

# INDIAN INSTITUTE OF TECHNOLOGY KANPUR

## COMPUTER CENTRE

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Following are the minutes of the faculty meeting held on March 08, 2006 at 4:30PM.

### Members present:

**AE:** Professor T K Sen Gupta,                      **BSBE:** Professor R. Sankaramakrishnan,  
**CHE:** Professor Jayant K Singh ,                **CHM:** Professor Amalendu Chandra,  
**EE:** Professor Kameswari Cherolu,              **HSS:** Prof. T Ravichandran,  
**IME:** Professor Veena Bansal,                  **MME:** Professor Sandeep Sangal,  
**MSP:** Dr. Sanjay Gupta,                          **ME:** Professor Arun K Saha,  
**CC:** Dr. R. Tiwari, Dr. K. S. Singh, Mr. Nirmal Roberts, Dr. Y D S Arya, Mr. Gopesh Tiwari,  
Mr. Brajesh Pandey, Mr. Aftab Alam, Mr. Navpreet Singh, Professor P. Gupta

### Members not present:

**CE:** Professor Partha Chakraborty,              **CSE:** Professor Amit Mukerjee  
**DES:** Professor Bishakh Bhattacharya,        **LTP:** Professor Ramesh Chandra Budhani,  
**MATH:** Professor R K S Rathore,                **PHY:** Professor Manoj K Harbola,  
**CC:** Mr. H P S Parihar (on leave),              **Gymkhana:** Mr. Abhas Kumar, Mr. Mohit Mangal

(Professor Mukerjee, CSE, informed that he would not be able to come and sent his feedback on agenda)

### Agenda 1: Announcements

Chairman welcomed all the members of CCCC. He has made the following announcements:

- a. Two new systems have been added in the list of compute servers named as "akash1" and "akash2". The configurations of the systems are as follows:-

AMD Opteron Dual Core 2.2 GHZ, Quad Processors  
RAM -- 32 GB  
Disks -- 1x145 GB (System disk), 3x300 GB (Users Disks)  
OS -- LINUX (RHEL AS4 Update2)  
Additional Software -- PGI Fortran compilers

Extra disk space with some limitation may be provided to the needy users locally on the systems. There would be no backup of the data stored on the local disks.

- b. SG3400 (with 12 CPU and 8GB RAM) server was discontinued in February 2006. The system is restarted. Since the system is out of AMC, we shall keep the server running till it is functioning well.

- c. On Vyom server, NAG F95 compiler along with various NAG libraries has been installed.

- d. CC is pursuing the procurement of SAS license for this year. Meanwhile temporary license is being issued by SAS.

e. The proposed budget for 2006-07

i) Hardware;

70 new PC:	35 lacs
6/7 servers:	20 lacs
Upgradation of storage media:	30 lacs
Upgradation o SUN cluster [RAM, CPU, Additional nodes]:	40 lacs
Others:	10 lacs

ii) Software:

Cluster S/W:	25 lacs
AMC of available S/W:	25 lacs

iii) Internet Charges:

120 lacs

iv) Intranet Charges:

Upgradation of Campus backbone:	60 lacs
Replacement of 100 access switches:	10 lacs
Wireless N/W access:	35 lacs
Upgradation of security firewell, copper wiring at CC:	15 lacs
Others	25 lacs

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Total 450 lacs

## Agenda 2. Status of Giga-bit Line in Academic Area & Students' Hostels

*"The IITK Backbone network is being upgraded from 100 Mbps to 1 Gbps. For this new Single Mode Fiber Optic Cable is being laid in the Academic Area and Student Hostels. The Switches in all the buildings will also be upgraded to Gigabit Switches from the present 100 Mbps Switches. This is being done to increase the Intranet (within campus) access speeds and support the growing demands of users in the future."*

The current status was presented by Mr. Navpreet Singh. The diagram showing the current status in terms of fibre cabling, trenching and piping and no work done for academic area and hostel area is enclosed. Mr. Niranjana Dass, SE and the Special Invitee, has assured the committee the following:

- The cabling of the entire academic area shall be completed by Middle of April, 2006.
- The cabling of hostel area shall be completed by the End of May.

## Agenda 3. Current Status of Cluster Machines

The current status of the cluster machines was presented by Mr. Brajesh Pandey which is given below.

*"Finally the cluster machines have been turned on again March 2, 2006 at 5:00 PM and are under observation. The following are the works done by VOLTAS team under the supervision of Mr. Niranjana Dass, SE."*

- All indoor controllers were changed*
- Circulation in the room was improved.*
- Cooling coils in 2 units and one complete outdoor unit was changed.*
- Refrigerants were freshly charged.*

*Moreover the team is looking at adding some new control units to the already existing ones so that similar problems do not arise in the future at all. The ACs will be under observation for the next few days by the VOLTAS team.*

*It is requested to HPC group to submit jobs as much as they can. The number of slots on per q has been increased from 2 to 8 so that even a large job of 96X4 should work. The sequential queue limit has been increased to 2 jobs so that gaussian group can test by submitting sequential jobs to saturate that queue."*

The committee discussed its status and members are very unhappy with the loss of computing time due to the unsatisfactory performance of newly installed AC by VOLTAS in the cluster server room.

Mr. Niranjana Dass, SE and the Special Invitee, has assured the members that he is fully aware of the situation and is pursuing with VOLTAS to make the necessary changes in the air conditioning systems to provide uninterrupted air conditioning to the cluster server room.

#### **Agenda 4. Current Status of Web Usage**

Dr. R. Tiwari presented the current status of the web usage which is given below:

*"CC has two separate proxies running with 34 mbps. These are on 4 to 1 sharing which means one can safely use an average bandwidth of 8.5 mbps and 500mbps with peaks to 30mbps and 2 mbps without attracting any restrictions from service providers. General claim is that our internet connection is very slow. The following are the observation*

*a. The average usage is around 10 mbps and peak is around 32mbps with the restrictions of 3 gb download per user per month imposed.*

*b. The average download per user on vsniproxy is 30Mb, while 5-10 users download 1 Gb perday the highest going to 4.5 Gb.*

*c. The average download per user per day on proxy is 45 Mb, and again 5- 10 users download more than 1 Gb per day. Highest download goes upto 13.5 Gb.*

*To facilitate optimum utilization of bandwidth- CC proposes the following:*

*a. CC can create bulk download on request facility for users, so that they do not have to use their precious web download quota for large free s/w downloads and bandwidth can be saved by providing these on a ftp site avoiding duplicate downloads.*

*b. Per day quota for each user [with maximum 3 Gb quota per month] will be 1 Gb.*

*c. Necessary penalty will be imposed on users who download more than the assigned quota."*

The committee has appreciated the idea of the creation of a bulk download on request facility for users proposed by CC. The centre shall create this facility and inform the users.

#### **Agenda 5. Any Other Items**

Some members have raised the issue of bad connectivity from residences through ADSL modem due to the poor maintenance of telephone line. They have been informed that the issue should be taken up with Faculty Advisor, IIT Kanpur.