

**Annual Report
2008-2009
Centre for Modelling Simulation and Design (CMSD)**

Currently, CMSD is a 2.0 Teraflop Facility which is fully networked and consists of the following hardware:

- 5 SMP Systems with total of 192 CPUs [1 x IBM p690 (32 Power 4), 3 x IBM p690 (96 Power 4+), 1 x IBM p595 (64 Power 5)], 384 GBytes of main memory and 4 TBytes of storage,
- Last footprint of IBM p595 (64 Power 5+) @ 2.3 GHz with 128 GB RAM has been received and is installed. It was launched by Dr. T. Ramasami, Secretary DST on December 16, 2007.
- A CDAC PARAM SUN cluster consisting of 16 nodes (each with dual xeon processors) and 32 GB memory and
- High end workstations such as 6 x SGI Octone 2, 2 x SUN Blade 2000, 6 x IBM Intellistations etc.

To support various application domain areas following software have been deployed on the above hardware: Accelrys Suite, Gaussian 2003, MOPAC, Relibase+, Molpro, ADF, GCG Wisconsin, SPSS, Mathematica, Statistica, GAMS, RATS, Matlab with various toolboxes, CFX 5.7, 3D Studio Max, iSIGHT Pro, BOS, BEAMPRO, GAMESS, SPARTAN 2003, NAG Fortran SMP Library, Empire 3D V4.2, Ansys Multiphysics, AWR (microwave Office), Full Wave Sonnet etc.

This year additional softwares were added: ArcGIS, ArcMIS, Cadence, ISATIS, modules of Accelrys, TURBOMOL, Image Processing S/W like ERDUS.

Visitors

1. Dr. S. L. Narasimhan, BARC, Mumbai, September 2008
2. Prof. Hilda Cerdeira, University of Sao Paolo, Brazil, March 2009

Workshops

1. Lecture Series was held on Statistics: Past, Present and Future (SPPF) on 30 June and 01 July, 2008 by C R Rao Advanced Institute of Mathematics, Statistics and Computer Science (AIMSCS), Hyderabad; CMSD, University of Hyderabad, Hyderabad; and Indian Statistical Institute, Hyderabad; at CMSD, University of Hyderabad.

Caption: Vice-Chancellor Prof. Seyed E. Hasnain (Centre) presiding over the inauguration. Others present are from right to left are: Prof. S. B. Rao, Director,

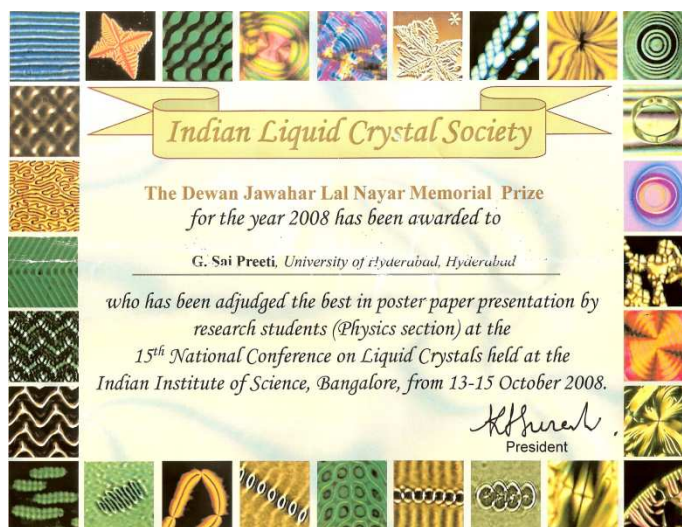
CRR AIMSCS; Prof. T. Amarnath, Dean, School of MCIS; Prof. V. Kannan, Pro-VC1; Prof. Arun Agarwal, Director, CMSD.



2. Conducted HPC workshop on "Tools for Scientific Computing" during October 21-25, 2008.
3. International Symposium on Statistical Modelling and Applications, December 2 to 4, 2008, jointly with ISI, Hyderabad and CRR AIMSCS.
4. International workshop on Business Data Mining, organised by the C R Rao Advanced Institute of Mathematics, Statistics and Computer Science from December 21 to 27, 2008 jointly with the Department of Computer and Information Science of the University of Hyderabad. The workshop was followed by an international conference on the same topic from December 28 to 30, 2008.
5. Geon 2009 Workshop, from January 5-8, 2009. Dr. Chaitan Baru, Mr. Viswanath Nandigam, Christopher Crosby of San Diego Supercomputing Centre (SDSC), University of California, USA and Prof. Randy Keller, Oklahoma University were speakers from USA. Other speakers were Harsh Kumar, Gupta (NGRI), Dr. V P Dimiri (Director, NGRI), Dr. Rambabu (NGRI), Dr. K. Ravichandran (INCOIS), Dr R. Venkataraman (NRSA), K. Mruthyunjaya Reddy, (Director, APSRAC), S.V. Lakshmi & Sai Baba, (ADRIN), Sri L P Singh, Sri Ramamurthy, (GSI) and Prof. K V Subba Rao, Prof. Arun Agarwal, Dr. Rajeev Wankar, Ms Sandhya Banda from (University of Hyderabad).
6. Workshop on Geophysical Approaches for Integration/Fusion of Different Data Sets and Joint Interpretation was conducted on January 9-11, 2009. Prof. Randy Keller, Oklahoma University was the Course Instructor.

Recognition

G. Sai Preeti, a PhD student from School of Physics, under Prof. V.S.S.Sastry and also DST HPC fellowship holder, received “The Dewan Jawahar Lal Nayar Memorial Prize” for the year 2008, for the best poster awarded to the research scholar (Physics Section), at the 15th National conference on Liquid Crystals, October 13-15, 2008, Bangalore.



Book Published

1. Prof. K. P. N. Murthy, Excursions in Thermodynamics Statistical Mechanics, Universities Press, Hyderguda, Hyderabad 2008

Training

1. Training Programme on Critical Aspects of Service Rules with focus on VI Pay Commission Recommendations" for the University Employees was conducted by Masters' Institute of Learning and Sharing, Bangalore during September 1-4, 2008, at CMSD
2. CMSD Conducted a training programme on the software "Advanced Design System" (ADS) of Agilent on 24th January 2009.
3. Research Methodology Course" was Conducted in CMSD by School of Social Sciences & Indian Council of Social Science Research, Southern Regional Centre, Hyderabad during 16th February to 2nd March 2009.

Prof. Arun Agarwal is the Director of the CMSD.