# NIST e-NEWS Vol 6, Auguest 15, 2002

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# **Message from the Director**

This summer I had the unique opportunity to devote some time to books - of the non-technical variety for a change. I read with relish Wings of Fire by A P J Abdul Kalam - our President designate. Here is a story of an engineer with true grit, determination and a will to win. Prof. Kalam's managerial abilities are legendary and his faith in the scientific temper unshakable. I share the hope with millions of others that he shall usher in an era of scientific and technical mindset among the people of India and keep divisive forces that threaten to tear into the nation's fabric at bay.

Truth, Love and Malice - An Autobiography by Khuswant Singh is a must read for those who think life is a straight line. Khushwant's amazing careers took him to All India Radio, Law, Journalism, Diplomacy, Public Relations, Author, Globetrotter, etc. If you think you got it all in your life, read the book - it will make you think again. The big surprise I had was the way Khuswant removed the veneer from face of "big people" and made them so human - so much just like us. Khuswant's last two chapters on "How to lead life" and "To budding authors" is a must read.

Motivational books are in these days. Count your Chickens before they Hatch by Arindam Chaudhuri is a must read. Arindam is only 33 years old and teaches at IIPM, the top management school at Delhi and is our desi answer to Mark H. McCormak. He is hilarious and provocative - turning traditional managerial knowledge on its head. His philosophy: work hard and smart as per plan to achieve 100%.

The last book which I am yet to complete - God of Small Things by Arundhati Roy. Comment: completely bowled !!

On the business of the Institute, I am happy to inform that we are starting our Masters in Computer Application (MCA) course from academic session 2002 with a batch intake of 60 students. MCA will be the cutting edge of our software program topping with a full semester project. Also starting August 1, the Institute Library, Computer Center and Internet Center all at the Octagon will be made available till 9pm from Monday to Saturday. Transport facilities from the campus will be available.

On a lighter note - has anyone checked out Dr. Reddy's personal website: www.ravipreddv.com?

His motto: What have you created today? ... a challenge for each of us!

July 15, 2002 Sangram Mudali

### Letters to the Editor

I am keeping this space for Students and their Guardians. Please send your views, suggestions and feelings for this column at NISTe News@yahoo.com. It will start from the Next issue onwards..... Editor

# **Special News**

Post Matric Scholarship (PMS) for NIST students

Congratulations!!! 8 of our students got the Post Matric Scholarship (PMS) of Govt. of Orissa this year. This is a financial assistance for SC/ST students studying at Post-Matriculation stage to enable them to complete their education. The name of the students are

- 1. Chandra Sekhar
- 2. Sethy Sasmita Swain
- 3. Purusottam Behera
- 4. Asharani Sethi
- 5. Ajay Kumar Das
- 6. Gopal Behera
- 7. Pranaba Kumar Deheri
- 8. Padma Kumari Bag

This PMS was proposed and made successful in NIST by our Director, Mr. Sangram Mudali. We are also thankful to Mr. Nruparaj Sahu (Manager-Admn & Liaison) who did a great job for its success. Congratulations!!!

NISTians training on PARAGLIDING!!!

PARAGLIDING!! It's an experience of walking in air. Our extra curricular activities coordinator Mr Vinay Das has completed the training from Indian National Para Ascending Federation (INPAF), Pune. The INPAF is an Institution of the National Defence Academy (NDA). The training was from May 27, 2002 to June 9, 2002. During the training period, first they give some physical exercises, ground handling and then show the way, how to walk on air. Mr Vinay showed his performance from a hill of 250ft height. It was an awesome experience according to him. The training location was NDA, Khadakwasala, Karmoli and Pune city.

Computer facility for NIST faculty

NIST has provided computer facility for all faculty in their rooms. All the PCs are High speed Pentium machine and are connected through LAN. They are using the NIST INTRANET facility for their Academic and Research activities. They are also getting the INTERNET facility from their desk.

Student's Corner

Oh! NISTe\_News (Aruna K Tripathy, 3rd Semester, CS)

The four months old baby you are keeping me busy reading, reading and reading you are really inspiring.

Oh! my dear niste\_news you are by the nistians, you are of the nistians, Christmas for Christians, and you are for nistians. Oh! my niste\_news Singing the winning song you live long... live long.... live long.....

Winner of Light Wave Engg Project competition

Two groups were selected among twenty four others in Light wave Engineering projects. The 1st position was secured by Sanjeev K Singh, Rashmi Mahapatra and Bimalendu Mohanty. The title of their work is "Optical fiber measurements". Kabita Mahapatra and Pradeep Chowdhury achieved the 2nd position and their title is "Optical fiber communication". The Course Instructor, Dr Partha S Mallick supervised the projects and the reports were graded by the Instructor and Dr Ajit K Panda. Congratulations to all of you!!!

Joy (Jankam Sagar, 1st Semester)

Early in the morning calm,
When the magic of morning has not yet begun
and the exciting eyes are still resting
Small droplets of water roll down the leaves
Making them bow to the motherland
Giving respect to her and joy to themselves
Whare can you find such joy?

The sunflower anxious to see his God and is eagerly waiting for it and here comes his God Making its way from the east I heard the leaves trembling with joy I saw the smiles crinkling on the flowers and the tendrils twisting and untwisting in emotions Where else can you find such joy?

Believe it or not!!!

We have many brother-sister, brother-brother, sister-sister combinations at NIST. But this one is the best: Meryleen Mohapatra(NISTian 1996 batch), brother Bishnu Mohapatra (NISTian 1997 batch), brother Monoranjan Mohapatra (NISTian 1999 batch

### Research and Development

### Conference Papers

- S.K.Panigrahi and A.K.Panda, "Low noise Si/Si1-xGex- based hetrostructure MITATT device" Proceedings of APSYM-2002, Kochi, 127-129, 2000.
- S.K.Panigrahi and A.K.Panda, Optimized Ion Implantation Profiles for the p-n junction to use in VLSI Devices Proceedings of All India Seminar on Recent Trends in VLSI Circuits and Technology, Roorkee, 5-8, 2001.

New Arrival: Software/Hardware

- Tanner EDA Tools: We have 15 copies of Tanner EDA software, Tanner is a world class Electronic Design Automation(EDA) tool to facilitate both the front end and back end for generation and verification of the mask layout of VLSI circuits.
- Pspice: We have Pspice software for all users to perform sophisticated analyses of circuits and to view the graphical results of the analysis.
- We have ALDEC VHDL software, which allows all users to capture the nuances of design complexity and to effectively manage the data and the design process.

For all of the above, interested students may contact Mr Susant Das and Mr Santosh Panigrahi.

- We have the "ARM 7T Embedded Systems Tool Kit along with Proprietary Software". This allows implementation of small embedded systems projects.
- We have now acquired a "Bluetooth Communication Demonstration Kit" from Motorola. Bluetooth is now the world standard protocol wireless devices.

For these two softwares interested person may contact to Mr Manash Ranjan Das.

Mr I Bhattacharyya registered for Ph.D

Mr I Bhattacharyya, our Mathematics faculty got the registration for Ph.D degree of Calcutta University on May 29, 2002. The title of his proposed research work is "Some Neutrino emission processes and its applications". Professor P Raychaudhury of Applied Mathematics department, Calcutta University will supervise the research work. NISTians wish you all success. Keep it up!!!

Alumni Page

NIST Alumni Career Counselling Services(NACCS)

In the last issue, I gave the list of the NIST Alumni Career Counselling Services(NACCS) members. In this issue some more names have been added. NACCS is a voluntary service offered by the alumni of NIST. Students currently studying at NIST can send queries through email on careers—jobs, higher engineering education, management education, entrepreneurship etc. to the following listed members. The alumni will also provide any key information about Job Prospects in the city in which they are located. (Geetika Mudali)

Name Batch Email ID Company/Institute

- 1. Debasish Pattnayak 1997 dpattnayak@hotmail.com SAP-India, Bangalore
- 2. Uzma Naz Rahim (ECE) 1996 urahim@cisco.com Infosys, Bangalore
- 3. Reshma Rout (CS) 1996 reshma\_rout@infy.com Infosys, Bangalore
- 4. Aasish Behera (ELE) 1997 aasishbe@in.ibm.com IBM, Pune
- 5. Rohitav Samanta (ELE) 1996 rohitav\_samanta@rediffmail.com Convasys, Chennai
- 6. GV Srichandan (ECE) 1996 srichandangv@rediffmail.com University of Texas, Arlington, USA
- 7. Anshuman Panigrahy (ELE) 1996 anshuman\_9@rediffmail.com MBA, XIMB
- 8. Lenin Sahoo (ECE) 1996 leninsahoo@yahoo.com TCS, New Delhi
- 9. Ritesh K. Agrawal (CS) 1997 riteshag@in.ibm.com IBM, Bangalore
- 10. Manas Ranjan Das (ECE) 1996 ranjan\_manas@yahoo.com NTCS, BAM
- 11. Bapi Dash (ECE) 1997 bapi\_dash@yahoo.com Entrepreneurship, BBSR
- 12. Sumeet Ghosh (CS) 1997 g\_sumeet\_in@hotmail.com Higher Studies
- 13. Ashutosh Gupta(CS) 1997 ashutosh gupta@rediffmail.com NTCS, BAM
- 14. Gargi Pattnayak(ECE) 1997 me\_gargi@yahoo.com TCS, Hyderabad
- 15. Smruti K Mohapatra (CS) 1997 smrutimo@in.ibm.com IBM, Pune
- 16. Manoj K. Agrawal (CS) 1997 manojagr@in.ibm.com IBM, Pune
- 17. Swastik Mishra (CS) 1997 swas555@yahoo.com Higher Studies

- 18. Manoranjan Mishra (CS) 1996 mishra\_mano@yahoo.com Reisys, Washington DC, USA
- 19. Rakesh Kumar Jena (CS) 1996 rakeshjena@yahoo.com Polaris Software, Chennai
- 20. Asma Ara (ECE) 1996 asma\_ara@yahoo.com Dexcel Electronics,Bangalore
- 21. Pragnjyajeet Monhanty (ECE)1996 prag\_mohanty@rediffmail.com Satyam, BBSR
- 22. Y. Venkateswarlu (CS) 1996 yrajesh50@yahoo.com Reisys, Washington DC, USA
- 23. Ashwin Agrawal (CS) 1997 ashwinagrawal@hotmail.com Jataayu Software, Bangalore
- 24. Basudev Agrawal (CS) 1997 basudev\_agrawal@hotmail.com IBM, Bangalore Gradually some more Name's and their mail ID's will be included with this list. We request Alumni to kindly become members of NACCS.

# NIST Summer Courses 2002 (Ravi P Reddy)

Continuing the tradition of offering advanced technology courses in the summer vacation, NIST Training and Consultancy Services ran the two courses "Electronic Design Automation(EDA) –Software Tools for VLSI/ASIC Design" and "Enterprise Application Development using Java, Apache, Linux and PostgreSQL (JALP)". In addition to many students of NIST, several outside engineers joined these courses. In spite of the general perception of a software slowdown and the depressed job market, it was a pleasure to see such a large number of students for the courses.

The EDA team was led by Dr. Ajit Kumar Panda and ably supported by Mr M. Suresh, Mr Susant Das and Mr RK Dash. They were assisted by A. Ravikant and S. Pradhan who were students in last year's summer course and this year were helping as instructors. The EDA course started with Analog/Digital Simulation using PSpice. The students learned from the basic to design of library. In the 2nd week, they learned about Xilinx, which is the industry standard FPGA. The students designed a system, which can be used for any standard quiz organization. During this week, they designed a part of the vending machine for NIST cafeteria and a traffic light. Students learned VHDL using ALDEC VHDL in the 3rd week of the course. They designed Arithmatic Logic Unit (ALU) of 8-bit microprocessor. Students learnt the fabrication procedure and layout design using Tanner tools in the fourth week of the Summer Training course. Apart from the theory class and labs, the students were also exposed to different VLSI companies, their requirement and status etc.

The JALP course was an introduction to the trends in the Open Software "phenomenon" which provide a low cost alternative to the expensive proprietary software in the area of application development. Java provides a free application development platform. Apache is the most popular webserver in the world and free. Linux is fast becoming a competitor to Windows, rivaling it in power and flexibility while remaining a free product. PostgreSQL is the world's most advanced object oriented database management system available today. In addition, an introduction to javascript and PHP was also given to enable creation of web-based solutions. The course culminated with the students completing two projects – one was a GUI based application in Java and another was a web-based application using HTML, javascript and PHP. The operating system was SuSE Linux and the backend database was PostgreSQL. The focus of the course was more on understanding the architectural issues in designing enterprise solutions rather than the coding parts. The JALP team consisted of (in alphabetical order) Manas R. Das, Shom P. Das, Suryakanta Das, Ashutosh Gupta, Sudhir Nayak, B Siddhartha Neelamani, Prasanna Pati, Bhawani Pattanaik, K Sangeeta, Suprabha Sahu, Susant Sahu, B. Srikrishna, Anisur Rahman, P Rajnikant and Ravi Reddy.

On the final day, there was a two-hour session where every student was given a chance to present his/her comments and feedback. Dr. Ajit K. Panda clarified most of the issues raised by the students. Dr. Ravi Reddy presented the concluding remarks exhorting the students to keep their minds focussed on pursuing a career in IT in spite of all the negative market news.

Even though the schedule was a grueling 8 hours a day for 24 working days, no one seemed to be complaining about the work. May be it was the machines which worked without any problems (thanks to Mr. B. Rout), or may be it was the central airconditioning (thanks to Subhendu Das and Pattanaik) or the unusually cooler summer, the brains of the workshop participants never showed any signs of overheating. Apart from some minor hiccups, Mr. Ray's team managed to keep the tummies happy with great breakfasts and lunches. The NTCS gang managed to do a little non-software consultancy for the cooks by preparing masaala raajma dal one day for lunch that was much appreciated by all the participants!

Orissa Tour for JEE 2002 (Ravi P Reddy)

NIST had pioneered the concept of Open House Meetings with parents and prospective students considering admission to NIST. In the year 2000, we had organized two meetings in Bhubaneswar.

This year, our team from NIST made a more extensive tour of Orissa to meet a broader spectrum of parents and students considering admission to NIST. The team consisted of Mr. BK Dash, Training Coordinator, Mr. K. Premeswar Rao, Admin. Officer and myself. We held a series of Open House Meetings in the major cities of Orissa. The goal was to explain what NIST stands for in terms of providing an excellent place for young minds to start their careers in engineering.

We kicked off the tour with a first meeting at Hotel Satya Sagar in Berhampur. This meeting was attended by about 80 people with some people coming from as far as Bhanja Nagar and Aska.

The next venue was Bhubaneswar on 26th June at Hotel Siddharth. In spite of a World Cup Football semifinal being telecast at the same time, we got an impressive group of about 70 people attending the meeting. Many parents expressed their satisfaction at having their questions answered. The same night, we left for a night halt at Talcher.Next morning, we reached Rourkela and I got my first glimpse of this industrial city of Orissa. The meeting hall at Hotel Deepti was packed to overflowing – literally! After accommodating about a hundred people, the hall was overflowing and the hotel staff informed us that they had run out of chairs. The questions were pointed and many but we were able to satisfy all their doubts. We rounded off the evening with a leisurely dinner in the company of our old friends Prof. KC Patra and Dr. Chandal Nahak.Next day morning, we were off to Sambalpur's Shiela Towers. After some serious confusion caused by the hotel staff about the meeting halls and after shifting the entire audience from one hall to the other, we managed to start the meeting at 6:30 PM. About 80 people attended our meeting and appreciated our efforts.

The next day was Saturday and we reached Cuttack in the evening. The venue was Manorama Plaza. Just as we set up the laptop and the LCD projector, the power went off and the airconditioning stopped. But we could continue on the hotel's genset and had an audience of about 80 persons attending.

The next day- Sunday evening at 6 PM- The scheduled telecast of the World Cup Football Finals and added to that an India Sri Lanka cricket match, our hopes of getting any audience were indeed slim. But to our utter surprise more than 60 people turned up to hear about NIST and to seriously consider joining NIST.

We concluded our tour the next day on home turf by making another presentation in Berhampur and this time it was the turn of Satya Sagar to burst at its seams. More than 120 people turned up, there was a shortage of chairs and the NIST students, staff and faculty had turned out in force – making it a grand finale to the long tour of 1300 kms across the state of Orissa! On this long tour, we presented the strengths of the academic programs of NIST, dispelled many malicious rumors about NIST, cleared many doubts of the parents and made many new friends. Physically, we were tired but the excitement of the trip will keep us mentally high for quite a few weeks to come. Because we know that we will be seeing many of the students, who met us on the tour, once again in the NIST campus on the inauguration day of the new batch at 2002.

# Accreditation of NIST Sangram Mudali

The current higher technical education scenario in the country is in danger of being swamped by sub-standard and mediocre institutes. Scare resources are being used to produce average graduates who fail to meet the rigour of industry standards. In order to stem and in some ways to reverse this trend, the concept of External Quality Assurance (EQA) has been popularized in most advanced nations. In our country, the National Board of Accreditation (NBA) was setup by AICTE to assess the qualitative competence of educational institutions in terms of academic ambience, administrative infrastructure, physical resources, human resources, supporting systems like library resources, computational resources and avenues for moulding and developing the student's personality and learning characteristics.

Accreditation is accorded to each degree course separately on a grading scale of A, B, C, Not Accredited or "\*" rating where 5stars, 4stars, 3stars or NA are given. This promotes healthy competition for quality between departments of the same institute as well as between institutes. Only programmes which have graduated two batches of students are eligible to apply for Accreditation.

In Orissa, no Engineering Institute has been accredited. It is our earnest effort to be the first Institute to gain this honor. Towards this end, the management, faculty, staff and students have to contribute their mite. A "Workshop on

Accreditation" by AICTE team officials is being planned shortly. The workshop will lay down the ground rules and provide an action plan. Dr. Ajit Panda has taken the responsibility to oversee NIST's march towards Accreditation in this academic year.

### **QUOTABLE QUOTES**

- You see things that are..... and say "Why ??'.... But I dream of things that never were .... and say , 'Why not?'
   G. B. Shaw
- Good decisions come from wisdom. Wisdom comes from experience. Experience comes from bad decisions.
   Forbes
- America will win because our Asians will beat their Asians. The Economist
- People need a leader. Sometimes it does'nt matter in which direction you point as long as someone is pointing.
   Steven Capps
- The definition of a consultant: Someone who borrows your watch, tells you the time, and then charges you for the privilege. Letter in the Times Newspaper
- I think it's unfortunate that to some degree the word 'entrepreneur' has taken on the connotation of a gambler. I
  don't see it that way at all. Many times action is not the most risky path. The most risky path is inaction. Fred
  Smith founder of Federal Express