LENS/CMP Seminar

May 1, 2020

Speaker: Maarij Syed, Rose-Hulman Institute of Technology

Title: **"What can Ellipsometry do for you?"**

Abstract: Optical techniques have a long history of being employed as material characterization tools. Ellipsometry is distinguished from a variety of other more familiar reflection based techniques by its reliance on polarization. This talk presents a broad view of the technique that includes the basic principle behind ellipsometric measurements, instrumentation, and the material characterization capabilities that a modern ellipsometer can be expected to provide. Ellipsometry, as a technique, dates back to 1890s but the modern renaissance of ellipsometry began in the second half of the 20th century with the development of key optical components and software analysis tools that have made the job of complicated material characterization relatively straightforward. These days ellipsometers can be found not only in research and teaching labs, they have also become indispensable to industries that deal with thin film technology, semiconductors, etc. After a more general tour of the topic, I will also present how I have used ellipsometry in my own teaching and research.