

# EFFECTIVE WATER MAIN INFRASTRUCTURE REHABILITATION

by

Arun K. Deb, Ph.D., P.E.  
Vice President  
Roy F. Weston, Inc.  
West Chester, Pennsylvania

## INTRODUCTION

Water systems in many cities, particularly in the northeastern section of the United States, are very old. Some of the distribution system pipelines are more than 100 years old. With the lack of proper and timely maintenance of the distribution network systems, the incidence of main breaks is increasing at a high rate. Unaccounted-for water in many large cities is very high, ranging from 25 percent to 50 percent of produced water. Because of this large amount of unaccounted-for water, water utilities are annually losing significant revenues. The adoption of measures to prevent loss of water is often cost effective.

Many cities are now faced with the major task of rehabilitating distribution mains which are the most expensive part of any water system. In 1980 the President's Intergovernmental Water Policy Task Force determined that it will require about \$75 to \$100 billion to revitalize the nation's water systems in the next 20 years, resulting in a nationwide shortfall of \$26 billion<sup>[1]</sup>.

The State of New York Department of Environmental Conservation developed a water resources strategy for the state which indicated that an estimated \$8.7 billion will be needed for rehabilitating the state's water system<sup>[2]</sup>. New York City alone will require \$5.7 billion for rehabilitating its water system. Average per capita water system rehabilitation costs for the State of New York were found to be \$548.

A study done by the National Council on Public Works Improvement<sup>[3]</sup> identified the following problems:

- A water infrastructure problem of considerable magnitude in northeastern cities.
- A revenue shortfall.
- A severe nationwide infrastructure problem of small water systems.

The major funding shortfall to rehabilitate the nation's water systems, as indicated by the President's Task Force study, has raised concern regarding the financing required for necessary capital improvements. It is expected that many utilities will face a large shortfall of funds; therefore, it is essential that carefully designed and cost-effective programs for rehabilitating water systems be developed. Proper engineering studies and water system management plans can save large amounts of money and, thus, are an important consideration in developing a rehabilitation plan for a water system. Various options for obtaining funding should also be considered such as federal and state help in the form of grants or loans.

1990

**Bengal Engineering College Alumni Association**

USA and Canada

East Coast Chapter

A Non-Profit Organization

Kumares Pathak  
*General Secretary*

25-12; 73rd Street,  
Jackson Heights, NY 11370  
(718) 446-0011

Dear Member:

August 11, 1990

Our College was established 134 years ago and today, like every year, we are very well prepared to remember the glorious days. The sweet memories of our student lives still bring a harmonious tune in our hearts. Undoubtedly we claim those days as the best part of our lives. The continuing tradition of professional excellence and friendship lead the way of setting high standard in every field of activity. You expect others at least to meet that and thus create a well conceived goal.

On behalf of the Executive Committee I am delighted to welcome you all to celebrate the 19th Annual Reunion. Without your support and participation, it would not be possible to conduct my duties and responsibilities. I am proud of you.

Life has been a continuous curve with time as a variable incorporating probability. The theory of maximization turns out to be a theory of optimization. The quality and quantity of celebration radiate a high correlation coefficient with mind and heart. Keeping this in background let us plan to make the next one, the 20th anniversary, a grand one.

Thank you very much. May God bless you.

Sincerely,

*Kumares Pathak*

1991

## Past, Present and Future

Paritosh K. Ghatak

1960, C.E.

BECA was established in the year 1971. We are all 20 years older now than we were then. With our the then younger bodies and mind, you and I, meaning we, decided to form this organization. Didn't we? It is my hope that we are proud of the organization. Aren't we? It is my expectation that you know what this organization will be doing five, ten and twenty years from now. Don't we?

You and I have a common bond. We all are the product of our environment, social interaction, and teaching. B.E. College Campus, the students, the teachers, Bus #55, Botanical Gardens, the Ganges, and others, when combined, play a vital role in each of our memories and sentiments. All of us sing the same song to a different tune and rhythm, perhaps.

Let us reminisce--the admission tests, the aptitude tests, the viva, the selection list and finally the first night in the hostel (dorms). I guess we all remember that night being away from home, apprehensive and alone in a place full of students. Over the next four years alot of things happened. A sixteen or seventeen year old, lean, thin, shy, but eager boy transformed into a mature, confident, and smart man who would someday become the leader in his profession.

For me, 35 years have gone by since I appeared in the admission test. My job assignments provided the opportunity to work and travel extensively in Asia, many countries in Europe, Africa, North and South America, and Australia. I am sure you have similar or longer lists to account for your experiences and adventures. However, we have a long way to go yet. Settled in the U.S. or any other country, we all have benefited in some way or another otherwise we would not be here. Would we?

Bengal Engineering College Alumni Association  
USA and Canada

East Coast Chapter

A Non-Profit Organization

Amit Mukherjee  
General Secretary

1992

267 Venetian Drive  
Easton, PA 18042  
(215) 559-7935

Dear Alumni:

Today, B.E. College is 136 years old and yet has just been born! Per the Govt. of India Dept. of Education's Notification No. F.9-6/90-U.3 dt. 2/20/92, Bengal Engineering College was declared a University. This is a realization of several years of concerted and dedicated efforts on the part of all alumni and the College Administration.

In October 1991, our Executive Committee had the opportunity to be host to Dr. Bimal Sen (Principal of B.E. College) and the gracious Mrs. Sen at a luncheon meeting. Dr. Sen informed us about the computerization of all the Departments, the plans for building a completely new and modernized "Workshop" building and for creating more floor space for all Departments by adding another floor to the main College building. Mrs. Sen talked about the "Beautification of the B.E. College" drive and the efforts being made by the faculty wives in providing education of the hostel staff or the "barrack servants".

All of us have fond memories of our "Borthakur", "Kartickda", "Ramda" who lovingly prepared omelettes, mughlai parathas and the special midnight teas that would keep us awake when we were working on some assignment (that is due "tomorrow") or studying for the exams. I am sure all of us would be genuinely happy if we could in any way make it possible for "Borthakur's" granddaughter or "Ramda's" son to go to school. Let us join hands in making that possible!

Also last year saw the sad demise of Prof. Seal, Ex-Principal, young-at-heart, and visionary who steered the College through the '80's. It was during his tenure that the quest for "University" status was born.

At the end of their term, this Executive Committee wishes to thank each and everyone of you for your support in performing our duties and the unsolicited and tremendous guidance provided by our past Presidents: Paresh Bhattacharyya, Amit Banerjea, Susanta Gupta, Ashis Sen Gupta, Subhendu Nath, and Debajyoti Guha. Let us welcome the new Executive Committee and pledge our support to them.

On behalf of this Executive Committee, it is my pleasure to welcome all of you in celebration of the 21st Annual Reunion. This year, it is at a new location. Please let us know if you like the venue change.

Sincerely,

Amit Mukherjee

1993

# Bengal Engineering College Alumni Association

USA and Canada

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1993 - 1994

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Senior Vice President

Vice President

Vice President

Vice President

Vice President

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Ajay Das	(1967)
Ranjay Roy	(1959)
Sitanshu Sinha	(1963)
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Suhas Mukherjee	(1952)
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<u>1983 - 1984</u>
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Shib P. Sarkar	(1962)
Saroj Bhol	(1965)
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Debabrata Sarkar	(1963)
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Samir Nandi	(1963)
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Bamandas Pattanayak	(1963)
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Prafulla De	(1967)

Paresh Bhattacharyya	(1947)
Amit Banerjea	(1952)
Susanta Gupta	(1953)
Ashis Sen Gupta	(1953)
Subhendu Nath	(1954)
Debajyoti Guha	(1950)
Debaprasad Shom	(1958)



# A CAREER IN ENGINEERING

Dr. Siddhartha Bagchi, Ph.D., P.E., MASCE, MASEE<sup>1</sup>  
Civil Engineering Dept.  
Manhattan College  
Riverdale, New York 10471

1994

"If I have seen further it is by standing on the shoulders of giants..."

Sir Isaac Newton

## INTRODUCTION

This paper is intended but not restricted for the college-going children of the Bengal Engineering College Alumni. Bengal Engineering College (previously known as Civil Engineering College) is one of the oldest institutions in India. The college was established in 1856, a year before the establishment of Calcutta University. The University of Calcutta, Bombay, and Madras were all founded during the year 1857. India boasts the third largest university system in the world, after the United States and the former Soviet Union. Calcutta University is presently the largest university in India with an enrollment of 235,162 (1991 data) students. Until 1993 B.E. College was an associated college of the Calcutta University, but presently it is considered to be a deemed university. Most of the alumni of B.E. College are professionally successful throughout the world and if it were India, then I would strongly recommend to consider B.E. College. However, because you are in the United States, I urge you to consider a career in engineering somewhere here.

## ENGINEERING

"Engineer", formerly "engineer", or sometimes "inginer", Middle English, "engyneour", from the old French "engignier", or "engigneour", or the shorter form "engineur". This is from the Middle Latin "ingeniarius", one who makes or uses an engine, especially a war engine. "Engine" is from Latin "ingenium", an invention; an engine.

The origin of the word engineer does not explain much about "What is engineering?" or "What is an engineer?" The terms are heard frequently on radio and television and are seen in

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<sup>1</sup> Volunteer speaker on "Career in Engineering" for the Boys' Scouts of America



# SiGe Quantum Well MOSFET Technology for ULSI

Kaushik Bhaumik & Yosef Shacham-Diamand  
School of Electrical Engineering and the  
National Nanofabrication Facility,  
Cornell University, Ithaca NY 14853-5401

1995

pseudomorphic SiGe/Si heterostructure combination has emerged as the leading candidate for the introduction of bandgap engineering concepts to silicon. One device to emerge from this technology is the p-channel Quantum Well Metal Oxide Semiconductor Field Effect Transistor (p-QWMOSFET) in which a buried SiGe quantum well acts as a confinement channel for high-mobility holes between the p<sup>+</sup> source and drain regions of the transistor. A basic cross section of the p-QWMOSFET is shown in Fig. 1.

The strained Si<sub>1-x</sub>Ge<sub>x</sub> quantum well is buried underneath a thin (~5 nm) Si cap layer. The presence of the Si cap layer assures formation of a high quality gate oxide since oxides formed directly on SiGe have a high density of interface states. This requirement reduces the efficiency to which the high mobility carriers in the SiGe layer can be modulated due to the increased physical separation from the gate potential and the presence of a surface inversion layer. However, the buried channel provides benefits such as suppression of hot carrier injection into the gate oxide and reduced surface scattering which tend to enhance device performance and reliability.

Deep submicron p-QWMOSFETs are expected to have significant advantages over conventional Si surface channel p-MOSFETs in terms of saturated drain current (I<sub>dsat</sub>) sourcing capability. Owing to the strain in the SiGe layer, the effective mass of holes is significantly reduced, allowing the carriers to attain very high (~10<sup>7</sup> cm/s) saturation velocities [1]. This carrier transport enhancement can translate into larger I<sub>dsat</sub> at smaller device biases as well as greater frequencies of circuit operation. Furthermore, larger I<sub>dsat</sub> leads to the possibility of achieving symmetrical electrical operation from equivalently sized n- and p-channel MOSFETs for greater packing densities in Complementary-MOS (CMOS) circuits.

To investigate device operation under Ultra-Large Scale Integration (ULSI) conditions, p-QWMOSFETs were fabricated on Si/Si<sub>1-x</sub>Ge<sub>x</sub>/Si heterostructures grown by molecular beam epitaxy (MBE) with varying Ge mole fractions, x. The fabrication sequence maintains a low thermal budget to prevent strain relaxation in the SiGe layer yet is compatible with conventional Si CMOS processing environments. A mixed optical/electron beam

lithography scheme was employed to define junction-isolated transistors with an effective gate lengths of 150 nm (see Fig. 2). It was found that the SiGe devices exhibited higher I<sub>dsat</sub> over the Si control devices (up to 40 %) under similar biasing conditions.



Figure 2. Cross-sectional micrograph of 0.15 μm gate of p-QWMOSFET.

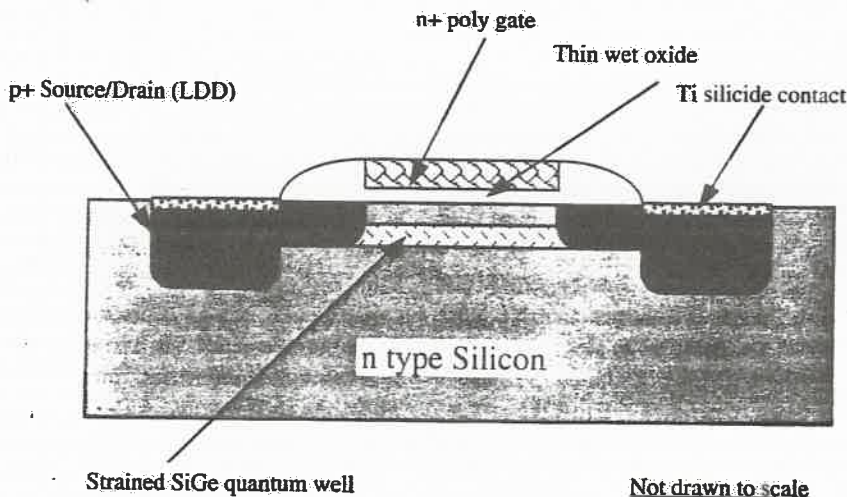


Figure 1. Cross-sectional schematic of p-QWMOSFET

Bengal Engineering College Alumni Association

*A Tax Exempt Non-Profit Organization*

1995 - 1996  
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<i>General Secretary</i>		Amitabha Chatterjee	(1965)
<i>Finance</i>		Barun Mukhopadhyay	(1963)
		Ashoke K. Chakrabarty	(1970)
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Asoke Datta	(1965)	Sheshadri Bhattacharyya	(1978)
Chandranath Bagchi	(1953)	Pinaki Chakrabarty	(1961)
Rama Prasad Mukhopadhyay	(1967)	Bimal K. Bose	(1956)
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Biman Bhatta	(1965)	Rabindranath Mukherjee	(1970)
Ajay K. Sil	(1968)	Arup De	(1961)
Chandidas Sanyal	(1967)	Sakti Nandi	(1957)
Subal Sarkar	(1968)	Samir Nandi	(1963)
Ranjay Roy	(1959)	Tarit K. Sarkar	(1953)
Prabal Mukherjee	(1963)	Paritosh Chatterjee	(1969)
Subhash Brahma	(1970)	Amar Banerjee	(1957)
Subrata Mazumder	(1967)	Dipak Datta	(1962)
Ashoke Chakrabarty	(1968)	Pradip K. Mitra	(1956)
Somnath Mukherjee	(1969)	Praphulla De	(1967)
Bishu Mukherjee	(1969)	Samiran Mukherjee	(1969)

*Past President:*

<i>Year:</i>	1971-1980	Pareesh Bhattacharyya	(1947)
	1981-1982	Amit Banerjee	(1952)
	1983-1984	Susanta Gupta	(1953)
	1985-1986	Ashis Sen Gupta	(1953)
	1987-1988	Subhendu Nath	(1954)
	1989-1990	Debajyoti Guha	(1950)
	1991-1992	Debaprasad Shom	(1958)
	1993-1994	Debi Prasad Ganguly	(1945)



THE WHITE HOUSE

WASHINGTON

July 12, 1996

I am delighted to honor the Bengal Engineering College Alumni Association as you celebrate your twenty-fifth anniversary.

For a quarter-century, the BECAA has worked to educate its members and promote excellence within the engineering field. The strength of your organization today exemplifies the ongoing commitment to professionalism that inspired your founders.

I congratulate you, and I extend best wishes for many years of continuing success.

*Bill Clinton*

**Bengal Engineering College Alumni Association**  
A Tax Exempt Non - Profit Organization

Amitabha Chatterjee  
General Secretary

143 Righter Road  
Succasunna, NJ 07876  
201-927-6794

1996  
Dear Friends,

Welcome to the Twenty-fifth Annual Reunion.

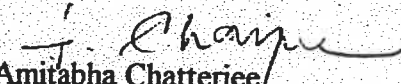
How time flies. It seems like a short time ago that the Association was formed. Back in the early seventies most of us were new in this country and were trying to cope with the recession. Getting a job was a big thing in those days. We were tired of hearing "Sorry, you don't have any US experience" in job interviews and were thrilled to get any "odd job". Forming an Association in that situation was, shall I say, not in everybody's mind. However, amid adversity came renewed determination that we must stick together and the Association was formed. It was the persistence of few members that the Association survived and began to grow slowly. The bond we developed in BE College was of course the biggest motivating factor in forming the Association but I think it will be a mistake if we do not acknowledge the wholehearted support of our spouses. Their active participation, opening their homes to our meetings, happily cooking meals for the reunion functions helped to make the Association a truly big family.

Many of the original founders left this area and settled elsewhere in the country. We did not forget them and their contribution is gratefully acknowledged.

Today, twenty-five years later BECAA is a strong and vibrant organization. Many of our members are very successful in their professional fields but are still volunteering to help our Alma mater. Over the years we have established several scholarships for the undergraduate students in B.E. College, sponsored faculty or alumni to participate in seminars/conferences here, made arrangements for workshops/seminars at B.E. College by Alumni visiting India. We are also raising money to help the college enter the twenty-first century and recently the Executive Committee agreed to sponsor the local area network and internet connection for B.E. College. The spirit goes on.

I would like to thank everyone for coming and participating in this special occasion. Thanks are also extended to our advertisers and sponsors. Have a great day.

Sincerely,

  
Amitabha Chatterjee  
General Secretary

1996

## TERRIERS - a university based scientific satellite mission

Supriya Chakrabarti

Center for Space Physics, Boston University  
725 Commonwealth Avenue, Boston, MA 02215

May 13, 1996

Putting something in space is every child's dream. In the 1960s and 1970s, the glorious days of space exploration, discovery after discovery was made when teams of scientists, engineers and students put their experiments aboard spacecrafts. We learned about the outer reaches of our atmosphere, the profound effects of the Sun on the Earth and the many mysteries of the heavens using simple instruments. As space exploration progressed, the missions changed their flavor. Hands-on development of experiments by students were replaced by professional engineers and technicians who followed strict procedures and maintained meticulous paperwork whose weight often rivaled those of the experiments themselves. In the interest of ensuring success through proven technology and documentation, the experiments that were put up for space exploration in the 1980s did not keep up with the technology revolution of the 1970s and 1980s. The conservatism was so prevalent that even the quick turnaround sounding rocket experiments, which were designed to be a proving ground for new technology and training of future experimental scientists, ended up "technologically challenged". NASA seemed to foster a scenario where, for all practical purposes, it was inconceivable that high quality science experiments could be conducted by university researchers with cutting-edge (therefore not spaceflight proven) techniques. Scientists were left in the horns of a dilemma. They could not fly unproven instruments because to demonstrate space worthiness, the instruments must be flown. As a result, old instruments with minor modifications continued



## BASE SOLUTIONS UNDER PRESSURE

by

P.K. Ghatak, P.E., 1960 C.E.

Amit Mukherjee, 1983 C.E.

2000

Hammurabi, a Babylonian Engineer (circa 2000 BC) is credited as having said:

*"If an engineer designs a house for a man and does not make its base firm, and the house which was thus built collapses and causes the death of the owner of the house, that engineer shall be put to death."*

2,000 years later that statement was true because Marcus Vitruvius, a Roman Architect and Engineer of the 1<sup>st</sup> Century BC stated:

*"Let the foundations of structures be dug from a solid site and to a solid base if it can be found. But if a solid foundation is not found, and the site is loose earth all the way down, or marshy, then it is to be excavated and cleared and remade with stones or piles – even the heaviest edifices may be said on such a base."*

4,000 years later that statement is partially true. "Putting to death" for failure probably still occurred 2,000 years ago, however, today's Engineer will not face such a drastic/mortal consequence! Although stripping of his (her) license, lawsuits, and other convoluted societal trappings of today may lead him (her) to seek such a consequence for himself (herself) anyway!

In a general sense, failure today may perhaps be defined as "an unacceptable difference between expected and observed performance". Therefore, a 1.1 in settlement of a foundation that is expected to settle 1 inch will probably not be considered a failure because the difference between the expected and observed performance is small. However, a settlement of 5 inches would probably be unacceptable and, therefore, be classified a failure.

The emergency situations faced by Practicing Engineers are sometimes dramatic, where every hour counts, delay means money lost, an Engineer must react and decide quickly what is right. There is no time to consult with others, worry about professional liability. The owner, the contractor, the insurance companies all are physically looking at you and asking, "What do we do next?" Your instructions for the next step have tremendous consequences – operational down time, insurance claims and legal battle. The situation is demanding, you are in some "pressure cooker" situation. Whatever you say costs millions of dollars. Be rest assured, someone is going to question your decision 1 – 2 years down the road.

Such was a situation the authors faced the first morning at work after the New Year's Holidays in 1998. An urgent telephone call from the owner of a 100,000 square ft. distribution center in the Lehigh Valley, PA stated that during routine activities, a section of pavement outside the warehouse (approximately 60 to 70 ft. away) suddenly collapsed, taking a forklift and nearly an operator (who had to scramble out of the hole) – the hole filled up with subsurface water which continued to spill over onto the pavement and that we should immediately be at the site to fix the problem. **Solution :** *Fill up and seal the hole and pave over it – simple, right? WRONG! Einstein once said : "The mere formulation of a problem is far more often essential (or the most essential step) than its fix, which may be merely a matter of mathematical or experimental skill."* The only other thing we knew from past experience was that almost 70% of the Lehigh Valley (comprising of Allentown, Bethlehem and



2000

# Bengal Engineering College Alumni Association

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Susanta Gupta

Ashis Sengupta

Subhendu Nath

Debajyoti Guha

Debaprasad Shom

Debi Prasad Ganguly

Suhas Chaudhury

Paritosh K. Ghatak



East

Coast

**A Non-Profit Organization**

I am honored to serve BECAA as its president to the next millennium. We all should be proud that we belong to an institution that has produced renowned engineers and technologists for the past 143 years. I came to this land of opportunity in 1974. My wife and I have raised two children here. In the course of time, I have noticed as you may have as well, that graduates of American universities often participate in fund raising for their alma maters. We should learn from our American counterparts. To ensure a quality education for all future graduates of B.E.College and a high academic standard of our alma mater, we need to supplant the College's available resources by whatever means we can generate. This is also important for us to maintain the prestige associated with our own degrees. We should revitalize B.E. College and we should come forward with all our means to help our alma mater take the lead again.

Please take active part in BECAA and help shaping the future of our B.E.College.

I earnestly appeal to all of you, those who were associated with the college in the past and also those who are currently associated with the college, to extend your helping hand and help boosting the image of our beloved college.

I had the opportunity to meet Dr. Sankar Sen, Minister incharge of Power, Non Conventional Energy and Science & Technology, Government of West Bengal during my visit to Calcutta in January, 1999.

I met with Dr. S.M. Chatterjee, Vice Chancellor B.E.College(DU), Dr. P. Pal Chowdhury, Professor CST, and Dr.Sen on the college campus to discuss various issues.

Dr.Pal Chowdhury gave us a tour, demonstrating how our funding to LAN project helped the department. I am completely satisfied that the money has been well spent. During the tour, I proposed our idea of having one of our members in the Board of Management to oversee future utilization of our donations. I gave Dr.Sen a memorandum to that effect. We have now a web page 'www.becollege.org' as means of our communication. I would like to urge you to ventilate your view point on any issue you think reasonable thru email.

We are in the process of creating BECOLLEGE FOUNDATION to help BECOLLEGE, Alumni, and faculty members. You are requested to participate in whatever capacity you think you can fit in.

We are at the threshold of a big revolution of Information Technology. There is a proposal to establish a

School of Information Technology within B.E.College. We should consider this proposal as one way to help pay off our debt to our alma mater. Thanking you

Sincerely,

Dhiraj M. Chanda

2001



# Maitra Associates, P.C.

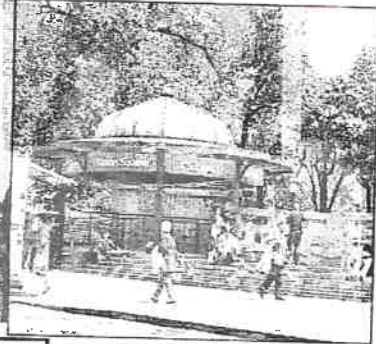
Consultants: Engineering and Construction



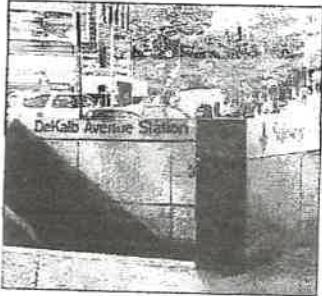
JFK International Arrival Terminal



Newark Airport Redevelopment



Newark Airport Monorail



DeKalb Avenue Station

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Metro-North Scarborough Station



Greater Buffalo International Airport

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Pennsylvania Station



Manhattan Bridge

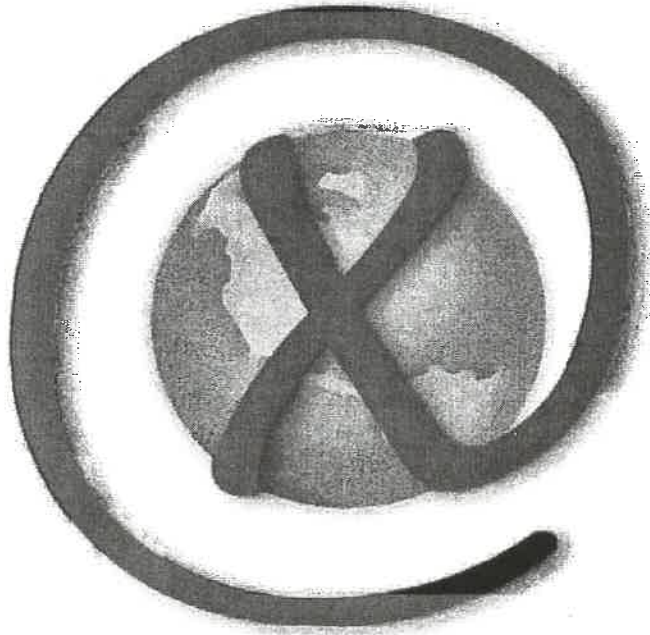


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2002

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2004

## 2003 REUNION & BEC

SOURABH BANERJEE ('95 ETC)

We had a nice time at the reunion on 9/6/03. I thank you for inviting us and your leadership and efforts to organize the event. I have a few comments/feedback I would like to share regarding the discussions we had on how the alumni foundation can contribute to the growth and improvement of our college. A major part of the discussions were about how to make sure that the money contributed by alumni is effectively used.

Financial help will go a long way. However to my mind that is not the only issue. To make my point clear I would like to use a software analogy. Throwing money to the system is like adding more hardware and processing power and expecting that it will improve the speed and performance of the software application. Often it fails because of inherent design limitations in the software itself. The software cannot leverage the added hardware resources.

Since I am a recent graduate (ETC 1995) relative to most of the other alumni, I would like to describe how I see the present problems that ails the college and the student community in general. I do however confess that this view predates the changes (if any) sustained after BE college was granted university status. My batch was the last batch that received certificates from Calcutta University. Eight years have passed by. Nevertheless I believe that most of the problems which I saw then still remain in some form or the other.

The very first thing I experienced when I started in 1991 was a culture shock! There was chaos and disorder everywhere. The hostel was dirty, the glasses were broken, the bathrooms had no doors. Using foul language was the norm and sort of encouraged! It appeared to me that people outside the college boundaries were well behaved and more cultured than most of the would-be engineers to steer the country to the new century! I could clearly see mob psychology at work. The perpetrators for broken windows and doors were none other than the students themselves! A sadistic pleasure, I must say for some.

There was no sense of purpose, no goal except "Bawali"! Of course there were some exceptions but I am speaking of the majority. The worst was students cursing each other from the windows and the roof of hostels and also to unsuspecting girls walking on the roads adjacent to the hostels. There was no one who could lead and control, no one with courage and conviction to stop the nonsense. There is a fine line between fun and going over the edge. Everybody had to sort of adopt the prevailing culture of the majority and add to the entropy!

The classes were boring because professors were dull! It added fuel to the fire. Students started bunking classes at the slightest excuse. Everybody sort of resigned to any hope of learning and progress and joined the party! The only tangible goal was to get a degree and perhaps a job after 4 years.

With this attitude how can we ever match IIT? Not that we cannot match it but we need a paradigm shift to match them. We had several computers in our ETC Lab that were built by aid from world bank. But they were just lying out there! So I don't think that merely financial aid will cure the disease.

The most intriguing was the "Gaa(n)t" (essentially they were people who were caught to be serious in studying) They were the most hated out of all homo sapiens in the campus. The non-gaant somehow believed that they were the elite and the smart crowd because they did not have to slog like the gaants! There was lot of latent jealousy and sub-conscious attempt to create obstacles to the gaant to follow their course by the disrespectful label of "gaant". The underlying motto is obvious "If I am not progressing neither should you". Also inherent is the disrespect for the individual. Everything is a downward spiral from there on! How can such a belief system propagate and prosper?

I think the alumni can play a major role to inspire and motivate the students by opening channels of communications. Here is what needs to be done:

### Improve Student-Teacher Relationship

1. Encourage trust, respect and friendship between students and teachers. Need to have an open door policy so that a student can approach to discuss subject matter with the professor. The alumni should remind the professors to have a



# Bengal Engineering College

**Alumni Association of USA and Canada**  
Federal Tax exempted Non-Profit Association

September 18, 2004

2004

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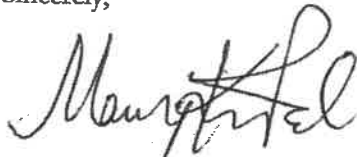
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Debi Prasad Ganguly  
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Paritosh K. Ghatak  
Dhiraj Chanda  
ShibaPrasad Sircar  
Late Sakti Nandi

As we celebrate the 33<sup>rd</sup> anniversary of our association, we must recognize our recent graduates from the nineties and the new millennium. They came forward in large numbers to carry the banner of our alma mater, which perpetually maintains the progress and service amidst unity, coordination, and communication.

The Bengal Engineering College Alumni Association of USA and Canada has the pride of looking forward to the advancements of our B.E. College which is now recognized as Bengal Engineering and Science University. This one hundred forty-eight year old institution is proud of its 15,000 alumni who are involved in the advancements of science and technology around the world.

Our alumni enjoy the gift of our alma mater and hold leadership positions in industrial, educational, and scientific organizations around the world. They dedicate a portion of their time and energy in the services of our beloved university. As a non-profit association, we are closely working with the Vice Chancellor, the Dean of Research, staff, and alumni worldwide to continually improve the education and research in our university.

Sincerely,



Manoj Kumar Pal  
President, BECAA of USA and Canada

2004

**A**dopt a village is a project whereby one or a few Non Resident Indians (NRI) improve the economic conditions and quality of life of a chosen village in India. Initially the NRI group will assess the needs of the village and set priorities upon projects to be undertaken. Working with the villagers as well as the local and state governments, the NRI group will estimate the cost for these projects and raise the necessary funds.

### **Objective**

Many of the NRI living outside India are reaching the age of retirement and are alerted to the dire poor condition of most of the villages during their visits to India. They have enjoyed a comfortable lifestyle enabled by western prosperity and often desire to uplift the economic conditions of the rural masses. After all, all of them have been born, educated and raised in India and a sense of belonging is always there for them. When they see the dire economic condition of the rural people, a feeling of guilt creeps into their minds that they are selfish and doing almost nothing for the country left behind. The country where they are living is their homeland yet their hearts feel for their motherland, especially on periodic visits to the country of their birth. Most of them are professionals, financially established in their homeland and can provide moral, economic and professional support of the well being of at least one village of their choice. Although this altruistic feeling can live without taking action, it hurts one's conscience not to do anything for those poor people left behind.

Many wonder, what can we do with our limited resources for the vast village population? The idea of getting involved in one or two villages is presented and we can start thinking positively. Already some of the NRI have started similar projects in over one hundred Gujrat villages. The success has given impetus to others to come forward and opened the eyes of the local and state authorities of the progress made. The sense of supporting oneself has been implanted in the villages through the Gujrat projects. George Bush senior as US president once proposed that one light will kindle thousands of lights with the ray of hope ignited in each one of them. This will be our theme.

Let us join our hands in one project. If we succeed we will advise others to join hands in similar projects. One success will be a lifetime achievement in terms of the moral comfort of an individual.

### **Description and Location**

The writer, Suhas (Sid) Choudry has already done some preliminary survey of a few villages in Murshidabad, Malda, Nadia and 24 Paraganas of West Bengal. Presently, he has selected a village called Dahapara in Murshidabad located about five miles away from the district town Baharampore. Dahapara is on the bank of the river Ganges (called Bhagirathi) in that region and has one railway station where some of the local trains stop but still there is hardly any regular bus service. The villagers usually take the ferry to cross the river with their farm products and sell those either in the HUT (a periodic weekly bazar) a few miles away or to the town of Lalbag or Baharampore. Dahapara has a distinct historical background: the graves of Nawab Shirajudulla, Alibardi and their family are close by. Also Hazarduari, the castle built by Mirkashim, is directly on the opposite bank of the Ganges. People travel by train from Kolkata to Murshidabad station, take a rickshaw to the bank of the Ganges after passing Hazarduari, and take the ferry across. The population of the village is about three thousand. The average income of a family of five members is about one thousand rupees (US \$ 24.00) per month – still higher than the average income of many villages we surveyed in West Bengal. People are engaged mainly in farming, either as farm labor or by cultivating a small plot of land that they own. Twice a year they grow rice, and the balance of the time grow eggplants, lentil, tomato, cucumber, okra and a small variety of other vegetables.

### **Reasons for Choosing this Village**

The writer has been traveling to this village for the last fifty years during his visits to India and knows the (Non Government Organization) NGO Jagatbandhu Ashram Trust Organization (JATO) for most of his life. Incidentally, any public service work either through the Government or privately will have to be routed through a NGO. For financial help coming from the USA, the fund has to be transmitted to an organization recognized by the respective State Government, so that in future no doubt or objection can be raised by the US government for security reasons. Also, it is anticipated that future help will be needed from the local authorities for the development of the infrastructure of the village. Knowing the village people, Panchayat members (local body administering the village) will be helpful in pursuing the goal and in getting the villagers involved in their own program.

### Watching 'Sonar Kella' – 50<sup>th</sup> time?

2004

I picked up few VCDs (Bengali DVDs still seem to be a rarity) on my last visit to Calcutta, oops *Kolkata*. In the glittering Music World showroom on Park Street, 'Sonar Kella' jostled for space with 'Dadathakur' of Victor Banerjee vintage. *Chobi babu* is possibly turning in his grave with this incredible namesake! The enthusiastic young salesman promptly identified me as a quintessential NR-Bong, as soon as I started filling my shopping bag with whole series of 'Chandrabinu', 'Bhoomi' and *Sudhin Dasgupta* without staring long at the price label (they don't come cheap, boy!). And when I affectionately inquired about 'Nagaar Philomel', our cult in engineering haydays, he asked which city I live in. Anyway, grabbing 'Sonar Kella' was a no-brainer, but watching the same with my five and half year old back in NY indeed was! Let me make a confession here – I bought 'Sonar Kella' because I had to and I secretly wished this to be a great Bengali lesson for my son. The beginning was copybook .. Whole family (2+2) gathered around the television set, my son fully pumped up to watch a super hero (*Feluda*) and my daughter (just done 2) is fully pumped up because her 'dada' is so. We two were hooked even on the 50<sup>th</sup> time – we lip-synced every time Santosh Datta said 'Ute ki kanta beche khai' or 'hahakaar .. shihoron .. bibhisika' or Topsey said 'telepathy'. It's sheer ecstasy, and we forgot that our son is fast loosing the movie. He sulked because the super hero does not look like one, camel chase is 'good but not great', couldn't figure out why parents are laughing hysterically with the 'funny writer' and could clearly understand only one part of the movie – 'mistake, mistake'! May be the 51<sup>st</sup> time will be better!

### An unfamiliar sight in a familiar land – or is it other way round?

I was on my usual travel routine. Limo comes home at 5 am, silent 'bye' to the sleeping family, jump into the car, carry on small talks with the chauffer as he enters everyday NJ Turnpike and vaguely watch the fast sliding industrial landscape in a foggy morning on my way to Newark airport. A taxicab pulls to the right lane and on the driver's seat is a middle aged 'Sardar ji' with spotless white cloth wrapped around his grayish, starched beard. Did we run parallel for 5 seconds? May be, may be not.. but it seemed eternity! I was the Rip Van Winkle, on my way to Delhi International Airport from Chittaranjan Park home, in a cold wintery morning. In the conditioned air of the limo, I could suddenly smell a strange fragrance I always associated with Delhi winter, and my wife always corrected as blooming of 'chathim', something she grew up with in Santiniketan. The halluva ended abruptly – the limo man asked in a deep, baritone voice, without turning to me, if I would prefer curbside check-in.

### 'How would you like your egg' and Vijaywada Passenger

For two years or so, right after our marriage, we rented part of an old house in Lake Road. Landlady was an 85 year old 'dida', who lived alone and had eight children, all but one living in United States. One evening, we were introduced to two over-the-middle aged gentlemen – *dida*'s eldest sons. One an accomplished doctor in mid-west and one a banker in NY, both are incredible story tellers and had ready, eager audience in us. The doctor migrated to states in seventies and on his first ever journey on American soil in a Greyhound bus from

**IN MEMORY OF Chandranath Bagchi (53, EE)**  
**(12/01/1929----02/26/2005)**

2005



**Survived By**  
**Wife, Chinmoyi**  
**Son, Chandan**

My friend,  
-You, I and many others  
Trudging for a long time  
On this beautiful earth.  
We have seen red rhododendrons.  
We have enjoyed many melodies;  
Melody of the blue sky and  
Songs of many birds.  
Life gave us laughter  
Gave us joy.

You, I and many others  
Have seen many faces of earth.  
Traveled to many places, many countries,  
Many rivers, many oceans.

My friend,  
Your journey is over  
And you left us all.  
Left us all forever.

We know - lifeless bodiless  
You are still a traveler  
Rushing to other planets, other stars.  
Million stars are beaconing you;  
Lights of thousand suns  
Shining your way.

My friend,  
Stop your journey to the unknown  
And come again to this beautiful earth.

We will wait for you.  
We will pine for you.  
We will muse on your life  
Till our journey is over.

My friend, Fare-thee-well.

By Subhendu Nath (54 EE)



# Bengal Engineering College

## Alumni Association of USA and Canada Federal Tax Exempted Non-Profit Association

### President

August 1, 2005

Tax Exemption ID# 22-2394370

Dr. Arun Deb

2005

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Saroj Bhol

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Debaprasad Shom  
Debi Prasad Ganguly  
Suhas Choudhury  
Paritosh K. Ghatak  
Dhiraj Chanda  
ShibaPrasad Sircar  
Late. Sakti Nandi  
Manoj Pal

Today, we are celebrating our 34<sup>th</sup> anniversary of our association in the United States. During the last few years, our Alma Mater passed through several important changes. On September 2004, our beloved B. E. College became a full university with a new name "Bengal Engineering & Science University, Sibpore" (BESUS). On 13 August 2005, the President of India visited our university and formally inaugurated as Bengal Engineering & Science University.

In 2003, Government of India formed a committee to identify several institutions, which have potential to be elevated to an IIT. This committee recommended BESUS as one of the top candidate institutions suitable for upgrading to an IIT. BESUS with the help of alumni is strongly pursuing with the Governments of West Bengal and India to bolster its candidacy for an IIT. In November 2006, we will celebrate 150<sup>th</sup> anniversary of our Alma Mater. Elevation of BESUS to an IIT at the time of its 150<sup>th</sup> anniversary celebration will be an excellent way to celebrate the anniversary. This celebration will continue for one year. Details of some of this celebration are provided in one article in this magazine. All alumni are invited to actively participate in this year celebration.

At this time of history our Alma Mater, it is very important that alumni provide all the help to BESUS administration in its endeavor to elevate it to an IIT. In order to help our Alma Mater effectively, at this juncture of its long history, a Global Alumni Association (GAA) has been formed with its office located at BESUS campus. Objective of formation of GAA is to bring all alumni together and work together. We invite you all to become members of GAA.

We would particularly like to recognize our recent graduates. We all are very proud that our young alumni are coming here in large numbers, working in responsible positions and establishing themselves very quickly in a new environment. We need your help and request you to become active in alumni association and take leadership to carry the banner of our Alma Mater to a new bright future.

Thank you for coming and enjoy the day.  
Sincerely,  
Arun K. Deb  
President, BECAA



2005

**A**ccording to the Merriam Webster Dictionary, a Pattern is a form or model proposed for imitation. Patterns are well known solutions, which we can apply over and over again to deal with recurring problems without having to spend too much effort to figure out a solution. In fact in our daily life all of us use various patterns either consciously or unknowingly. Pattern can be as simple as "Greet colleagues at work *good morning* when we meet them in the morning at office." (Human behavior pattern) or as complex as the *King's Indian Defense* in chess.

Let us try to understand the value of patterns, their benefits and their drawbacks. We will also discuss how to go about using patterns. Several questions come to mind. How do I know what is a pattern and what isn't? What qualifies something as a Pattern?

What is the difference between a novice chess player and a Grandmaster? The novice player looks at the game as a sequence of moves. The novice may be a very smart and intelligent guy and his moves may be well thought out. Nevertheless the novice lacks the insight of the grandmaster learned from years of experience. The master's strength lies in having a broad understanding of the underlying principles. The master thinks in terms of high level patterns like *King's Indian Defense* and *Ruy Lopez*. Each pattern is based on solid principles and proven strategies. The novice relies only on his brilliance whereas the master relies on proven wisdom from many experts and grandmasters. A novice player will think of many alternative moves in his mind and then eliminate the bad ones. But given the innumerable permutations and combinations possible, step-by-step piecemeal reasoning is tedious and error prone. Several turns after making a move the novice realizes his mistake. But what has been done cannot be undone! A good chess player does not consider the bad moves in the first place. He does not view the game piece-by-piece or turn-by-turn. He views it as a coherent whole using structural and dynamic interaction patterns between various pieces.

Like *fast food*, Patterns are pre-cooked, proven solutions to common problems. All you have to do is heat in the Microwave for a few minutes and eat! Patterns are applicable to any industry or domain ranging from software design, risk management, project management, process patterns, city and town planning and much more.

### Quality of a Pattern

*Initially, you can think of a pattern as an especially clever and insightful way of solving a particular class of problems. That is, it looks like a lot of people have worked out all the angles of a problem and have come up with the most general, flexible solution for it. The problem could be one you have seen and solved before, but your solution probably didn't have the kind of completeness you'll see embodied in a pattern."*

*Thinking in Patterns - Bruce Eckel*

The above quotation is perhaps the best explanation of a pattern I have seen so far. Bruce Eckel is an Author of various software books ranging from C++ to Java. In his book *Thinking in Patterns* he talks about object oriented design patterns in Java. Design Patterns is perhaps the most exciting subject in object-oriented software development that has its roots in a design movement of the same name in contemporary architecture popularized by a man named Christopher Alexander in his book *Timeless way of Building*.

# Bengal Engineering College

**Alumni Association of USA and Canada**  
Federal Tax Exempted Non-Profit Association  
Tax Exemption ID# 22-2394370

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Ganguly  
Suhas Choudhury  
Paritosh K. Ghatak  
Dhiraj Chanda  
Shiba Prasad Sircar  
Late. Sakti Nandi  
Manoj Pal

2006

September 9, 2006

Dear Friends:

Bengal Engineering College Alumni Association (BECAA) passed 35 years of its existence in the United States. During the last year we lost two of our past presidents: Pares Bhattacharyya, our first president and Debiprasad Ganguly, our 8<sup>th</sup> president. We recognize their contributions in developing BECAA and will miss them dearly.

During the last 35 years, our alumni of North America contributed tremendously in the development of our Alma Mater. We raised about \$ 750,000, and delivered the following projects:

- The first Local area Network (LAN)
- Purabi Das School of Information Technology (PDSIT)
- Endowed Chaired Professor of Civil Engineering
- Ganapati Sengupta VLSI Laboratory
- Construction of one floor of the new eight storied building in the Campus
- Information Technology Laboratory at the PDSIT
- Upgrading a state-of-the-art Seminar Room
- About 40 scholarships to needy students

Delivering projects like these are a quite contribution and achievement. These were all delivered without the help of a formal alumni organization. In order to help our Alma Mater more effectively, a Global Alumni Association (GAA) has been formed with its office located at the BESU campus. If we could achieve all these without any formal organization, we could do much more with the help of a strong Global Alumni Association. This year we are also celebrating 150<sup>th</sup> anniversary of our Alma Mater.

At this juncture of history of our Alma Mater, I urge you to come forward and join GAA and take active role in shaping the future of our College. I particularly request our young alumni to join GAA and take the leadership to carry the banner of our Alma Mater to a new bright future.

Thank you for joining today's celebration.

Sincerely,  
Arun K. Deb  
President, BECAA

2006

In Memory of Paresh Bhattacharya (1947, CE)



Paresh Bhattacharya, our beloved Paresh-da passed away early morning on 5<sup>th</sup> August, Saturday. He was born on 4<sup>th</sup> November 1923; he was our first president of BECAA of USA and Canada, which was formed in the year 1971. After doing Bachelor of Science from Scottish Church College, he joined B.E. College and graduated in Civil Engineering in 1947. Then he went to Michigan State University to do his MS in Civil Engineering and to M.I.T. for his Master of City Planning.

In 1954, he went back to India to join National Building Organization as its Assistant Director. He got married to Arati, the youngest daughter of Dr. Shyama Prasad Mukherjee in 1957 and moved back to USA as a permanent resident in 1958. Anyone who came in touch with Pares-da would remember his benevolence and whole-heartedness toward each activity, be it social or personal. We would miss him dearly. His wife, Arati and only son, Sandeep, survive him. May his soul rest in eternal peace.





SENATOR ROBERT MENENDEZ  
UNITED STATES SENATE  
NEW JERSEY

September 22, 2007

Mr. Suhas Ghosh  
General Secretary  
BECAA of USA and Canada  
478 Suttons Lane  
Edison, New Jersey 08817

Dear Friends,


Please accept my warmest wishes for a successful event as you gather today for your 36<sup>th</sup> Annual Reunion. I am honored to recognize all who are associated with the Bengal Engineering College Alumni Association (BECAA) of USA and Canada.

Our nation is blessed with the rich traditions and customs of many diverse groups who help remind us of the foundation upon which this great country was built. America's diversity of culture is what makes our country so unique, and the Bengali community has long contributed to the cultural and social fabric of our nation.

Since its inception, the Bengal Engineering College Alumni Association of USA and Canada has served as an outstanding organization of alumni from the University of Calcutta, India. I commend the members of BECAA of USA and Canada for their exceptional work in advancing the business interests of your distinguished alumni.

As a United States Senator, I am dedicated to improving the lives of all New Jerseyans. Again, please accept my best wishes for a memorable event.

Sincerely,

  
ROBERT MENENDEZ  
United States Senator

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# Bengal Engineering College



**Alumni Association of USA and Canada**  
Federal Tax Exempted Non-Profit Association  
Tax Exemption ID# 22-2394370

2008

September 13, 2008

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Suhas Choudhury  
Paritosh K. Ghatak  
Dhiraj Chanda  
ShibaPrasad Sircar  
Late. Sakti Nandi  
Manoj Pal  
Dr. Arun Deb

My Dear Alumni,

Bengal Engineering College Alumni Association (BECAA) is celebrating 37<sup>th</sup> Alumni Reunion. This is a great accomplishment and exemplifies our proud dedication to our Alma Mater.

We have lost two of our distinguished Alumni this year. We miss dearly the late Himangsu Bhanja, accomplished alum of the class of 1953, Mr. Sisir Chakraborty, accomplished alum of the class of 1955, EE.

As you know, that BESU has been selected for Indian Institute of Engineering and Science Technology (IEST) status but this is yet to be formalized in the Indian Parliament. We sincerely hope that this status will be approved and that the transition will run smoothly in the near future.

We are very proud of our young Alumni members. Their efforts and enthusiasms have been significant in the growth of the association, and we hope to continue to see similar responses in subsequent years.

As BESU 150<sup>th</sup> year celebration concluded in November 2007, we are poised to celebrate the accomplishments of our century and a half-old Alma Mater here in the US. Therefore, I propose we celebrate this momentous occasion in the coming year.

I sincerely thank you for taking the time to join today's celebration. I hope the success of the BECAA will continue to thrive and we can enjoy these reunions for years to come.

I sincerely thank you for joining today's celebration and let us enjoy together in this extraordinary beautiful weather.

Sincerely,  
*Ajoy Das*  
Ajoy K. Das  
President, BECAA

2008

## New Journey through Old Silk Road

Sabyasachi Ghosh Dastidar, 67 ARCH

Chair, Politics, Economics and Law Dept. & Distinguished Professor, State Univ. of NY, Old Westbury

From the time the 1,500 kilometers Karakoram Highway (KKH) was opened three decades ago connecting China's Xinjiang (Sinkiang) Province with Pakistani Kashmir my wife Shefali and I have been planning to travel through that highway. This modern road follows the old Southern Silk Road connecting China with India, Central Asia, Persia and Europe crossing the 14,000-16,000 feet high Khunjerab Pass – border between Xinjiang and Kashmir. The KKH traverses through the Karakoram Range of the northern Himalayas, is one of the longest, picturesque highways of the world. (Pakistan-controlled northern Kashmir is now called Northern Areas with remainder of the small Pakistani Kashmir, west of Jammu & Kashmir State, is known as Azad Kashmir.) KKH is undeniably one of the most spectacularly beautiful passages of the world. It follows rivers down deep gorges at times 5,000 to 10,000 feet deep, finally it follows Indus River. From a distance the road looks like a fine line drawn on the side of mountain slope.



Picture 1: Glacial Mountains on KKH

Like the ancient travelers we too started our journey at Xi'an in east-central China – her imperial capital for 2,000 years. Xi'an proudly describes herself as the end of the Silk Road connecting her with Europe and India. Our journey also connected the Inner Mongolia Autonomous Region of China; a conference on the 150<sup>th</sup> anniversary of the First War of (Indian) Independence (Shepoy Mutiny) of 1857 organized by Peshawar University of Northwest Frontier Province of Pakistan; a pilgrimage to Nankana Sahib and a trip to the Indus Valley City of Harappa, both in Pakistani Punjab. We ended our trip in India, crossing the Wagha-Atari Pakistan-India border. Our pilgrimage to a Hindu Mandir in Lahore had to be abandoned as our Lahori guide informed us that the last Hindu Mandir — Jain Mandir — was demolished a few years ago.

# Bengal Engineering College

**Alumni Association of USA and Canada**  
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September 13, 2009

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Suhas Ghosh

**Treasurer**

Asok Chakrabarty

**Past Presidents**

Paresh  
Bhattacharya  
Amit Banerjee  
Susanta Gupta  
Ashis Sengupta  
Subhendu Nath  
Debajyoti Guha  
Debaprasad Shom  
Debi Prasad  
Ganguly  
Suhas Choudhury  
Paritosh K. Ghatak  
Dhiraj Chanda  
ShibaPrasad Sircar  
Late. Sakti Nandi  
Manoj Pal  
Dr. Arun Deb  
Ajoy Das

2009  
My dear Alumni:

I feel extremely proud and privileged to be able to welcome all of you in the Bengal Engineering College Alumni Association's (BECAA) 38<sup>th</sup> Reunion on this auspicious day. On this day, I will take the opportunity to thank the vision of the alumni who formed this organization 38 years ago. We are still carrying the flame of their enthusiasm, courage and intellect to this day and I am confident that the legacy will follow through for years to come.

This day is not an ordinary day for many of us. I myself feel that and I believe that many of us wait for this day all year long to meet the Alma Mater of good old days. It revives the glorious memories of our vibrant campus life – the green aura of the Oval, the dong...dong...dong music of the clock tower, the flowing waters of the river Ganges and the cool green shades of the Botanical Garden. At the blowing of the 7 O'clock siren, the streets are full of human flow with the aspiring engineers to attend their classes – I think we all miss that life.

BECAA is actively involved in various activities and entertainments throughout the year. The events in past year include – Annual Reunion in September 2008, Bijoya Sanmilani in November 2008, Winter Meet in February 2009 and numerous sports event in the summer of 2009 including viewing the sunrise at Sandy Hook Beach. We had also organized several conference calls to enrich our knowledge on various interesting topics. Thanks to Suhas for organizing all these events.

With deep sorrow in our heart, we announce the passing away of the following members of our BECAA family in past one year: Ajit Mukherjee (ME-60), Achintya Banerjee (EE- 61), Nayan Basu (CE- 61), Dipak Agarwal (CE-66) and Purabi Nandy (wife of Sakti Nandy, CE-57). We pray that their souls enjoy eternal peace in heaven. Lastly, my heart felt thanks to all of you for joining this occasion and making it a grand success.

Best of Regards,

*Kumud R. Roy*

Kumud R. Roy  
President, BECAA



2011

# Bengal Engineering College

**Alumni Association of USA and Canada**  
Federal Tax Exempted Non-Profit Association  
Tax Exemption ID# 22-2394370

**President**

September 10, 2011

Sitansu Sinha

**Exec. Vice-  
President**

Debabrata Sarkar

**Vice-Presidents**

Bhaskar Dasgupta  
Sreeraj Majumdar  
Gokul Panda  
Sumitra Sinha

**General Secretary**

Suhas Ghosh

**Treasurer**

Asok Chakrabarty

**Past Presidents**

Paresh  
Bhattacharya  
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Debi Prasad  
Ganguly  
Suhas Choudhury  
Paritosh K. Ghatak  
Dhiraj Chanda  
Shiba Prasad Sircar  
Sakti Nandi  
Manoj Pal  
Dr. Arun Deb  
Ajoy Das  
Kumud Roy

Dear Alumni:

Bengal Engineering College Alumni Association (BECAA) is celebrating its 40<sup>th</sup> Alumni Reunion. This is a tremendous accomplishment by the Association and exemplifies our proud dedication and commitment to our Alma Mater.

As you are aware, the Bengal Engineering and Science University (BESU) is in the process of transforming to an Indian Institute of Engineering and Science Technology (IIEST). We sincerely hope that with necessary approvals, the transformation will be completed in the near future.

We are very proud of our younger Alumni members who have instituted a diverse program of social, cultural and recreational activities throughout the year. Their effort and enthusiasm have energized the association and raised alumni involvement to a new level. We hope to see this continue in the coming years and serve as an inspiration for all members.

We congratulate GAABESU for all their activities at the international level. We appreciate their endeavor in the successful installation of a swimming pool at the BESU campus, Sibpur, Howrah.

On April 30, 2011 BECAA organized a memorial event for a number of our beloved Alumni members who passed away. The event was held at East Brunswick Library Hall and was attended by 54 Alumni and family members. We fondly remembered Suhas Choudhary, Debajyoti Guha, Arup De, Arindam Ghosh, Nayan Basu and Tulsi Sengupta. Also remembered was Amitada's wife Bandana Boudi. We all shared touching memories and reminisced about precious moments from the past with those Alumni who left us.

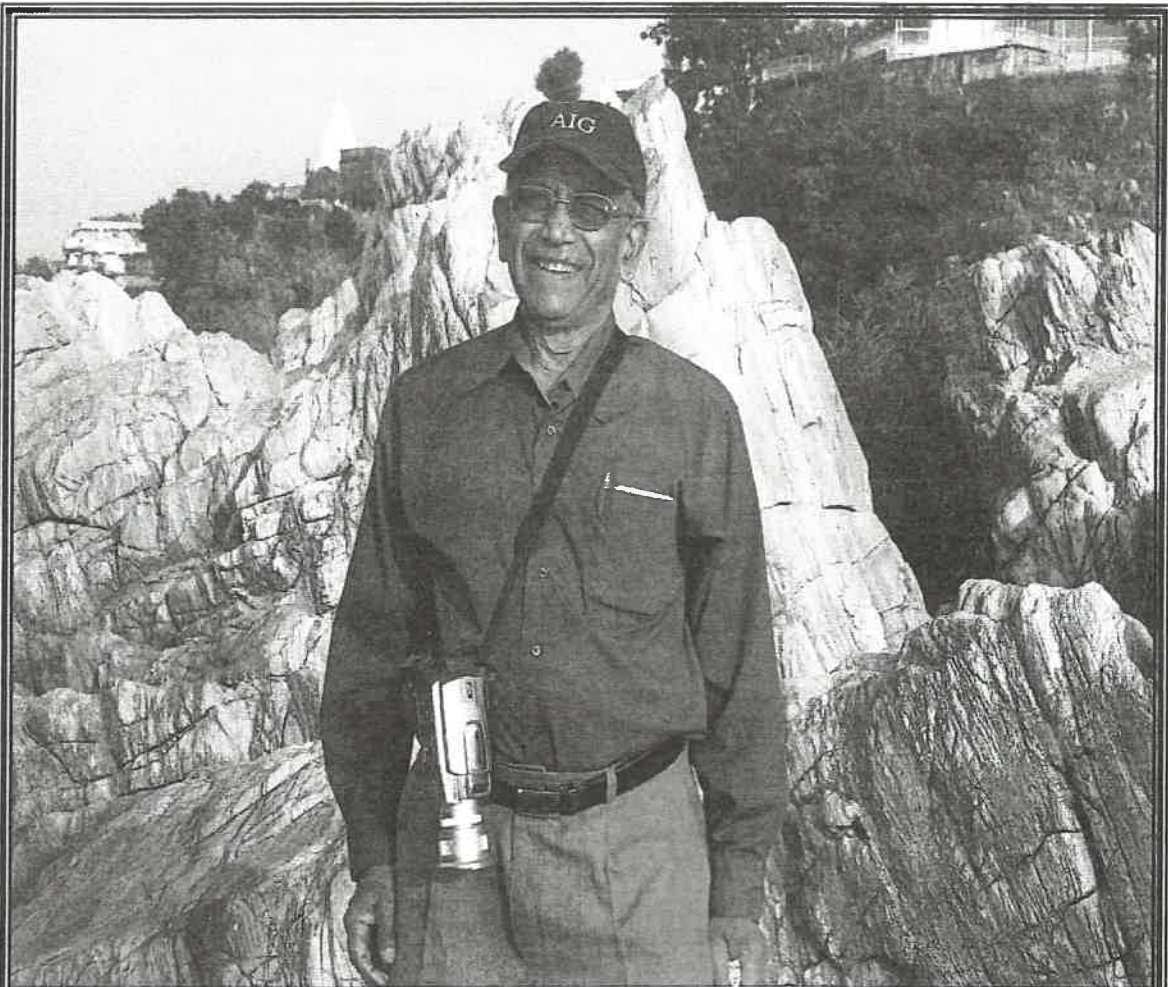
I thank you for taking time to join this celebration today. I sincerely hope our efforts for success will remain strong and BECAA will continue to grow for years to come. Thank you all for coming. Let us enjoy the celebration.

Sincerely,



Sitansu Sinha  
President, BECAA

2011

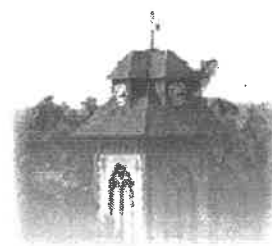


We, BEC alumni and friends are deeply grieved to learn that Suhas Chowdhury (1957 CE) left this world for heavenly abode on 10th March, 2011. We can realize what a hard time DollyBoudi & family are going through and our crying hearts can not find appropriate words to offer condolences. We extend our deepest sympathy to the family in this painful time.

It's very big loss for our alumni family. SuhasDa was one of the most dedicated & devoted alumni who cultivated very strong bonds with all of us, throughout his life. As many of you are aware that SuhasDa was fighting against cancer for last few years. In spite of all the physical difficulties, he always kept himself updated about college & alumni activities. He was the perpetual source of inspiration for many of us. After a life time of care for family, friends and service to community, he will enjoy the blessings of the almighty. May his soul rest in eternal peace.



# Bengal Engineering College



## Alumni Association of USA and Canada

Federal Tax Exempted Non-Profit Association

Tax Exemption ID# 22-2394370

September 8, 2012

**President**

Sitansu Sinha

**Exec. Vice-President**

Debabrata Sarkar

**Vice-Presidents**

Bhaskar Dasgupta  
Sheuli Majumdar  
Gokul Panda  
Sumitra Sinha

**General Secretary**

Suhas Ghosh

**Treasurer**

Asok Chakrabarty

**Past Presidents**

Paresh  
Bhattacharya  
Amit Banerjee  
Susanta Gupta  
Ashis Sengupta  
Subhendu Nath  
Debajyoti Guha  
Debaprasad Shom  
Debi Prasad  
Ganguly  
Suhas Choudhury  
Paritosh K. Ghatak  
Dhiraj Chanda  
ShibaPrasad Sircar  
Sakti Nandi  
Manoj Pal  
Dr. Arun Deb  
Ajoy Das  
Kumud Roy

Dear Alumni:

Bengal Engineering College Alumni Association (BECAA) is celebrating its 41st Alumni Reunion in the United States. This is a tremendous accomplishment by the Association and exemplifies our strong dedication to our Alma Mater.

As you are aware, the Bengal Engineering and Science University (BESU) is still in the process of transformation to become an Institute of Engineering and Science Technology. We have been awaiting this transition for a long time and sincerely hope that it will be completed in the near future.

We are proud to note that our younger Alumni members have implemented a diverse program of social, cultural and recreational activities during the past year. Their efforts and enthusiasm have motivated association members to a new level of involvement. We hope to see these efforts continue in the coming years.

We congratulate GAABASU for all their activities at the international level. We appreciate their effort in the successful installation of a swimming pool at the University campus, Sibpur, Howrah.

During the past 12 months, we have lost a number of our beloved Alumni members. We express our sincere condolences for the families and will always remember the touching memories and memorable moments in the past with those Alumni who have left us.

I thank you for taking time to join this celebration today. I sincerely hope our efforts for success will remain strong and BECAA will continue to grow for years to come. Thank you all for coming. Let us enjoy the celebration!

Sincerely,

Sitansu Sinha  
President, BECAA

2014  
**Bengal Engineering College**

**Alumni Association of USA and Canada**

Tax Exemption ID# 22-2394370

Dated: September 14<sup>th</sup>, 2014

**President**

Amitabha Chatterjee

**Exec. Vice-President**

Debabrata Sarkar

**Vice-Presidents**

Bhaskar Dasgupta

Swapna Mukherji

Sumitra Sinha

Pradip Bhaumik

**General Secretary**

Niloy Jana

**Treasurer**

Probir Dhara

**Past Presidents**

Pareesh Bhattacharya

Amit Banerjee

Susanta Gupta

Ashis Sengupta

Subhendu Nath

Debajyoti Guha

Debaprasad Shom

Debi Prasad Ganguly

Suhas Choudhury

Paritosh K. Ghatak

Dhiraj Chanda

ShibaPrasad Sircar

Sakti Nandi

Manoj Pal

Dr. Arun Deb

Ajoy Das

Kumud Roy

Sitansu Sinha

Dear Alumni,

I welcome you all to the 43<sup>rd</sup> Annual Reunion. Let us celebrate the day reminiscing about our Alma Mater.

It is heartening to note that more alumni is participating this year. I think this is possible because of the tireless effort of the executive committee and all of our alumni members of BECAA.

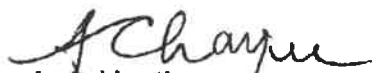
As you know BESU is officially IEST now. Please visit the web site of GAABESU for all details. And I urge you to become a member of GAABESU if you have not done so already.

It has been a privilege to serve as President for the last two years and I welcome the new executive committee which will be elected this year. I am sure that you will extend the same level co-operation to the newly elected committee as you did with the current one. Unfortunately, I will not be attending the reunion this year because of a family emergency.

I would like to thank all the alumni members and their spouses whose tireless efforts made the reunion a success. Thanks are also due to our advertisers and sponsors. The burden will be considerably higher without their help.

Thank you for coming and your continued support of BECAA. Let us maintain the spirit of our BECAA family- a spirit of oneness, unity, encouragement, individual respect leading us to a new horizon.

Sincerely,

  
Amitabha Chatterjee  
President, BECAA





# Bengal Engineering College



## Alumni Association of USA and Canada

Federal Tax exempted Non-Profit Association

Tax Exemption ID# 22-2394370

**President**

Dilip Bhattacharya

**Exec. Vice-President**

Debabrata Sarkar

**Vice-Presidents**

Asok Chakrabarti  
Debabrata Chaudhuri  
Sitansu Sinha  
Asok Datta

**General Secretary**

Niloy Jana

**Treasurer**

Probir Dhara

**Past Presidents**

Paresh Bhattacharya  
Amit Banerjee  
Susanta Gupta  
Ashis Sengupta  
Subhendu Nath  
Debajyoti Guha  
Debaprasad Shom  
Debi Prasad Ganguly  
Suhas Choudhury  
Paritosh K. Ghatak  
Dhiraj Chanda  
ShibaPrasad Sircar  
Sakti Nandi  
Manoj Pal  
Dr. Arun Deb  
Ajoy Das  
Kumud Roy  
Sitansu Sinha  
Amitabha Chatterjee

Dated: September 12<sup>th</sup>, 2015

Dear Alumni,

I feel honored to welcome you all to the 44th annual reunion of the BECAA, East Coast, and North America.

It is the time to enjoy a bit of nostalgia, for I think I can say for all our alumni that the memory of the stint in BE College is one of the fondest of our lifetime.

This year is special for several reasons. For the first time we had a formal election with written ballots for the positions of office bearers of our Association. We also started a website, a great help for communication, information dissemination and myriad works of the executive committee. Also after a few failed attempts during the past several years we have nearly completed an update to the BECAA Constitution. It has been reviewed, commented on by members of the executive committee and other senior members of BECAA and is in the process of final edition. It will be shortly sent to the general membership with our strong recommendation for its adoption. I convey my gratitude to the executive committee and all others involved for the above achievements.

By now perhaps everybody knows about IEST, the new name of our alma mater. I take this opportunity to request all alumni to go to GAABESU.ORG and become a life member.

I thank you all for attending this Reunion celebration.

Sincerely,

Dilip K Bhattacharya  
President, BECAA, East Coast



# Bengal Engineering College



## Alumni Association of USA and Canada

Federal Tax exempted Non-Profit Association

Tax Exemption ID# 22-2394370

Dated: September 10<sup>th</sup>, 2016

President  
Dilip Bhattacharya

Dear Alumni,

Exec. Vice-President  
Debasree Sircar

Once again I take great pleasure to welcome you all to the 45<sup>th</sup> annual reunion of the BECAA, East Coast, North America.

Vice-Presidents

It has been a privilege to serve you for the last two years. Today is going to see the end of the term of the current executive committee. So, on its behalf I welcome the incoming committee to take charge, convey them our best wishes for a successful stint for the next two years and offer our cooperation whenever necessary. Also, I think it is now appropriate to mention the main accomplishments during our two-year term.

Asst. Chairmen  
Debasree Choudhury  
Sitansu Sinha  
Asst. Dates

After a few failed attempts in the past the updated BECAA Constitution has finally been adopted. The updating was necessary to keep up with technological developments of the last few decades and in compliance with the way we function these days. It has been uploaded in our website. I sincerely thank the many members of alumni who sent me their valuable comments and advice during its various stages of drafting along with all members of the executive committee. Without their help it would not have been possible.

General Secretary  
Nikhil Jana

We also expanded and updated the website we started at the beginning of our term. Please log on to [becaaeastcoast.org](http://becaaeastcoast.org) for communication, information on what is happening in our association and interaction with the executive committee and other members.

Treasurer  
Pranab Datta

I take this opportunity to remind all alumni to go to [GAABESU.ORG](http://GAABESU.ORG) and become a life member if you have not already done so.

Past Presidents  
Parash Bhattacharya  
Amit Banerjee  
Susanta Gupta  
Ashis Sengupta  
Subhendu Nath  
Debasjyoti Guha  
Debasree Shom  
Debi Prasad Ganguly  
Sahas Choudhury  
Paritosh K. Ghatak  
Dhirej Chanda  
ShibaPrasad Sircar  
Sakti Nandi  
Manoj Pal  
Dr. Arun Deb  
Ajoy Das  
Kumud Roy  
Sitansu Sinha  
Amitabha Chatterjee

I thank you all for attending this Reunion celebration. I also thank the sponsors for their financial help, the writers who contributed in our annual magazine and the members of the executive committee and others for their tremendous effort to make this occasion a success.

Sincerely,

Dilip K Bhattacharya  
President, BECAA, East Coast



# Bengal Engineering College



**Alumni Association of USA East Coast Chapter**  
Est. 1971  
Federal Tax exempted Non-Profit Association

Date: September 23, 2017

Tax Exemption ID# 22-2394370

**INDIAN INSTITUTE OF ENGINEERING SCIENCE & TECHNOLOGY**  
(Formerly B.E. College)  
<https://www.beca-eastcoast.org/>

**President**

Debabrata Chaudhuri

**Vice-President**

Bhaskar Dasgupta

**General Secretary**

Moloy Nath

**Treasurer**

Himanish Kushary

**Executive Members**

Asok Chakrabarti  
Tanmoy Sanbhui  
Sudipto Ghosh  
Saibal Patra  
Auyon Chowdhury  
Amelendu Mukherjee  
Sheuli Majumdar

**Past 5 Presidents**

Dilip Bhattacharya  
Amitabha Chatterjee  
Sitansu Sinha  
Kumud Roy  
Ajay Das

Dear Alumni,

As I reflect on the past year and look forward to the future, I envisioned that our 46th summer reunion was not only a day to enjoy the nostalgia by walking through our memory lanes but was also a model to moving forward. It gives me a deep sense of satisfaction that it is not just my classmates and me driving the content and the events but your contribution and passion sparked has generated great mutual respect and expectations which made it an enormous success.

We are very proud of our alma mater. History of our institution goes back over 160 years. In the upcoming years we will do the ground work so that our institution will be perceived as one of the best in the world with similar flavor like the institution of IITs. Enthusiasm is a vital ingredient in all human endeavors. Therefore, our efforts to expand the peripheral of our institution to US companies will be beneficial to our alumni both in the USA and in India.

In an ongoing effort to provide support for our alumni leaders, their communities and programs, an online web site, a vehicle, has been developed to bring our institution in the lime light through events, programs, and interest groups that people will be excited to join in. It is with your active help that research grant in science and engineering field, developing software algorithm, summer intern scholarship and many other activities can be established for fulfilling our dreams of enhancing our vision.

At the conclusion, I want to convey my heartfelt congratulations to our sponsors, alumni, their spouses and friends for their support to our organization year after year.

Thank you.

Debu Chaudhuri

## Founding Members of BECAA

BECAA nucleus started in 1971 by a group of alumni with their better halves and family members. Through their dedication, hard work, judicious decision making capability leading to self funded of this start up and making sure everyone is involved, they started this organization. They canvass to as many Alumni as they can find month after month, inviting them to meetings. Interesting part is they did not ignore any one, they listen to everyone, treat everyone equal with respect and that is the success of BECAA.

This is an extra ordinary group of people who embraces all with open arms and whose vision and sacrifices propel BECAA prosperity.

And today we, the BECAA members salute, honor and say thank you to our Founding Members and here they are:

**Late Paresh Bhattacharjee 1947 CE**  
**Amit Banerjea 1952 CE**  
**Asish Sen Gupta 1953 CE**  
**Paritosh Ghatak 1960 CE**  
**Prabhansu Ghoshal 1964 Arch**  
**Pijush Dey 1964 Arch**  
**Shailen Bose 1949 CE**  
**Nikhil Sarkar. 1966 MET**  
**Pinaki Chakrabarty 1961 CE**  
**Monoj Guha 1963 MET**  
**Late Sunirmal Banerjee 1969 CE**  
**Late Suhas Choudhury 1957 CE**  
**Late Susanta Gupta 1953 CE**  
**Kamalendu Ganguly 1963 ME**



## Past Presidents of BECAA USA, East Coast Chapter

**Paresh Bhattacharya**  
**Amit Banerjea**  
**Susanta Gupta**  
**Ashis Sengupta**  
**Subhendu Nath**  
**Debajyoti Guha**  
**Debaprasad Shom**  
**Debi Prasad Ganguly**  
**Suhas Choudhury**  
**Paritosh K. Ghatak**  
**Dhiraj Chanda**  
**ShibaPrasad Sircar**  
**Sakti Nandi**  
**Manoj Pal**  
**Dr. Arun Deb**  
**Ajoy Das**  
**Kumud Roy**  
**Sitansu Sinha**  
**Amitabha Chatterjee**  
**Dr. Dilip Bhattacharya**

*Our Best Wishes to BECAA*

**Best Compliments From:**

**MUKHOPADHYAY FOUNDATION, INC**



**Dr. Manjula Mukhopadhyay, President  
Late Rama P. Mukhopadhyay,  
Sonny Mukhopadhyay, Vice-President  
210 Kingsland Avenue, Brooklyn, NY 11222  
Phone: (718)383-3860  
Fax: (718)349-3369**