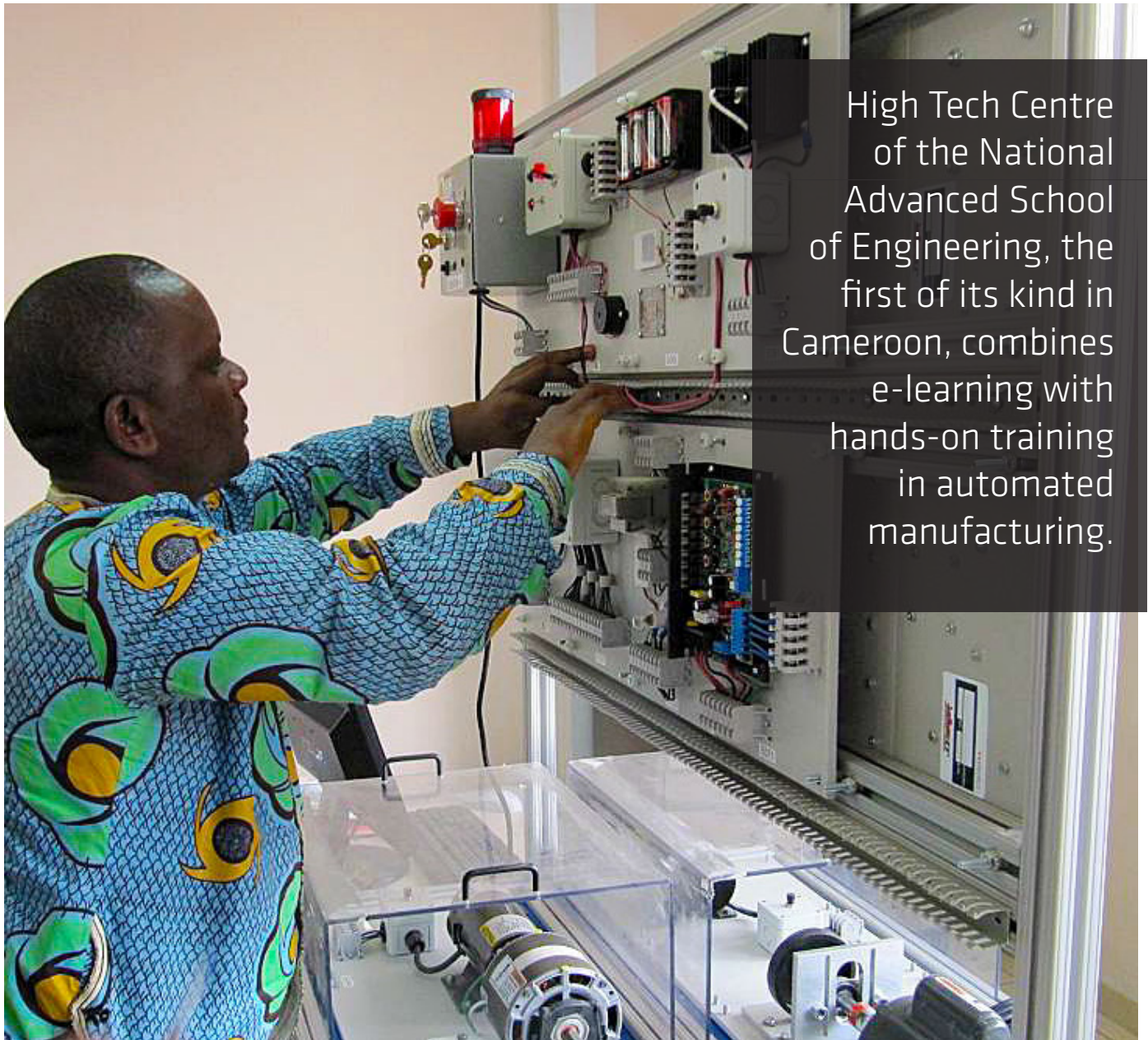


CASE STUDY

ECOLE NATIONALE SUPERIEURE POLYTECHNIQUE

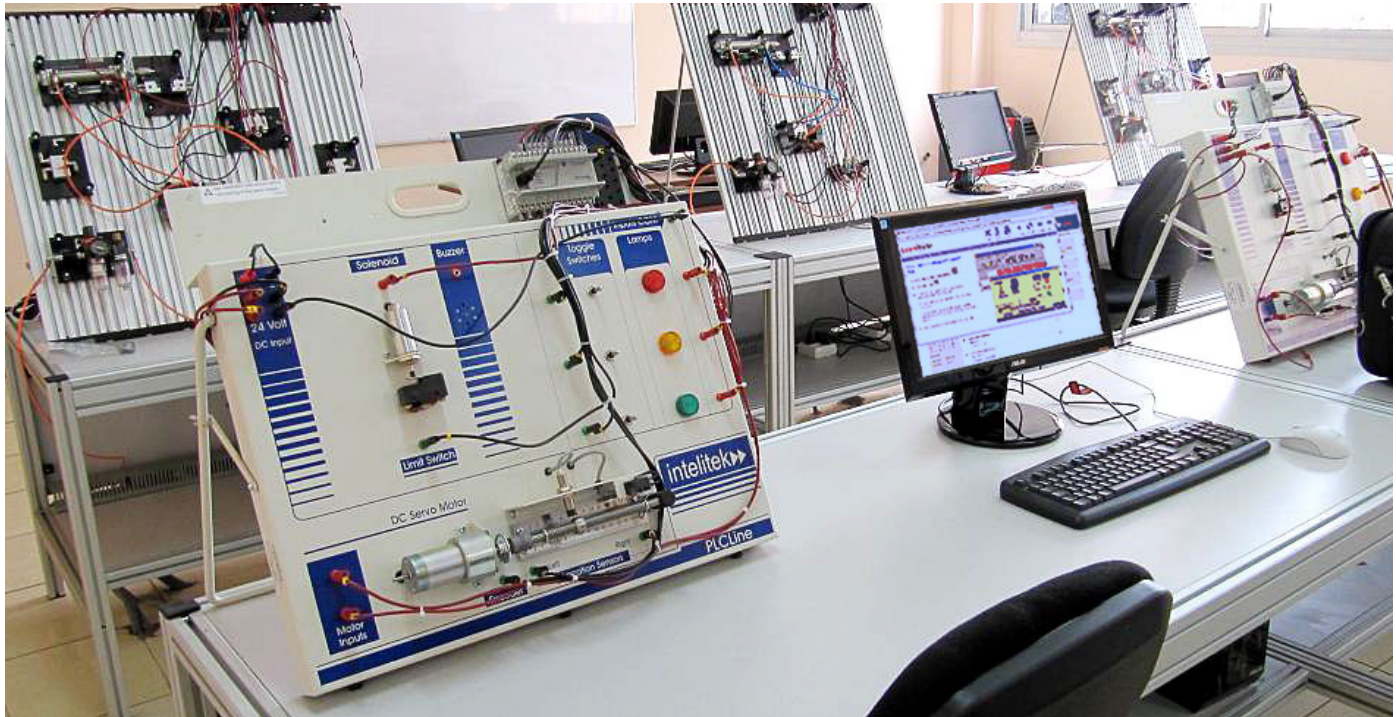
Yaounde, Cameroon



High Tech Centre of the National Advanced School of Engineering, the first of its kind in Cameroon, combines e-learning with hands-on training in automated manufacturing.

INSPIRING STUDENT ACHIEVEMENTS

intelitek▶▶[®]



The Mechatronics lab is one of 12 labs dedicated to technology training at the ENSP High-Tech Centre in Cameroon.

Integrated lab brings cutting-edge technology to ENSP campus

The High-Tech Centre at ENSP (Ecole Nationale Supérieure Polytechnique) in Yaounde, Cameroon, is the most technologically advanced educational facility in Cameroon, thanks to the recent construction of a two-story lab for a comprehensive engineering and manufacturing program.

In 2012, after years of planning, the High-Tech Centre at ENSP (Ecole Nationale Supérieure Polytechnique) in Yaounde, Cameroon, opened its doors. Inside were sights rarely seen in the African country.

The High Tech Centre consists of 12 laboratories, over 100 robots and 160 computers dedicated to education in advanced technologies like robotics, automation and mechatronics.

The lab, installed by Intelitek, is located at the National Advanced School for Engineering of the University of Yaoundé 1. The facility is dedicated to the training of engineers in industrial robotic automation.

Professor Jacques Fame Ndong, the Minister of Higher Education, noted that the centre will be open for use not only by students of the National Advanced School for Engineering but also by students of all State and Private Institutions of Higher Education in Cameroon and the Central African Sub-region.

The development of this educational facility is part of Cameroon's initiative to build its engineering education infrastructure so that Cameroonian engineers can be competitive in the World market.

THE FIRST OF ITS KIND IN CAMEROON AND CENTRAL AFRICA

The building itself is the most modern, comprehensive and technology-rich educational facility in Cameroon and the sub-region of Central Africa.

Two floors house 12 large laboratory halls, management offices and a communications hub. All electrical infrastructure is run under the floors, providing clean and inviting studying environment.

2 large E-learning classrooms consisting of 62 computers are connected via high-speed Intranet with an integrated E-learning server to deliver the content, graphics and simulations featured in the courses throughout the lab.

The LearnMate Learning Management System (LMS) provides tools to manage the classroom, track students' progress, grade assignments and validate achievements.

The E-learning classes include Manufacturing, Electric Control/Electronics, Environmental and Civil Engineering, Industrial Maintenance, Process Control, Quality Control, CNC, Design and Robotics.



STUDENTS TOUR THE CNC LAB

THE CNC LAB

7 industrial-grade mills and 7 industrial-grade lathes with a Dedicated computer to each machine and full integration with e-learning content including the ability to launch CNC software from the content.

THE MANUFACTURING LAB

State-of-the-art computerized manufacturing system enables students to automate the production process from raw material to finished product with no manual intervention.

Optimization, inventory, lead time and quality control are all automated and part of the curriculum.

Robotic systems automate the warehouse and inventory control, and tend several manufacturing stations on the floor.



THE COMPUTER INTEGRATED MANUFACTURING (CIM) LAB

THE ELECTRICAL / MECHANICAL MAINTENANCE LAB

Modular industrial maintenance trainers deliver skills-based training.

The Electro-mechanical maintenance cell provides a capstone project, enabling students to demonstrate skills by fully assembling all the components in a modern industrial plant in a semester.

THE ROBOTICS LAB

7 industrial grade robotic stations with a dedicated vision system and e-learning content.

THE MECHATRONICS LAB

Desktop trainers with e-learning content in mechatronics topics:

- Pneumatics
- Hydraulics
- Programmable Logic Controllers
- Mechanical Measurement
- Quality Control
- Sensor Technology
- Mechanism Technology



THE JOBMASTER 1600 MAINTENANCE CELL - CAPSTONE PROJECT



PROF OUMAROU BOUBA, RECTOR OF THE UNIVERSITY OF YAOUNDÉ 1, AND PROFESSOR JACQUES FAME NDONGO, MINISTER OF HIGHER EDUCATION, TOUR THE FACILITY



The High Tech Center opens its doors and opens opportunities to Cameroon's students

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