



AIDC Engineering Trainee Programme

The Automotive Industry Development Centre (AIDC) was established as a government support centre to increase the local automotive and allied industries' global competitiveness. The organisation has expedited economic growth within the automotive sector by partnering with key stakeholders such as industry leaders, government, and non-government agencies, amongst others.

The AIDC's Supplier and Enterprise Development Department (SEDD) was established to drive competitiveness for the automotive industry's tier 1, 2 and 3 suppliers. The key focus of SEDD is on interventions and the provision of assistance to companies in the automotive and allied industry. Such assistance entails a combination of improvement interventions related to productivity, quality assurance, quality management systems like ISO 9001: 2015 and management systems e.g. automotive quality management such as AITF 16949: 2016 or the Core Tools. It includes environmental (ISO 14001: 2015), lean and clean (e.g. green initiatives as related to the Government's low carbon economy projects or ISO 50001: 2018 related to energy management systems) manufacturing concepts and logistics enhancement programmes. SEDD also provides the necessary technical expertise to the various other departments of the AIDC.

In 2012/13 Financial Year (FY), SEDD launched an engineering trainee programme that was aimed at addressing two key elements, namely: 1) the unemployment issue in the country, by providing an opportunity for youth to gain experience and improve their chances for employment, 2) to ensure companies achieve improved levels of efficiencies by utilising the extra resources that is provided by this programme.

In this programme, engineering students go through a recruitment process conducted by the AIDC and are contracted to the AIDC for a period of not less than six months. Students are then placed in companies that are also contracted to the AIDC and are mentored by an AIDC Project Manager who is also a qualified engineer. Although the programme has mainly contracted Industrial and Mechanical engineering students, it is not limited to these fields only – it depends on the need of the company or client.

Before placement in the companies, students first undergo induction at AIDC and then the second induction at the host company as per the requirements of the host company. A company mentor is assigned to manage the day-to-day activities of the students, and the project managers visit the companies where the students are placed on a weekly basis to define the project scope, compile the project plans and project steps and assign tasks to the students for the next week. The AIDC Project manager and the company mentor are responsible to ensure that all activities assigned to the students are in line with the experiential curriculum requirements for the qualification that the student is pursuing. The assigned activities include the project objectives and the basic engineering and project management concepts and practices, that will assist a junior engineer in entering the business sector and the field of engineering.

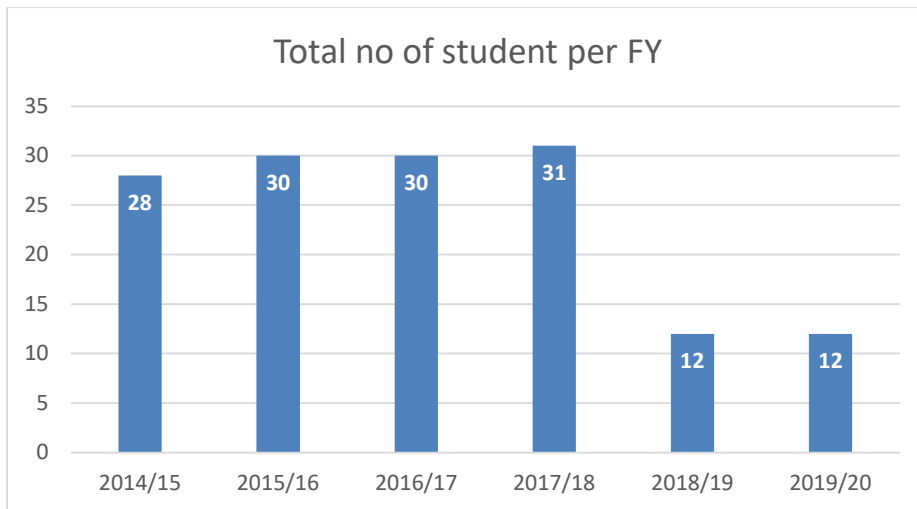
This is a learn-by doing programme where the respective AIDC project manager assists the student to understand their course choice and to apply the theoretical content in a real industry environment. During the programme, students also acquire crucial skills such as Root-cause analysis, Gap analysis, Problem solving, Presentation skills, Report writing, Teamwork and client engagement, to name but a few.

Students meet monthly to present to each other, SEDD management and to the SEDD project managers on what they have been doing in the past month, what they have learnt and what is the plan of action in the upcoming month based on AIDC student monthly review meeting methodology and supporting process documents. These monthly review meetings (MRM's) give the project managers and management as a collective, the chance to assess where individual students are experiencing difficulties and then put together an action plan to assist such students. These meetings also help the student to learn presentation skills, proper project reporting and how to define what should be reported to management for management to receive adequate and useful project information in a brief and concise package; which is crucial in all projects and workplaces. The indicators mentioned above, are then rated on a MRM-scoring sheet adjudicated by the project managers and participants. The scoring results from project managers' carries a higher weighting in comparison with the ratings from other participants. During the adjudication process, participants and project managers have the opportunity to pose probing questions and provide constructive criticism to each presenter. The winning presentation is the one that has proven to have correctly applied any of the problem-solving methodologies (or lean tools) and has managed to come up with countermeasures that has added value to their host company. The winner is announced at the end of the meeting and is rewarded with a floating trophy – see picture below.



AIDC Project manager handing over the floating trophy during one of the student's Monthly Review meetings (MRM).

The SEDD student programme has proven to be successful in that majority of the students are absorbed by their host companies and many of them go on to obtain senior positions within their host companies or elsewhere in the industry. The AIDC's SED department has successfully mentored over 140 students from 2014/15 and 2019/20 financial years as per graph below.



GRAPH: Showing the number of students who were mentored by the AIDC's SEDD Project manager since the 2014/15 to the 2019/20 Financial Year

Majority of the interns (in excess of 90%) were either absorbed into the companies they were placed in, or were appointed in industry long-term positions within 6 months from completing the engineering trainee programme. It is through programmes like this that South Africa can reduce the severity of unemployment in the country.

Below are some of the quotes from some Students who went through this programme and some companies who hosted the students:

- a) *"The AIDC helped to identify the need for a dedicated and experienced quality engineer during the advanced product quality planning process in [KPL] becoming the VW South Africa supplier. The AIDC [through their student programme] also assisted in providing shortlisted candidates for the interview process and assisted with the interview process [itself] where upon Kuku Maringa was appointed on a permanent basis on the 01/07/2019"- S. Marengo, Managing Director, KPL.*
- b) *"The AIDC Engineering Trainee Programme ensures that the theory gained in University is transitioned into a powerful practical tool which helps businesses to increase production, reduce costs, improve quality, reduce waste, and to simply sum it up, it is a Programme which brings about change in our everyday living" – Nyiko Marhanele, Junior Project Manager, Armscor.*
- c) *"The exposure and engineering experience that is gained through the programme assisted me to apply the theoretical knowledge acquired [from university] in the most efficient and practical manner, and therefore developing skills that are required by the industry " – Cyril Shibandekano, Trainee Project Manager, AIDC.*
- d) *"Being in this engineering trainee programme with the AIDC has provided me with necessary skills to fit into the industry and developed my ability to implement lean principles and energy management practises to manufacturing industry" - Siphwesihle Lukhele, AIDC*

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