American Center for Mobility
Job Description

Job title: Smart Mobility Project Engineer

Location: Willow Run, Ypsilanti, MI

Reports to Technical Director

The American Center for Mobility (ACM) is a global development center for transforming the way industries advance safe, sustainable, and secure mobility technologies. ACM offers: an Advanced Mobility Proving Ground with test environments featuring specialized infrastructure, equipment, facilities and resources for ADAS, ADS and connected vehicle technologies; An EV Charging testbed for testing EV charger performance; An innovation and technology campus with an industrial tech park for the co-location of mobility companies; Event and demonstration areas for showcasing mobility technologies and convening industry activities. The American Center for Mobility is open to private industry, start-ups, government, standards bodies, and academia.

ACM is seeking a project engineer to support ongoing activities in EV charging testbed and to make technical contributions in new project proposals for connected, automated and electrified vehicles as part of our safe, secure, and sustainable transportation efforts.

ACM has established an EV Charging & Interoperability Testbed designed to address critical needs in EV charging interoperability testing and collaboration. ACM is moving forward with a phased development of this EV charging & interoperability test bed to work with OEMs, EVSEs and CPOs to improve the consumer and fleet EV charging experience. ACM is facilitating access at their facility to a multitude of different electrical vehicle charger types from various EVSE manufacturers to original equipment automobile manufacturers and others involved in EV research and development for collaboration, testing and development.

The project engineer position requires both engineering and project management skills to work in close coordination with multiple stakeholders including Federal agencies, academia, industry and National Labs. The project engineer will support engineering, implementation, and operation of the EV test bed through its phased development. The position requires supporting engineering deliverables through collaboration with other engineering teams, EVSE, OEM, CPO and utility companies to ensure successful integration of components, design, development, testing, and reporting of EV charging performances. Managing project schedules, identifying potential risks, and effectively communicating them to all stakeholders are also part of the responsibilities of the project engineer.

Project Engineer Responsibilities:

Specifically related to EV Charging testbed, the project engineer will support:
- **Engineering requirements**
    o Understand SAE, ISO and other relevant standards such as ISO-15118, DIN 70121, OCPP, J1772 CCS, and J3400.
    o Develop interoperability technical requirements and develop test cases.
    o Perform testing in lab & field settings.
    o Analyze test data and present it to stakeholders.
    o Update EVSE with HW and/or SW and perform tests to ensure successful updates.
    o Understand EV high power charging, V2G and cybersecurity.
    o Collaborate with industry across CPOs, EVSE Manufacturers, & OEMs. Work with EVSEs and CPOs to expand available charging infrastructure requirements, and integration of new charging infrastructure into the test bed.
    o Make technical contributions in writing new project proposals on EV with industry, academia and Federal agencies.

This is an ideal job for a hands-on engineer with diverse interest and keen on learning. Given ACM's broader focus on safe, secure and sustainable mobility technologies, this position may allow exposure and potential opportunities to support efforts in ADAS, AV, C-V2X, CAV's, cybersecurity and clean hydrogen.

The Smart Mobility Project Engineer position requires:

- **Project Planning, Documentation, Development and Execution**: Collaborate with cross-functional teams to develop comprehensive test plans and protocols to evaluate functionality and performance. Plans should outline test objectives, methodologies, and success criteria. Manage and conduct thorough testing activities, including functional testing, and scenario-based testing, to assess system behavior and performance under various conditions and validate adherence to specifications and requirements. Utilize test management tools to maintain an up-to-date record of testing progress.
- **Data Collection and Analysis**: Collect, analyze, and interpret test data using advanced measurement tools and techniques, leveraging statistical analysis and data visualization methods to derive meaningful insights and identify performance. Summarize findings in clear and concise reports and presentations, highlighting key metrics, observations, and recommendations for improvement.
- **Issue Identification and Resolution**: Identify, troubleshoot, and resolve issues encountered during project execution by collaborating closely with both internal and external stakeholders to diagnose root causes, implement corrective actions, and verify effectiveness through iterative testing cycles.
- **Cross-Functional Collaboration**: Collaborate in internal and external cross-functional teams including SW/HW engineers, systems integrators, and project managers to align and execute project goals, drive continuous improvement, and support advances in testing methods and technology advancement.
- **Tracking and Progress Reporting**: Regularly update project stakeholders on project progress, presenting status reports, metrics dashboards, and visualizations to communicate key insights effectively. Provide timely updates on milestones achieved, risks identified, and any potential impact on project timelines.
- Maintain current knowledge of industry trends, standards, and technologies. Participate in industry events, industry association and/or Standardization committee and technical work groups.

Skills and Qualifications:

- Bachelor's degree in engineering, Advanced engineering degree preferred.
- 2-3 years of related Technical and Project management experience.
- Proven track record in engineering and project management, with a focus on EV infrastructure.
- Additional experience with ADAS, AV, CAV, V2X, cybersecurity, and hydrogen a plus.
- Experience working on Federally funded grant projects (US DOE, US DOT) a plus.
- Experience working in lean cross-functional teams.
- Strong oral, written and editing communications skills.
- Excellent people skills, with experience collaborating in a multi-disciplinary, diverse, and dynamic team.
- Demonstrated resourcefulness in setting priorities, proposing new ways of creating efficiencies, and guiding investment in people and system.
- Flexible and a self-starter; able to manage multiple concurrent projects while also being highly detail-oriented with attention to quality.

Additional Requirements

Qualified candidates must be legally authorized to be employed in the United States. The employer does not anticipate providing employment related work sponsorship for this position (e.g., H-1B status)

ACM is an equal opportunity employer that celebrates diversity and is committed to creating an inclusive environment for all employees. ACM does not discriminate on the basis of race, religion, color, sex, gender identity, sexual orientation, age, disability, national origin, veteran status or any other basis covered by appropriate law. All employment is decided on the basis of qualifications, merit, and business need.