

Best Wishes on the eve of New Year 2010 – A revisit of 2009

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At the outset, on the eve of New Year 2010, I would like to convey my best wishes to all the students, faculty, officers and staff of Bengal Engineering and Science University Shibpur. I wish all the success to each one of you and your family members.

The alumni / alumnae and other well wishers have contributed immensely for the development of our university. The sincere efforts from everyone will lead us to a new era of excellence and will fulfill the dreams of those architects and visionaries who had built and nurtured this great institute during the last 153 years.

Charles Lamb once said 'Of all sound of all bells, the most solemn and touching is the peal which rings out the Old Year'. I am sure that we will march ahead in our journey towards excellence, based on the experience the old year has instilled in us.

Our Institution that started its journey about one hundred and fifty four years back on 24th November, 1856, with only a few students is now going to be turned into a giant center of academic excellence. We are aspiring today to contribute significantly in the global pursuit towards advancement of knowledge in diverse streams of Science and Technology.

During the last one year, the students, faculty, officers and the staff at BESU have joined hands in our combined efforts to make strides in all spheres of activities - curricular, co-curricular and extra-curricular, paving the road to a new work-culture and aspiring to be the best among the betters.

The entire campus has undergone cleaning. We have initiated the restoration of the heritage buildings and the historic graveyard. Each hall of residence has initiated creation of garden.

I am happy to inform you that several eminent academicians like Prof Amitabha Ghosh, Prof Asok Mallick, Prof Ajit Chattopadhyay, Dr S K Bhattacharya, Prof Madhujit Mukhopadhyay, Prof Ram Narayan, Prof H Saha, Prof Samir Lahiri and many others have joined our university in the capacity of Distinguished Honorary / Chair Professor. Many other Distinguished and Visiting Professors from IITs / IISc / Industries / Universities from India and abroad will join our university shortly. We acknowledge their contributions in enriching our teaching and research at BESU.

Recently I visited Muscat, capital of Oman, at the invitation of our alumni at Muscat. It is a dream city in the midst of desert. From the grand architectural and structural marvel to the development of core engineering, our alumni have played a great role in making this dream happen inside a desert.

Indeed I feel proud to see the great contributions of our alumni in every part of the globe in diverse areas of human creative activities. It is this pride which stimulates our young minds here at BESU to excel.

➤ **Revisiting 2009 :**

I am delighted to revisit some of the activities at BESU in 2009, which would not have been possible without your active support.

- (a) The contribution of GAABESU in building the new temple of learning at BESU will be always written in red letters. Amongst many other helps, such as providing scholarships to a very large number of needy students, providing all types of academic / mentorship help, this year GAABESU has donated a large sum of money in creating a film, depicting the grand evolution and heritage of 153 years of Bengal Engineering College, Shibpur / Bengal Engineering and Science University Shibpur.

I am extremely happy to announce that celebrated film maker Shri Buddhadeb Dasgupta has almost completed the making of the film, which will be released in early 2010.

GAABESU has also planned to donate the money for several Chair Professors at BESU. They are also going to share significant amount of contribution in making the swimming pool of BESU. All these contributions are gratefully acknowledged.

- (b) The alumni belonging to the batch of 1979 have helped us immensely in fulfilling our dream of starting a students' Centre for Creative Expressions and Liberal Arts'. They have renovated the dilapidated Slater Hall and equipped the societies with some instruments. To start with we have about five societies today – Dramatics, Music, Photography, Dance and Choreography, Creative writing and debating societies. In addition we have started a society for innovation, where the students will participate in innovative design and development.

I am happy to inform you that a number of celebrated personalities like Pt Buddhadeb Dasgupta, Pt Ajoy Chakraborty, Film Director Shri Buddhadeb Dasgupta, Prof Amita Datta, Mrs Mamata Sankar, Shri Dwijen Mukhopadhyay, Shri Rudraprasad Sengupta and many others have agreed to get associated with this Centre. There will be various inter hostel competitions in all the above societies. The sports and gardening competitions in 2010, will be organized by Professor In Charge of Students' Activities (PICSA) shortly.

- (c) CII joined hands with BESU to hold a two day Industry – Academic meet, which was attended by many Vice Chancellors / Directors / Industry leaders.

Shri Kapil Sibal, Hon'ble Minister of Human Resources and Development, Government of India inaugurated '*CII – BESU innovation centre*', in presence of Shri Gopalkrishna Gandhi, Hon'ble Governor, West Bengal and Chancellor of our University, Prof. Sudarsan Raychaudhury, Hon'ble Minister-in-Charge, Department of Higher Education, Government of West Bengal and many distinguished academicians and industry leaders from all over the globe.

This program could be organized only because of the initiative, help and unstinted support of the alumni belonging to the batch of 1984. The batch of 1984, as part of the silver jubilee celebration, co organized this program.

- (d) BESU signed a memorandum of agreement with Metalogic System, who agreed to start a Centre of Excellence on 'Software innovation and design' at BESU. I am extremely happy to announce that Mr Arup Dasgupta, MD Metalogic System has also given fund for creating a Chair Professor at BESU.
- (e) The Ministry of Steel has granted 'Steel Chair Professor' and also five students' scholarship to the Department of Metallurgy and Materials Engineering at BESU. Earlier Tata Golden jubilee Chair Professor was instituted by Tata Steel.

The department along with the School of Material Science at BESU has received a large research grant for performing state of the art research on Nano technology.

- (f) Many eminent academicians and leaders of industries from India, USA, Canada, UK and other parts of the globe visited our university in 2009 and we could successfully organize International workshop, National Seminar, University seminar and short term courses with their help.

Eminent academician and researcher Prof B K Bose, University of Texas, has donated money for starting Distinguished Lecture Series in Electrical Engineering Department. We will invite eminent persons from any part of India to deliver lectures at BESU from this endowment fund.

Similar Distinguished Lecture program has also been initiated in Civil Engineering Department from an endowment fund donated by Prof. Subhashish Chaudhury, Dean, IIT Bombay in memory of his illustrious father in law Late Siddhanta Chatterjee, an alumnus of B E College.

- (g) We have started three new Centers of Excellence on
 - (a) Green Energy and sensor system
 - (b) Healthcare Science and Technology and
 - (c) Software Engineering, supported by Metalogic Systems Pvt Ltd. The faculty members from several Departments and Schools have initiated research on these three interdisciplinary areas in the university. Few more research centers will be started soon.
- (h) I have noted with pleasure that many faculty members from several departments and schools have contributed significantly in diverse research areas including the development of new technology. The members of faculty at BESU have received considerable amount of research grant for performing state of the art research in many departments and some schools. I congratulate the faculty for their dedicated efforts in strengthening our teaching and research programs.
- (i) A number of research programs have been completed and finally implemented for our societal needs. Few amongst them are :

- (i) The Professors of Electronics and Telecommunication Engineering and Electrical Engineering have collaborated with the engineers at Calcutta Electric Supply Corporation to develop a technology that allows you to transmit high bandwidth internet signal through underground and overhead electrical power line. The technology will help the rural population who do not have telephone connection and internet facilities, to browse the internet using a device called 'Customer Premise equipment', which should be connected to the switch box. The concerned faculty and engineers have demonstrated the technology in two places – one near Ruby hospital and the other near Garia, where the local people were immensely satisfied with the performance of the system. The collaborative research project between BESU and CESC was funded by Department of Information Technology, Govt of India.
- (ii) The faculty members from Civil Engineering Department have demonstrated the technology for removal of Arsenic in several places in the northern part of West Bengal, where Arsenic Pollution has caused severe health hazard.
- (iii) Another group of faculty in Electronics and Telecommunication Engineering Department have developed a novel sensor for detection of bacteria.
- (iv) Excellent work on development of Advanced Steel for defense applications have been performed by the faculty of Metallurgy department.
- (v) The faculty members in the Power Electronics group at Electrical Engineering department have initiated a set of developments in diverse applications.

In all the departments and schools a lot of interesting research has been initiated in the frontiers of technology.

- (j) It was indeed heartening to see our students organizing INSTRUO, a students' technical festival at BESU. A large number of participants from many institutions and universities participated in the technology festival.
- (k) I was overjoyed to see the spectacular display of brilliant photographs captured by our students at BESU. These photographs are on display now in side the Students' Center for Creative Expressions at Slater Hall.
- (l) I had the opportunity to witness a large number of cultural programs, presented by our students at BESU on many occasions – these were the expressions of the brilliant and creative young minds of BESU.

I take this opportunity to express my satisfaction for the performances of our students, who have done commendably well in various games and sports activities.

- (m) The students of BESU have left a mark in the area of creative writing. They have done a commendable job in introducing a Students' literary publication "*BETAN*" in 2009. Our student Shri Sonnet Mondal, who has already published three books have been bestowed the honor " Poet Laureate" from Italy.

All such events demonstrate one thing – our students are capable of creating the best, when they are given the opportunity.

Academic events / Reforms at BESU :

Here is the outline of some of the reforms and events that took place during 2009 here at BESU. This could be achieved, thanks to the sincere and unstinted support and hard work of the academia and students at BESU.

✓ **Academic/Pedagogy**

- (i) New academic calendar has been created and strict adherence to the time table for all examinations, publication of results and admission activities has been ensured.
- (ii) Reducing the time to conduct examination and consequently increasing the semester days has enabled us to create longer summer vacation to promote industrial training for the students and enhanced research activities by the faculty and researchers.
- (iii) Improved connectivity and enhanced network bandwidth has been ensured with the following purpose.
 - (a) Enabling every corner of the campus wireless.
 - (b) Extension of fiber optic backbone to all important locations in the campus.
 - (c) Use of web-site for all possible educational and administrative activities.
- (iv) Revision of structure of courses and syllabi for the UG and PG programs and reforming the doctoral program have been ascertained to make them more relevant to the requirements of 21st century.
- (v) Introduction of the novel pedagogy of teaching and evaluation- This has been taken up with utmost seriousness at the University. Some of the old techniques need to be revisited and a fresh look is necessary to ensure a sound concept building amongst the young minds. Also the university is going to adopt a new evaluation scheme, prepared by the Deans of the university.
- (vi) Students' innovation center - The university will encourage the young students to be more innovative and think in an innovative fashion. The university also proposes to give innovation awards to our students, who perform best projects.
- (vii) Setting up of three Centers of Excellence

- (vii) Reallocation of the space to different departments: This space could be created as a result of the shifting of the old Library block from the main building to a separate library building with modern amenities and larger reading space. Also another eight storied building construction has been initiated.

✓ **Sponsored Research and Industrial Consultancy /Collaboration -**

- (i) Restructuring and enhancement of the sponsored research and Consultancy activities
- (ii) Creation of the position of Director (Research) (a statutory position where a senior professor is nominated by the Executive council) and Associate Director (Sponsored Research and Industrial Consultancy).
- (iii) Formation of a full fledged office, logistic support and more financial power to the Sponsored Research and Industrial Consultancy Cell.
- (iv) Consolidation of all discrete accounts under the research program to a single account for better control, visibility and management.
- (v) Initiation of collaborative Multi-disciplinary research program.

✓ **New collaborations**

Many new collaborative programs have been initiated in 2009. Some of them are

- (a) Metalogic Systems Pvt Ltd Kolkata has created a Chair Professor in memory of Prof S S Boral, former Head and founder of Electronics and Tele communication Engineering Department at B E College. A 'Software Innovation centre' has been formed at BESU jointly with Metalogic Systems Pvt Ltd Kolkata and Metalogic Systems will construct a building in BESU's land for the purpose.
- (b) Webel, Ministry of Information Technology, Govt of WB, has agreed to initiate 'India Design Centre' at BESU. The School of VLSI, BESU is going to initiate collaborative research on VLSI Design with the industries.
- (c) A collaborative research program on Arsenic Removal between Civil Engg Department, BESU and Queens University, Belfast, UK (QoB) has made extremely good progress. A team of professors under the leadership of the Vice Chancellor of Queens University, Belfast, UK visited BESU and

BESU students have undergone summer training programme at Queens University, Belfast, UK (QoB). We have also initiated split site Ph D programme with QoB.

Students from Pennsylvania State University underwent summer internship at Civil Engineering Department, BESU.

- (d) CEERI Pilani is going to set up 'Microelectronics Fabrication Centre' at Electronics and Tele communication Engineering department at BESU.
- (e) PG program in Automotive Engineering with Windsor University, Canada, A CIDA project is under consideration.

✓ **Co-curricular/Extra Curricular Activities**

Extra curricular activities:

- (i) Opening of 'Centre for Creative Expression'. The Slater Hall has been completely renovated by the alumni of 1979. They have also agreed to fund the various societies of this centre.
- (ii) Campus/Infrastructure – We have initiated a campus cleaning and beautification program and we will see a marvelous campus, dotted with landscaping and
- (iii) With the help of UGC grant an equal opportunity cell and a day care centre have been established.
- (iv) CES, New Delhi has agreed to help BESU in having a green building for its research on 'Green Energy and Green Architecture'.

✓ **Administrative reforms**

Some of the administrative reforms are mentioned below:

- (i) Formation of BESUS foundation fund under the supervision of 'Professor In Charge of International Relations and Alumni Affairs' to facilitate direct monetary contribution of the global alumni to BESU foundation.
- (ii) Development and use of Campus-Connect software to automate most of the administrative level jobs, starting from admission to issue of the identity cards, processing bills, issuing notices and managing all documents.
- (iii) Formation of expert committee to review the academic activities, programs, goals and the future of various schools and inclusion of experts from all over India for selection of faculty and staff.
- (iv) Strengthening the interaction with the global institutions and our alumni by inducting a 'Professor in Charge for International Relations and Alumni affairs'.
- (v) Reinforcing academic administration by introducing a cell under Professor in Charge for 'Continuing Education and Quality Improvement Program'.
- (vi) Initiate planning on energy resources by instituting a Professor In Charge of 'Energy Resources and Planning'.

➤ **Tasks Ahead in 2010 :**

The most important task in the coming year is to ensure that our academic programs are strengthened substantially.

Some of our other tasks in the coming year are as follows.

- (i) In our strive to enhance both teaching and research qualities as well as to explore the frontier areas for creation of knowledge, it will be our pleasure to invite more eminent academicians, scientists and industry leaders from all over the globe, even for a temporary period ranging from one month to two years.
- (ii) To have a green energy efficient research building with green architecture and green material. I am happy that CES, New Delhi has agreed to help BESU in having a green building for its research on 'Green Energy and Green Architecture'. This multidisciplinary research building will house research activities on the followings (a) Photovoltaic / solar cell / fuel cell devices / biomass (b) green architecture and civil construction (c) green energy transfer to the electric grid (d) green material and (e) green IT
- (iii) Creation of more number of research professors / chair professors and research scholars in BESU to enhance our research and development output.
- (iv) Enhancing collaborations with industries / research laboratories:

This needs to be strengthened significantly. The university seeks more collaborative research initiatives with other universities, industries and various research laboratories in India and abroad.
- (v) Strengthening the research / sponsored research in all the departments / schools including two new interdisciplinary research centers, viz (a) 'Green Energy and sensor system' and b) Healthcare Science and Technology.
- (vi) Creating a Telemedicine including tele- radiology and tele- pathology facilities at BESU to enhance the existing healthcare facilities.
- (vii) Creating an archive and a light and sound (son et lumiere) show, which will preserve 153 years of long heritage of BESU. The heritage building ' Madhusudan Bhaban' will be used for the purpose.
- (viii) Creating a green campus, where substantial amount of energy will be generated from Solar and other renewable form of energy sources. The University will complete the energy auditing and initiate energy management strategies in the academic and residential areas of the university.
- (ix) Strengthening the equal opportunity cell and extending appropriate help to the students with financial
- (x) Support for starting entrepreneurship program for students and faculty at BESU.
- (xi) Creation of a state of the art E- Library.
- (xii) Beautification of our campus and starting the facilities like Swimming Pool, and other outdoor Games facilities like Lawn Tennis Court, Basketball court and Badminton.

To conclude, on the eve of the New Year, let us take the pledge that together we will make this university a place that will represent the urges, aspirations and hopes of a strong self reliant, prosperous India tomorrow.

Let us all work together to preserve this excellent place for the present and future generations. We are committed to our goal of achieving excellence in academics and let us join hands to build a paradise of science, poetry and elegance here at BESU.

- Ajoy Kumar Ray