

UPM Laboratory: Technical University of Madrid

Customer

The School of Telecommunications Systems and Engineering of the Technical University of Madrid (ETSIST-UPM)

Challenge

To create a modern curriculum that incorporates Wi-Fi fundamentals with the use of Ekahau Pro for real-world design and network optimization skills.

Solution

Ekahau Pro
Ekahau Sidekick

Results

ETSIST not only gives students a great understanding of wireless principles, but they provide a meaningful experience with the tools their engineers will use in the workplace.

Teaching Innovation with Ekahau Pro

Mobile communications are increasingly influential in our daily life. As businesses continue to rely more on wireless connectivity, they are hiring new positions requiring the technical ability and robust understanding of Wi-Fi technology to help solve the challenges facing networks.

In line with market trends, the School of Telecommunications Systems and Engineering of the Technical University of Madrid (ETSIST-UPM), located at the UPM South Campus, is committed to giving students the knowledge they need to be competitive with today's requirements.

ETSIST makes sure to stay up to date with the latest technical innovations and leverages industry-leading Wi-Fi design solutions from Ekahau to equip their students with the skills they'll need to enter the workforce.

Solution

Prof. Juan Moreno García-Loygorri and Prof. Antonio Pérez Yuste lead the integration of Ekahau Pro for network planning and site surveys throughout the Mobile Communications curriculum at the School. With access to the Ekahau solution, the students focus on solving complex problems that limit wireless network performance and reliability. Ekahau's partner, Ayscom, oversaw the availability of Ekahau Pro licenses for ETSIST students.

How it Works

After establishing a baseline knowledge of Wi-Fi fundamentals, students are split into groups and tasked with planning a wireless network for the university laboratory with requirements consisting of Voice + Data usage, high density, multiple floors and a need for a real-time location system.

The students create designs to comply with all the requirements for each situation and work together to validate their predictive designs with onsite survey techniques. In addition, students also learn to generate reports and analyze the collected data.



“Ekahau is such a widely used tool in the industry that it was the first choice for doing this laboratory.”

Juan Moreno García-Loygorri
Department Head, School of
Telecommunications and System
Engineering, Technical University
of Madrid

Results

At the completion of the course, reports are evaluated and students are required to demonstrate their use of Ekahau Pro for network planning and site surveying before graduating from the class.

The objective of the study was to not only give students an understanding of wireless principles, but to give them meaningful experience with the tools they'll use in the workplace. That's why UPM Professors Juan Moreno García-Loygorri and Antonio Pérez Yuste chose Ekahau Pro for this laboratory study.

Knowing how to use Ekahau tools is an incredibly valuable skill for Telecommunications Engineers entering the field. In the words of Prof. Juan Moreno: “Ekahau is such a widely used tool in the industry that it was the first choice for doing this laboratory.” Ekahau remains the undisputed industry standard and the future of Wi-Fi is designed and supported by those trained in Ekahau.

After a successful pilot program, ETSIST has continued to teach the study of high density Wi-Fi networks and the use of Ekahau tools in their curriculum.