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# MSE 690 SEMINAR SERIES

FRIDAY, AUGUST 30TH | 3:30 REFRESHMENTS | 3:45PM SEMINAR |  
ARMS 1010



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Corporate Vice  
President

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*Applied Global Services*

## ***“The role of Materials Science & Engineering in Semiconductor Equipment & Services”***

*Sanjiv Mittal & Glen Mori, Applied Materials Inc*

### **Abstract:**

This talk will provide an overview of semiconductor industry and its forecasted growth in the age of AI. The talk will also provide an overview of the ecosystem required to support the growth and the increasing complexity of modern semiconductor technology. The talk will also address how the equipment industry is a key enabler of semiconductor technology progression and the role of Material Science in the current and future advances in this technology. This talk will cover both front-end wafer manufacturing and advanced packaging technology, which requires a substantial knowledge of metallurgy and materials science. Challenges with AI, require both material and architectural innovations for performance as well as energy efficiency of compute. Finally, we will tie it back to some of the most complex semiconductor products being produced currently.

### **Biography:**

Sanjiv Mittal leads the FabVantage Engineering Services group in Applied Global Services. The FabVantage engineering Services group provide Fab Consulting, Engineering services for our Service contract customers, and develops data & analytics based service capabilities. He has been with Applied Materials for 22 years in various management roles. Prior to Applied Materials, he worked at the Intel Corporation for 17 years, where he managed the D2 factory.

Dr. Mittal is a member of IEEE. He holds three patents in semiconductor process technologies and has co-authored several papers. He has an Sc.D. in Materials Science and Engineering from the Massachusetts Institute of Technology, M.S. from Purdue University, and B.Tech. from the Indian Institute of Technology.



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