

Nidhi SEETHAPATHI

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| Home Country | India |
| Degree | PhD in Mechanical Engineering |
| Expertise | Mathematical Modeling, Human Locomotion |
| Research Focus | Biomechanics |
| Host University | Ohio State University, United States |
| Fellowship Awarded | 2015 |

Nidhi Seethapathi was born in Mumbai, India. At an early age she would accompany her mother as she worked to provide underprivileged children in Mumbai with access to teachers. These trips demonstrated to Nidhi the impact that education can have and motivated her to teach in the future. An interest in classical mechanics and mathematics during high school led her to pursue studies in mechanical engineering.

Nidhi obtained a B.Tech. in Mechanical Engineering from Veermata Jijabai Technological Institute (VJTI), Mumbai, in 2012. Her studies included a research project at Tata Motors, India, to develop mechanical models to help mitigate chest injuries in car crashes. This developed her interest in applying the principles of mechanical engineering to the human body. Since 2012 Nidhi has been using her enthusiasm for biomechanics and teaching while pursuing her doctorate at Ohio State University (OSU). She has been a teaching assistant in undergraduate laboratories and lectures in subjects such as system dynamics and measurement systems. She also participates in STEM outreach activities at local schools.

Her PhD research at OSU aims to help develop and validate predictive models of human locomotion. Nidhi is comparing the predictions from these models with kinematic, metabolic and ground reaction force data from real-life human walking. Insights from the models may eventually be used to inform and improve walking rehabilitation techniques and prostheses design.

After completion of her PhD research, working in collaboration with hospitals in India, Nidhi plans to use her improved understanding of how humans walk in areas such as improving gait rehabilitation for the large number of stroke patients in the country. She also wants to analyze and potentially improve prosthesis designs that are currently in use in India. She hopes her teaching and outreach activities will contribute to increasing the number of women pursuing a career in mechanical engineering.