

## Keynote Speakers



Prof. Kamakoti obtained his PhD from Dept. of CSE at IITM and was a post doctoral fellow at SERC, IISc, Bangalore. Currently he is a professor at Dept of CSE at IITM. His research interests includes software aspects of VLSI design, cluster computing, algorithms, data structures and computational geometry.

Prof.Kamakoti



Dr.Manish Gupta is the Associate Director at IBM, India Research Lab. His research interests are parallel system software, Java Virtual Machine, High performance compilers and is associated with BlueGene and end-to-end performance systems.Before taking the assignment in India he was with T.J.Watson Research Center, USA.

Dr Manish Gupta



Dr.Rajesh Kasturirangan is Associate Professor at National Institute of Advanced Studies(NIAS), IISc campus, and also a research scientist at Massachusetts Institute of Technology, USA. He completed his PhD in Cognitive Science from MIT. His research interests include cognitive science and philosophy of mind.

Dr.Rajesh



Dr.Rupak Biswas is the acting chief of NASA Advanced Supercomputing , NASA Ames Research Center. He oversees the full range of high-performance computing services for NASA's primary supercomputing center.

Dr Rupak Biswas

Dhi Yantra 2006: The first WARFT workshop on “Brain Modeling and Supercomputing” and was attended by more than 200 students. It was held at Chennai. It featured keynotes by Prof. V Kamakoti, IITM, Prof.Shankar Balachandran, IITM, Mr.N.Ranganathan, Cadence Systems, Delhi and Mr.R.Chandramouli, Cadence Systems, Delhi.

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Dhi Yantra 2007: The second workshop was inaugurated by Dr.K.Kasturirangan, Director, National Institute of Advanced Studies and was attended by more than 200 undergraduate students. Eminent scientists like Prof.Henry Markram, EPFL, Switzerland, Prof.N.Ranganathan, University of South Florida, USA, Dr.Vinoo Srinivasan, Intel Corporation, India and Dr.R.Srinivasan, GE Medical Systems, India delivered the keynotes.

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Dhi Yantra 2008: The third workshop was inaugurated by Prof Hari Dass, DAE Raja Ramanna Fellow, CHEP, Indian Institute of Sciences, Bangalore, who built the KABRU supercomputer which was ranked among the top 200 supercomputers in the world at the time of installation. The workshop was enlightened by the likes of Dr.Udayabaskaran, a leading Neuro Scientist, Dr. Malolan Chetlur from IBM India Research Lab (IRL) and Prof. Kamakoti from IITM.

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Being the fourth year of the workshop, Dhi Yantra is well established as a workshop that truly promotes undergraduate research.

## WARan Research

## FoundaTion

# Dhi Yantra ‘09

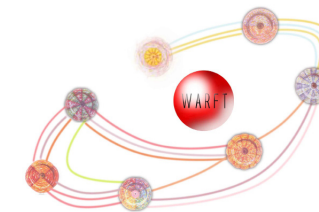
4<sup>th</sup> WARFT Workshop on

## Brain Modeling & Supercomputing

Inaugural Address by

**Dr.Rupak Biswas**

Chief (Acting) of NASA Advanced Supercomputing  
NASA Ames Research Centre



July 10<sup>th</sup> - 12<sup>th</sup>

Green Park Hotel, Arcot Road,  
Vadapalani, Chennai,  
India

## Dhi Yantra ‘09

WARan Research Foundation (WARFT) invites you to Dhi Yantra ‘09 - 4th Workshop on Brain Modelling and Supercomputing, to be held from 10th to 12th July at Chennai. The first three workshops were held during March’06, July’07 and July’08 and were grand successes.

Dhi Yantra is an annual workshop conducted by WARFT, targeting senior undergraduate students from engineering and science majors.

The presentations by the undergraduate research trainees of WARFT, at Dhi Yantra, highlight their research in advanced domains of Brain Modeling and Supercomputing. The workshop intends to motivate young students to take up inter-disciplinary research.

Today’s students are tomorrows’s leaders in spheres of science, engineering and technology, eventually contributing to the society. An audience of more than 100 students are expected to participate in the workshop.

**Let us dedicate Research to Humanity**

N.Venkateswaran , Founder-Director  
Mr M.J.Shankar Raman, Co-Founder

## 10<sup>th</sup> July - Tutorials

Time	Session Details	
08:30 - 10:30	Inauguration	
10:35 - 10:45	Tea	
10:45 - 11:35	Keynote Lecture 1	Prof. N.Venkateswaran
11:40 - 12:20	Keynote Lecture 2	Prof. V.Kamakoti
12:30 - 13:30	Lunch	
13:30 - 14:45	Tutorial on Computational Neuro Science	
14:45 - 15:00	Tea	
15:00 - 16:15	Tutorial on High Performance Computing	

## 11<sup>th</sup> July - Super computing

Time	Session Details	
08:45 - 09:35	Keynote Lecture 1	Dr. Rupak Biswas
09:40 - 10:30	Keynote Lecture 2	Dr. Manish Gupta
10:35 - 10:55	Tea	
11:00 - 11:45	Keynote Lecture 3	Mr.Ramnath Sai Sagar
11:45 - 12:30	Supercomputing Lecture I	MIDAS: Modeling and Integrated Design Automation of Supercomputing Cluster
12:35 - 13:15	Lunch	
13:20 - 14:55	Supercomputing Lecture II	Simulation and Implementation in MIDAS
15:00 - 15:15	Tea	
15:20 - 17:10	Supercomputing Lecture III	Fusion Cluster, Workload Characterization, WARFT BENCHMARK Simulator (BENSIM)
17:10 - 18:00	Interaction between students and dignitaries	
18:00 - 19:30	Plenary Discussion: Reluctance Towards A Research Career : An Indian Perspective	
19:30-20:30	Banquet Dinner	

## 12<sup>th</sup> July - Brain Modelling

Time	Session Details	
08:45 - 09:30	Keynote Lecture 1	Dr. A.V. Srinivasan
09:35 - 10:20	Keynote Lecture 2	Dr. Rajesh Kasturirangan
10:25 - 10:35	Tea	
10:35 - 11:20	Keynote Lecture 3	Mr. Ashutosh Mohan
11:20 - 12:35	Neuroscience Lecture I Single Neuron Model	A New Perspective: Energetics Based Approach
12:35 - 13:15	Lunch	
13:20 - 14:55	Neuroscience Lecture II Biological Neuronal Network	3D Structure Generation and Optimization
15:00 - 15:15	Tea	
15:20 - 16:00	Neuroscience Lecture III Neuronal Information Encoding and Decoding	Space-Time-Frequency Domain Perspective
16:05 - 16:30	Concluding Speech by Mr. M.J.Shankar Raman	

## Keynote Speakers



Dr.A.V.Srinivasan

Dr. A.V.Srinivasan is a Emeritus Professor at The Tamil Nadu Dr.MGR Medical University.He has an experience of 25 years in the department of Neurology and has won several awards including Best Neuro Psychological Paper Award(1990). He is a visiting professor at Cleveland-Ohio,USA and Hershe Medical College, USA



Mr. Ashutosh Mohan

Mr. Ashutosh Mohan works with with Prof. Christian Stricker as a doctoral student in the Neuronal Network Lab at John Curtin School of Medical Research, Australian National University. His research interests in neuroscience are computational properties of single neurons and emergent network behaviour. He recieved the Schwartz fellowship for attending COSYNE '09. He is a WARFT Alumni.



Mr.Ramnath Sai Sagar

Mr. Ramnath Sai Sagar is a Research Manager for PRACE (Partnership of Advanced Computing in Europe) at Barcelona Supercomputing Center with Dr.Jesus Labarta, Director Computational Sciences, BSC. His work involves investigating the future Petaflop computer technologies beyond 2010. He is a WARFT Alumni.