

New Mechatronics Academy targets automation industry skills shortage

ElectroMechanica (EM), in collaboration with Polytech Africa, is establishing the first Mechatronics Academy to be accredited by the Manufacturing, Engineering and Related Services Sector Education and Training Authority (merSETA).



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Mechatronics is a combination of mechanics and electronics, comprising a multi-disciplinary engineering field that is a key player in industry 4.0, the current trend of automation and data exchange in manufacturing technologies. It encompasses cyber-physical systems, the Internet of things, cloud computing and cognitive computing.

Creating such a unique Mechatronics Academy has been the lifelong dream of Polytech Africa founding director Astrid Straussner, who has over 20 years' experience in the education and engineering fields. Polytech Africa is a start-up business with Level 4 Broad-Based Black Economic Empowerment (B-BBEE) accreditation.

The Mechatronics Academy will focus on the National Qualifications Framework (NQF) Level 2 learnership. This is based on essential aspects of precision mechanical engineering, electronics, and computer design systems used to control and automate mechanical products with electrical signals. Here EM plays a vital role, as its specialised products include the Delta industrial automation range.

Upon completion of the NQF Level 2 qualification, certificate holders will be able to gain entry to highly-skilled sectors such as mechanical and electrical engineering, pneumatics and hydraulics, robotics, Programmable Logic Controllers (PLCs), Computer Numeric Control (CNC), industrial Information Technology (IT), the automotive sector, and also precision welding.

"Educational institutions cannot be islands on their own, and require the cooperation of both the government and the private sector. Here is where EM's active involvement is so crucial, as it is important that students are exposed to the latest products and developments, especially given the fact that industry 4.0 and the Internet of Things are a reality in South Africa," Straussner stresses.

She adds that the Mechatronics Academy will play a vital role in addressing the skills shortage in the automation industry, particularly in Africa. "While we have a good skills base in South Africa, the main problem is the pipeline of younger people entering the field. We definitely need to enhance the existing skills and develop new ones. This is important to ensure that we are able to cope with the skills requirements of industry 4.0 throughout the continent."



EM Director Andrew Nobbs reveals that Straussner's passion and commitment to technical education inspired the company to support the establishment of the Mechatronics Academy, which goes far beyond the definition of a traditional training facility. "We are upping the ante on the usual product training to offer a fully-accredited and recognised Academy that give learners a skills-based education to prepare them for the workplace of the future," Nobbs highlights.

"EM has in the recent past placed a much stronger focus on training and skills development of high-potential staff, in almost all aspects. Our customers and the industry will have access to employees who are workplace-ready through on-the-job skills development, with formal accreditation. The skills pool, in turn, will become deeper and more competitive – all of this while completing an important social responsibility to ensure the next generation is ready for the future," Nobbs stresses.

The main driver for EM in launching the Mechatronics Academy is to consolidate its training offering into accredited, standardised courses that can be offered out of Polytech Africa. "This will ensure the best quality of training possible for our customers, so they are comfortable working with our automation equipment. In turn, it will allow our staff to focus on their core responsibilities," Nobbs comments.

The initial student intake includes two of EM's own employees. These consist of one who has been working for the company for two years, and one who is new to the company. They will attend classes in conjunction with continuing to work at EM.

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