Using technology to make a better world

Antonio Jarquín Laguna came to Delft from Mexico to follow the Master Sustainable Energy Technology. "This was the only university in the world that offered this Master with a technical approach to renewable energy."

Antonio Jarquín has always been interested in sustainable energy resources. After completing his BSc in Mechanical Engineering in Mexico, he went to work with aviation turbines. A few years later, he wanted to combine turbine technology with sustainability and came to Delft to study wind turbines.

"During the first year of this Master's you study a broad range of sustainable energy-related subjects," he says. "But in the second year you can choose a specialisation, and I chose wind energy." He is now working on a two-month project to develop a new hydraulic turbine for offshore applications.

In Mexico there aren't many wind turbines yet. Engineer Jarquín would like to apply his knowledge there in the future: "I want to use this technology to make a better world."

He appreciates the educational system in Delft. "You have to work a lot by yourself and in group projects with other students. Only then the questions and doubts come up. You learn a lot from trying to apply theoretical knowledge that you learned in class."

Antonio Jarquín Laguna
student Master Sustainable Energy Technology

Learning through developing practical applications

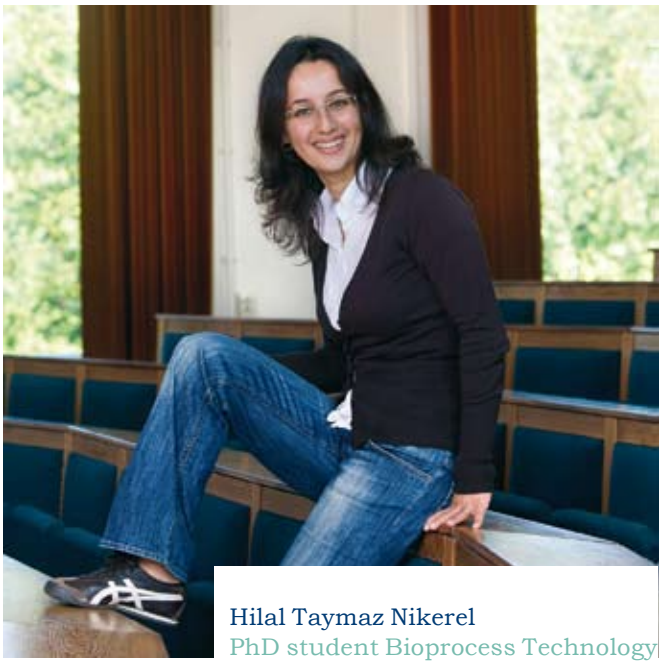
Hilal Taymaz Nikerel, a chemical engineer from Turkey, decided to come to Delft University of Technology because it has a good reputation. She is working on a PhD project to create a dynamic computer model of all internal processes of E.coli bacteria. "There's a great atmosphere in my lab, everyone works together as a team."

"E.coli bacteria are used in the production of various useful compounds for industry," Hilal Taymaz explains. "The aim of my project is to improve the product yields. For this, you need information about the internal processes of the organisms." By measuring certain compounds in the cells, she tries to obtain information on the bacteria's natural chemical reactions. She then uses this data to make a mathematical model that describes all of E.coli's production routes.

"I learn a lot from discussing the project with my professor. He gives feedback when necessary but I'm also free to make my own decisions."

Hilal Taymaz also learned a lot about different cultures from the university's international community. "I made friends with people from Europe, South America, Asia and Africa. It makes you aware of the differences between us but also how much we have in common."

She appreciates the fact that most research projects in Delft are industry-related. "It's always about practical applications, very result-oriented. Science is a lot about learning but in the end, it's nice to be able to do something that benefits humanity."



Hilal Taymaz Nikerel
PhD student Bioprocess Technology