

ECOCAR ***INNOVATION CHALLENGE***

DRIVING THE FUTURE

Innovation Manager

About the Competition: The EcoCAR Innovation Challenge is a four-year collegiate engineering competition in which university teams develop intelligent and energy-efficient vehicle technologies using advanced controls, electrified propulsion, automation, artificial intelligence, and industry-standard development processes.

Mississippi State University will compete in the General Motors track using a 2026 Chevrolet Blazer SS Police Edition EV. Students will contribute to the design, integration, and validation of advanced propulsion, electrical, controls, and autonomous vehicle systems.

Overview: This posting is for a fully funded graduate research assistant position (or hourly undergraduate for well-qualified candidate) to serve as the Innovation Manager. This leadership role is ideal for an engineering student interested in developing skills at the intersection of technology, innovation, entrepreneurship, and commercialization.

The Innovation Manager will lead the team's innovation efforts by applying the principles of the Lean Business Model Canvas and the NSF I-Corps™ Customer Discovery process to evaluate technologies developed within the EcoCAR program. Working closely with technical teams and faculty mentors, the Innovation Manager will help identify customer needs, validate market opportunities, and explore commercialization pathways for emerging vehicle technologies and component innovations.

The insights generated through customer discovery and market research will help inform technology development decisions, reduce technical uncertainty, and guide some component design priorities throughout the EcoCAR project.

Benefits:

- Graduate students
 - Full tuition exemption, ~\$2000/month stipend, and health insurance



- reimbursement
- Undergraduate students
 - Hourly pay
- Mentorship and training from industry engineers, faculty, and other students
- Increased job opportunities
- Travel to workshops and competitions
- Opportunities to apply classroom knowledge to industry level experience

Requirements:

- Currently accepted/enrolled in an engineering program at MSU for FALL 2026
 - Must be available until May 2027 (minimum)
- Majoring in Electrical and Computer Engineering, Computer Science Engineering, Software Engineering, or related field

Job Description:

The Innovation Manager will serve as the leader of the Innovation Team and work collaboratively with engineering, project management, communications, and faculty advisors to integrate customer and stakeholder feedback into the engineering design process.

Primary responsibilities include:

- Lead and coordinate the EcoCAR Innovation Team.
- Apply Lean Business Model principles to assess the commercial potential of EcoCAR technologies.
- Conduct customer discovery interviews using the NSF I-Corps methodology.
- Identify and engage relevant stakeholders, including potential customers, industry partners, suppliers, and end users.
- Analyze customer discovery data to identify unmet needs, market opportunities, and barriers to adoption.
- Develop and refine value propositions for technologies created by the EcoCAR team.
- Research market trends, competing technologies, and commercialization opportunities within the automotive and mobility sectors.
- Document customer insights and communicate findings to engineering teams to reduce uncertainty in component and system design decisions.
- Assist with intellectual property awareness, technology transfer discussions, and commercialization planning as appropriate.
- Prepare presentations and reports summarizing innovation activities for sponsors, judges, and project reviews.
- Collaborate with multidisciplinary student teams to integrate customer-centered design principles into the engineering development process.

Skills and Qualifications:

- Undergraduate student in any STEM field.
- Strong interest in innovation, entrepreneurship, product development, or technology commercialization.
- Excellent written and verbal communication skills.
- Strong organizational and project management abilities.
- Ability to conduct interviews, synthesize qualitative data, and communicate findings effectively.
- Comfortable working with multidisciplinary teams.
- Self-motivated with strong critical thinking and problem-solving skills.
- Interest in the automotive industry, advanced mobility technologies, or sustainable transportation is a plus.
- Experience with market research, customer discovery, business model development, or entrepreneurship is beneficial but not required.

What You Will Learn

Students serving as Innovation Manager will gain hands-on experience in:

- Lean Startup and Lean Business Model methodologies
- NSF I-Corps Customer Discovery process
- Technology commercialization
- Product-market fit evaluation
- Market and competitive analysis
- Customer-centered engineering design
- Technology strategy and innovation management
- Cross-functional leadership and project management
- Professional communication with industry stakeholders

This position provides an excellent opportunity for students interested in careers in engineering management, entrepreneurship, product management, consulting, research commercialization, or technology innovation while contributing to the development of next-generation automotive technologies through the Mississippi State University EcoCAR program.

Interested candidates should apply soon [here](#) to allow onboarding with the start of the semester. If you have any questions, please send an email to jeball@ece.msstate.edu.