analysis.
- Supported clock-accuracy validation and amplifier-gain tuning.
- Performed SNR and board-temperature calibration.
- Developed reusable test modules to improve validation efficiency and reduce manual test execution.

Environment: LabVIEW | UART | RS-232

Silicon Characterization & Signal Compliance Validation

- Performed DDR characterization across multiple PVT conditions.
- Conducted validation for UART, I²C, DMIC, and SB-TSI.
- Worked with automated measurement and characterization environments.

Environment: Python | NI VISA | Thermo stream | Oscilloscope | SMU | AWG | RF Switches

Streaming Device System Validation

- Validated power consumption and thermal policies.
- Tested shutdown and reboot behaviour.
- Performed CPU stress testing and Wi-Fi iPerf validation.
- Validated virtual sensor accuracy.
- Developed reusable Python modules for data processing, logging, result comparison, and report generation.
- Improved automation workflows and reduced manual analysis effort.

Environment: Python | Data Analysis | Linux | NI DAQ

Wi-Fi & Bluetooth Validation

- Automated RF power measurements.
- Supported JTAG controller flashing.
- Performed RF path-loss calculations.
- Supported multi-DUT testing.

Environment: LabVIEW | FTDI | RF Switches | I²C

EV Inverter & Automotive Validation

- Developed LabVIEW-based automated endurance-testing applications.
- Implemented CAN bus data logging.
- Automated test sequencing for UDS diagnostic validation.
- Supported validation activities for EV and ADAS platforms.

Environment: LabVIEW | NI-XNET | CAN | Thermal Chamber

Industrial Automation

- Developed PLC-based automated special-purpose machines and conveyor systems.
- Worked on endurance-testing systems using servo motors and induction motors.
- Worked with VFDs, pneumatic actuators, sensors, and relays.
- Designed electrical control schematics.
- Performed hardware integration, testing, and commissioning activities.
- Configured alarm and event-management functionality using HMI.
- Participated from electrical design and programming through commissioning.

Environment: LabVIEW | PLC | AutoCAD | HMI | Modbus

ACHIEVEMENTS

- Promoted from Lead Engineer to Associate Manager at HCL Technologies.
- Received Spot Awards at HCL Technologies.
- GATE Qualified – 2012 & 2015 with valid scores.
- ISTQB Foundation Level Certified.
- Built reusable Python automation modules for data processing, logging, result comparison, and report generation.

ACADEMIC FORTE

- Bachelor of Engineering (B.E.) in Electrical & Electronics Engineering from Periyar Maniammai College in 2012.

Training & Certifications:

- ISTQB Foundation Level Certified
- GATE Qualified – 2012
- GATE Qualified – 2015

Professional Skill Development

- Introduced to Python during the Tessolve Semiconductor role.
- Gained exposure to Semiconductor Validation during the HCL Technologies role.

TECHNICAL PROFICIENCY

Well-versed with

Programming & Automation

- Python
- Object-Oriented Programming (OOPs)
- File Handling
- NumPy
- Pandas
- Matplotlib
- LabVIEW
- PLC
- Linux

Test Automation

- Python Automation
- Pytest
- Test Automation Frameworks
- Fixtures
- Parametrization
- Assertions
- Selenium WebDriver
- Page Object Model (POM)
- XPath
- CSS Selectors

Test Instruments

- Source Measure Unit (SMU)

- Oscilloscope
- Digital Multimeter (DMM)
- Arbitrary Waveform Generator (AWG)
- Electronic Load
- Current Probe
- NI DAQ

Communication Protocols

- UART
- CAN
- SPI
- I²C
- JTAG
- Modbus

Tools

- NI VISA
- NI MAX
- NI-XNET
- Keysight BenchVue
- FTDI
- Total Phase
- Tera Term

Advice for Contacting: I'm always open to conversation, networking with like-minded professionals, or discussing future prospects. Connect with me on LinkedIn or contact me at kannanjobs1@gmail.com