



# Dr. Chandana Rath

Associate Professor & Coordinator, IIT BHU

Dr. Chandana is an Associate Professor in the School of Materials Science and Technology at IIT BHU (Banaras Hindu University). She has made significant contributions in the field of nano-structured materials, ferrites, chromites and dilute magnetic semiconductors and their applications. Her work is used in areas like computer memory devices, finger print imaging for forensic applications and purification of polluted water. New and unusual magnetic properties observed in materials gave a direction to her career.

She had a passion for Mathematics in school and Physics in college. Her math teacher, Umakanta Mahapatra in school used to draw diagrams for geometry in sand. He never used pens or chalk for teaching. In college, Prof. P C Nayak who taught mathematical physics also inspired her and helped her continue her passion for mathematical physics. When she did her M.Sc. and M. Phil., she had developed an interest for research in experimental physics, she was lucky enough to work with Prof. Naresh Chandra Mishra. He is always ready to help and Dr. Chandana remains indebted to him always as a mentor. She considers Prof. Puspa Khare and Prof. Annapoorni as her inspirer for work life balance and their punctuality at work.

She had to face a tough situation at the home front when she was offered a post-doctoral position in University of Girona, Spain, as she had to leave behind her toddler daughter with her parents. The difficulties faced by women in pursuing careers in STEM are such that family support is very important to enable them to pursue their passion. Luckily her father was her pillar of strength, her sister helped to pursue her dream and she is what she is today because of him. Besides, her husband is very supportive to maintain her carrier.

Dr. Chandana loves teaching and mostly prefer to take the classes in the morning. She started her education in a village of Odisha. She studied in a government high school. Her father brought her up with no gender bias in upbringing. He instilled the confidence in her to face any situation. She never had any formal tutor. Her father who was a high school teacher motivated her to excel and top in the class. Students from villages should be motivated to study. Dr. Chandana considers herself as an example for achieving dreams from humble beginnings.

Dr. Chandana feels that students should do their work with interest and dedicate time to



Dr. Chandana winning the MRSI medal 2015

pursue their passion. Girls are usually discouraged away from science and math. It limits their options in STEM. As a result, women as engineers, scientists and technologists are less in number. Her research in the field of nanomaterials and its applications helps to vigorously expand the scientific spirit among female scientists and the younger generations. Her involvement further adds in making relevant policies to create opportunities for women to take up a career in science and technology. Moreover, the impact relevant to STEM will be motivation, participation, innovation and gender dignity, which will contribute to empowering women as a whole.

Dr. Chandana has won the MRSI Medal 2015 from Materials Research Society of India, Young Research Award – 1998 from International Union of Materials Research Society IUMRS-ICA (Bangalore). She is a Council member of MRSI, India 2019-2022 and Board of studies Member- Department of Physics, CEIT, Bhubaneswar, 2018.

She loves to sing and relaxes by listening to her daughter's classical music. Dr. Chandana has completed her M.Sc. M.Phil. and Ph.D., in Physics from Utkal University and was RA in a project sponsored by ISRO at the University of Allahabad, India in 2001 and PDF in Spain from 2002-2004. Her message for youngsters:

**“Teaching is the building block of society. Women can combine research and teaching as they are suited for this profession.” – Dr. Chandana**