

Iron(wo)man: Oak Grove alumna soars to success

by: Anna Philpot

Growing up, children are told, “You can be anything you want to be when you grow up!”

Those words typically are lost throughout the years, but sometimes, a child can go above and beyond to achieve their goals.

Paromita Mitra is a 28-year-old aerospace engineer for the National Aeronautics and Space Administration, a Bangladeshi immigrant, and above all, a female icon.

While she attended Oak Grove, her physics teacher Mrs. Sappington and the robotics team introduced her to the vast world of engineering.

“Before the Women In STEM Movement, I thought, ‘Were engineers people who just built engines and that’s all?’ But robotics showed me you have so much power in your hands being able to build a whole robot. All of the other elements like design and coding are so fascinating,” she said.

Mitra competed in pageants across the state. She held the title of Miss Teen Mississippi 2009 and, when she attended Mississippi State University she won the title of Miss Maroon and White 2011. Always striving for greatness, she decided to run in— and won— Miss Mississippi USA 2013. There, she began to draw a comparison between competing and following her dreams of becoming an aerospace engineer. Although beauty pageants and engineering seem totally unrelated, she said she doesn’t think anything could



Photo Courtesy of Paromita Mitra via Twitter
have prepared her better for her career at NASA from public speaking to hours of training.

Mitra is a Human Interface Engineer, and was recently made a principal investigator over a team of thirteen fellow engineers. After researching the technology for over four years, she was granted a \$2.5 million pass to develop heads-up displays for the brand new “xEMU” spacesuit. In 2024, NASA is planning to send Americans back to the moon for the Artemis Mission, and after keeping the same design for over forty years, the space suit needed an extreme makeover.

“Typically when astronauts describe doing a spacewalk, they say it’s like running a marathon

and doing brain surgery at the same time,” she recounted. The heads-up display is called Jarvis, alluding to Ironman’s personal AI, and will have the information displayed right there in the helmet. In the current space suit, the only way for astronauts to receive information and instruction was through audio and at times the headset would become uncomfortable, additionally it was difficult for the microphone to pick up on their speech. Mitra’s innovative software will impact the communication and efficiency of missions forever.

Paromita Mitra is definitely not one to step down from a challenge, but she has faced many difficulties aside from her career. In the workplace, she stands out from the crowd not only because of her gender, but because of her age and nationality, but this does not impede her success. In her TEDx talk, she expressed that winning Miss Mississippi was such a huge responsibility to her with an extremely influential platform to represent herself, women, and immigrants everywhere. When asked if she had any advice to the students of Oak Grove, she said, “Specifically to women, I think we have a very natural way of questioning and doubting ourselves when we don’t see other women in the positions we want to be in. I would implore them to get out of their comfort zones, give yourself a pep talk and seek a mentor who believes in you. Understand that you belong, and if you pursue that career then you are paving the way for other women.”

Pave the way, Paromita Mitra. Pave the way.



Paromita Mitra (left) with the Boise State University NASA S.U.I.T.S on-site team in Houston, TX. Photo Courtesy of lizaltmiller.com



Oak Grove alumna and former beauty pageant Paromita Mitra speaks at a TEDx event.

Photo Courtesy of TEDx Talks via Youtube