

CS Masters' Thesis Defense

Title: *Analysis and Debugging Techniques of Android Platform*
Speaker: Mohit Joshi
Date: Monday, April 23, 2012
Time: 1:00 p.m.
Location: GMCS 405
Thesis advisor: Dr Joseph Lewis

Abstract:

Application layer, Middle layer, Radio Interface layer and Modem are the majorly most common terminologies we come across on smart phone's platform. The thesis here delves into such layers to analyze and debug panics caused due to kernel panics, Bus lock up issue, Memory leak Android, Dalvik abort with Excessive JNI references, GPU Hang issue, Page Faults, ASIC chip corruption and many more.

The core logic here is not just to restrict the end user to know about some application layer disfunctionalities causing weird activities happening in the handset, but to take him to the core where we have all kinds of framework logic of subsystems, runtime framework and supported libraries which enhances the knowledge domain and educates the user to differentiate the bugs by layer specification. We also show real time issues due to the Dalvik Virtual machine and how the supported libraries can also be the culprit.