CUSTOMER CASE STUDY

At the Universidade Federal de Campina Grande, chemical engineering students travel from all over Brazil for exposure to engineering and simulation tools through the AVEVA Academic Program

UFCG
Industry - Education

Goals

- Enable professors to better train future professionals.
- Expose chemical engineering students to AVEVA Process Simulation, the new paradigm in process engineering.
- Strengthen the relationship between AVEVA and UFCG's Chemical Engineering Department.

Challenges

- Without training or familiarity with modern industry software, students were less prepared to enter the real world.

AVEVA solution

- AVEVA™ PRO/II™ Simulation (formerly PRO/II)
- AVEVA™ Dynamic Simulation (formerly DYNSIM)
- AVEVA™ Process Simulation (formerly SimCentral)

Results

- Total immersion of new technologies in the daily life of 200+ chemical engineering students.
- AVEVA Process Simulation's open environment provides a unique opportunity for students to see how a simulator works.
- AVEVA software allows the inclusion of new routines and differential equations in simulator training.

Molding tomorrow's engineers with the AVEVA Academic Program

Paraiba, Brazil – The Federal University of Campina Grande attracts thousands of students from throughout Brazil and the world seeking an education in chemical engineering. During a joint project with Petrobras, chemical engineering students designed, implemented and executed a process engineering package using AVEVA PRO/II Simulation, AVEVA Dynamic Simulation, and AVEVA Process Simulation. Today, through the AVEVA Academic Program, chemical engineering students are exposed daily to AVEVA solutions, and better preparing for their careers using modern process engineering tools.

Building relationships with tech-focused universities

Known as the Brazilian Silicon Valley, Campina Grande is a university city with approximately 400,000 inhabitants. The university currently has around 16,000 students in varying undergraduate and postgraduate courses, while the chemical engineering program with undergraduate and postgraduate courses has around 350 to 400 students enrolled.

"My goal for this project is to promote our AVEVA Academic Program and have an impact in the global university culture, by showing our commitment to investing in the future of chemical and petroleum engineering world and how we expose chemical engineering students to the new paradigm in process engineering: AVEVA Process Simulation."

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Mihaela Hahne,
Manager, AVEVA Academic Program

It's at UFCG that chemical engineering students are preparing for their careers by gaining exposure to engineering and simulation tools through the AVEVA Academic Program, a cloud access program offered to universities as a way to expose students to real-world process simulation solutions.

"With AVEVA, our students have direct access to industrial scenarios, earning more specific knowledge, being truly prepared to face the challenges of professional life."

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Dr. Heleno Bispo,,
Professor of Chemical Engineering, UFCG

Firsthand exposure with long run benefits

UFCG's first contact with the AVEVA Academic Program was in 2011 during a joint project with a local Petrobras process control plant. Chemical engineering students were exposed to AVEVA PRO/II Simulation and AVEVA Dynamic Simulation for the development of a plant-wide technical methodology that identifies process variables using a supplemental add-on for Excel.

The experience with the AVEVA solution represents a differential for UFCG's chemical engineering students. They gain exposure to many industrial scenarios that mimic reality, which sharpens their ability to evaluate and act in future real situations. Furthermore, having easy access to AVEVA solutions during their development creates a point of differentiation for these students. Their familiarity with digital transformation coming out of school better equips them for job placement in a process engineering field.

"Learning about these softwares during the chemical engineering graduation course has certainly made the difference in my career. Especially in the area of digital transformation. The solutions from AVEVA have been essential in my training."

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Willy Araujo,
Masters of Chemical Engineering Student, UFCG

"AVEVA Process Simulation's open environment provides a unique opportunity for students to see how a simulator works. The software allows the inclusion of new routines, differential equations, all that context that we see in theory that can be truly applied in practice in a simulator."

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Dr. Heleno Bispo
Professor of Chemical Engineering, UFCG

Gaining real world experience with professional level tools

The development of process modeling in UFCG's chemical engineering courses is essential to the makeup of the University and its students. Understanding the steps of process modeling, from the mathematical equations to the simulation application, is fundamental for a comprehensive education. With AVEVA's platforms, support, and cloud-based structure, it is possible for students to gain all the necessary training for a future in engineering.