

Miken Shah ('13, '20) remembers designing a landfill for Senior Design

Miken Shah was born and grew up in Ahmedabad, India. Miken was studying Civil Engineering at L. D. College of Engineering in Ahmedabad when the family left for Collingswood, NJ, brought to the United States by an uncle who had lived here for 25 years. Miken's father was an accountant in the textile industry in India. In the US, he worked at Dunkin Donuts. His mother is a homemaker. His sister got a computer science degree at Rowan and works at the New Jersey Motor Vehicle Commission as an IT specialist.

Miken ended up working two jobs (Dunkin and Burger King) the entire time he was in college in the United States, first at Camden County Community College, then Rowan University. He also worked as a lab technician at Rowan.



Miken graduated from Rowan Civil and Environmental Engineering in 2013. He worked at TTI Environmental, Inc. in Moorestown, NJ for about a year. He did lots of field work in Phase 1 assessment, remediation, and underground storage tanks. Next, he did coastal engineering with the New Jersey Department of Environmental Protection for about a month. He liked the job, but had a long commute and decided the environmental field was not for him. In 2014 he joined the New Jersey Department of Transportation (NJDOT) in the Capital Program Management department as a Civil Engineer Trainee and started working in the Construction and Materials division.

Miken is now a Principal Engineer, Transportation. He is the resident engineer on bridge and roadway projects, overseeing construction from start to finish. He reviews drawings, plans, specifications, and changes and coordinates with various stakeholders to deliver capital projects for the safety and mobility of the motoring public. Miken is currently a Resident Engineer for a \$55 million bridge replacement project—the Route 130 Bridge over Big Timber Creek near Brooklawn, NJ. Miken has completed various construction projects for the NJDOT ranging from bridge rehabilitation to pavement preservation. He became a licensed Professional Engineer¹ in 2023. Miken was part of the NJDOT initiative PEDE (Professional Engineering Design Experience) Program and was honored by the Commissioner in 2023 upon obtaining his Professional Engineer license.

Miken is married and has a 15-month year old who he loves spending time with. He loves travelling, including visiting family in India. He enjoys Nature and has travelled to many national parks in the US with his wife. He visits Temple every weekend with the family and helps at Temple. He loves watching football and playing golf.

I was always interested in Engineering. Growing up in India, construction projects fascinated me. One of my projects in high school in India involved building a scale model of a bridge. The

idea of building bridges intrigued me. My parents always encouraged me to follow my passion and as such I started my civil engineering journey.

When I was ready to start college in the United States, family resources were very limited. I started taking some courses at Camden County Community College to save money. When I was ready to transfer, I went to Rowan in part because it was affordable and nearby, but also because it was a good program. I remember meeting Dr. Sukumaran and Dr. Cleary prior to starting at Rowan. They explained me the program and encouraged me to join Rowan. I liked that Rowan had small classes and that faculty was very easily approachable. English was my secondary language which made everything much more challenging.

At Rowan, I worked on an Engineers Without Borders² Engineering Clinic³ class with Professor Everett my Junior year. I helped plan a trip to The Gambia, in West Africa. For me, that clinic had a steep learning curve, so I learned a lot. I started going to EWB club meetings and later joined the American Society of Civil Engineers⁴ chapter. This was all great exposure.

Dr. Mehta's Civil Engineering Materials course was very challenging but fulfilling. Senior design was great. We designed a landfill from scratch that the professor had designed for real. We were not allowed to see their plans! We were given the basic data and designed it ourselves. There were six on our team. We struggled at the start but ended up getting one of the highest grades. I designed the leachate collection and stormwater management systems. Presentations for Senior Design and the Engineering Clinics were nerve wracking for me, but by the time I graduated I was so much better at public speaking. The Clinics were one of the best and unique parts of the Rowan program. I 100% made the right choice going to Rowan. I went back and finished my Master's in Civil at Rowan in 2020.

Based on an Interview with Jess W. Everett on 2024-2-28

1. The Professional Engineer license (PE) is a "standard recognized by employers and their clients, by governments and by the public as an assurance of dedication, skill and quality...Only PEs can sign and seal engineering drawings...To become a Licensed Professional Engineer, you must do four things: graduate from an accredited engineering program, pass the Fundamentals of Engineering (FE) exam, work with a professional engineer for four years, and pass the Principles and Practice of Engineering exam."

2. Engineers Without Borders-USA is a non-profit organization that helps communities around the world implement sustainable engineering projects, e.g., drill drinking water wells, treat drinking water, build schools or health clinics. Prof. Mehta founded an early student chapter at Rowan in 2004.

3. Engineering Clinic is a hallmark of Rowan University. Students take a Clinic class each semester, eight total. Many are interdisciplinary. All are hands-on. First-year Clinics focus on engineering's place in society and fundamental engineering skills. Sophomore Clinics merge communication coursework with an engineering design experience and are team taught by engineering, writing arts, and rhetoric faculty. Junior and Senior Clinics have students work in teams on research or design projects, usually externally funded.

4. The American Society of Civil Engineers is a professional body, founded in 1852, that represents members of the civil engineering profession worldwide. There are more than 500 chapters for professionals and students and over 150,000 members in 177 countries.