



## **Swapna Rekha PANDA**

**Home Country:** India

**Degree:** Postdoctoral in Chemical Engineering

**Expertise:** Smart Polymeric Membranes, Desalination.

**Research Focus:** Membranes for Clean and Green Energy

**Host University:** National University of Singapore, Singapore

**Fellowship Awarded:** 2016

Swapna Rekha Panda was born in Berhampur and brought up and educated in Paralakhemundi, both in the state of Odisha in eastern India. Her father was a school inspector and her mother was a retired head teacher of a primary school, and both of them inspired Swapna to pursue a career in teaching. She received several scholarships and awards for her performance at school and decided to focus her studies on science and engineering. She has two brothers, both are in engineering stream. She married to a Navigational Officer and they have one daughter.

Swapna attended the Indira Gandhi Institute of Technology, Sarang, Odisha, where in 2000 she graduated with a B.E in Chemical Engineering. She then studied towards an M.Tech in Chemical Engineering at the Indian Institute of Technology (IIT) Kharagpur, which she completed in 2006. Following this she joined Centurion University of Technology (CUTM), Odisha, as a Lecturer, where she was promoted to Assistant Professor after she received an award as the best teacher for two consecutive years based on student feedback and University results. After several years of teaching she decided to return to research at IIT, Kharagpur, where in 2015 she gained a PhD in Chemical Engineering. Since then she has lectured at the National Institute of Technology (NIT), Hamirpur, in northern India.

Production of drinkable water has become a global challenge, and countries including India and Singapore have set targets to dramatically increase fresh water supplies. Swapna's postdoctoral research focuses on the development of new methods for cost-effective reuse of industrial wastewater and low-energy desalination. She is particularly investigating using functionalized nano-porous mixed matrix membrane-based technologies for the low-cost removal of salts, organic pollutants, oil and heavy metals.

After her studies in Singapore, Swapna plans to take up a research position at one of India's leading academic institutes, where she hopes to establish a new state-of-the-art advanced membrane separation laboratory.