



Soumya Nag

B.Tech. in Metallurgical Engineering, Indian Institute of Technology (2002)

M.S. in Materials Science and Engineering (2004)

Ph.D. in Materials Science and Engineering (2008)

GE Research, Niskayuna, NY

Describe your overall duties/responsibilities as a Senior Scientist:

As a Senior Scientist, I develop next-generation material solutions for commercial and military jet engines, and land-based turbines. I get to work on the latest and greatest processing techniques, like Additive Manufacturing, and conduct science driven root cause analyses. It definitely takes a village, or in this case an entire lab, to be efficient and effective in what we do, so we have to be in a universal learning and simultaneous mentoring mode!

Explain the skills/abilities that are required for being successful in your role:

As a materials scientist, I have to be ready to work on any project. Flexibility to work on any material systems and adaptability to interface with subject matter experts with different engineering and scientific backgrounds are critical. Good communication skills are extremely important along with sound judgement in order to solve practical day to day problems. Leadership qualities like inspiring your team members, being receptive and listening before speaking,

doing groundwork before executing, and logic-driven decision-making ability are also desirable.

What advice would you give to students who are considering majoring in Materials Science and Engineering?

The field of Materials Science is an amazing synergy of Mechanical Engineering, Metals/Ceramics/Polymer Engineering, as well as Mathematics, Physics and Chemistry. Everything around us is materials, so really Materials Science deals with anything that is tangible - with length scales ranging from meters to nanometers, and time scales ranging from years to nanoseconds. To excel in this field, it is very important to grasp the fundamentals of processing, structure and property responses - along with mastering hands-on skills with fabrication, characterization, modeling and/or testing. Whether you want to be an academician or an industrialist, Ohio State MSE program is very cross-functional and virtually guarantees you an exciting and fulfilling career! Go Bucks :)

