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Change History				
Employee Code	Last Modified	Document Version	Chapter	Change Note
CEN18800046	30/08/2026	CEN188V1.001	all	document creation

Junior Test Engineer – Component Tests HIL (Function and Safety Tests)

HIL 部件测试初级测试工程师（功能测试与安全测试）

Working place: Tianjin

Recruiting number:1

Role overview

As a Junior Test Engineer for component tests on Hardware-in-the-Loop (HIL) systems, you will support HIL testing of electronic control units for battery electric and plug-in hybrid vehicles, covering both function tests and safety tests. Working under the guidance of senior engineers, you will personally execute tests according to the test plan, analyze results and author English test reports, and assist in test case design and in setting up and maintaining the HIL test environment. You will actively learn HIL testing methodologies, standards and tools, collaborate closely with development teams, and help ensure that all test activities comply with OEM specifications and automotive industry standards such as ISO 26262.

Key Responsibilities

- Support the preparation of HIL test plans and test specifications for function and safety tests of ECUs and HV components under the guidance of senior engineers.
- Assist in the design of test cases and in the implementation of automated test sequences.
- Operate and maintain the HIL test environment and keep the test systems ready for operation.
- Personally execute HIL component tests covering function tests and safety tests according to the given test plan and test specifications.
- Analyze test results and measured data, document failures and deviations and support root cause analysis together with development teams.
- Write precise and traceable English test reports and test documentation.
- Document and track issues in the bug tracking system and follow up on their status.
- Actively learn HIL testing methodologies, standards and tools, and continuously build up technical competence.

Qualifications & Requirements

Education

- Bachelor's degree or Master's degree in Electrical Engineering, Automotive Engineering, Mechatronics or a related field.
- Excellent fresh graduates with English as a working language are also welcome.

Professional Experience

- Graduation from university plus approximately 1 year of professional experience in testing of automotive electronic components or systems; the ability to personally execute hands-on tests is mandatory; internship or working student experience with an EV/PHEV OEM or Tier 1 supplier is preferred.
- First hands-on experience in test execution, results analysis and documentation; initial exposure to HIL or automated testing is a plus.
- Willing and able to travel for test campaigns on specific road sections and at test sites in the surrounding regions.

Technical & Tool Proficiency

- Good knowledge of electronic component testing fundamentals and measurement technology.
- Basic understanding of function and safety testing of ECUs, including fault injection principles.
- Good programming skills (e.g., CAPL, Python) for developing test cases and supporting test automation.
- Basic understanding of automotive communication and diagnostics (e.g., CAN, UDS).
- Familiar with tools such as CANoe/CANalyzer, oscilloscopes and data loggers; willingness to learn HIL platforms (e.g., dSPACE).
- Familiar with MS Office; first experience with test management or bug tracking tools is a plus.

Language Proficiency

- Native proficiency in Chinese.
- Good command of written English is mandatory: able to read English technical documents and standards and to independently create English test reports; fluent spoken English is a plus but not a hard requirement.
- German language skills are a strong plus.

Core Competencies

- Good analytical and systems thinking ability to structure test scopes and analyze results.
- Structured working style, highly detail-oriented with strict standards for design quality and technical accuracy.
- Good communication and coordination skills to collaborate effectively with internal teams.
- Proactive problem-solving mindset, able to identify questions and drive resolution together with senior engineers.
- Highly motivated, fast learner with an open mindset, able to manage multiple priorities in a fast-paced environment.

We are looking forward to your application! Please send us your complete application file in English mentioning your earliest possible entry date by e-mail to: careers@cenergy.asia

工作地点: 天津

招聘人数: 1 人

岗位概述

作为 HIL 部件测试初级测试工程师,你将在资深工程师的指导下,参与纯电动及插电混动汽车电子控制单元的 HIL 测试工作,同时涵盖功能测试与安全测试。你将按测试计划亲自执行测试,分析结果并撰写英文测试报告,并协助测试用例设计以及 HIL 测试环境的搭建与维护。你将快速学习 HIL 测试方法、标准与工具,与开发团队紧密协作,协助确保所有测试活动符合主机厂技术规范及 ISO 26262 等汽车行业标准。

主要工作职责

- 在资深工程师指导下,参与 ECU 及高压零部件功能测试与安全测试的 HIL 测试计划与测试规范编制。
- 协助测试用例设计及自动化测试序列的实现。
- 操作并维护 HIL 测试环境,保障测试系统随时可用。
- 根据给定的测试计划与测试规范,亲自执行涵盖功能测试与安全测试的 HIL 部件测试。
- 分析测试结果与测量数据,记录故障与偏差,并与开发团队一起参与根本原因分析。
- 撰写准确、可追溯的英文测试报告与测试文档。
- 在缺陷跟踪系统中记录并跟踪问题,跟进问题状态。
- 积极学习 HIL 测试方法、标准与工具,持续提升专业技术能力。

任职资格与要求

教育背景

- 电气工程、汽车工程、机电一体化或相关专业本科及以上学历。
- 能将英语作为工作语言的优秀应届毕业生也可投递。

专业经验

- 相关专业本科毕业,并具备约 1 年汽车电子部件或系统测试领域工程经验;必须能够亲自开展动手测试;有纯电动/插电混动车企或一级供应商实习或学生工经历者优先。
- 具备测试执行、结果分析与文档编写的初步实践经验;有 HIL 或自动化测试的初步接触经历者优先。
- 愿意并能够接受周边区域特定路段及试验场地的测试出差安排。

专业技能与工具能力

- 较好掌握电子部件测试基础与测量技术知识。
- 基本了解 ECU 功能与安全测试,包括故障注入原理。
- 良好的编程能力(如 CAPL、Python),能够编写测试用例并支持测试自动化。
- 基本了解汽车通信与诊断(如 CAN、UDS)。
- 会使用 CANoe/CANalyzer、示波器、数据记录仪等工具,愿意学习 HIL 平台(如 dSPACE)。
- 熟练使用 MS Office;有测试管理或缺陷跟踪工具使用经验者优先。

语言能力

- 中文母语水平,听说读写流利。

- 必须具备良好的英语读写能力：能够阅读英文技术文档与标准，并独立撰写英文测试报告；英语口语流利为加分项，不作硬性要求。
- 具备德语能力者优先。

核心胜任力

- 良好的分析与系统思维能力，能够组织测试范围并分析结果。
- 工作方式结构化，注重细节，对设计质量与技术准确性有严格标准。
- 良好的沟通协调能力，可与内部团队高效协作。
- 积极主动的问题解决思维，能在资深工程师支持下识别问题并推动解决。
- 自驱力强，学习速度快，心态开放，能在快节奏环境中管理多项优先级任务。

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