



# THE BPPIMT - NEWSLETTER

A Quarterly In-House Magazine

of

**B.P. Poddar Institute of Management and Technology**

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Issue - XVII, OCTOBER 2012 Chief Advisors: Prof (Dr.) Sutapa Mukherjee Editor in Chief: Prof Emeritus (Dr.) S.C.Chakravartty  
Prof (Dr.) B.N. Chatterji



## VIKRAM SARABHAI-FATHER OF INDIAN SPACE PROGRAM



In today's world with the advent of technology space research has got tremendous boost. India is also taking the competition in her own stride to become one of the most advanced nations in space research. The *Indian Space Research Organization (ISRO)*, established by Vikram Sarabhai, is the primary space agency of the Indian government. ISRO is amongst the six largest government space agencies in the world, along with NASA, RKA, ESA, CNSA and JAXA.

Modern space research in India is most visibly traced to the activities of scientist S. K. Mitra who conducted a series of experiments leading to the sounding of the ionosphere by application of ground based radio methods in Calcutta in 1920's. Later, Indian scientists like C.V. Raman and Meghnad Saha contributed to scientific principles applicable in space sciences. However, it was the period after 1945 which saw important developments being made in coordinated space research in India. Organized space research in India was spearheaded by Vikram Sarabhai.

The establishment of the ISRO was one of his greatest achievements. He successfully convinced the government of the importance of a space programme for a developing country like India after the Russian Sputnik launch. Dr. Sarabhai emphasized the importance of a space programme in his quote:

*"There are some who question the relevance of space activities in a developing nation. To us, there is no ambiguity of purpose. We do not have the fantasy of competing with the economically advanced nations in the exploration of the moon or the planets or manned space-flight. But we are convinced that if we are to play a meaningful role nationally, and in the community of nations, we must be second to none in the application of advanced technologies to the real problems of man and society".*

Vikram Ambalal Sarabhai was born on 12 August 1919 in the city of Ahmedabad, in the state of Gujarat in western India. His interests varied from science to sports to statistics. He set up Operations Research Group (ORG), the first market research organization in the country. Sarabhai established many institutes which are of international repute. Most notable among them are Nehru Foundation for Development, Ahmedabad, Indian Institutes of Management (IIMs) which are considered world class for their management studies, the Physical Research Laboratory at Ahmedabad.

Sarabhai set up Ahmedabad Textiles Industrial Research Association (ATIRA), which helped the booming textiles business in Ahmedabad. He also set up Center for Environmental Planning and Technology (CEPT). Not stopping with all these he went ahead and set up Blind Men Association (BMA) which helps visually challenged people with necessary skills and support. And along with wife Mrinalini Sarabhai he founded Darpana Academy of Performing Arts. Other well known institutions established by him include Faster Breeder Test Reactor (FBTR) in Kalpakkam, Variable Energy Cyclotron Project in Calcutta, Electronics Corporation of India Limited (ECIL) in Hyderabad, and Uranium Corporation of India Limited (UCIL) in Jaduguda, Bihar. The great visionary Dr. Sarabhai passed away on 30 December 1971 at Halcyon Castle, Thiruvananthapuram, Kerala. The family of BPPIMT takes the opportunity to pay its homage to this great son of India on his ninety third birth anniversary.

- Prof. Dr. Sutapa Mukherjee  
Principal, BPPIMT



## ACADEMIC NEWS:

### Publications:

#### Books:

**Inadyuti Dutt** and **Soumya Paul** published a book titled "Some Research on Optical Fibre Security: A Practical Approach to Optical Fibre Security" from Lambert Academic Publishing, Germany (2012), ISBN-13: 978-3659228117.

**Soumya Paul** and **Inadyuti Dutt** published a chapter "A Comprehensive Study on Application of Information Technology in Rural Management" published in Recent Developments In Computing And Its Applications, I.K. International Publishing House Pvt. Ltd., New Delhi, ISBN 978-93-80026-78-7.

#### Journals:

**Arijit Saha**, Kallol Bhattacharya and Ajoy Kumar Chakraborty published their paper titled, "Compensation of rotation effect in a combination of retarders", in the International Journal Applied Optics Vol. 51, No. 20, pp. 4798-4802 (July 2012).

**Tista Banerjee**, Sumana Chowdhuri, Gautam Sarkar and Jitendranath Bera published their paper titled, "Performance Comparison between GA and PSO for Optimization of PI and PID controller of Direct FOC Induction Motor Drive" in the International Journal of Scientific and Research Publications, Vol. 2, Issue 7, pp. 223-230 (July 2012).

**Amlan Raychaudhuri**, Shruti Khandelwal, Sneha Chhalani, Nikhita Kakarania published their paper titled, "Change Detection in Remote Sensing Images Using Elitist Genetic Algorithm" in the International Journal of Emerging Technology and Advanced Engineering (IJETA), ISSN: 2250-2459, Vol. 2, No. 7, pp. 169 – 173 (July 2012).

**Amlan Raychaudhuri**, Shruti Khandelwal, Sneha Chhalani, Nikhita Kakarania published their paper titled, "Image Binarization of Grey Level Images Using Elitist Genetic Algorithm" in the International Journal of Computer Applications (IJCA), ISSN: 0975-8887, Vol. 50, No. 1, pp. 49 – 53 (July 2012).

**Inadyuti Dutt** and **Soumya Paul** published their paper titled,



"Design and Implementation of Network Security using Neural Network Architecture" in the Journal of Computing, ISSN (Online) 2151-9617, Vol. 4, Issue 8, pp. 115-120 (August 2012).

**Pratap Chandra Mandal** published the paper titled, "Evaluation of performance of the Symmetric Key Algorithms: DES, 3DES, AES and Blowfish", in the Journal of Global Research in Computer Science, Vol. 3, No. 8, pp. 67-70, August 2012, ISSN- 2229-371X.

**Inadyuti Dutt** and **Soumya Paul** published their paper titled, "Light Trail Minimization In All-Optical Network using Connection Matrix and Genetic Algorithm and their Comparisons with the Algorithm Adopted by Integer Linear Programming" in the International Journal of Engineering Science & Advanced Technology, Vol. 2 Issue-5, Sep-Oct 2012, pp. 1327-1337, ISSN 2250-3676.

**Pratap Chandra Mandal** published the paper titled, "An extensive review of current trends in steganalysis" in the International Journal of Advanced Research in Computer Engineering & Technology (IJARCET), Vol. 1, Issue 7, pp. 215-220, September 2012, ISSN: 2278 – 1323.



**Pratap Chandra Mandal** published the paper titled "Modern Steganographic technique: A Survey" in the International Journal of Computer Science & Engineering Technology (IJCSET), Vol. 3 No. 9 pp. 444-448, Sept- 2012, ISSN- 2229-3345.

#### Conference:

M.H.Khan, S.Pal and **Esa Bose** presented the paper titled "Non-Debye like relaxation and universal dielectric response (UDR) in  $\text{La}_{0.7}\text{Ca}_{0.3}\text{MnO}_3$  (LCMO)/ $\text{BaTiO}_3$  (BTO) composites" in the conference Condensed Matter Days 2012, on August 29-31, 2012 at BIT Mesra. The abstract was listed in the Book of Abstracts, pp. 36.

S.Biswas, S.Pal and **Esa Bose** presented the paper titled "Effect on low temperature magnetization reversal due to Cr, Ga and Ru substitution at the Mn site of  $\text{Ga}_{0.7}\text{Ca}_{0.3}\text{MnO}_3$ " in the conference Condensed Matter Days 2012, on August 29-31, 2012 at BIT Mesra. The abstract was listed in the Book of Abstracts, pp. 56.

## INSTITUTIONAL NEWS:

### Wall Magazine



Magazine of ECE Dept.

Like previous years, this year too, the Wall Magazine of the Dept. of Electronics and Communication Engineering was published by the students, faculty and staff members on 1<sup>st</sup> August, 2012 under the guidance and supervision of Mrs. Rashmita Mishra and Mr. Soumitra Singh. The wall magazine was inaugurated by the HOD, Prof. (Dr.) Shila Ghosh in the presence of all faculty and staff members and students of ECE Department.

Department of Computer Application also published their quarterly Wall Magazine in the month of September under the guidance of advisors Mr. Soumya Paul, Associate Professor & Head Dept. of Computer Application, Ms. Inadyuti Dutt and Mr. Arijit Dey, Assistant Professors, Dept. of CA.



Magazine of CA Dept

### Commencement of odd semester

All B. Tech and MCA odd semester classes for 2<sup>nd</sup> year and onwards commenced from 24<sup>th</sup> July 2012.

### Orientation Program for Fresher's

The students for the first year B. Tech joined BPPIMT family on 14<sup>th</sup> August 2011. A fresher's orientation program for the new entrants was organized at the institute seminar hall in presence of the Principal, Academic Dean, Registrar, all HODs and the faculty and staff



members of the Institute. The students of each discipline were also taken to their respective departments where they were familiarized with the academic programmes of the individual departments and were introduced to the faculty members and technical staffs.

### Faculty Seminar Program "PROSARON"

Mrs. Sutapa Mukherjee, Assistant Professor of EE Dept. has delivered a talk on "Defining Standard skies for Roorkee" on 31<sup>st</sup> August 2012 in the Institute Seminar hall.

### SPIE Student Chapter



The student chapter of SPIE hosted by the Department of Electronics & Communication Engineering is one of the fastest growing student chapters of India. Within three years of its inception it has become the second largest student chapter of SPIE in India. Also it is to be mentioned that our SPIE student chapter has become the 4<sup>th</sup> largest chapter of Asia. Two of our students Mr. Nazimul Islam Gazi and Mr. Chandradip Saha have visited San Diego, California USA during 11<sup>th</sup>-16<sup>th</sup> August to attend a conference of SPIE.

### Industrial Visit by SPIE Student Chapter



On 10<sup>th</sup> September 2012, forty seven students of SPIE Student chapter (ECE department) visited Mejia Thermal Power Station, at Durlavpur, Bankura, the largest thermal power plant, in terms of generating capacity in the state of West Bengal as well as among other DVC power plants. They were accompanied with five faculty members of ECE department. The students got an idea about the process of power generation and distribution system. Units 1 through 6 collectively named MTPS- A have been thoroughly visited, while the extension work of Units 7 & 8 called MTPS-B is also seen. The industrial visit has been organized and sponsored by SPIE Student Chapter of BPPIMT.

### Foundation Day Celebration



Statue of founder being garlanded



Delegates on the dais



Principal felicitated by Chairman



Univ. topper receiving gold medal

The 14<sup>th</sup> Foundation day of B. P. Poddar Institute of Management and Technology was celebrated at the college seminar hall, on Tuesday, 11<sup>th</sup> September 2012. The programme started in the morning at 11:00 am with the garlanding of the statue of the founder Late B. P. Poddar by our honorable Chairman, Mr. Arun Poddar, Vice-Chairman, Mr. Ayush Poddar, Director, Dr. Subir Chowdhury, Principal, Prof. Dr. Sutapa Mukherjee, Academic Dean, Prof. Dr. B.N.Chatterji, Registrar, Dr. Sandip Ghosh and all HODs.

The main programme at the seminar hall started with inaugural song presented by the faculty and the staff members of our college. This was followed by traditional lighting of lamp by the honorable chairman Mr. Arun Poddar, Vice-Chairman, Director, Principal, Academic Dean, Professor Emeritus, Prof. S. C. Chakravarty and Registrar. There was a condolence for one minute in memory of our Ex-Principal Late Prof. Dr. K. N. Chakraborty. This was followed by a video presentation about different activities of our college by our students.

After the beautiful presentation the Principal expressed a warm welcome in her inaugural speech. Our Chairman and Director presented their motivating and enlightening speeches.

On this auspicious day the students were awarded by the chairman for their scholastic excellence in the university examinations. Students of different fields with best final year project and best 1<sup>st</sup> year NSS project were also awarded by the Chairman. A certificate of appreciation was also given to some of our students and faculty & staff members for their contribution in development of Office and Library Management Software. The faculty and staff members who have served the Institute for a decade and made valuable and remarkable contributions to the development of the Institute were felicitated by the management of the Institute. At the end of the award presentation, Dean Academics proposed the vote of thanks. In the second session of the celebration students presented a colourful and gorgeous cultural programme. The flavor of national integrity which was their theme enthralled the audience. The overwhelming performance of the students brought a loud applause. The programme was concluded with a gala lunch sponsored by the management of the Institute.

### Viswakarma Puja Celebration



Like previous years this year also the Viswakarma Puja celebration was held on 17<sup>th</sup> September at BPPIMT campus. The event was organized by the students under the guidance of a committee of faculty members. The puja started at 10:00 am and ended at 12:00 noon. The *prasada* distribution started at 12:45 pm. Almost 600 students and about 100 faculty and staff members attended the programme with their family. The deity immersion took place on the next day. The event started at 10:00 am and ended at about 2:30 pm.





## Football Tournament

Like every year, the intra-college football tournament of BPPIMT was held from 28<sup>th</sup> August – 4<sup>th</sup> September 2012 at Baishaki Playground, B H Block Saltlake. Students from all the five Departments, i.e. EE, ECE, CSE, IT & MCA of V.I.P. Road (Poddar Vihar) campus and two Departments viz. BBA & BCA of second campus at Saltlake participated in this tournament. Seven teams were divided into two groups (Group A and Group B) and league matches were played among them. The final match was played between CSE and ECE on 4<sup>th</sup> September, 2012 and ECE emerged as the champions beating CSE by 4 goals to 3 through tie-breaker. Santanu Paul of ECE, 2<sup>nd</sup> yr became Man of the match & Satadal Maity again from ECE became Man of the Tournament. Prize distribution ceremony took place soon after the match was over. The Principal Prof. Dr. Sutapa Mukherjee handed over the winner's trophy to ECE football team, and the Registrar Dr. Sandip Ghosh gave the runners-up trophy to CSE team. The event was a grand success as all the HOD's of different departments, faculty members; technical assistants along with the students were present to cheer the final tournament.



Delegates at the final match



Champions receiving trophy from Principal



ECE Dept – The Champions

## Seminar

Department of Computer Application, BPPIMT organized a half-day seminar on "Intellectual Property Rights" in collaboration with Computer Society India, Kolkata. Guest Speaker Mr. Utsab Banerjee, Systems Engineer, Tata Consultancy Services enlightened the audience with Patents and their Rights. The seminar was inaugurated by the Principal Prof. (Dr.) Sutapa Mukherjee.

## Invited Lecture



Electrical Engineering Department of BPPIMT organized a lecture on *Large & Traction Machines - Their Recent Trends* by Mr. Tanul Chakraborty, Senior Design Engineer R&D Division Crompton Greaves (I) Ltd. Bhopal on 3<sup>rd</sup> August 2012. He also talked about the development of the recent traction motors – DC Series Motors to Three – Phase Induction Motors and finally Synchronous Motors.

## Quiz Competition "GREY MATTER"

Annual quiz competition for the students "GREY MATTER" was held on 15<sup>th</sup> September 2012. Like previous years this annual competition was organized by the alumni of BPPIMT.

## NEN Workshop

A two-day workshop titled *Successful Leadership Workshop* was held at IIM Calcutta during 22-23 September 2012. Nine students from all the five departments of our institution participated in the event.

## FACULTY CONTRIBUTION

### Ceramic based Hip-joint Prosthesis

Hip joint replacement is one of the most common orthopedic operations. About four lakh patients in India suffer every year from hip joint problems which need transplantation. Most of these prostheses are made up of stainless steel. The main disadvantage of this type of prosthesis is biodegradation due to mechanical wear and chemical disintegration. As a result these are to be replaced every five to six years and patient has to undergo surgical operations.

This hardship can be eliminated with the help of prosthesis with ceramic head made of alumina. The alumina ceramic is strong as well as chemically inert and allows a smooth surface finish. The hardness of alumina provides remarkable resistance to wear and its hydrophilic nature affords better lubrication in aqueous environment. The material has been tried in animal specimen to check toxicity and biocompatibility.

Starting from 2001, the ceramic femoral head made of polycrystalline alumina fitted with 316L/Ti alloy stainless steel stem has been clinically tried in about 500 human subjects of varying age in different hospitals in India. Even after ten years or so they show no evidence of component wear or loosening or any risk factor involvement in human subjects.

- Prof. P. Das (HOD, EE)

- Editorial Committee:** The Editorial Committee consists of a team of Faculty Members headed by Prof (Dr) N. K. Datta, with Prof. Emeritus Dr S.C. Chakravarty as Chief Editor, Prof (Dr.) Sutapa Mukherjee, Principal and Prof (Dr.) B.N. Chatterji, Dean as the Chief Advisors and Mr. Arijit Saha Associate Professor as Editor of the Newsletter.
- Call for Contributions:** Contribution for the Newsletter on the global and national news related to technical, economical, philosophical and general science etc. is solicited from all the members of the BPPIMT family and the students. The prospective contributors are requested to send their writings in about 200 words electronically to the mail address: newsletter@bppimt.ac.in. Publication in the Newsletter is at the full discretion of the Editorial Committee.