

## Technical Programme for Grid Computing Workshop SSDG, C-DAC, Bangalore

## August 2<sup>nd</sup> (Monday) & August 3, 2004 (Tuesday)

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

Time (Hrs)	Activity	Speaker
09:00	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 Taplkit 2 lot at it, a lot of work to use Globus in my	Mrs. Rajalakshmy M.
10:00	application ? Types of Grid Computing : Computational, Data, Science, Access, and knowledge	
	An Overview Globus Toolkit 2.4 and Ideal Grid	Dr.Sandeep Joshi
	Architecture What is in the Globus Tool kit 2.4? An	
10:00	overview of Globus Toolkit 2.4 Project, GRAM (Globus	
-	Resource Allocation Manager); GSS (Global Security	
11:00	Services); How does Globus project compare to Condor	
	and Legion? Description of Five layered Grid Architecture -	
	Applications: Definitions- Grid Services	
	11:15 Hrs - 11:30 Hrs Tea break	
	Classification of Grid applications: Issues and	Dr.VCVBao
11.00	Challenges Classification of Grid applications Distributed.	
11:30	Collaborative, Data-Intensive, On-demand; Category of	
-	applications - Loosely Coupled; Pipelined; Tightly	
13.00	Synchronized; Widely Distributed; Compute and Data	
	Intensive Applications	
	13:00 Hrs - 14:00 Hrs Lunch Break	
	Grid Programming and Some Indications : Grid	Mrs. Mangala &
14:00	Programming-indications; Unallenges; How to design Grid	Ms. Suganya
-	aware applications? (New Programming models, tools and languages; Developers, Grid, tools, & Applications); Grid	
15:00	Programming models (Communication models: Shared	
	data and Shared nothing): Grid Global Compiling System	
15:00		Ms. Rashmi Badan
_	Highly Available Clusters	
15:30		
	15:30 Hrs - 15:45 Hrs Tea Break	
15:45		Mr. Vineeth Simon &
16:20	Globus 2.4 Demonstration and Examples	Mr. Ravi Kumar
10.30	Grid Programming. An overview of tools and	Mr. Imran Aziz
16:30	environments Part I : Grid enabled Message Passing	
-	libraries - (MPICH-G2, PACX-MPI, MetaMPICH). Bole of	
17:00	Middleware: Grid based Middleware Tools: (Network-	
	enabled server - GRID RPC;	
	17:00 Hrs - 18:00 Hrs High Tea	

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

9:00       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 Na         9:30       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;       Mr. Siddesh, Mr. Vineeth         09:30       Orid IDE, Grid Debuggers, Grid WorkFlow definition Environments Monitoring and visualization tools – Access Grid       Mr. Vineeth         10:30       Grid IDE, Grid Debuggers, Grid WorkFlow definition Environments Monitoring and visualization tools – Access Grid       Dr.VCV.Rao &         10:30       Interoperability between various data parallel runtime libraries; Meta-Chaos Framework -Efficient distribution of data structures by user or Compiler;       Dr.VCV.Rao &         10:30       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. Premalath         11:45       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. Premalath         14:00       Current Trends - Grid Benchmarks, Grid Compute intensive and Data Intensive Benchmarks; Grid Synthetic Application Benchmarks, Grid Compute intensive and Data Intensive Benchmarks       Dr.VCV.Rao <th>overview of tools and       Mrs. Vijaya Nagamani         a, Enterprise Java Beans (EJB);       s; Scripting languages)         overview of tools and       Mr. Siddesh.</th>	overview of tools and       Mrs. Vijaya Nagamani         a, Enterprise Java Beans (EJB);       s; Scripting languages)         overview of tools and       Mr. Siddesh.
00:30       COG Kits - Java & Corba, Enterprise Java Beans (EJB); XML-based technologies; Scripting languages)       Mr. Siddesh, Mr. Vineeth         09:30       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;       Mr. Siddesh, Mr. Vineeth         09:30       Portals (Gridscape, SDSC GridPort Toolkit; GRB Portal)       Mr. Vineeth         09:30       Grid IDE, Grid Debuggers, Grid WorkFlow definition Environments Monitoring and visualization tools – Access Grid       Dr.VCV.Rao &         10:30       Interoperability between various data parallel runtime libraries; Meta-Chaos Framework -Efficient distribution of data structures by user or Compiler;       Dr.VCV.Rao &         10:30       Current Trends: An Overview of Resource Brokers Role of Grid Resource Brokers Nimrod/G, Condor-G, Local job scheduling systems, JOSH and TOG, Grid checkpointing       Ms. Rupa Rao Mr. Vineeth Sin No verview of Globus 3.0; Web Services – XML, SOAP; Introductory concepts of service-oriented grid architecture; OGSA and OGSI; GT3 architecture; Grid Service       Ms. Premalath         14:00       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	a, Enterprise Java Beans (EJB); s; Scripting languages) overview of tools and Mr. Siddesh
OP-30 XML-based technologies, scripting languages)         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;       Mr. Siddesh, Mr. Vineeth         09:30       Portals (Gridscape, SDSC GridPort Toolkit; GRB Portal)       Portals (Gridscape, SDSC GridPort Toolkit; GRB Portal)         -       Grid IDE, Grid Debuggers, Grid WorkFlow definition Environments Monitoring and visualization tools – Access Grid       Dr.VCV.Rao &         10:30       Interoperability between various data parallel runtime libraries; Meta-Chaos Framework -Efficient distribution of data structures by user or Compiler;       Dr.VCV.Rao &         10:30       Current Trends: An Overview of Resource Brokers Allocation, Resource Broker; functionality; Resource Allocation, Resource Brokers Nimrod/G, Condor-G, Local job scheduling systems, JOSH and TOG, Grid checkpointing       Ms. Rupa Rao Mr. Vineeth Sir 11:30         11:45       Current Trends: Globus 3.0; Web Services – XML, SOAP; Introductory concepts of service-oriented grid architecture; OGSA and OGSI; GT3 architecture; Grid Service       Ms. Premalath: 13:00 Hrs - 14:00 Lunch Break         14:00       Current Trends - Grid Benchmarks and Performance Grid low level benchmarks Grid Probe Benchmarks; Grid 5:00       Dr.VCV.Rao	overview of tools and Mr. Siddesh.
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;       Mr. Siddesh, Mr. Vineeth         09:30       Portals (Gridscape, SDSC GridPort Toolkit; GRB Portal)       Image: Construct of the second	overview of tools and Mr. Siddesh.
Interoperability between various data parallel runtime libraries; Meta-Chaos Framework -Efficient distribution of data structures by user or Compiler;       Dr.VCV.Rao &         10:30       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 Sin Vineeth S	work -Core Features of Problem Dpen Source); Framework- Cactus SC GridPort Toolkit; GRB Portal) ers, Grid WorkFlow definition tion tools – Access Grid
10:30       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 Sin Mr. Vineth Sin Mr. Vineeth Sin Mr. Vineeth Sin Mr. Vineeth Sin Mr. Vineeth	various data parallel runtime ramework -Efficient distribution of or Compiler;
11:30 Hrs - 11:45 Hrs Tea Break         11:45         11:45         An overview of Globus 3.0; Web Services – XML, SOAP; Introductory concepts of service-oriented grid architecture; OGSA and OGSI; GT3 architecture; Grid Service         13:00         14:00         14:00         15:00         Synthetic Application Benchmarks, Grid Compute intensive and Data Intensive Benchmarks         15:00	erview of Resource Brokers Broker; functionality; Resource anagement, Quality of Services, urce brokers Nimrod/G, Condor-G, stems, JOSH and TOG, Grid
11:45       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. Premalath         13:00       Introductory concepts of service-oriented grid architecture; OGSA and OGSI; GT3 architecture; Grid Service       Ms. Premalath         14:00       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       Intensive and Data Intensive Benchmarks       Dr. Satish Vad	11:45 Hrs Tea Break
13:00 Hrs - 14:00 Lunch Break         14:00       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       Present Statistic Statistics       Dr.Satistics	Is 3 3.0; Web Services – XML, SOAP; service-oriented grid architecture; architecture; Grid Service
14:00Current Trends - Grid Benchmarks and Performance Grid low level benchmarks Grid Probe Benchmarks; Grid Synthetic Application Benchmarks, Grid Compute intensive and Data Intensive BenchmarksDr. VCV.Rao15:00Synthetic Application Benchmarks, Grid Compute intensive and Data Intensive BenchmarksDr. Satish Vad	- 14:00 Lunch Break
15:00 Dr. Satish Vad	Benchmarks and Performance Dr.VCV.Rao rks Grid Probe Benchmarks; Grid enchmarks, Grid Compute
'S'''   Invited Talk - Towards a Global Grid Compilation   Stream 1	Isive Benchmarks
	a Global Grid Compilation Dr. Satish Vadhiyar,
15:45 Hrs – 16:00 Hrs Tea Break	a Global Grid Compilation ct Dr. Satish Vadhiyar, Asst. Professor, SERC, IISc, B'lore
16:00       -       Special Lecture: How Tera Grid works - Present Status       Dr. Anurag Sha         18:00       Special Lecture: How Tera Grid works - Present Status       Indiana University	<i>a Global Grid Compilation</i> <i>ct</i> Dr. Satish Vadhiyar, Asst. Professor, SERC, IISc, B'lore - 16:00 Hrs Tea Break