

GRADUATE SEMINAR SERIES

Conglomeration of Mechanical and Materials Engineering (MME) Knowledge in Next Generation Mobile Devices

Presented by Dr. Ashish Gupta, Intel Corporation, Hillsboro, Oregon

Abstract

Now more than ever, consumers are drawn towards mobile devices (laptops, convertibles, phones) which provide thinner form factors, richer and bigger displays and better multimedia capabilities. The functionality crammed into mobile devices will only continue to grow as consumers turn to their mobile devices to do more of their complex and rich functionality tasks. Thermal management and control of these passively cooled devices is of prime importance given the chassis design constraints and thermodynamic space limitations. At the same time, end users expect high levels of performance from their hand-held and mobile devices, and the trend from one generation to the next is increased performance while reducing thermodynamic space (thinner devices). The intersection of these two design philosophies meets at the end-user expectations: that bring unique challenges for the thermo-mechanical community. This talk discusses most of these major challenges for current and next-generation mobile devices from an industry perspective and also various approaches that need to be taken to balance performance with ergonomics in a quantifiable manner.

Biography

Dr. Ashish Gupta is the Director of Thermal and Mechanical Engineering group at Intel Corporation in Oregon. Ashish is an experienced leader of developing vision and driving cultural organizational change to deliver increased value to the end customer. He has many years of global management experience, including leading first and second line managers of engineering teams of 100+ people that are delivering thermal, mechanical, power, electrical and packaging engineering expertise to product design, definition and system solutions. Ashish has authored 35+ external publications, 40+ internal (Intel) publications and holds 15 patents/patent-applications/trade-secret. Ashish holds a Ph.D. degree in Mechanical Engineering from Purdue University.

Thursday, November 8, 2018

11:00am to Noon

ETRL room 101

Meet the speakers before the seminar in
ETRL room 119, 10:30am to 10:50am.
Light refreshments will be served.

