

CANSU KÖSE

A HUGE FAN OF THE STUTTGART S-BAHN



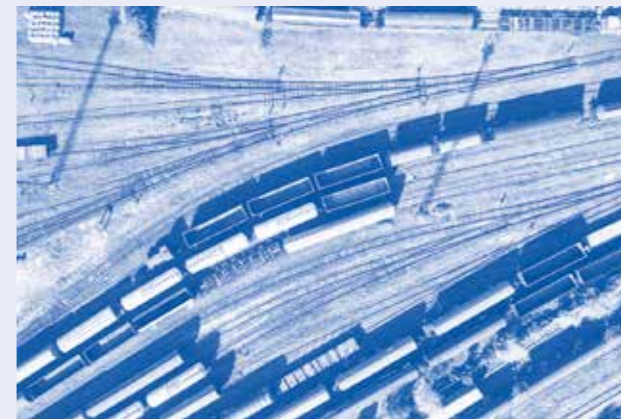
TEXT: Miriam Hoffmeyer

During his studies, structural engineer Cansu Köse developed a fascination for highly complex networks and security technology. She currently works for the Thales technology group.

The questions that Cansu Köse asks herself every day all begin with "what if...". For example, she might ask herself what would happen if a software or hardware error were to unblock an operating system in an interlocking tower that was undergoing maintenance or where else such an error could occur and what could be done to prevent it. "We theorize about a very large number of use cases," Köse explains, "because many sources of danger are not immediately obvious." The young structural engineer, who grew up in Istanbul and studied in Stuttgart, specializes in interfaces between control and operator interfaces and other electronic systems. She has been working in the Safety Department of the Thales Deutschland technology group in Ditzingen for the past four years. Her team specifies the requirements with which safety-relevant systems and products must comply in accordance with European standards before they can be used in the rail transport system. "We also specify the requirements that need to be tested and the hazard analysis methods that need to be used to comply with the applicable safety standards," says Köse who first became fascinated by highly complex networks and security technology during her bachelor's studies at the University of Stuttgart in 2011, during which she spent a semester abroad at Sakariya University. "I was immediately thrilled by how quickly you can get anywhere on the S-Bahn here. Back then in Istanbul, you had to rely on buses and ferries to get from the Asian side to the European side." After graduating with a →

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→ bachelor's degree, Köse successfully applied to study for a master's degree at the University of Stuttgart in 2014. "I settled in very quickly, partly because of the large expatriate Turkish-speaking community here. I have also come to like the fact that the city is so much smaller than Istanbul. The only thing I miss is the sea."

MENTOR FOR OTHER FOREIGN STUDENTS

To finance her studies, she first worked as an academic assistant at the University of Stuttgart's Institute of Railway and Transportation Engineering (IEV), and later as a student trainee at Thales Deutschland. In spite of this, Köse always found time to act as a mentor and "buddy" for international students. "When I first flew to Stuttgart, it was also my first ever trip abroad," she recalls. It was comforting to know that my buddy would be there to meet me at the airport and help me with my arrival. I was eager to return that support and also really enjoyed getting to know a lot of international students and their respective cultures."

For her master's thesis, Köse studied signal transmissions between trains and the control center during semi-automated driving, which must take place continuously according to the European standard ETCS Level 2 (European Train Control System). She was able to start her current job even before her final presentation. Since then, she and her departmental head have given guest lectures on safety-related topics at the IEV once a year, at her initiative: "The students are very interested in some aspects of our work and I'm happy that it enables me to keep in touch with the University." →