Technical Programme for

Grid Computing Workshop

SSDG, C-DAC, Bangalore

August 2nd (Monday) & August 3, 2004 (Tuesday)

Workshop: Day 1 - August 2, 2004 (Monday)

Time (Hrs)	Activity	Speaker
09:00 – 10:00	**Introduction to Grid Computing :** What is grid? What is Globus ? Why should I care about this Grid Stuff ? What is involved in the Globus project ? Who is using the Globus Toolkit ? Is'nt it a lot of work to use Globus in my application ? Types of Grid Computing : Computational, Data, Science, Access, and knowledge	**Mrs. Rajalakshmy M**.
10:00 - 11:00	**An Overview Globus Toolkit 2.4 and Ideal Grid Architecture** What is in the Globus Tool kit 2.4? An overview of Globus Toolkit 2.4 Project, GRAM (Globus Resource Allocation Manager); GSS (Global Security Services); How does Globus project compare to Condor and Legion? Description of Five layered Grid Architecture - Fabric, Connectivity, Resource, Collective and Applications; Definitions- Grid Services	**Dr.Sandeep Joshi**
	11:15 Hrs - 11:30 Hrs Tea break	
11:30 - 13:00	**Classification of Grid applications:** Issues and Challenges Classification of Grid applications Distributed, Collaborative, Data-Intensive, On-demand; Category of applications - Loosely Coupled; Pipelined; Tightly Synchronized; Widely Distributed; Compute and Data Intensive Applications	**Dr.VCVRao**
	13:00 Hrs - 14:00 Hrs Lunch Break	
14:00 - 15:00	**Grid Programming and Some Indications :** Grid Programming-Indications; Challenges; How to design Grid aware applications? (New Programming models, tools and languages; Developers -Grid, tools, & Applications); Grid Programming models (Communication models: Shared data and Shared nothing); Grid Global Compiling System	**Mrs. Mangala & Ms. Suganya**
15:00 – 15:30	**Highly Available Clusters**	**Ms. Rashmi Badan**
	15:30 Hrs - 15:45 Hrs Tea Break	
15:45 – 16:30	**Globus 2.4 Demonstration and Examples**	**Mr. Vineeth Simon & Mr. Ravi Kumar**
16:30 – 17:00	**Grid Programming- An overview of tools and environments Part I :** Grid enabled Message Passing libraries - (MPICH-G2, PACX-MPI, MetaMPICH); Role of Middleware; Grid based Middleware Tools; (Network-enabled server - GRID RPC;	**Mr. Imran Aziz**
	17:00 Hrs - 18:00 Hrs High Tea	

Workshop: Day 2 - August 3, 2004 (Tuesday)

Time (Hrs)	Activity	Speaker
09:00 – 09:30	**Grid Programming- An overview of tools and environments Part II** COG Kits - Java & Corba, Enterprise Java Beans (EJB); XML-based technologies; Scripting languages)	**Mrs. Vijaya Nagamani**
09:30 - 10:30	**Grid Programming**: **An overview of tools and environments – Part III** Grid Middleware (Frame work -Core Features of Problem Solving Environments; Open Source); Framework- Cactus Tool; Portals (Gridscape, SDSC GridPort Toolkit; GRB Portal) Grid IDE, Grid Debuggers, Grid WorkFlow definition Environments Monitoring and visualization tools – Access Grid Interoperability between various data parallel runtime libraries; Meta-Chaos Framework -Efficient distribution of data structures by user or Compiler;	**Mr. Siddesh,** **Mr. Vineeth** **Dr.VCV.Rao & his team**
10:30 - 11:30	**Current Trends: An Overview of Resource Brokers** Role of Grid Resource Broker; functionality; Resource Allocation, Resource Management, Quality of Services, Currently available resource brokers Nimrod/G, Condor-G, Local job scheduling systems, JOSH and TOG, Grid checkpointing	**Ms. Rupa Rao &** **Mr. Vineeth Simon**
	11:30 Hrs - 11:45 Hrs Tea Break	
11:45 – 13:00	**Current Trends: Globus 3** An overview of Globus 3.0; Web Services – XML, SOAP; Introductory concepts of service-oriented grid architecture; OGSA and OGSI; GT3 architecture; Grid Service	**Ms. Premalatha**
	13:00 Hrs - 14:00 Lunch Break	
14:00 - 15:00	**Current Trends - Grid Benchmarks and Performance** Grid low level benchmarks Grid Probe Benchmarks; Grid Synthetic Application Benchmarks, Grid Compute intensive and Data Intensive Benchmarks	**Dr.VCV.Rao**
15:00 – 15:45	**Invited Talk - *Towards a Global Grid Compilation System (GrADS) project***	**Dr. Satish Vadhiyar,** **Asst. Professor,** **SERC, IISc, B'lore**
	15:45 Hrs – 16:00 Hrs Tea Break	
16:00 – 18:00	**Special Lecture: *How Tera Grid works - Present Status***	**Dr. Anurag Shankar,** **TeraGrid Site Lead,** **Indiana University,** **USA**