南京能驰科技有限公司
904, 9th floor, B3, Huizhi Science Park
20001 Nanjing, VR China

Document Information		
Document Name	CEN188_ Senior Electrical Engineer (System Design ECU, high voltage)	
Current Version	CEN188V1.001	
Author/Employee No.	CEN18800046	
Date of Creation	28/08/2026	
Confidential Level	CEN-ISM-1	
Restrictions:		
Note:	If you are not sure which ISMS Level your data or file have, please contact the SNTG-IT Helpdesk.	
	ism.188@smartnature.group	
CEN-ISM-0	**Public Information**	Information that everyone within and outside the organization can access.
CEN-ISM-1	**Internal Information**	Information that is accessible by all employees.
CEN-ISM-2	**Restricted Information**	Information that is available to most but not all employees.
CEN-ISM-3	**Classified Information**	Information that has restricted access as per law or regulation.
CEN-ISM-4	**Confidential Information**	Information that is protected as confidential by all entities included or impacted by the information. The RD Data should be applied to such data.
CEN-ISM-5	**Confidential Information L2**	Information that is protected as high confidential by all entities included or impacted by the information. The highest level of security measures should be applied to such data.

Change History				
Employee Code	**Last Modified**	**Document Version**	**Chapter**	**Change Note**
CEN18800046	28/08/2026	CEN188V1.001	all	document creation

南京能驰科技有限公司
904, 9th floor, B3, Huizhi Science Park
20001 Nanjing, VR China

Senior Electrical Engineer (System Design ECU, High Voltage)
高压 ECU 系统设计高级电气工程师

Working place: Tianjin

Recruiting number:1

Role overview

As a Senior Electrical Engineer specializing in high-voltage (HV) ECU system design, you will take end-to-end technical responsibility for the architecture definition, development and system validation of HV electronic control units for battery electric and plug-in hybrid vehicles. You will lead system-level requirement decomposition, hardware architecture design, cross-component integration and compliance verification, and work closely with cross-functional engineering teams and global suppliers to deliver robust, safe and high-performance HV control solutions. As the technical owner across the full project lifecycle from concept to series production (SOP), you will drive technical problem solving, optimize system design and ensure full alignment with OEM specifications and automotive industry standards.

Key Responsibilities

- Lead the system design and architecture planning of high-voltage ECUs for EV/PHEV powertrain systems, including hardware topology definition, interface specification and functional module allocation.
- Capture, analyze and decompose system-level requirements from OEM and vehicle engineering teams into detailed ECU technical specifications, and establish full traceability between requirements, design, validation plans and test results.
- Oversee system-level integration of HV ECUs with the vehicle high-voltage architecture, including coordination with BMS, OBC, DC/DC converter, inverter and other core HV components.
- Define and execute Design Verification Plans (DVPs) for HV ECU systems, covering electrical performance testing, steady-state and transient state verification, fault scenario validation and system reliability assessment.
- Lead root cause analysis for complex technical issues in HV ECU systems, and manage the implementation of corrective and optimization measures to close issues on schedule.
- Manage and coordinate technical communication with global component suppliers and ECU Tier 1 vendors, ensuring on-time delivery of development milestones and design deliverables.
- Ensure all system designs comply with ISO 26262 functional safety standards, automotive EMC regulations and applicable industry standards.
- Provide technical guidance and mentorship to junior engineers, and support team capability building in HV ECU design methodologies.

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

- 4+ years of professional engineering experience in automotive high-voltage ECU system design or hardware development, with OEM or Tier 1 supplier background preferred.
- Proven track record in HV ECU architecture design, system integration and verification for battery electric vehicles or plug-in hybrid vehicles.
- Solid project experience covering the full vehicle development lifecycle from concept phase to series production launch.

Technical & Tool Proficiency

- In-depth knowledge of automotive high-voltage system architecture and ECU hardware design principles.
- Strong understanding of core HV components including BMS, OBC, DC/DC, inverters and their system-level interaction logic.
- Familiar with automotive communication protocols such as CAN, CAN FD, LIN and Ethernet; experience with AUTOSAR architecture is preferred.
- Proficiency in system design tools and requirement management tools; hands-on experience with DVP development and traceability management.
- Good working knowledge of ISO 26262 functional safety standards and automotive EMC requirements.
- Experience with diagnostic and calibration tools such as CANoe, CANape is preferred.

Language Proficiency

- Native proficiency in Chinese.
- Fluent command of English (speaking, writing and reading) for cross-team and cross-border technical communication.
- German language skills are a strong plus.

Core Competencies

- Strong analytical and systems thinking ability to address complex HV system design challenges.
- Structured working style, highly detail-oriented with strict standards for design quality and technical accuracy.
- Excellent communication and coordination skills to collaborate effectively with internal teams and global suppliers.
- Proactive problem-solving mindset, able to independently identify technical bottlenecks and drive solution implementation.
- 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

南京能驰科技有限公司
904, 9th floor, B3, Huizhi Science Park
20001 Nanjing, VR China

工作地点：天津

招聘人数：1 人

岗位概述

作为高压 ECU 系统设计高级电气工程师，你将全面负责纯电动及插电混动汽车高压电子控制单元的架构定义、开发设计与系统验证的端到端技术工作。你将牵头完成系统级需求拆解、硬件架构设计、跨部件集成与合规验证，与跨职能工程团队及全球供应商紧密协作，交付稳定、安全、高性能的高压控制解决方案。作为从概念阶段到量产（SOP）全项目周期的技术负责人，你将主导技术问题攻关、持续优化系统设计，确保方案完全符合主机厂技术规范与汽车行业标准。

主要工作职责

- 主导新能源汽车动力系统高压 ECU 的系统设计与架构规划，包括硬件拓扑定义、接口规范制定与功能模块分配。
- 收集、分析并拆解来自主机厂与整车工程团队的系统级需求，转化为详细的 ECU 技术规范，建立需求、设计、验证计划与测试结果之间的完整可追溯性。
- 统筹高压 ECU 与整车高压架构的系统级集成，协调 BMS、车载充电机、DC/DC 变换器、逆变器等核心高压部件的协同工作。
- 制定并执行高压 ECU 系统的设计验证计划（DVP），覆盖电气性能测试、稳态与瞬态工况验证、故障场景验证及系统可靠性评估。
- 牵头高压 ECU 系统复杂技术问题的根本原因分析，管理纠正与优化措施的落地，推动问题按时闭环。
- 管理并协调全球零部件供应商与 ECU 一级供应商的技术对接，保障开发节点与设计交付物的按时输出。
- 确保所有系统设计符合 ISO 26262 功能安全标准、汽车 EMC 法规及相关行业标准要求。
- 为初级工程师提供技术指导与带教，助力团队在高压 ECU 设计方法上的能力建设。

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

- 4 年以上汽车高压 ECU 系统设计或硬件开发领域工程经验，有主机厂或一级供应商背景优先。
- 具备纯电动或插电混动车型高压 ECU 架构设计、系统集成与验证的成熟项目经验。
- 拥有覆盖从概念阶段到量产启动全整车开发周期的项目经历。

专业技能与工具能力

- 深入掌握汽车高压系统架构与 ECU 硬件设计原理。
- 熟悉 BMS、OBC、DC/DC、逆变器等核心高压部件及其系统级交互逻辑。
- 熟悉 CAN、CAN FD、LIN、以太网等汽车通信协议；有 AUTOSAR 架构经验优先。
- 熟练使用系统设计工具与需求管理工具，具备 DVP 开发与可追溯性管理的实操经验。
- 熟悉 ISO 26262 功能安全标准与汽车 EMC 要求。
- 有 CANoe、CANape 等诊断标定工具使用经验优先。。

语言能力

- 中文母语水平，听说读写流利。
- 英语流利，可胜任跨团队、跨国界的技术沟通与文档工作。
- 具备德语能力者优先。

核心胜任力

- 优秀的分析与系统思维能力，能够应对复杂的高压系统设计挑战。
- 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。
- 出色的沟通协调能力，可高效对接内部团队与全球供应商。
- 积极主动的问题解决思维，能独立识别技术瓶颈并推动方案落地。
- 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。

我们诚挚期待您的申请！ 请将完整的英文申请材料（请注明最早可到岗日期）发送至邮箱：
careers@cenergy.asia