# Dr. Aamena Alshamsi: Masdar Institute PhD Pioneer

After receiving a master's degree in information technology from the British University in Dubai, United Arab Emirates, Aamena Alshamsi spent nearly four years as a systems analyst for a government transportation agency.

But she missed academia. "I have a passion for research, for things that don't have limitations," she says. So she applied to the PhD program at Masdar Institute of Science and Technology, a graduate-level university in Abu Dhabi, the UAE's capital city. In May 2015, she received a PhD in Interdisciplinary Engineering, becoming, with Faisal Al Marzooqi, one of the first two students to earn a doctorate in Masdar Institute's short history.

Among the factors that attracted Alshamsi to Masdar Institute was the school's ongoing partnership with MIT, which helped launch Masdar Institute in 2007. The two schools have jointly undertaken a variety of research projects. "It's a unique research environment, at least in my region, and the collaboration with MIT is critical to its success," she says.

Alshamsi, a specialist in data science, completed a thesis project exploring how social networks affect users' emotional and physical states. She says her work was inspired by the MIT Media Lab's Human Dynamics group, which explores using big data to improve the understanding of human society. She collaborated with the group's director, Toshiba Professor Alex Pentland, on her research.

"It's all about social computing, which is the intersection between computer science and the social sciences," says Alshamsi, who also worked with researchers at the Bruno Kessler Foundation in Trento, Italy. "Many behaviors and characteristics are contagious. It was a chance to see how people influence each other"—online and off. Ultimately, her research determined that contagion alone does not fully explain social networks'

influence on how users feel. She believes her work has broader applications: "The methodology itself is novel," she says. "It could be replicated to provide real-time applications for policy-makers."

Alshamsi has especially high praise for Masdar Institute's broad multicultural society, which includes students and faculty members from more than 60 countries. "It made my experience very rich to interact with all those people," she says. "That was one of the unexpected benefits."

Now Alshamsi is looking to the future: She hopes to become a data scientist in either academia or industry.