



## Five Day Technology Workshop

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## Optimizing Performance of Parallel Programs on Emerging Multi-Core Processors & GPUs (OPECG-2009)

**Dates:** June 1-5, 2009,

**Venue :** Indian Institute of Technology Madras, Chennai

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**Topic:** Tuning & Performance - Tools on Multi-Core Processors

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### **Abstract:**

Threading serial applications has become more common with the advent of operating systems and hardware architectures that support multi-core processors. In order to realize the performance potential of these multi-core processor systems, applications must be threaded for performance to take maximum advantage of the new architectures. However, the process of threading an application can be difficult without the right tools. In this presentation, we introduce threading concepts and provide a methodology for threading serial applications and tuning threaded applications for performance using the Intel(r) Threading Tools. Emphasis is placed on writing correct and efficient threaded applications. Discussion includes analysis of common coding pitfalls and their solutions. Sample implementations are also provided to highlight some of the recommended paradigms.

### **Bio:**

Rama Kishan Malladi is an Application Engineer with the Software and Solutions Group at Intel in Bangalore. He works with various software developers and vendors, enabling their applications on the latest Intel platforms by addressing architecture, platform, and performance-related issues. Rama has been working at Intel since 2004 supporting Intel Software Tools, tuning high-performance computing applications on Intel architecture, and resolving performance issues on client/ server applications.

Rama pursued his undergraduate studies in Electronics and Communications Engineering from Osmania University in Hyderabad, India and Master of Science studies in Electrical Engineering from University of Massachusetts, Dartmouth. He can be reached via email at [rama.kishan.v.malladi@intel.com](mailto:rama.kishan.v.malladi@intel.com)