"The EIT master program is much more than a regular master program. Apart from the technical education there is a lot of focus on getting familiar with the entrepreneurial process. One gets a lot of hands-on business education to develop the mindset needed to start a venture. Knowing you have the support of the international EIT network, which includes start-ups, business coaches, investors etc., is very encouraging. It should be no surprise if many of us start an entrepreneurial adventure of our own, in the near future.”

- Akash Singh
EIT student

EIT Digital: educating the data scientists of the future

The Department of Mathematics and Computer Science of the TU/e is involved in EIT Digital Education: a knowledge and innovation community of the European Institute of Innovation and Technology (EIT). Its mission: to foster digital technology innovation and entrepreneurial talent for economic growth and quality of life in Europe. Farideh Heidari, assistant professor in the Department of Mathematics and Computer Science and program manager of the EIT Digital Master Program in Data Science, coordinates and chairs the program at the European level. She answers a few questions about the EIT Digital master program in Data Science.
How does EIT Digital contribute to the education of the data scientists of the future?

“EIT digital is active in entrepreneurial education as part of its mission in forms of a Master School, a Doctoral School and a Professional School. The Master School provides a master in Data Science, with the mission of educating entrepreneurial data scientists of the future. Besides entrepreneurial education, mobility is a distinctive element of the program. Master School students follow a program where they study one year at an ‘entry’ university and one year at an ‘exit’ university in two EIT Digital’s hot spots in Europe. Upon completion, students receive a double degree from the two universities, recognized by the European Institute of Innovation and Technology.”

What is the EIT Digital Master Program in Data Science about and when was it developed?

“The first intake of students happened in the academic year 2015-2016. We managed to be between the top three masters in terms of number of students (46). The Data Science Master’s offers a unique academic program, whereby students can study data science, innovation, and entrepreneurship at leading European universities. In this program, students will learn about scalable data collection techniques, data analysis methods, and a suite of tools and technologies that address data capture, processing, storage, transfer, analysis, visualization, and related concepts. An important part of the program are the Innovation and Entrepreneurship (I&E) courses. The I&E basics course provides an introduction to business & management. Students participating in Data Science are offered an internship with an industry partner or research centre of the EIT Digital to work on their thesis project.”

Who is involved?

“At this moment, five leading European Universities are involved in this program: Universidad Politecnica de Madrid (UPM) in Spain, Eindhoven University of Technology (TU/e) in the Netherlands-, Université Nice Sophia Antipolis (UNS) in France, Royal Institute of Technology (KTH) in Sweden, and the Technische Universität Berlin (TUB) in Germany. TU/e is chairing and coordinating the program.”

What kind of knowledge and experience does a data scientist have to have, to be able to be successful in the modern times we live in?

“This is a profession in a highly innovative area. The data scientist is a professional who simultaneously possesses breadth and depth in scalable data management, data analysis, and domain area expertise, and who is capable of solving real-world problems. Beyond the boundaries of mathematics, computer science or entrepreneurship is where interesting interaction can take place. That is exactly where a data scientist really can add value because of his various skills.

The EIT program not only provides a competitive world class education, but also trains the students on how to transform their knowledge to innovative solutions tackling tomorrow’s challenges.”

What developments and activities can we expect in the near future?

“There are requests from other European universities to join the program. This will enrich the program in providing more specializations, next to the existing ones: Multimedia & Web Science for Big Data at UNS, Design, Implementation, and Usage of Data Science Instruments at TUB, Process Mining in High Tech Systems, Healthcare, Visual Analytics, or Big Software at TU/e, Distributed Systems & Data Mining for Really Big Data at KTH and Infrastructures for Large Scale Data Management and Analysis at UPM. We had a huge number of applicants in the first round of application for 2016-2017. This number of applicants helps us to select quality students that hopefully contribute positively to the area of data science.”

www.masterschool.eitdigital.eu