

# Brand-new qualification in Mechatronic Engineering for the NWU

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The Faculty of Engineering at the North-West University (NWU) is proud to announce that we will be adding a brand-new engineering qualification to our existing range of programmes. The Bachelor of Mechatronic Engineering programme has been approved by the Engineering Council of South Africa (ECSA) and will allow graduates to compete internationally on the world stage. This programme will be offered as from 2021.



Mechatronic Labs

## What is mechatronic engineering?

Mechatronic engineering, which is also referred to as mechatronics, is a multidisciplinary branch of engineering that focuses on the engineering of electrical as well as mechanical systems, and also includes a combination of robotics, electronics, computer, telecommunications, systems, control, and product engineering.

As technology advances over time, various subfields of engineering have succeeded in both adapting and multiplying. The intention of mechatronics is to produce a design solution that unifies each of these various subfields. Originally, the field of mechatronics was intended to be nothing more than a combination of mechanics and electronics, hence the name being a portmanteau of mechanics and electronics. However, as the complexity of technical systems continued to evolve, the definition was broadened to include more technical areas.

#### What we offer

At the NWU we produce engineering graduates that change the world. Our mechatronics programme aims to promote this ideal by providing much-needed skills in the industrial automation space. Our programme is unique in that it allows students to focus on projects in the community that develops medical devices (such as intelligent prosthetics) or products in the low-cost agri-processing domain. The latter is especially important to ensure a sustainable modern society for everyone.



Siemens S7-1200 conveyor trainer

#### Our facilities and partners

Our collaboration with industrial partners such as Siemens provides our students with hands-on access to modern process-control equipment in a brand-new industrial automation laboratory. The NWU is also uniquely positioned to equip graduates with simulation software (Siemens NX and MCD) and expertise to virtually design and commission designs.

In addition, the Industrial Automation Training Centre (IATC) in the faculty allows students to obtain a complementary bundle of industry certifications at highly reduced rates. This improves the employability of graduates significantly.

Mechatronic engineering at the NWU is not just about electronics, measurement, control, embedded systems and mechanisms. It is a holistic approach that combines expert domain knowledge and the latest technology to solve problems, now and in the years to come.

View this informative video for more about the NWU's programme in mechatronic engineering: <a href="https://www.youtube.com/watch?v=1J8xYCmSgtl">https://www.youtube.com/watch?v=1J8xYCmSgtl</a>.

Should you wish to enquire about this exciting new opportunity, feel free to contact us:

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The North-West University (NWU) is one of South Africa's top five universities; that offers superior academic excellence, cutting-edge research and innovation and teaching and learning. It all starts here.

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