Transforming Engineering: Spare Parts, Determination and a Dream

NYU Tandon School of Engineering
2017 Freshman Dialogue

Sponsored by:
The Office of Student Affairs
2017 Freshman Dialogue

The Freshman Dialogue is a program, inspired by the educational paradigm i2e that brings innovation, invention and entrepreneurship to the academic experience at the NYU Tandon School of Engineering. Over the summer all incoming students read a text chosen to explore a particular theme that showcases alignment with this paradigm and the school’s mission. This year’s dialogue text is *Spare Parts: Four Undocumented Teenagers, One Ugly Robot, and the Battle for the American Dream* by Joshua Davis, and the theme this year is "Transforming Engineering: Spare Parts, Determination and a Dream."

**Spare Parts Dialogue Book and Theme**

Spare Parts is a story of hope and humanity, and a testament to how teamwork, perseverance, and a few inspiring teachers and role models can uplift and empower even those who are seemingly unreachable.

In 2004, four Latino teenagers from Carl Hayden Community High School in Phoenix, Arizona, arrived at University of California, Santa Barbara, to participate in the Marine Advanced Technology Education Robotics Competition. Going up against some of the best collegiate engineers in the country (including an MIT team funded by ExxonMobil), Oscar, Cristian, Luis, and Lorenzo wowed the judges—and raised the stakes in America’s immigration debate.

Born in Mexico but raised in Arizona, they were undocumented and their team was underfunded, but thanks to the support of two enthusiastic teachers, the kids from the desert managed to build an award-winning underwater robot using scavenged parts.

Tracing their journey, including the decade after their high school triumphs, *Spare Parts* gives voice to a group of young men who proved to be among the most patriotic and talented students in this country—even as the country tried to kick them out.

**Thoughts and questions as you read...**

As incoming Tandon first-year engineering students on an important threshold, consider your own aspirations and this inspiring story.

- Have you ever faced a seemingly insurmountable task or obstacle that prevented you from pursuing a dream? How did you handle the situation?
- What can you learn from the determination and resourcefulness of these young men against all odds?
- Have you participated in a competition of some kind with others on your team? What did you learn about yourself...about working with team members. Why do you think STEM-related competitions add value to your engineering education?
- How will you use your engineering education to contribute to society?
- Did *Spare Parts* change the way you view immigration policies?

**Freshman Orientation and Convocation**

All incoming students begin their Tandon School of Engineering experience at orientation with the Annual Freshman Convocation Ceremony on Monday, August 28th 2017 at 10:30 AM. At the ceremony, the Dean of the School of Engineering, Katepalli Sreenivasan, will welcome the entering 2021 class. Our feature Convocation speaker will be Chandrika Tandon.

*Please note that the Freshman Convocation is mandatory for all new entering freshmen.*