Cordially Invites you to the
INSTITUTE COLLOQUIUM
(Interdisciplinary Research Division)

Professor R. Govindarajan
Chairperson, Supercomputer Education
and Research Centre

Improving Programmability, Portability and Performance in Heterogeneous Accelerator-Based Architectures

Date : Thursday, 29th January 2015
Venue :Faculty Hall, Main Building
Time : 4-00 p.m.

Prof Anurag Kumar, Director
will preside

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Abstract:

Abstract: Rapid advances in processor architecture have enabled accelerators such as Graphics Processing Units, Many Integrated Cores, and specialized accelerators, along with multicore processors as major players in increasing the performance of high performance computing systems. While the performance potentials of these architectures are high, they also pose significant challenges in extracting performance, while ensuring portability and productivity. In this talk the research contribution of our group in developing compiler and runtime systems for synergistic program execution on heterogeneous accelerator-based architectures will be presented. Specifically, our group's work on compiling techniques for programs written in languages like StreamIt or MATLAB and runtime approaches for automatic memory management and automatic work distribution across multiple devices will be described.

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Tea : 5-00 p.m.
ALL ARE WELCOME