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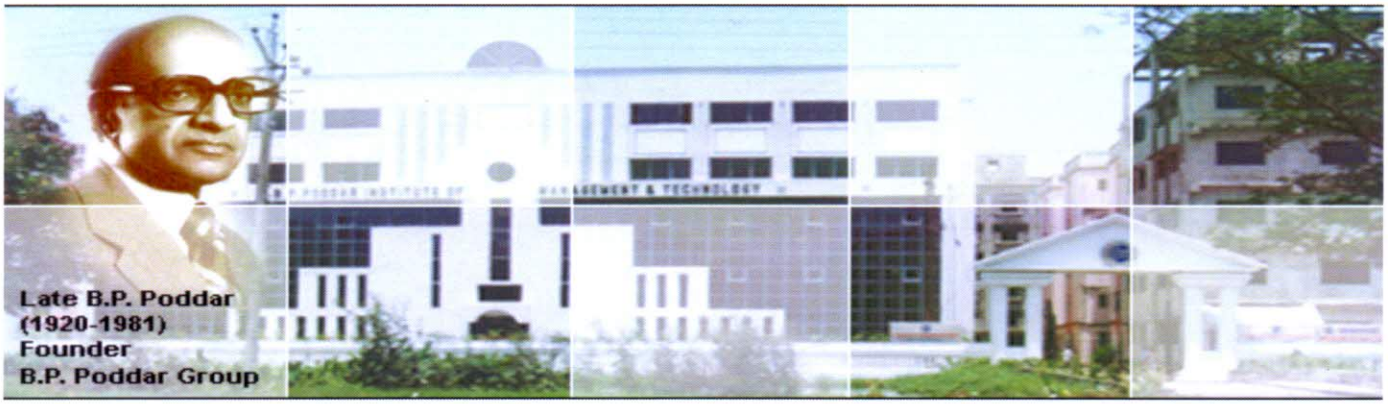

Remembering Shanti Swaroop Bhatnagar on his 121th Birth Anniversary

Sir Shanti Swaroop Bhatnagar was born on 21 February 1894 in Bhera, Punjab region of British India, in a Hindu kayastha family. Bhatnagar passed the Intermediate Examination of the Punjab University in 1913 in first class, and joined the Forman Christian College from where he obtained B.Sc. with major in physics in 1916, and M.Sc. in chemistry in 1919. He earned his D.Sc. in 1921. In August 1921 he returned to India and immediately joined the newly established Banaras Hindu University (BHU) as a professor of chemistry, where he remained for three years. He wrote the 'Kulgeet' (University song) of BHU. He moved to Lahore as Professor of Physical Chemistry and Director of University Chemical Laboratories of the University of the Punjab. This career was the most active period of his life in original scientific work. His research interests included emulsions, colloids, and industrial chemistry, but his fundamental contributions were in the field of magneto-chemistry, the use of magnetism for the study of chemical reactions. In 1928 he and K.N. Mathur jointly invented what they called the Bhatnagar-Mathur Magnetic Interference Balance, which was one of the most sensitive instruments for measuring magnetic properties.

Bhatnagar did considerable work in applied and industrial chemistry. The first industrial problem undertaken by Bhatnagar was the development of a process to convert bagasse (peelings of sugarcane) into food cake for cattle. This was done for the Grand Old Man of Punjab, Sir Ganga Ram. He also solved industrial problems for Delhi Cloth Mills, J.K. Mills Ltd. of Kanpur, Ganesh Flour Mills Ltd. of Layallapur, Tata Oil Mills Ltd. of Bombay, and Steel Brothers & Co. Ltd. of London. One of the important achievements of Bhatnagar in applied and industrial chemistry was the work he did for Attock Oil Company at Rawalpindi (representative of Messers Steel Brothers & Co London).

Bhatnagar played a significant part along with H. J. Bhabha, P. C. Mahalanobis, V. A. Sarabhai and others in building of post-independent S&T infrastructure and in the formulation of India's science and technology policies. Bhatnagar was the Founder Director of the Council of Scientific and Industrial Research (CSIR). He was the first Chairman of the University Grants Commission (UGC). He was Secretary, Ministry of Education and Educational Adviser to Government. Bhatnagar played an important role both in the constitution and deliberations of the Scientific Manpower Committee Report of 1948. In 1936 the British Government conferred on Bhatnagar the Order of British Empire (OBE) based on his excellent contribution to pure and applied chemistry. Bhatnagar was knighted in 1941 in recognition of his work for the war effort. In 1943 the Society of Chemical Industry, London, elected Bhatnagar as Honorary Member and later as Vice President. He was elected Fellow of Royal Society, London, in 1943. He was the President of the Indian Chemical Society, National Institute of Sciences of India and the Indian National Science Congress. He was awarded the title Padma Vibhusan by the President of India. Bhatnagar died on 1 January 1955.

ACADEMIC NEWS:

Publications:

Books:

Pramathes Das, "A Textbook on Basic Electrical Engineering", JB Books & Learning, ISBN-978-93-83010-20-2.

Kakali Bhattacharyya, "Search for Identity: Indian Native and Diasporic Writers", Authors Press, ISBN-978-81-7273-981-2.

Journals:

Manas Saha, Mrinal Kanti Naskar, **B. N. Chatterji**, "Soft, hard and block thresholding techniques for denoising of mammogram images", IETE Journal of Research, **61** (2), pp.186-191 (March-April 2015), Impact factor: 1.5, ISSN-0377-2063.

Anirban Patra, **Arijit Saha**, "RFID based automated low cost data acquisition system for public transport", International Journal of Advance Research in Science and Engineering **4** (2), pp. 240-244 (February 2015), Impact factor: 1.142, ISSN-2319-8354(E).

Lipika Adhya, Tarunendu Mapder, Samit Adhya, "Effect of dielectric interface on charge aggregation in the voltage-gated K+ ion channel", Journal of Natural Science, Biology and Medicine **6**(1), pp. 188 (Jan 2015), ISSN-0976-9668, (without Impact factor).

Lipika Adhya, "Bio-electrostatics of the voltage gated potassium ion channel in neuron", Journal of Proteins and Proteomics **6** (1), JPP104 (Feb 2015), ISSN-0975-8151, (without Impact factor)

Pampa Banerjee, **Lipika Adhya**, "Impact of composite dielectric media on S4 alpha helix of KvAP", Journal of Proteins and Proteomics **6** (1), JPP 104 (Feb 2015), ISSN- 0975-8151, (without Impact factor).

Conferences:

M. Saha, M. K. Naskar, **B. N. Chatterji**, "Poisson noise removal from mammogram using Poisson unbiased risk estimation technique", Jan 2015, Kalyani, India, Proc. Second International Conference on Information Systems Design and Intelligent Applications, **2**, pp. 8-9, Publisher: Springer, India.

I. Bhattacharya, **Arijit Saha**, L. N. Hazra, "Point spread function of apertures masked by two-dimensional polar Walsh filters", 17-18 Dec 2014, Kolkata, India, Proc. International conference on Opto-electronics and Applied Optics, Kolkata, **166**, pp 433-440, Publisher: Springer, India.

Pampa Banerjee, **Lipika Adhya**, "Conformational Evolution of alpha helical macro dipoles of KvAP with differential exposure to lipid", 17-19 Dec 2014, Kolkata, India, Proc. National Conference of Informatics and Integrative Biology, 1 (1), 68.

Arijit Saha, Kallol Bhattacharya, Ajoy Kumar Chakraborty, "Design of optical finite impulse response filter generating arbitrary spectrum output", 20-22 Feb 2015, Kolkata, India, Proc. International Conference on optics and photonics (ICOP), **9654**, pp. 96541Z (1-6), Publisher: SPIE, Bellingham, Washington, USA, ISBN 9781628418644.

I. Bhattacharya, **Arijit Saha**, L. N. Hazra, "Azimuthal and Polar Walsh Filters: Diffraction Characteristics", 20-22 Feb 2015, Kolkata, India, Proc. International Conference on optics and photonics (ICOP), **P-340**, Publisher: Department of Applied Optics and Photonics, CU, Kolkata, ISBN: 978-93-80813-31-8.

Surajit Mandal, "Imaging characteristics of a birefringent lens with primary spherical aberration under broadband illumination" 20-22 Feb 2015, Kolkata, India, Proc. International Conference on optics and photonics (ICOP), **9654**, pp. 965407 (1-6), Publisher: SPIE, Washington, USA, ISBN: 9781628418644.

Arijit Dey, **Kunal Das**, Mallika De, Sanjoy Das, "Feed Forward Neural Network Approach for Reversible Logic Circuit Simulation in QCA", 8-9 Jan 2015, Kalyani, India, Proc. 2nd International Conference India–2015, pp. 61-71, Publisher: Springer, India.

Gitosree Khan, **Sabnam Sengupta**, Anirban Sarkar, "Modeling of services and their collaboration in enterprise cloud bus (ECB) using UML 2.0", 19-20 Mar 2015, Proc. International conference on advances in computer engineering and applications (ICACEA), pp. 207-213, Publisher: ICACEA-2015, IMSEC, Ghaziabad, India, ISBN: 978-1-4673-6910-7/15.

Conference Proceedings:

Innovation in Technologies Challenges of Basic Research, Narosa, ISBN-978-81-8487-441-9 held on May 4, 2013. Following papers have been published:

R. Goswami, **P. Saha**, **E. Bose**, **S. Pradhan**, N. Dutta, "A comparative study of the low temperature transport in nanocomposite of graphite in clay" pp. 14-18.

Anirban Ray, **Papri Saha**, A. Roy Chowdhury, "Effect of shear on chimera states", pp. 26-30.

Esa Bose, Sudipta Pal, "Structural, magnetic, and transport properties of Gd0.7Ca0.3CrO3", pp. 37-41.

Subhasish Pradhan, Sikha Bandyopadhyay, Hiranmoy Saha, Sasanka Maji, Jayoti Das, "Electrical behavior of Au-doped nano porous Silicon", pp. 49-55.

Rupa Pal, "Calculation of activity coefficients of some binary liquid mixtures from excess thermodynamic properties using Redlich-Kister method", pp. 56-62.

B. K. Biswas, A. Bandyopadhyay, P. K. Pal, "Effect of welding parameters of flux cored arc welding on deposition rate",pp.63-70.

K. Prabakaran, "In Vitro evaluation of eggshell derived hydroxyapatite reinforced YTTRIA stabilized zirconia composite coatings on H3PO4 treated type 316 L SS for implant applications", pp. 86-91.

K. Prabakaran, **Rupa Pal**, J. Chitra, "Water quality and plankton studies on some freshwater habitats of Bangur, Laketown, Patipukur and Dum Dum", pp. 96-100.

Arijit Saha, "A technique for optical comb-like channel spectrum generation", pp. 109-114, Innovation in Technologies Challenges of Basic Research, Narosa, ISBN-978-81-8487-441-9.

Surajit Mandal, "Applications of a birefringent lens in infrared region" pp. 115-123.

Ivy Majumdar, **B. N. Chatterji**, Avijit Kar, "Modified PSO based texture image retrieval", pp. 124-131.

Panthadeb Saha, Anindita Sarkar, "Detailed schematic to implement a high-speed secure optical communication system with rolling key", pp. 132-138.

Pramathes Das, Chandrani **Das**, "Computer control in fertilizer industry – A case study", pp. 139-141.

Sutapa Mukherjee, "A simplified method to define sky luminance distribution in any location using cie general standard sky model", pp. 144-153.

Kakali Bhattacharyya, "Drama — The only form of direct oral communication in literature", pp. 161-168.

Dolon Champa Das, "Teaching the skill of inference: an art of developing reading skill", pp. 169-173.

INSTITUTIONAL NEWS:

Invited Lecture:

Dr. Arijit Saha, Associate Professor, ECE and Mr. Soumitra Singh, STA ECE delivered lectures on various communication and signal processing tools of MATLAB in Faculty Development Programme on "Advanced Communication & Signal Processing" at Narula Institute of Technology, Agarpara, during 8-9 Jan 2015.

Completion of Doctorate Degree:

Soumya Pal, Associate Professor & HOD Department, MCA has been awarded Ph.D. from Bundelkhand University in 2014.

Participation

Papri Saha, Dolonchampa Saha, Anirban Ray, A. Roy Chowdhury, "On the Properties of Memristive Lorenz Equation", 18-20 March 2015, Kolkata, India, Physics and Applied Mathematics Researchers' Meet – 2015.