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B.P. Poddar Institute of Management and Technology

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Remembering Homi J. Bhabha - The father of Indian nuclear programme



The man who pioneered the Indian nuclear research programme, Homi J. Bhabha was a nuclear physicist who laid the foundation for nuclear research in India. Often hailed as the "father of Indian nuclear programme", Bhabha was not only a scientist, but also a visionary and an institution builder. He was born on 30 October 1909 into the home of a well known Parsi lawyer Jehangir Hormusji Bhabha and his wife Meheren. From childhood, he was an intelligent and hard working student and his parents dreamed of him becoming a mechanical engineer. However, young Bhabha's interest laid in studying physics and not in becoming an engineer. Yet he honored his parents' wish and completed his degree in mechanical engineering.

Starting his scientific career in nuclear physics from Great Britain, Bhabha returned to India prior to start of the World War II in September 1939, prompting Bhabha to remain in India, and accepted a post of reader in physics at the Indian Institute of Science in Bengaluru, headed by Prof. C.V. Raman. During this time, Bhabha played a key role in convincing Jawaharlal Nehru, to start the ambitious nuclear programme. As part of this vision, Bhabha established the Cosmic Ray Research Unit at the institute, began to work on the theory of the movement of point particles, while independently conduct research on nuclear weapons in 1944. In 1945, he established the Tata Institute of Fundamental Research in

Mumbai and the Atomic Energy Commission in 1948, serving its first chairman. In 1948, Nehru led the appointment of Bhabha as the director of the nuclear programme and tasked Bhabha to develop the nuclear weapons soon after. In the 1950s, Bhabha represented India in IAEA conferences, and served as President of the United Nations Conference on the Peaceful Uses of Atomic Energy in Geneva, Switzerland in 1955.

Bhabha gained international prominence after deriving a correct expression for the probability of scattering positrons by electrons, a process now known as Bhabha scattering. His major contribution included his work on Compton scattering, R-process, and furthermore the advancement of nuclear physics. He was awarded Padma Bhushan by Government of India in 1954. He later served as the member of the Indian Cabinet's Scientific Advisory Committee and provided the pivotal role to Vikram Sarabhai to set up the Indian National Committee for Space Research. The great scientist's brilliant career was cut short by a plane crash which claimed his life in January 1966, near Mont Blanc, while heading to Vienna, Austria to attend a meeting of the International Atomic Energy Agency's Scientific Advisory Committee.

ACADEMIC NEWS:

Publications:

Books:

Pramathes Das, "A Text Book on Basic Electrical Engineering", J.B.B.L, ISBN: 978-93-83010-20-2.

Journals:

Arijit Saha, Sonali Chakraborty, Kallol Bhattacharya, "Achromatic half-wave combination of birefringent plates", *Optik* **125** (16), 4534-4537 (August 2014), Impact factor: 0.769, ISSN: 0030-4026.

Kakali Bhattacharyya, "Manju Kapur's Search for Somewhere Else in The Immigrant", **2** (3), 246-256 (September 2014), Impact Factor. 0.793 (IIFS), ISSN: 2320-6101.

Sutapa Mukherjee, "CIE standard general Sky type identification for Delhi during winter and summer", *Journal of Optics* **43** (3), 247-256 (July-September 2014), ISSN: 0972-8821 (without impact factor).

Conferences:

Mousam Chatterjee, Arnab Nandi, Banani Basu, "Performance of Incremental Redundancy Based Data Transmission in Randomly Deployed Wireless Sensor Network", 1st International Doctoral Symposium on Applied Computation and Security Systems, **1**, Chapter 325983_1_En/12 (July 2014), ISBN: 978-81-322-1984-2.

Dolon Champa Das, "Games & Activities: Techniques for Teaching English in a Fun-filled Environment", International Conference on English from Classes to Masses, 21-23 August 2014.

Pritam Bhattacharya, **Arijit Dey**, **Kunal Das**, Debashis De, Mallika De, "Characterization of Ternary Quantum Dot Cellular Automata for III-V Materials", National Conference on Nanoscience & Nanotechnology, 18-19 September 2014.

Bikromaditya Mondal, Susanta Chakraborty, "A Novel Fault Diagnosis in Reversible Logic Circuit", in proceedings



of the 11th IEEE International Conference on Embedded Software and Systems (ICESS - 2014), Paris, France, pp. 717-720, August 20-22, 2014.

Palash Das, **Bikromaditya Mondal**, "Signature Analysis for Synthesis of Reversible Circuit", in proceedings of 18th IEEE VLSI Design and Test Symposium (VDAT), Coimbatore, India, pp. 1-2, July 16-18, 2014.



Invited Lecture

Prof. Dr. B. N. Chatterji, Dean Academics, was the Keynote speaker of the workshop on Engineering education at Camellia Institute of Technology, Kolkata, organized by BIT Mesra (Kolkata Centre) on August 23, 2014. The title of the talk was *Academic research at institution of higher learning – An academicians point of view*.

Completion of Doctorate Degree:

Kunal Das, Assistant Professor, Department of IT has been awarded Ph.D. from Kalyani University on 17 July 2014.

Ivy Majumdar, Associate Professor, Department of ECE has been awarded Ph.D. from Jadavpur University on 16 September 2014.

Participation

Dr. Esa Bose, Assistant Professor, Dept. of Engineering Physics and Ms. Debjani Chakraborty, Assistant Professor, Dept. of Humanities attended one-day workshop by NEN at IEM, Saltlake on 17 July 2014.

Ms. Gitosree Khan, Assistant Professor, Department of IT and Ms. Anindita Roy Chowdhury, Assistant Professor, Department of CA attended FDP for Entrepreneurship at IIT KGP during 22-31 August 2014.

Mr. Soumita Singh, STA ECE Dept. attended a seminar titled Design and Analysis of Systems using MATLAB & Simulink organized by MathWorks Inc. on 24th July 2014.

INSTITUTIONAL NEWS:

Prosaron

Anindita Ray Chowdhury, Assistant Professor, Dept of CA delivered a talk on "Energy efficient cluster head selection in wireless sensor network" on 8th August 2014 and on "Level wise initial energy assignment in wireless sensor network for better network lifetime" in the Institutional Faculty Seminar Programme, on 26th September 2014..

Nandita Sanyal, Associate Professor, Dept of EE delivered a talk on "Bacterial foraging optimization algorithm with varying population for entropy maximization based image segmentation" in the Institutional Faculty Seminar Programme, on 26th September 2014.

Football Tournament



The staff team

An Intra-College Cricket tournament was held from 9-13 September, 2014 at Sports Authority of India (SAI) Complex, Netaji Subhas Eastern Centre, Salt Lake City, Kolkata, near Yuba Bharati



ECE – The champions

Krirangan Gate no. 4. Students from five Departments (EE, ECE, CSE, IT and MCA) of BPPIMT V.I.P. Road (Poddar Vihar) campus and two Departments (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 between them. The final match was played between MCA and ECE on 13th September, 2014 at 3 p.m. and ECE became the champion beating MCA. Prize distribution ceremony took place after the final match. Dr. Sandip Ghosh, Registrar handed over the runners-up trophy to MCA football team and Dr. Sutapa Mukherjee, Principal gave away the winner's trophy to ECE football team. The event was a grand success as all the HOD's of different departments, faculty members, and technical staff members along with the students were present to cheer the final match at SAI Complex.

Viswakarma Puja Celebration



Like every year, the Viswakarma Puja of the Institute has been celebrated on the 17th Sept, 2014 amidst much fervor, fun and frolic. The ever enthusiastic students garnished the platter of celebration with the right colours and flavours through their zeal and untiring efforts. Be it in the spectacular decoration of the idol or in the meticulous Puja arrangement or in the pious ambience of the venue the delicate touch and sincere thoughts of those involved were reflected. The students like every year offered their devotion to the God of Engineering in the form of Puspanjali, the sacred offering of flowers. The gala lunch together added a unique hue to the festivities. The very next day the idol was immersed in the Ganges after performing proper rites.

Commencement of Odd Semester

The regular classes for the odd semester commenced from 15th July 2014 for all continuing batches of B. Tech and MCA.

Orientation Program for Fresher's

The students of first year, B. Tech joined BPPIMT family on 12th August 2014. 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. The students were also addressed by the Professional counselor to help them to orient in the new environment. The regular classes for them started on 13th August, 2014.

Pre-Placement Activities

Technical and Soft skill development program for the final year students started from 15th July 2014 and continued up to 26th July 2014.

Educational Tour

This year the educational tour for student members of SPIE student chapter of ECE was conducted on 22 September 2014 at IIT KGP. About fifty students were accompanied by four faculty members including Prof. Dr. Shila Ghosh, HOD ECE, Mr. Surajit Mandal, Mr. Mousam Chatterjee, and Ms. Susmita Biswas.

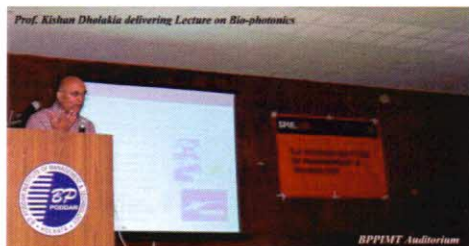
Foundation Day

The 16th Foundation day of B. P. Poddar Institute of Management and Technology was observed on Thursday, 11th September 2014.

Student Participation

Students attended Asia Student Photonics Conference 2014 organized by IISER in collaboration with BPPIMT at Vedic Village, Kolkata during 18-21 July 2014. BPPIMT, SPIE student chapter was one of the most active collaborators for the conference ASPC 2014.

Visiting Lecturer Programme



BPPIMT, SPIE student chapter organized a seminar on Bio-photonics having Prof. Kishan Dholakia, Professor, University of St Andrews, UK as a guest lecturer on 18th July 2014. This is under the visiting lecturer programme conducted by SPIE student chapter every year. The seminar was attended by faculty and students of ECE dept. Prof. Dholakia enlightened the participants on the latest researches going on in the field of bio-photonics. After the seminar he also visited the laboratories of ECE dept.

Pragati



TCS has collaborated with BPPIMT with Pragati project, second time in 2014 with Dr. Sabnam Sengupta, HOD IT and Dr. Ananya Kanjilal, HOD CSE as the coordinators. In 2013, TCS has started Pragati project in various engineering institutes throughout the country-BPPIMT was one of them. Three students were selected from Dept. of CSE, IT and MCA for working on a project under it. Based on the performance of the students, this year TCS has selected only two institutes of India for 2nd phase of Pragati, and BPPIMT is one of them. This time 8 students from CSE, IT and MCA Dept. have been selected

and they have started working on 4 projects in the domains of operating system and Java. This project enhances the employability skills of the students, imparts knowledge in the upcoming technology and business domains, builds teamwork competency, enables them to work on a real life project, and thus takes them steps ahead in becoming industry ready. We look forward to a continuing relationship with TCS Pragati.

Project 1: SOE Independent Candidate Console

This project is aimed to reduce human intervention and possibilities of unfair means in online examination. Anisha Bazaz and Bhavna Somani are developing an operating system, "Independent candidate console (ICC)". This independent console would mask the underlying operating system of the candidate machines. ICC consists of only a web browser which would ensure security of the system. This will be available on LAN and hence can be installed in various machines.

Project 2: Linux Launcher

This project is to develop a launcher to conduct assessment on Linux OS to ensure restricted access. The launcher is the gateway which establishes a connection with the server. Titas Dutta and Kingshuk Basak are developing the launcher which will close all running applications during launch and at an interval of 5 mins. Python is used for creating the application. TKinter package of Python is used to make the GUI and various shell commands are integrated with the application.

Project 3: iON Identification Event Framework

Priyanka Sinha Roy and Archana Jhunjhunwala are developing a framework for secured Biometric student identification in Online Examination. This project is aimed to enhance the existing ARC module, developed by BPPIMT students the previous year (which was used this year during AIIMS entrance examination) by Biometric comparison of image and fingerprint of a particular candidate and record date, time, response time and various other aspects during login period.

Project 4: QP Creating from Docs

Khyati Tejuria and Parminder Singh are developing a system to parse a word document and then populate different beans of the different question types (currently questions are directly entered in excel and online questions are generated from there). This system will be able to handle various types of questions, such as: MCQ, MSQ, SA (Short answer), Comprehension, LAQ, etc.

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- **Editorial Committee:** The Editorial Committee consists of a team of Faculty Members headed by Prof (Dr) N. K. Datta, with Prof (Dr.) B.N. Chatterji, Dean Academics as Chief Editor, Prof (Dr.) Sutapa Mukherjee, Principal as the Chief Advisor and Dr. 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: bppimtnewsletter@bppimt.ac.in. Publication in the Newsletter is at the full discretion of the Editorial Committee.