AIDC Eastern Cape

Automotive & eMobility Hackathon 2025

1 -3 August (To Be Confirmed)

Purpose

The AIDC Eastern Cape Automotive & eMobility Hackathon is one of several projects on behalf of the province which mainly seeks to promote engineering skills amongst youth, support the after-market industry, support component suppliers with competitiveness, leverage data tools to lobby and support advocacy, adopt localised solutions for new energy vehicles, implementation of policy, and raise Awareness about the economic impact of the sector.

The objective of this Hackathon is to leverage the Engineering skill available within the province and enable an environment for development of innovative solutions from TVET, University, Post-grad and Alumni students in attempt to address the gaps of meeting the Goals of the Eastern Cape Automotive Masterplan 2035 core pillars.

Background

The Eastern Cape Automotive Masterplan 2035 highlights a clear set of challenges faced by the Automotive Sector. It is confronting a range of human capital retention, global technology, environment, and competitiveness headwinds, while simultaneously dealing with depressed domestic and regional market conditions. At the same time, the industry exhibits substantial potential to continue to enhance employment opportunities within other sectors as well.

Participation is open to all Eastern Cape based students in TVETs, Universities, Professionals Working in Industry, Trades practitioners, and General Entrepreneurs who have relevant ideas to contribute to the challenge.

Expertise is recommended but not limited to fields such as Electrical Engineering, Mechatronics, Mechanical Engineering, Industrial Engineering, Geotechnical Engineering, Chemical Engineering, Aerospace Engineering, Environmental Engineering, Software Engineering/Computer Science, Marine Engineering, Structural Engineering, Agricultural Engineering,

All teams that make it through all the stages will present their final solution ideas to a panel of judges to determine the overall winner.

Pillars of the Eastern Cape Automotive Masterplan 2035

- Pillar 1: Investor Retention and Attraction.
- Pillar 2: Support SMMEs in the Aftermarket Industry
- Pillar 3: Support transition towards production and consumption of new energy vehicles and climate change mitigation
- Pillar 4: Support competitiveness and development of component suppliers
- Pillar 5: Promote Automotive Industry Dialogues and Thought Leadership
- Pillar 6: Facilitate Quality Engineering Skills for the Sector
- Pillar 7: Lobby and Advocacy for an enabling business and investor friendly environment

Hackathon Objectives

Identify Problems: Use Design Thinking or similar approaches to understand and document new or existing problems related to the Eastern Cape Automotive Masterplan 2035 pillars.

Propose Innovative Solutions: Develop, Create, Make and Propose solutions that can mitigate or eliminate the challenges limiting advancement towards the Eastern Cape Automotive Masterplan 2035.

Collaborate and Learn: Enable a conducive environment that encourages teamwork, peer learning, and collaboration among students and industry professionals from various Engineering backgrounds.

Prototype Development: Present a feasible concept demonstration or working prototype with supporting documentation of the proposed solution for the province.

Continuous Improvement: Provide relevant support to ideas which have potential to gradually improve cost effectiveness, work efficiency, and embrace Sustainable Development Goals over a sustained period.

Hackathon Structure

- **Participant Recruitment (March 31 – July 4, 2025)**
  - Interested individuals must register on the online registration form by July 04, 2025, providing all required personal, education background, skills and other related information or details.
- **Hacker Onboarding (August 1, 2025)**
  - 48-Hour Hacking Official Kick Off event featuring the main keynote address, workshops, industry technology demonstrations, and the handout of branded merchandise to registered teams.
  - The Kick Off event will conclude with a networking session, allowing participants to engage with speakers, mentors, and industry professionals.
- **Hackathon Proceedings (August 1 – August 3, 2025)**
  - Hackathon proceeds with scheduled breakfast, lunch, and supper including refreshments to be supplied for hackathon participants.
- **Judging Session (August 3, 2025)**
  - Teams that make it through all the disqualification phases will have to present their final solution ideas to a panel of judges.
  - Presentations will require teams to show the full case of their project feasibility. The top 3 solutions will be chosen based on a score received from the Judges.
- **Hackathon Winner Announcement (August -tbc-, 2025)**
  - Winners of the 2025 instalment of the hackathon will be publicly announced at the 2025 NAACAM Show to be held in Gqeberha, affording them a 5-minute opportunity to exhibit and pitch their solution to potential investors at the event.
- **Promotion and Marketing**
  - The AIDC-EC will use all captured content to promote and market the team's participation in the hackathon.
  - The AIDC-EC will be responsible for issuing all official press releases regarding the event and acknowledging all stakeholders who have contributed or participated in ensuring its success.
- **Reporting and Sustainability**
  - The AIDC-EC will store all data collected as well as any official submission made by participants who sign up to contribute to this initiative. All data collected not be shared, it will be used for informing continuous improvement efforts and engaging relevant provincial stakeholders.
  - Teams who make it to the final stages will continue to receive support from AIDC-EC to see their solutions return for improvement in the next instalment of the hackathon, while other participants are afforded the opportunity to enter again with new ideas or groups.

Capture the Flag

- **CTF Challenge**
  - Capture the Flag is a series of short technical skills crash courses which are delivered by partners to hackathon participants as a way of introducing them to industry technologies and tools. It follows a sandbox style of engagement and enhances the overall experience of the hackathon.
  - Industry Companies are encouraged to design and deliver short courses with clear goals for the participating hackers to complete, the first person to complete the lesson is declared as having "captured the flag" meaning they completed the lesson and are rewarded with a small prize.

Next Steps

Opportunities to partner with the AIDC-EC in this initiative include various contributions to enhance the experience of the participating hackers and improve the overall impact of the initiative to the successful implementation of the Eastern Cape Automotive Masterplan 2035 objectives.

For any queries or further details, please contact:

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