

IMPRECISE KALEIDOSCOPE



**WELCOME TO OUR SECOND NEWSLETTER
BY FAISAL QUADER, PRESIDENT AABEA-DC**

INSIDE THIS ISSUE

NUCLEAR POWER PLANT FOR BDESH	1
CYBER SECURITY	2
TECH AND HATE	3
MD & SMALL TECH BUSINESSES	5
VISION FOR MD INFO TECH	6
ULTIMATE TIER	7
GAITHERSBURG, MD: WHAT LOCAL GOV CAN OFFER	9
WE CAN MAKE A DIFFERENCE	11
AABEA SCIENCE FAIR AND PICNIC	12
AABEA SEMINAR	13
STRENGTHENING US-BANGLADESH RELATIONS	20
EDITOR'S NOTES	22
LETTER TO THE EDITOR	24

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It has been little over 6 months since we have taken charge of this great chapter. With the help of our highly talented executive members along with all of you, we have already accomplished so much for our technical and non-technical communities.

Just to highlight the accomplishments so far, we arranged a seminar on *“Investment Opportunities in Bangladesh for NRB Investors”*. We published our very first newsletter that attracted readers around the globe. We also had couple more technical seminars –on *“Nuclear Power in Bangladesh”* and on *“Engineering Cancer Treatment with External Beam Radiation”*.

These two talks received attention from the media like Voice of America (VOA). VOA interviewed me and Dr. Saifur Rahman, the speaker on Nuclear Power.

We had our most attractive event this summer – *Science Fair for K-12 students and our annual picnic* at Black Hill Park. The entire greater Washington community enjoyed the event very much.

We have been working on two other phenomenal initiatives – one is the *AABEA Millennium Scholarship Program for graduating high school seniors* and current college students in Mathematics, Science, Engineering and Information Technology disciplines. The other one is the *AA-BEA Laptop Program*, which is a great initiative to distribute laptops to unprivileged and needy students in Bangladesh. AABEA – WDC chapter is working with another charitable organization – Forward Hope on this effort.

A couple of AABEA executives had the privilege to have a grand tour of the White House invited by a senior White House staff. AABEA executives also had a one on one discussion with the Nobel Laureate Professor Yunus on the prospects of Bangladesh.

Our upcoming celebration of *AABEA’s 25th Anniversary* and the Friends & Family Night are approaching *October 10th*. My heartiest invitation goes to each



Faisal in White House on a recent visit arranged by Ahmed Ali and his colleagues. We hope one day the President of the United States will invite the President of AABEA to consult on wide ranging issues between Bangladesh and United States that technology can offer tangible and concrete solutions.

and every one of you.

Finally, I'd like to invite all of you to enjoy reading these wonderful articles written by highly talented community leaders.

I am indeed thrilled to see the traction we are receiving from the greater Washington area. We need your support to continue with our mission, and remember, together we can achieve great things.

NUCLEAR POWER PLANT FOR BANGLADESH BY HARES M. SYED, PRESIDENT AABEA CENTRAL EXECUTIVE COMMITTEE

Over the last few years one of the most acute problems city dwellers and manufacturers of Bangladesh are facing is the severe power shortage. The erratic power supply leads to disruption to smooth production in manufacturing, agricultural, fish processing sectors as well as severe disruption of water supply. Shortage of power supply not only impeding the economy of the nation but raising an alarm on

health sector as well. Power shortage forcing traders to preserve perishables with dangerous preservatives such as, formaldehydes, which might cost extra billions of dollar in health sector and might cost millions of lives. The situation is aggravating and practically no planned action has been taken by the government to abate the situation.

Energy supply is a major problem not only for Bangladesh but throughout the Asia and other parts of the world. But other countries are managing their needs by adopting short and long term strategies considering every aspect of social and economical aspect of the country. The electricity infrastructure of Bangladesh is very old, not well maintained (**contd. P14**)

CYBER SECURITY THREATS ON A GLOBAL SCALE

BY AHMED R. ALI, CYBER SECURITY EXPERT

Today's corporations and government agencies increasingly rely on highly robust IT networks and connection with the global Internet as the backbone of their communications, sourcing, operations, and financial systems. These organizations are facing emerging cyber security threats and espionage that are a result of increasingly sophisticated methods of attacks. The convenience of global connectivity comes with major security concerns, and the responsibility of maintaining a secure computing environment must be of the utmost importance for all organizations in the effort to protect critical assets and resources. The Internet exposes the vulnerability of an organizations network infrastructure, and presents the systems to malicious actions by cyber criminals. Far too many corporate executives and senior government officials do not fully understand, or are not adequately prepared to protect their organizations against these growing dangers. Leaders sometimes fail to understand the possible risks and liability that may result from cyber attacks to their organization, and to their network infrastructure. When the risk of cyber security is not properly addressed, the stability of an organizations intellectual property, confidential information, business transactions, and financial systems can be exposed to major security risks. Effective network defensive measures are increasingly dependent upon its growing, and expanding network-centric com-

puting environment. Critical national infrastructures supporting vital areas such as transportation, power, finance, and communications are growing more dependent upon Internet-based applications. A cyber threat, could quickly shutdown any one of these critical infrastructures and potentially cripple several sectors at same time. Corporate executives, agency heads, and government leaders must pay adequate attention and provide enough resources to their Chief Information Officer (CIO), senior decision makers, and network security engineers to effectively develop a strategy in countering cyber attacks.

In today's digital age, computer network attacks are often a result of criminal hackers attempting to penetrate and break into an organizations system, for either financial gain, or for political purposes. Back in 2004, viruses and malicious software costs businesses worldwide between US\$169 billion and US\$240 billion, and the trend and rate of attacks continue to increase yearly. A country's national security could be severely threatened if these cyber hackers were to successfully gain access to sensitive computer systems. There are constant cyber attacks on networks throughout the world that do not always make it on the front pages on our media and sometimes go unnoticed. For example, in April 2007, nearly 1 million computers worldwide were reportedly used to conduct de-

nial-of-service attacks (DOS) on the Estonian government and corporate websites, and over a 3 week period, these cyber attacks swamped Estonia's computer network with so much traffic that the Estonian government was forced to shut down their network. More recently on July 4th of this year, a series of organized denial-of-service attacks were launched against various U.S. government websites, to include the White House, Federal Trade Commission, Department of Defense, National Security Agency, U.S. State Department, U.S. Secret Service, Treasury Department, the New York Stock Exchange, as well as several websites within the South Korean government. There is wide speculation that North Korea is behind these attacks, and some within the intelligence community feel that North Korea may be running a "cyber warfare unit" which has been tasked with hacking into government and military websites. Many computer hackers from China have also penetrated deeply into the information systems of U.S. government agencies and various U.S. companies, and have been successful at stealing proprietary information, and in several instances, have gained unauthorized access to electrical power plants, dams, and other critical infrastructures in the United States. For many foreign intelligence agencies, cyber warfare is now the new frontier of counterintelligence, and if these foreign agencies are successful

(continued on page 18)

"The current Obama administration understands that cyber security should be a top priority for the 21st century."



Ahmed R. Ali, is an IT Security Professional and U.S Military Veteran, and is currently the President of TISTA Science and Technology Corporation (www.tistatech.com), a company that is providing Information Assurance, Cyber Security, and Engineering expertise and solutions to various government agencies. TISTA has recently been awarded the Top 500 Veteran-Owned Businesses & the Top 500 Emerging Businesses in the United States of America, by DiversityBusiness.com.

TECHNOLOGY AND HATE: AN UNFORTUNATE PARTNERSHIP

BY AMINA MAKHDOOM , CHAIR, MONTGOMERY COUNTY COMMITTEE ON HATE/VIOLENCE (COHV)

While many of us can agree that technology has greatly improved our lives, we have also seen the negative impacts that new means of massive communication bring. Online hate is as much a part of the internet as is e-commerce. Every hate group in America has a website and many hate-mongers have their own personal blogs. After the recent tragic shooting at the Holocaust Museum in Washington D.C., much was learned about James Von Brunn through his writings on his blog. One of the growing trends in our middle and high schools is the concept of cyber bullying, using email, internet, and social websites such as Facebook to bully, intimidate, and slander other children as well as teachers and school staff. The Montgomery County Hate Crimes Coordinator, David Baker, monitors many of these websites and blogs for hate activity. While most of the activity is not punishable by law, there are times where the rhetoric crosses the line and community groups need to get involved.

An increasing number of these cyber bullying or hate groups also target religious and ethnic minorities, which can result in threats or violence against many of these groups. A recent speech at an opening seminar at the United Nations head-

quarters, addressing the area of hate in the internet age, the UN Secretary General Ban Ki-moon said "I call it digital demonization' - and we have seen it time and again targeting innocents because of their faith, their race, their ethnicity and their sexual orientation." Cyber-bullying is not only a local problem, it has also been identified as a world-wide problem. The psychological and emotional outcomes of cyber-bullying are similar to real life bullying outcomes, and these acts have significantly increased in recent years.

Fortunately, there are a number of positive forces that are also using technology to prevent the spread of hate. Morris Dees, from the Southern Poverty Law Center, has spent a considerable amount of time and money to purchase every hate-based domain name on the internet with the hope of making it harder for people to find hate groups. In addition, the Southern Poverty Law Center, through its Teaching Tolerance programs, has a program on cyber bullying for middle and high school students with guides for teachers to lead discussions in their classrooms. On a more local level, the Montgomery County Committee on Hate/Violence has worked with a number of groups including the Montgomery County Public Schools Study Circle Program, which brings together parents, teachers and students to talk about the effects of racism on stu-

dent achievement, and Conflict Resolution Center of Montgomery County (CRCMC) to create programs that make students and community members more aware of hateful speech and provide positive tools to combat hate. This includes working on tools to help students recognize cyber bullying and providing resources and processes for students to report it immediately.

The Montgomery County Committee on Hate/Violence (COHV) works for equality, understanding and respect for all people through community education, collaboration and legislation. The COHV responds to acts of hate/violence against individuals, groups or institutions. The COHV advises the Montgomery County Council, Executive and agencies about hate/violence and recommends policies and programs necessary to reduce incidents of hate/violence. As the Chair of the Committee, one of my areas of focus is reaching out to the residents of the county and gathering information on activities that are occurring and pointing County residents to resources that are available to them. Ahmed Ali, who is also a member of the committee, is focused on outreach efforts to each of the communities in Montgomery County.

(continued on page 4)

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Ms. Amina Makhdoom, Chair, Montgomery County Committee on Hate/Violence (COHV)

For more information on COHV, contact the Office of Human Rights (240) 777-8450 or visit the website:


<http://www.montgomerycountymd.gov/hmrtempl.asp?url=/content/humanrights/OnHate.asp>

TECHNOLOGY AND HATE: AN UNFORTUNATE PARTNERSHIP (CONTINUED)

One of the concerns of the COHV is the number of people who are not reporting bias incidents to the police. The COHV encourages all individuals in Montgomery County to report bias incidents committed against a person or property which is motivated in whole or part by the offender's bias against the victim's race, religion, ethnicity or national origin, sexual orientation or disability to the Montgomery County Police Department. The incident does not have to be criminal in nature to be reported. Hostile or hateful speech, fliers, letters and publications that are legally distributed, bias behaviors that do not result in damage to property are examples of non-criminal bias incidents. All bias crimes and incidents will be documented by the police department. The number of reported hate crimes and incidents has averaged 55 per year over the past 3 years.

In this world of cyber threats, cyber stalking and cyber hate, parents, communities, local and state governments, and law enforcement are working together and utilizing various innovative technologies and methods to crack down on these hateful groups and institutions. Internet communication knows no national boundaries, and it allows hate groups to more effectively spread their message and inflict harm. Hate and violence can affect any community, and awareness is sometimes the first step towards combating these groups. **-Amina Makhdoom**

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 <p>MONTGOMERY COUNTY Office of HR HUMAN RIGHTS</p>	<p>The Office of Human Rights investigates incidents of hate/violence and complaints of discrimination. Victims of hate/violence crimes can seek compensation for replacement of property through the County's Partnership Fund, administered by the Office of Human Rights.</p>
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UPCOMING EVENTS FOR AABEA WASHINGTON DC

- October 10th, 2009: AABEA's 25th Anniversary with Bangladeshi celebrities Tony Dias, Priya Dias, Tahsan, & Mithila
- 2009/2010: MULTIPLE TECHNICAL SEMINAR'S
- Acknowledging Talented High School and College Students in a Future AABEA Newsletter

MARYLAND'S PROMOTION OF SMALL TECHNOLOGY BUSINESSES BY JIM GILCHRIST, MARYLAND STATE DELEGATE

Recently I was contacted by Rockville resident and small business owner, Jonathan Walker. He owns Applied Wireless Local Area Network, Inc. (Wireless LAN) a small business located in the Rockville Innovation Center. He invited me to take a tour of the center located in Rockville's new Town Square and hear more about his company and the work being done at the Center. This began a process in which I learned much about the promotion of small technological businesses in Maryland. In particular, I learned how the State works with small businesses, federal facilities, universities, local governments and others to improve the business climate in Maryland for small businesses.

The Rockville Center's modern hallways were filled with many small technological companies working with a wide range of business plans and applied technological concepts. They share a reception area and conference rooms, are provided flexible leases, and they even receive in house legal support. The facility opened in 2007 and its 23,000 square feet are located on two different floors. Businesses in the center have the advantage or working with Montgomery County's Innovation Center Network. Montgomery County has graduated over 30 companies from their centers that have provided for over a thousand jobs.

A few weeks after my tour of the Rockville facility, I had an opportunity to visit the Germantown Innovation Cen-

ter with the new Secretary of the Department of Business and Economic Development, Christian Johansson and a collection of other Montgomery County State Legislators. This Center opened about a year after Rockville's in September 2008 and is an even larger facility of 32,000 square feet. It includes a significant amount of laboratory space and even has clean rooms available.

Jonathan's company, Wireless LAN, is working with the Maryland Technology Development Corporation (TEDCO), a Maryland University, and a federal military installation to market and develop its products. TEDCO was created by the Maryland State Legislature and the Governor in 1998 as a "body politic and corporate," with the mission "to facilitate the creation of businesses and foster their growth in all regions of the State

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Through TEDCO, the State of Maryland funds an Incubator Development Fund that matches qualified investments in incubator programs across the State. The list of centers that the Fund has supported includes a long list from around the State including facilities at John's Hopkins, Hood College in Frederick, and Prince George's County.

A study commissioned by TEDCO in 2007, when 18 statewide business centers existed, found that the most important service the incubators provided was affordable space for startup companies. This was an element agreed upon by both current users and graduates of incubators. Indeed, one of the primary obstacles for companies that have graduated from the program is finding business space. Overall, businesses either in the centers or having graduated from them directly employed about 5,300 people and indirectly supported about another 8,000 jobs. Determining true economic impact is extremely difficult, but the evidence strongly suggests that these business incubators have been a tremendous success.



Maryland's incubators are visited by economic development officials from across the country. They visit to see how Montgomery County and Maryland have built such a strong network of facilities. Continued support of these independent and governmental institutions will continue to provide Maryland with important economic benefits and promote small businesses to grow within the state.

Jim Gilchrist is a Maryland State Delegate serving on the House Ways and Means Committee. He was elected to his first term in 2006 and has previously worked at the Department of Legislative Services and History Associates Inc. among other places. Jim graduated from Grinnell College in Iowa and received an MBA from the George Washington University. He lives in Rockville.

A VISION FOR MARYLAND'S INFORMATION TECHNOLOGY FUTURE

BY SAQIB ALI, MARYLAND STATE'S REPRESENTATIVE FROM GAITHERSBURG/GERMANTOWN

State and local governments throughout the nation are facing daunting budget shortfalls due to the recession. The government of my state - Maryland - is no exception. Declining business receipts and personal income have led to lower tax revenue which in turn leads to reduction in government services. Against this backdrop, responsible government leaders should formulate strategies to position themselves for success once the recession ends. I contend that attracting and nurturing the information technology industry should be a decisive component of any such strategies.

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Amongst all industry sectors, InfoTech is perhaps the most attractive to State and local governments. This sector has a relatively low barrier to entry (no capital intensive construction of buildings is necessary), and the potential for rapid growth. They create high-paying jobs to boost the tax base. They are environmentally friendly since unlike manufacturing and agriculture, there is little harmful waste. Additionally, InfoTech jobs can often be performed remotely thus creating opportunities for workers to telecommute which itself has numerous societal benefits including reducing traffic congestion, reducing air pollution and increasing family time. The InfoTech industry also brings with it a certain amount of prestige not found amongst other industries – think about how "Silicon Valley" positively shapes your thoughts about the Bay Area.

Maryland too can offer the industry unique advantages. Our workforce is arguably the

most educated in the entire nation with the highest number of PhDs per capita and the #1 ranked public school system. Our society has a high rate of internet saturation. But most importantly, our proximity to the Federal Government means that there is an abundance of large contracts available in good times and bad. This causes the entire Washington DC Metropolitan area to be particularly resistant to recessions that cause great damage elsewhere.

In spite of Maryland's aforementioned intrinsic benefits, we must still work hard to lure new InfoTech businesses here; especially from our competitive neighbor Northern Virginia. The tax climate must be favorably perceived. Maryland already has programs to offer lucrative tax rebates for BioTechs. We need similar credits for InfoTechs and IT incubators. In 2007, a law was passed (over my ardent opposition) to mandate a 6% sales tax on computer services. This law was overturned even before it went into effect the next year. If we are to convince corporate CEOs and Presidents to locate in Maryland, they must be confident that they will not be capriciously targeted by revenue-seeking

politicians.

By fostering the IT industry, Maryland and other states will reap great rewards. But by aggressively employing IT in government the citizens will realize greater efficiency, transparency and accountability. Numerous government services are now delivered online: drivers license renewals, birth/death certificate requests, voter registration forms. This yields lower costs and a higher level of customer service. We need to accelerate this trend to "webify" government's interactions with

citizens. Many governments have now instituted public websites which provide a searchable Database listing each government expenditure over some nominal threshold (commonly referred to as "Google for Government"). Maryland's site lists any cost in-excess of \$25,000. The increased transparency allows the public unprecedented accountability and the opportunity to watchdog government. We should however, go a step further by creating a portal for citizens to actively participate in the states' legislative process. The public would be greatly served if they could log-on to see (and comment on) the proposals being considered by legislators in real-time accompanied by streaming video of their deliberations. The New York State Senate recently unveiled just such a portal to rave reviews.

Throughout the years, I have been fortunate to meet many successful Bangladeshi professionals in the local DC Metro area. Several of these professionals are successful entrepreneurs who have businesses in the InfoTech sector. In order to keep these businesses thriving in MD, the owners must feel confident that the Maryland House and Senate are doing everything they can to create a favorable business climate for them, and are striving to provide them many incentives and keeping the taxes low. Ahmed Ali, President of TISTA Science and Technology Corporation, who has an IT focused company based out of Bethesda, MD, was very helpful in providing me his input and advice when I was fighting the proposed "Tech Tax" in Maryland. The members of the House of Delegates initially voted 93 to 44 on legislation that makes up a \$200 million gap that the so-called "tech tax" was suppose to generate. Speaking with various business owners in the community, including various members of AABEA, it occurred to me that there are other ways to tackle this deficit gap, and that the Tech Tax needed to be abolished. After a tough battle in the House of Delegates, we were able to successfully thwart this

Tech Tax this bill, and were successful with coming up with other workable solutions. When I reach out to groups like AABEA and speak to their members, it helps to give me insight into a lot of the current issues or concerns that these professionals may have in the State of Maryland. The local chapter AABEA President, Mr. Faisal Quader, and people like Ahmed Ali, are always reaching out to the local politicians to provide feedback on various legislative issues, and are providing great advice, and I always look forward to speaking with as many AABEA members whenever I can. The Bangladeshi community is strong in the DC Metropolitan area, and they are involved in the things that matter to our State, and I am proud to call many of them my close friends and confidants.

The InfoTech industry is an important component in Maryland's economic future. Increasing attention to this industry will bring great benefits.

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Saqib Ali is a Maryland State Representative from Gaithersburg/Germantown. He was first elected to the Maryland General Assembly in 2006. He is the first Muslim elected official in Maryland. Saqib is a full-time software engineer with a Masters Degree in Computer Science from University of Maryland. He is married and has two young daughters.

<http://www.saqibali.org>

THE ULTIMATE TIER

BY ARIF SHAHJAHAN, DEALING WITH WORLD WIDE REFUGEES

Snazzy technology wows. But sometimes shrouded from view are people and their stories that make up our applications. I recently trekked to that human side for a better understanding of the applications that I come across every day. They make up my numbers. I deal with world-wide population of refugees. These refugees persecuted because of who they are, go through such organizations as UNHCR and International Organization for Migration (IOM) to get into our systems. We operate the Refugee Processing Center, a central body to facilitate their smooth transition from one state to another, the last state being the ultimate resettlement in the United States. Our central body oversees all the processing entities in the field that come face to face with them every day.

It's one thing to deal with the technical aspects of a project in a centrally air-conditioned location where people are mere entities, and fascinating details of their lives are just numerous attributes, it's quite another, however, to have an up close and personal look at what these entities are like and what these attributes mean. Often we design systems that are devoid of the feelings of their subjects, and the impact of their powers. People are effi-

ciently transported through the systems regardless of the emotions involved in the separation of hearts and homes. Neither the smell of the cramped quarters, nor the resignation of a man who once so dearly clung to his soil can be captured accurately in a design.

My recent venture beamed me down to Nepal. My mission: to hear stories, to isolate the subjects from mere pieces of data, to know about their origins, and to provide a face to all that seems so inanimate. Systems may be infallible and impassive, but their subjects often are not. Ebullient at the prospect, I took my hands off the systems for a few days to be an eye for all that goes into the design.

During my stay, I was stationed at Damak in Eastern Nepal. We flew from Kathmandu. Originally Nepalese, these refugees - the Lhot-sampas - are being harassed in Southern Bhutan. Their predecessors migrated to Bhutan in the 1800s for a better life. They have been there ever since, contributing to the agrarian economy of Bhutan. But over the years, they have retained their native Nepalese language and have clung to their cultural traditions and values. Never accepted into the Bhutanese society despite their contributions, they have been har-

assed, threatened, or driven out of their homes, their possessions plundered. The ethnic Druks started forcing them out in droves in 1991. I heard from the field that the women are forced to wear traditional Bhutanese outfit "kira" which is very uncomfortable in hot Southern Bhutan. Bhutanese language is being imposed on them. Nepal doesn't grant them the right to free movement and work. Local integration is possible only through marriage. Although many seek repatriation, Bhutan has not accepted any of them. My tour of the Beldangi refugee camp revealed that many refugees have been living there for as long as 18 years. Many children have grown up and gone to schools set up in the camps. Some have worked in the camps. I followed a tiny cherubic girl into her hut. She lives with her mother, aunt, and her grandfather. There was this clean bed adorned with a colorful cover on which her gaunt grandfather was seated with a blank stare, sanguine of a greener pasture. I could feel his pent-up desire to vent. They posed for photos with alacrity. I knew they were mere numbers in our systems and they belonged to a mundane case. The little girl, being shy, often tried to hide behind her mother, her eyes exuding a world of curiosity. Does she know what life



"The little girl, being shy, often tried to hide behind her mother, her eyes exuding a world of curiosity."

"Often we design systems that are devoid of the feelings of their subjects, and the impact of their powers."



Arif Shahjahan is an IT professional and is currently consulting on a U.S. State Department project dealing with world wide refugees.

THE ULTIMATE TIER (CONTINUED)

might be like outside these camps? I found warmth even in statelessness. That's all they could offer. The camp had been gutted by a bad fire few days earlier. The trail of destruction was ubiquitous, but I saw the pearls of labor in rebuilding. Many didn't know how long they would stay there. They have bet their entire lives on the efficacy of our systems. I popped into a cultural orientation training class where I realized how novel small things – that we take for granted – could be for people so deprived and indigent. They were being briefed about toilet seats and switches, the use of silverware and toilet papers, the signs and pedestrian crossings that they might one day find to be so daunting in their newfound homes in the U.S. There were pictures of celebrities without the knowledge of whom their Western lives would be incomplete. I got to sit as an observer in one of Department of Homeland Security interviews. They were two siblings who narrated their stories of abuse. Their father had been killed in Bhutan. Many jittery moments of sharp interrogation later, when the DHS official accepted their stories, the sister burst into tears. She had been a teacher in the camp.

Interestingly by the Nepalese calendar the current year is 2065. During a pre-screening session I learnt that while many have multiple dates of birth recorded, some don't have any. So, the onus is on the processors to figure out which one might be the authentic one or how to make a best guess by talking to them when there is none. They also appeared to have multiple aliases. All these needed to be checked for security. It was a revelation.

I am back now. I mull the architecture of new features of the application, one

being the conversion of their age into our systems from theirs. I contemplate more new interfaces. But I know now the most spectacular aspects of my application are those innocent people who remain mute and who don't know where they will wake up the next day. They are now "sweat and emotion", not just numbers. -Arif Shahjahan

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The Oryx Antelope against the solitude of the desert background accentuates our insignificance in the midst of increasingly intolerant and repressive technological applications. It is understood that time is relative to the motion of the individual wearing the time piece. We need not travel near the speed of light to discover this relative truth. Many parts of this globe is living testimonial of this harsh reality. The elegance of the form and function that we find in our systems architecture is of little solace to the antelope in the midst of an ever increasing wilderness always at its peril.

GETTING TO KNOW GAITHERSBURG MARYLAND: WHAT LOCAL GOVERNMENTS HAVE TO OFFER

BY RYAN SPIEGAL, GAITHERSBURG CITY COUNCIL MEMBER

When my good friend Ahmed Ali asked me to write an article for the AABEA newsletter, I jumped at the chance to share information about the successes and challenges occurring in the City of Gaithersburg – and how they overlap with the goals and interests of AABEA members. Many people wonder exactly what services local governments provide. For those who don't know, Gaithersburg is a rapidly-growing urban/suburban city of 60,000 people located in the heart of Montgomery County, Maryland, in the suburbs of Washington, D.C. We boast a strong and diverse community of educated and active residents, and our award-winning municipal services range from police to recycling to parks and recreation centers.

In 2007, I was proud to run for the City Council together with Ahmed and Carlos Solis. Our effort was a testament to our respect for diversity – a Latino, an Asian American, and a Caucasian, who happen to also be a Christian, a Muslim, and a Jew, working together and supporting each other to advance our common vision of how local government can best serve the people. While I was disappointed that Ahmed and Carlos ultimately did not join me on the City Council, I feel honored to have run with them, and to continue to work with them to pursue our collective goals.

Among our key priorities have been the continued celebration of our wonderful diversity, the fostering of goodwill among our city's communities, and the building of bridges between people of all backgrounds. I am proud of our city's Multicultural Affairs Committee, which regularly hosts enriching programs to educate the public and to mark occasions for communities of various heritages. In fact, just recently the Mayor and Council issued a proclamation designating May 2009 as "Asian Pacific American Heritage Month" in the City of Gaithersburg. In my own experiences as a community activist and a candidate for public office, I have relished the many positive experiences I've had while reaching out to the Bangladeshi community in particular.

I am committed to maintaining and expanding that spirit of multiculturalism so that Gaithersburg will be a welcoming place for people of all heritages, regardless of whether they are immigrants or U.S. born. That's why I've spearheaded the "Bank on Gaithersburg" program to develop a financial literacy and mainstream banking culture among all of our city's populations, to reduce the deleterious effect of predatory check-

cashing businesses that often prey on immigrants, and to help our vulnerable residents build wealth for the long-term and ensure stable families. It's also why the City allocates funds each year from our budget for grants to local non-profit groups that mentor our youth and provide educational opportunities for them. From the 'Brothers' program, to Liberty's Promise, to Identity, Inc., to the Ed Bohrer Memorial CHARACTER COUNTS! Scholarships. And it's why we provide grants directly to local schools for innovative programs through our Education Committee, and why we recognize success stories via our G.R.E.A.T. (Gaithersburg Recognizing Educational Achievement Today) Awards. Nothing is more important than investing in our young people. Encouraging their education while simultaneously setting an example about the importance of diversity is a great way to ensure they have a bright future.

Another of our top priorities is economic development. Because city governments in Maryland derive most of their budget from the local economy and property assessments, it's critical to do our part to spur the economic engines in our community. This is even more true in a recession. But we want to build a local economy that stands the test of time and provides the best opportunities for our working families. That's why Gaithersburg, located in the heart of Maryland's I-270 technology corridor, is a regional and national leader in biotechnology and other sciences. We are the home of the National Institute of Standards and Technology (NIST), the vaccine developer MedImmune, and many other companies and agencies that support hundreds of good technology-related jobs. We have supported the recent efforts by local hospital networks to expand their campuses and their services and the opening of local clinics. And we are working with other stakeholders to finalize the plans for a massive "Science City" located between Gaithersburg and its neighbor Rockville, in which universities and technology companies will come together in the spirit of discovery and achievement.

A centerpiece of the "Science City" will be a new Johns Hopkins University campus right on the border of Gaithersburg. Already we enjoy the benefits of the consortium of universities at the nearby Universities at Shady Grove, as well as the highly respected Montgomery College. The governor also recently announced that the Maryland Clean Energy Center - (Continued on Page 10)

"We are the home of the National Institute of Standards and Technology (NIST), the vaccine developer MedImmune, and many other companies and agencies that support hundreds of good technology-related jobs. "



Ryan Spiegel has a B.A. in Journalism from the University of Maryland College Park, and completed his J.D. from Stanford Law School. Ryan is currently an Attorney with Winston & Strawn LLP, and is also a Gaithersburg City Council member. You can learn more about Gaithersburg at: www.GaithersburgMD.gov

And more on Ryan at: www.ryanspiegel.com

GETTING TO KNOW GAITHERSBURG MARYLAND: WHAT LOCAL GOVERNMENTS HAVE TO OFFER

BY RYAN SPIEGAL, GAITHERSBURG CITY COUNCIL MEMBER

a first-of-its-kind, clean energy research and advocacy institute funded by the state – would be located next to Gaithersburg.

And lest we forget, our local public schools in Montgomery County are consistently ranked among the best in the nation. Our commitment to the great jobs in the sciences and a high quality of life has helped Gaithersburg to weather the recession better than many other cities, and our continued investment in these efforts will provide a strong economy and a strong educational system for decades to come.

“By taking the lead on green building, we are also helping to spur a whole new industry of environmental engineers and LEED-certified architects, helping the economy while we also help the planet.”

Because municipal governments work closely with and rely on the support of the county, state, and federal governments, our City Council champions our priorities by meeting regularly with officials from those other levels of government to ensure that Gaithersburg receives the help it needs. Our well-organized lobbying efforts are widely recognized as among the most effective in the state, delivering critical aid for education, transportation infrastructure, and public amenities such as recreation centers and museums, and of course, economic development. We recently lobbied to preserve an important state tax credit for biotech companies, as well as Energy Efficiency Block Grants from the federal government that will be used to audit and upgrade existing buildings to increase efficiency and help the environment.

One of the City Council's main jobs is to review and approve zoning and development projects. This often-complicated role involves the need to balance many different objectives and interests in the hope of encouraging new projects that will make Gaithersburg an even better place. Like other cities in the region, we struggle with challenges related to traffic, housing, and land use. But our innovative approach has made Gaithersburg a model for others. We view development comprehensively, connecting mass transit with housing and focusing on walkable, New Urbanist designs that promote a sense of community and reduce the impact on the environment. As part of this “Smart Growth” philosophy, we have enacted an Adequate Public Facilities Ordinance that limits development until there is sufficient infrastructure such as roads and schools. We have enacted an Affordable Housing Ordinance that sets aside 15% of all new housing units under reduced rates for “workforce housing” (police, fire fighters, teachers, etc.) and for Moderately Priced Dwelling Units

“And I salute all the good work of AABEA in providing educational, networking, and community service opportunities. Working together, local governments and groups like the AABEA can truly make a difference.”

(MPDUs) for those who earn significantly less than median income. The mark of a civil society is how it treats the less fortunate, and Gaithersburg is committed to generating opportunities and providing robust support services for those in need. Our renowned Wells-Robertson House for the homeless is another example of that commitment.

And finally, we have also enacted a ground-breaking Green Building Code that requires all new buildings, both residential and commercial, to be certified under the LEED environmental standards issued by the U.S. Green Building Council. By taking the lead on green building, we are also helping to spur a whole new industry of environmental engineers and LEED-certified architects, helping the economy while we also help the planet. This high standard applies to government-owned buildings too, and we have recently built two “green” youth centers complete with geothermal heating systems and recycled flooring. Our new youth centers also contain state-of-the-art computer labs and a video/audio studio for young people to use. Our vehicle fleet is also comprised of hybrid vehicles, and our broad single-stream recycling program includes more materials than ever before, allowing our residents to recycle a large portion of their waste.

Gaithersburg has also undertaken a massive effort to have more accessibility and transparency in government. While revised personnel codes and ethics laws are an important part of the equation, we have acknowledged that better technology is key. That's why we are upgrading our server capacity, redesigning our website, growing our mobile device alert system, building a new public television studio, installing free wifi in government buildings, and placing campaign finance data and other useful information online.

As you can see, Gaithersburg is a dynamic city on the cutting edge of technology, education, diversity, and environmentalism. Our promotion of multiculturalism and the sciences makes us a perfect place to highlight in the AABEA newsletter. We would love to hear from you about ways in which we can do even better, and opportunities to collaborate as we strive to serve our communities, be a resource for the public, and maintain Gaithersburg's status as a great place to live, work, learn, play, and raise a family. And I salute all the good work of AABEA in providing educational, networking, and community service opportunities. Working together, local governments and groups like the AABEA can truly make a difference.

Please do not hesitate to contact me, and thanks again to my friend Ahmed Ali for inviting me to contribute to this wonderful newsletter.*
* * * *

Ryan Spiegel is a Gaithersburg City Council member. You can learn more about Gaithersburg at www.GaithersburgMD.gov

WE CAN EACH MAKE A DIFFERENCE

BY CHERYL C. KAGAN, MEMBER OF MARYLAND HOUSE OF DELEGATES

29 years ago, I walked in off the street as a volunteer into Senator Ted Kennedy's national presidential campaign headquarters. That first day, they had me photocopying contributions and doing other menial tasks. By the end of the summer, I was paid staff, working with some of the national leadership on the campaign. I was able to get access to the Democratic National Convention floor when Sen. Kennedy gave his memorable speech to the country. I had worked on interesting projects with fascinating people. Although I was still in college, I was totally hooked.

In politics, as in life, we can each make a difference. It takes the willingness to risk; the ability to express oneself with respect and clarity; and relationships with people who will keep an open mind and listen to your perspective.

Throughout my career at the federal, state, and local level, I have been lucky to have worked with many brilliant people. They had great ideas and the credentials to make the case for their views. They just didn't feel empowered to step up and make the change. Either they weren't confident of their English language skills or didn't feel connected to the elected officials who represented them. That reticence means that policymakers make decisions without the insights of the experts!

Let me offer just one example from my tenure in the House of Delegates. It was after the debacle of the presidential election of 2000, when the Florida ballots were recounted and there was debate about the so-called "butterfly ballot." Our Governor and other senior leadership were convinced that Maryland should shift to electronic voting machines. At that

time, there were many questions about these new devices. Unfortunately, there was not much expertise available to legislators. I rose on the House Floor to raise objections to the need for new machines, the cost to the taxpayer, and the security of the systems. I came within just SIX votes of killing the bill. Ultimately, we had to scrap those machines and return to the system that most jurisdictions were already using. That wasted over \$100 million dollars in taxpayer money! Can you imagine how much different the outcome might have been if there had been engineers, software security experts, or others with more technology expertise than I'd had? A coalition of experts from the field and policymakers could have saved money while also ensuring continued faith in our voting systems.

Perhaps you see how your expertise can improve government decision-making. How can you amplify your voice? I'd suggest that starting at the local level is the easiest. Because the size of the electorate is smaller, your participation can have the biggest impact. Ahmed Ali had it just right: by starting with a race for Gaithersburg City Council (population approximately 60,000). Even the winning candidates attracted fewer than 3,000 votes each! This means that your role as a donor, a volunteer, a voter... or a candidate... is greatly magnified.

When I was first elected to the Maryland House of Delegates in 1994, there were 9 other candidates in the field. I knew that I'd have to work hard, raise a significant amount of money, recruit a bunch of dedicated volunteers, and have a presence at all major community events. Luckily, I was able to do that, and I won my very first

race. Even 15 years later, I recall those earliest donors and volunteers.

I am now running for the State Senate in that same district. Once again, it will be a fairly modest but dedicated core of people who will make the bulk of the difference as to whether I will win. A donor doesn't have to be especially wealthy or a volunteer doesn't have to give unlimited amount of their time to be a key player in my campaign team. They need to be reliable, trustworthy, and enthusiastic. If you offer to host a small event at your home or business, make sure the expectations are clear. How many people and/or how much money do you realistically expect to gather? If you have issue expertise, can you transfer that at a more elementary level that the candidate and his/her constituents will be able to understand? If you have contacts, are they in her/his district or voting area?

Montgomery County (and especially Legislative District 17 comprised of Rockville, Gaithersburg, and Garrett Park) is one of the most important areas for technology in the United States. We need leaders who understand the community, and the community must have relationships with policymakers, and if communication does not exist, both sides suffer.

Politics and legislation is exciting and completely relevant to every aspect of our lives. Any individual or community that vows "I don't like politics" risks having candidates elected that can do significant damage to your interests. Step Up, Speak Out, Volunteer, Donate, and Vote!

-Cheryl Kagan

"Our Governor and other senior leadership were convinced that Maryland should shift to electronic voting machines."



Cheryl C. Kagan, an 8 year former member of the Maryland House of Delegates, is a candidate for the State Senate. More information can be found at: www.CherylKagan.org.

AABEA PICNIC AND SCIENCE FAIR JUNE 2009

AABEA's Annual Science Fair and Picnic

When is the last time a kid had fun while learning? Sunday June 28th at AABEA's annual science fair and picnic, of course!

The event was a great success thanks to those who attended! The science fair participants and their projects were showcased in the morning as the judges made their way around the tables asking questions and deliberating over winning project ideas. Lunch hour led right into the fun and games. There were a variety of games hosted by AABEA's own Mahfuzur Rahman. He organized a schedule of games, AABEA Olympics of sorts, to engage all ages, from toddler to adult. Last, but certainly not least, was the awards ceremony for the science fair participants and the winners of the games.

Congratulations to the science fair winners! Special thanks to the judges and the many volunteers!

Judges

Dr. Mohammad Arozullah
(Head Judge)
Mr. Hares Syed
Mr. Anwar Zaman
Ms. Rehana Perveen
Mr. Jahangir Alam
Ms. Sharon Jasim-Hanif
Mr. Kaikobad Chowdury
Mr. Mohammad Quamrul

Group I

Kindergarten to Grade 4
Fiza Juned Shaikh - 1st
Jerin Alam - 2nd
Anonto Zaman - 3rd
Zarifa Ali

Group II - Grades 5 to 8

Syed Saquib - 1st
Faiza Ali - 2nd
Samiha Islam - 3rd
Navid Chowdhury
Romeo Baker
Labonno Zaman

Group III - Grades 9 to 12

Rezwan Aziz - 1st
Jannatul Ferdous - 2nd



AABEA SEMINAR: PICTURES



“Nuclear Power in Bangladesh” and “Engineering Cancer Treatment with External Beam Radiation”.



AABEA held several very successful seminars on a varied set of topics ranging from investment, medical and nuclear technology.



NUCLEAR POWERPLANT FOR BANGLADESH (CONTINUED FROM PAGE 1)

and running under budget shortfall.

The country is generating only about 3500 MW electricity where the estimated demand is over 4200 MW and increasing. To meet the economical challenge and face the global economic recession, it is essential to increase the power generation by at least 10% every year over the projected demand. This will not only help to improve the life style but it will also motivate foreign investments for a bigger profitability at this new juncture of global economy. When labor cost is rising in China, Vietnam, Malaysia and Indonesia the foreign investors are looking ways to move their business elsewhere and Bangladesh can be a perfect destination for them. Therefore, it is the golden opportunity for Bangladesh to strengthen its economic backbone. Ample power supply can help to meet that goal.

On May 13, 2009 it was announced that Bangladesh signed a Memorandum of Understanding (MOU) with Russia to develop a 1000 MW nuclear power plant to ease its energy shortage. According to information available it will cost about \$2.0 billion and will go for operation in 2014. It shows that the present Bangladesh administration is taking keen interest in this vital sector. American Association of Bangladeshi Engineers and Architects, Inc., (AABEA) always played a vocal role for improving power sector for the sake of economical development of Bangladesh and arranged many seminars both in the United States and send its highly qualified members to present papers in seminars arranged by Bangladesh government and other organizations. Therefore, AABEA Washington DC chapter arranged a Technical Seminar on May 31, 2009 on nuclear power issue for Bangladesh to have a closer look from technical aspect of the project. The seminar was presented by Dr. Saifur Rahman an expert and leading figure on global energy issue in USA. The seminar was well received and Dr. Rahman and AABEA Washington DC chapter president Faisal Quader were interviewed and subsequently aired by Voice of America.

In addition, AABEA took the initiatives to re-

view the pros and cons of construction and operation of a nuclear power plant in Bangladesh. Although AABEA would like to look forward for advanced technologies, but again recommends to have a closer look on every aspects of nuclear technology before taking such a huge step.

AABEA extensively conducted research on installation and operation of various nuclear plants throughout the world. Although its investigations were restricted on public records only, but still, these findings provide enough information for a sound decision making process. AABEA research mainly focused on **technical feasibility** of installation and operation of a nuclear power plant in Bangladesh, overall **geopolitical influence**, and **cost benefit aspect** of such plant on sustainable power generation in Bangladesh. AABEA sincerely believes that these issues must be considered before taking such a huge project for one of the poorest and most densely populated country of the world.

Technical Aspect

Regulatory Aspect of Nuclear Power Plant Construction and Operation:

To build and operate a nuclear power plant it is essential to have a sound and proven regulatory framework. This framework shall include construction permit and design review process; construction permit issuance system; construction inspection and quality control system; safety analysis and overall standard operating procedures for plant operation. Nuclear power plant will be a new concept for Bangladesh and it lacks a regulatory wing for its construction and operation. Moreover, a separate high powered body needs to be in place to meet the reporting requirements imposed by International bodies. Bangladesh needs to build such regulatory infrastructure, which will be very time consuming and expensive.

Manpower Resources for Nuclear Power Plant:

Based on a recent study on nuclear power

plants Operation and Maintenance (O&M) 67% of the total reported O&M costs are labor related. The remaining components are maintenance materials and supplies and accounted for 33% of total O&M. Bangladesh does not have adequate trained manpower to operate nuclear power plants. At least for a minimum of 5 years (assuming by this time Bangladeshi will be fully trained to operate and maintain the plant independently) Bangladesh will depend on foreign consultants and it will cost a lot of money. In addition retention of trained workforce is also an important issue due to low salary structure in Bangladesh.

AABEA research mainly focused on technical feasibility of installation and operation of a nuclear power plant in Bangladesh, overall geopolitical influence, and cost benefit aspect of such plant on sustainable power generation in Bangladesh.

Security:

The largest headache of operating a nuclear power plant is its security standards to protect and safeguard both plant and nuclear material. Initially it was considered for radiological accident but after the 9/11 International Atomic Energy Agency (IAEA) imposed sever stringent standards to carefully guard against both attempted sabotage and possible theft of nuclear material. This might require periodic visits by IAEC Inspectors and the plant owner must carry all their costs. In addition, Bangladesh will be subject to inspection by IAEA personnel with full access to national security data anytime they feel necessary.

Any effort to construct a new nuclear facility around the world, whether an existing design or an experimental future design, must deal with NIMBY (Not In My Back Yard) objections. Because of the high profiles Three Mile Island accident and Chernobyl

NUCLEAR POWERPLANT FOR BANGLADESH (CONTINUED)

disaster, relatively very few localities will welcome a new nuclear reactor, processing plant, transportation route, or nuclear burial ground within their borders. Country like Bangladesh, where the population density is very high, trained workers is a huge shortage, no adequate emergency response program is available to meet the emergency during any type of accident, to install and operate a nuclear power plant government must deal with these issues simultaneously. These are not only expensive but also can not be developed overnight.

Spent Fuel Issue:

High level Nuclear waste (with half life of 10,000 years or more) generated by a power plant amounts to 0.006 lbs/MWh. The proposed nuclear power plant is 1000 MWe in capacity and if operates 91% of the time, waste production would be 45,758 lbs./annum or slightly less than 23 tons. On the other hand a coal fired plant of similar generation capacity will produce about 300,000 tons of ash (assuming 10% ash content in coal). Therefore, the solid waste from a nuclear power plant is not the volume issue, but it required special handling for satisfactory disposal.

To handle spent fuel, Bangladesh must develop necessary regulatory requirements and carry necessary Insurance policies to satisfy International Atomic Energy Agency (IAEA) guidelines. The Vienna Convention on Civil Liability for Nuclear Damage and the Paris Convention on Third Party Liability in the Field of Nuclear Energy put two similar international frameworks for nuclear liability must also be considered.

For smooth operation of the reactor every 18 to 24 months about 30% of the spent fuel must be taken out and replaced with fresh enriched fuel. In normal procedure, these fuels are reprocessed for reuse. It is assumed that Bangladesh will not have the ability to quell the international community's outcry to install and operate uranium enrich-

ment plant. Therefore, these spent fuels must be transported to the country of origin for reprocessing. This is a very sensitive matter and would require to develop manifest meeting all security and safety requirements imposed by International bodies. This option alone will increase the operating cost significantly in compare to developed countries.

In addition, Bangladesh must follow all standard guidelines and legal framework established by the International Atomic Energy Agency (IAEA). A brief discussion on IAEA role is necessary to understand the complexity of implementation a nuclear program.

To handle spent fuel, Bangladesh must develop necessary regulatory requirements and carry necessary Insurance policies to satisfy International Atomic Energy Agency (IAEA) guidelines.

Geopolitical Aspect

IAEA: National and International Legal Framework:

A wide range of legislation is expected to be in place in a State that has decided to implement nuclear power, the key elements of such legislation being nuclear safety, security, safeguards and liability for nuclear damage. The underlying commercial and industrial framework also needs to be considered when developing the corresponding legislation.

International instruments for Member States to consider adopting prior to beginning a nuclear power project include:

- Comprehensive Safeguards Agreement pursuant to INFCIRC/153
- Additional Protocol pursuant to INFCIRC/540 (Corr.)
- Convention on Early Notification of a Nuclear Accident
- Convention on Assistance in the Case of

a Nuclear Accident or Radiological Emergency

- Convention on Nuclear Safety
- Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, reproduced in document NFCIRC/546
- Convention on Physical Protection of Nuclear Material, and Amendment
- Vienna Convention on Civil Liability for Nuclear Damage
- Joint Protocol Relating to the Application of the Vienna Convention and the Paris Convention, reproduced in document INFCIRC/402
- Protocol to Amend the 1963 Vienna Convention on Civil Liability for Nuclear Damage and Convention on Supplementary Compensation for Nuclear Damage
- Revised Supplementary Agreement Concerning the Provision of Technical Assistance by the IAEA

To meet these minimum requirements Bangladesh will fall under tremendous pressure both politically and financially.

The IAEA provides assistance to its member countries who have decided to introduce nuclear power. This assistance includes support both during the construction and operational stage. But the member state must demonstrate that it has established the essential elements of a national framework.

After 9/11 the safety issue of nuclear power plant become a significant headache of world community and therefore, IAEA has broadened its oversight too inspect any or all facilities in any country of the world. Member country operating a nuclear plant must submit its report periodically to IAEA and in turn IAEA will inspect and monitor these facilities whenever it feels necessary. These types of inspection should be carried out at the expense of host country. These inspections are very rigorous, and many countries do not want to meet these over-

NUCLEAR POWERPLANT FOR BANGLADESH (CONTINUED)

sight requirements by compromising national security issue, especially the Additional Protocol issue which is very intrusive and in the opinion of some experts it violates the privacy issues of engineers and technologists working in the power plant.

The IAEA became so dominant force that it became an extra headache for many countries currently in the process of developing nuclear powers as we have seen for Pakistan, Iran, Iraq, South Korea to name a few.

Financial Aspect

Construction Cost:

Bangladesh is a very poor country and cannot afford any uncontrolled cost overrun. This type of cost overrun can ruin government's other development plans or put the plant construction on hold. In both cases it will ruin the economy of the country. Our step should be reviewed from all aspect of cost components. It needs to review the total cost component of the project. Is

To meet these minimum requirements Bangladesh will fall under tremendous pressure both politically and financially.

\$2.00 billion considered the total cost, such as power reactor, cooling plant, permit processing, etc.? It should be reviewed.

For smooth power generation and supply we need proper infrastructure, including power generation sources and distribution systems. We also need to review all other important aspects of installation and operation of nuclear power plants. At its inception of nuclear technology, nuclear power had indisputable advantage over other conventional forms of power generation: low cost. Today, however, it has changed significantly. Even proponents of nuclear power energy are beginning to question its economic practicality. From early 1980s nuclear power has lost its eco-

nomically competitiveness over other form of energy in USA.

In the United States, the capital costs of constructing new nuclear power plants have skyrocketed since the early 1970's. In 1971, a kilowatt of nuclear-generated electricity could be put into operation for \$388. In 2008, the same kilowatt cost \$8,000.00. The reason for this trend is the result of many factors and variables.

The dominant issue for this higher cost is contributed from the time it takes for construction. It is very hard to predict how long it will take to complete the construction. In eastern European countries, the average construction time of a nuclear power plant is about 6 to 7 years, whereas, in the United States, where the regulatory regimen is very tight, it takes as long as a decade to complete the construction.

Since it is hard to predict, how much it will cost and how much time will it take to complete the construction of a nuclear power plant, lenders are very cautious to finance nuclear power plant projects. Moreover risk analysis is another factor considered by lending industry. Therefore, the interest rate is very high in compare with funding of any other types of project.

How much does it cost to build a nuclear plant can only be guesstimated. Review of information suggests that in most cases during the contract phase utility companies signed their contracts with their over night estimates, for about \$1,200.00 to \$1,400.00 per kW of power generation. But analysis showed that in most cases the construction costs ended up about \$7,000.00 to \$8,000.00 per kW including financing costs. The construction cost overrun is so intense that several utility companies in USA abandoned the construction of nuclear power plants after investing several billions dollars.

Here are some real price data for pressurized water reactors nuclear power plants in the United States:

- February 2008 – The Florida Power & Light calculated overnight capital cost from

\$2444 to \$3582 per kW for two new AP1000 reactors at its Turkey Point site. Adding all other associated costs such as costs for cooling towers, site works, land acquisition, transmission and risk management the total costs stands at \$3108 to \$4540 per kW. Adding in finance charges the overall figures stands at \$5780 to \$8071 per kW.

- March 2008 – The Florida Progress Energy announced that their proposed two 1000 MW new power plants would cost a total \$9.4 billion, including land, plant components, cooling towers, license application, regulatory fees, initial fuel for two units, owner's costs, insurance and taxes. Adding the finance charge and contingencies the final price tag will be \$14 billion.
- November 2008 – For two new AP1000 reactors at its Bellefonte site TVA updated its estimates for overnight capital cost estimates ranged to \$2516 to \$4649/kW for a combined construction cost of \$5.6 to 10.4 billion (total costs of \$9.9 to \$17.5 billion).
- On April 9, 2008, Georgia Power Company reached a contract agreement for two AP1000 reactors to be built at Vogtle at an estimated final cost of \$14 billions.

Therefore, it is essential to review the proposed construction cost of Russian plant for Bangladesh from a total perspective.

Operating Cost:

It was known for years that nuclear power plants are very expensive to construct but very inexpensive to operate. Theoretically nuclear power plants are expected to operate until the failure of their life-limiting components, such as reactor vessel or containment, which are designed for 50 to 60 years life span, therefore, there operating costs are predictable and should be low. It has been observed that in many cases this prediction is not true in all cases. In USA over the past few years 3 nuclear power plants with ages between 17 to 31 years were retired since the capital expenditures to replace plants dysfunctional components

NUCLEAR POWERPLANT FOR BANGLADESH (CONTINUED)

were uneconomical. Theoretically, these components should have life expectancy equal to designed plant life.

The operating cost of a nuclear power plants depend on type of plants, their efficiencies, plant sizes and so on. Company's that operate the USA's nuclear power reactors have made excellent profits over the years. Since 1987 the cost of producing electricity from nuclear power plant has decreased from 3.63 cents per kW-hr to 1.68 cents per kW-hour in 2004 and decreasing due to *consolidation of management approach*, since each operator manage several plants at a single time, thus major cost component, which is labor cost has been decreased significantly.

As mentioned earlier the major component of O&M costs are labor related (about 67%). Bangladesh does not have adequate trained manpower to operate nuclear power plants nor is planning to construct multiple power stations to take the advantage of consolidated management approach. Therefore, operating cost can be predicted as high.

Miscellaneous Cost Components

Insurance Cost:

Insurance for nuclear or radiological incidents is another important aspect of operating costs. This cost varies based on experience and acceptability of the design group, the builder's experience, operators experience, population density at the vicinity of the plant and adopted emergency response program. Therefore, for a nuclear power plant, Bangladesh must buy proper coverage of insurance from a reputable surety company to satisfy IAEA.

In USA the insurance coverage is governed by the Price-Anderson Nuclear Industries Indemnity Act. In general, nuclear power plants have private insurance and assessments that are pooled into a fund currently worth about \$10 billion. Insurance claims beyond the fund's size would be organized and paid by the U.S. government.

Decommissioning Cost:

At the end of a nuclear plant's lifetime, the plant must be decommissioned. This entails Dismantling, Safe Storage or Entombment. In the United States, the Nuclear Regulatory Commission (NRC) requires plants to finish the process within 60 years of closing. Since it may cost \$300 million or more to shut down and decommission a plant, the NRC requires plant owners to set aside money when the plant is still operating to pay for the future shutdown costs.

Generation Cost per kW-hr:

The final question is how much it costs to generate a kW-hr of electricity from a nuclear power plant? Unless there is no other alternatives, for any country generation cost this is the driving force for the decision making process. Factoring in all these issues, various groups have attempted to calculate a true economic cost for electricity generated by the most modern designs proposed. Because if an actual cost per kW-hr can be calculated, then it is possible to compare it to other power sources to determine if such an investment is economically sound.

To determine the generation cost per kW-hr, it is essential to know the total construction cost, Finance charges, design life of the project, power generation capacity, estimated downtime, total operating cost, capital improvement cost, and miscellaneous costs—costs associated with insurance, decommissioning and so on.

In 2003, the Massachusetts Institute of Technology (MIT) issued a report entitled, "The Future of Nuclear Power". They estimated that new nuclear power in the US would cost 6.7 cents per kW-hr. The lifetime cost of new generating capacity in the United States was estimated in 2006 by the U.S. government. Nuclear power was estimated at 5.93 cents per kW-hr. However, the "total overnight cost" for new nuclear plant was assumed to be \$1,984 per kWe — as seen above in Capital Costs, this figure is subject to debate. In 2009, MIT updated its 2003 study, conclud-

ing that inflation and rising construction costs had increased the overnight cost of nuclear power plants to about \$4,000/kWe, and thus increased the power cost to 8.4¢/ kW-hr. Note that in all above studies, they considered the life time as 50 to 60 years. In the event the life time of the plant reduces to 17 to 34 year, as happened in several cases mentioned above, and if due to poor maintenance the capital improvement cost increases, the production cost becomes significantly higher.



Hares M Sayed is a Certified Public Manager (CPM) and earned his Masters in Civil Engineering from former Soviet Union in 1981. He earned his second Master in Environmental Engineering from George Washington University, USA in 1992 and presently working for the District of Columbia Government. He is the current President of the Central Executive Committee of AABEA. He also served as AABEA, Washington DC Chapter President for 2001-2002 term.

He authored several publications in national journals. His research findings were published as the proceeding of International Conference on Innovative Technologies. Mr. Sayed also authored the Technical Manual - *Protecting Building Utilities From Flood Damage: Principles and Practices for the Design and Construction of Flood Resistant Utility Systems*, Federal Emergency Management Agency, Washington, DC, November 1999.

He lives in Maryland, married and has two children.

CYBER SECURITY THREATS ON A GLOBAL SCALE (CONTINUED)

(continued from page 2)

in their penetration efforts, they could cause grave national security concerns for any nation.

The U.S. Homeland Security Department (DHS) is responsible for protecting civilian computer systems in the United States. DHS itself has been a victim of cyber warfare when during a two-year period in 2005, suffered over 800 attacks on their network. These penetrations were in an effort to steal sensitive information from their unclassified and sensitive network systems, and any successful breaches of security could have potentially compromised U.S. strategy or ongoing sensitive operations. In order to address these vulnerabilities and better protect the U.S. network systems from cyber attacks, DHS stood up the National Cyber Security Division (NCSA) back in 2004. In January 2, 2008, the National Security Presidential Directive 54/Homeland Security Presidential Directive 23 was issued, which formally established the Comprehensive National Cybersecurity Initiative (CNCI). The role of CNCI is to formalize a series of continuous efforts to further safeguard the U.S. federal government systems from cyber threats and attacks. The U.S. military is also taking strong measures to defend itself against cyber crime and cyber terrorism. Within the last year, the Pentagon spent in excess of \$100 million in repairing damage and responding to cyber attacks on their networks. The Pentagon is probed and scanned by external threats and vulnerabilities millions of times a day, and the Department of Defense has implemented sweeping measures and has spent a significant amount of money to defend its sensitive networks. Recently in June 2009, the U.S. Defense Secretary Robert Gates issued an order establishing the U.S. Cyber Command, which will assume responsibility for the defense of the military's portion of cyberspace. This new Cyber Command will be a unit under the U.S. Strategic Command, and this unit will be commanded by the Director of the National Security Agency (NSA). Even though NSA has some of the greatest repository of cyber talent and information assurance expertise in the world, many civilian government and DoD agencies are now working together closely to tackle this ever growing threat. The Air Force is also for example is setting up a Cyberspace Command, because they understand that the next potential war may most likely be fought in the electromagnetic spectrum, where hackers could use computers, destructive programs, and malicious software as the new military weapons of choice.

The current Obama administration understands that cyber security should be a top priority for the 21st century. Several of the initiatives that the current Administration is outlining for protecting the nations security, include implementing a six-step plan to safe-

guarding information networks, initiating increased research and development efforts, and increasing collaboration with the private sector to establish new standards and stronger security guidelines. In July of 2008, at a speech at Purdue University, President Obama outlined a plan to improve cyber security, and said "I'll declare our cyber-infrastructure a strategic asset and appoint a National Cyber Advisor who will report directly to me." When the new Cyber Security Czar is appointed, he or she will be responsible for coordinating with all federal agencies and tasked with developing a national cyber security policy and strategy. Even England is launching its first national cyber security strategy, and has pledged to toughen cyber security initiatives to protect the 50 billion pounds spent a year online in its economy. Prime Minister Gordon Brown recently acknowledged that England had to secure cyberspace, and said "as in the 19th century we had to secure the seas for our national safety and prosperity and in the 20th century we had to secure the air." The United States and England is on the leading edge of combating cyber security threats, and many countries such as Bangladesh could learn a lot of valuable lessons from these countries, and make efforts to implement advanced technologies and stronger security measures on their corporate and government networks, and critical infrastructures.

Historically, Bangladesh has had outdated policies and practices when it came to the implementing effective Information Technology and systems throughout the nation. The majority of the Bangladeshi population is still not connected to the Internet, and many companies and government organizations still have outdated equipment and lack strong IT security measures and expertise. Several reasons why Internet communication is scarce in Bangladesh is due to costs, weather, a shortage of electricity in many areas, and the lack of computers and technology in the workplaces. If the government of Bangladesh were to invest more in advanced Information Technologies, and follow IT & security principles and guidelines of many countries like the US and England, it would be able to minimize any potential attacks on its critical infrastructures, such as transportation, telecommunications, power distribution, financial services, and in public utility services. A few of the areas that the Bangladeshi government may look into further focusing on is how to implement Public Key Infrastructure (PKI), Personal Identification Verification (PIV) cards, Common Access Cards (CAC), Wireless Security, Biometrics solutions, advanced network security tools, etc., into their facilities and computer networks.

(continued on page 19)

Cyber attacks needs to be considered not only as a threat to corporate or government entities, but as a serious national security concern that needs to be handled with military precision and agility.

CYBER SECURITY THREATS ON A GLOBAL SCALE (CONTINUED)

According to Prime Minister Sheikh Hasina earlier this year, Bangladesh plans to train 10,000 programmers a year by introducing compulsory Information Technology education at the high school level by 2013, and for the primary students by 2021. If equal or more emphasis were placed by the government and educational institutions on training these students on the principles of network security, computer & systems engineering, and how to tackle cyber security attacks, the industry would be well prepared to hire qualified IT security professionals that could in turn be a significant asset to government institutions and to corporations throughout Bangladesh. In addition, the Bangladeshi government should consider investing heavily in new computer & IT related technologies for the Bangladesh Armed Forces. The various branches of the Bangladesh military have the right level of training, discipline, and determination to become the resident experts in the field of Information Assurance and Cyber Security if the government were to provide them the necessary tools and funding to achieve this specific goal. Earlier this year, Prime Minister Sheikh Hasina's government also indicated that it needs to strengthen the country's defense system. Strengthening a country's defense system means more than just purchasing weaponry, aircraft, tanks, ships, etc...it means investing wisely in the critical computer and network assets for the Armed Forces, and providing them with advanced modern computer related technologies in order for them to carry out their important missions. Cyber attacks needs to be considered not only as a threat to corporate or government entities, but as a serious national security concern that needs to be handled with military precision and agility. The Bangladeshi military's modernization plan and focus should continue to envision developing capabilities to defend & defeat any threat to its national security and territorial integrity against internal & external attacks, whether it be from foreign forces or terrorists equipped with sophisticated tactics and weapons, or whether it be from cy-

ber terrorists who are set out to do significant harm to the nation.

There are many resources available in the United States that Bangladesh could use educate and train its up and coming IT/Computer Science professionals and engineers. The United States Computer Emergency Readiness Team (US-CERT), who is charged with providing response support and defense against cyber attacks and information sharing and collaboration with state, government, industry and international partners, is an excellent resource on how to address various security threats. The National Institute of Standards and Technology (NIST), has a computer security resource center that provides various online publications on how to address computer security incidents, and how to harden IT systems. The NIST Special Publication 800 series provides extensive research and guidelines in computer security, and these publications were mostly written based on collaborative activities with industry, government, and academic organizations. The Defense Information Systems Agency (DISA) has an online Information Assurance Support Environment resource, which is an Information Assurance portal that provides vast information on how the DoD responds to unauthorized activity within its information systems and computer networks, and includes many high level guidance documents and guidelines. There are many other resources such as the Computer Security Institute (CSI), the SANS Institute, the Department of Homeland Security Cyber Security Research and Development Center, etc...which have a great deal of information and resources that are available to IT and Engineering professionals.

Cyber system attacks overall are rapidly increasing and becoming more sophisticated. The lack of effective information security practices and the rise in cyber warfare has the potential of causing widespread harm and major disruptions to many governments and corporations throughout the world. **(continued on page 20)**

Organizations will need to focus on the research

Prime Minister Gordon Brown recently acknowledged that England had to secure cyberspace, and said "as in the 19th century we had to secure the seas for our national safety and prosperity and in the 20th century we had to secure the air."



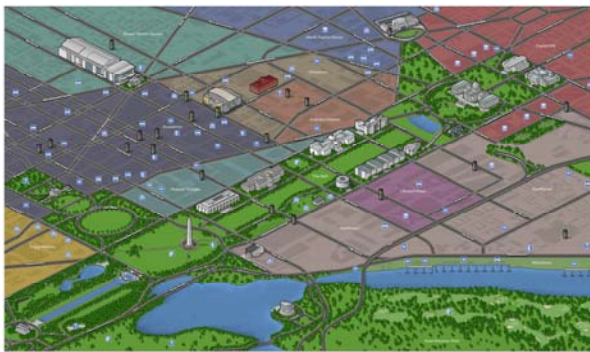
The cyber security threats and corresponding responses are increasingly becoming more sophisticated and consequential. It impacts our financial sectors, medical records and national defense. Combating this type of weapon requires awareness, specialized skills, detection and threat removal systems and applications coupled with counter intelligence on each type of possible threat.

CYBER SECURITY THREATS ON A GLOBAL SCALE (CONTINUED)

and development of new tools, standards, and verification and validation techniques. IT professionals and economists believe that one of the biggest threats from cyber attacks could also be economic. If an attacker is successful at shutting down an electrical grid in any region in the world for several days, then a significant percentage of all economic activity in that region would be severely affected. Cyber attackers pose a grave danger and threat not only to the national security of a country, but to the global economy. The increase in cyber related threats worldwide establishes a new pattern of sophisticated dangerous behavior, and this trend could potentially mark the beginning of the face of digital warfare in our technology driven world. Any nation that intends to be a serious player in the digital age and intends to advance in this arena must make the necessary investments to train, educate, and build highly secure networks to protect its nation's infrastructure and assets. -

Ahmed R. Ali

The various branches of the Bangladesh military have the right level of training, discipline, and determination to become the resident experts in the field of Information Assurance and Cyber Security if the government were to provide them the necessary tools and funding to achieve this specific goal.



The cyber security policies being made today around the National Mall will reverberate across the world within just a few short years. Countries actively dealing with the digital age will ultimately be in a position to serve its citizens better.

STRENGTHENING US-BANGLADESH RELATIONS: HOW CAN YOU HELP?

BY NADIA AFRIN, DRISHTIPAT DC

Bangladeshis and Bangladeshi-Americans in the U.S. can play a big role in supporting mutually beneficial political and economic ties between Bangladesh and the U.S. Here are some ways YOU can help:

- Talk/write to your Congressman and other policy-makers
- Write about Bangladeshi issues in local and national newspapers in the U.S.
- Organize meetings, workshops, rallies to raise awareness
- Form an interest group - join with others who feel strongly about issues relating to U.S.-Bangladesh relations so that you can work together to achieve common goals
- Do a petition or campaign in your local community

Here are some issues that are of particular importance to Bangladesh:

Climate Change

- The lives and livelihoods of around 70 million people in Bangladesh are vulnerable to climate change and the resulting extreme weather conditions. The Bangladesh government has conducted a series of local and regional consultations, and has developed a National Action Plan for Adaptation (NAPA). In addition, it has set up a US\$ 45 million trust fund to address climate change in all ministries, with the additional intention to include a budget for climate change each year. The U.S. should support the initiatives identified in NAPA and incorporate the adaptation strategies in its aid programs.
- Bangladesh can serve as a test bed for technologies to help vulnerable communities cope with the consequences of climate change (including early warning systems, rain harvesting technology, water desalination techniques, weather-resistant varieties of crops, etc). In addition, the U.S. and Bangladesh can work together to develop low-carbon sources of energy (safer nuclear energy, wind, solar and geothermal power).
- It is heartening to see the current U.S. Administration put an emphasis on climate change. We welcome the landmark legislation passed by the House to curb greenhouse gas emissions and create an energy-efficient economy. We hope the U.S. will play a leadership role at the Climate Conference in Copenhagen later this year to prevent global warming and climate change.

(continued on page 21)

STRENGTHENING US-BANGLADESH RELATIONS: HOW CAN YOU HELP? BY NADIA AFRIN, DRISHTIPAT DC REPRESENTATIVE (CONTINUED)

(continued from page 20)

Trade

- Bangladesh, despite being a low-income developing country, pays prohibitive duties (around 20%) on readymade garments (RMG) while many African and Caribbean countries enjoy duty-free, quota-free access. According to 2005 statistics, RMG accounts for 36% of the country's exports. Two million women directly and 10 million people indirectly rely on the RMG sector.

- Given that the RMG sector plays a significant role in socioeconomic development and women's empowerment in Bangladesh, the U.S. should consider lowering trade barriers. This will also bolster the Bangladesh government's strategy to shift from aid dependence to trade dependence.

Good Governance

The U.S. should continue to support Bangladesh in strengthening democratic institutions and fostering good governance. While the recent free and fair elections are a step in the right direction, the government and political parties in Bangladesh must engage constructively in the political process. In addition, the government must mount a credible and effective effort to reform the judiciary, protect minority rights, end extra-judicial killings and bring the perpetrators of political and terrorist violence to justice. (for details, check out the Drishtipat Human Rights Charter at www.drishtipat.org)

- Being one of the major donors, the U.S. should work closely with the Bangladesh Government and other international donors at the country-level to better coordinate and streamline aid activities. This will help to maximize the impact of aid. The Bangladesh and U.S. governments should also strive to bring donors that are not part of the international aid effectiveness movement into the fold (for instance Saudi Arabia and China) and ensure that aid is disbursed in a transparent and accountable manner.

Political and Public Diplomacy

The following steps can be taken to promote mutual understanding and strengthen existing ties between U.S. and Bangladesh:

- Frequent visits to Bangladesh by Congressmen (especially members of the Bangladesh Caucus) and policy-makers. For instance, Assistant Secretary, Robert O. Blake's visit to Bangladesh in June 2009 was very well received. There are hopes that this will set the stage for a future visit by Secretary Clinton and President Obama.

- More regular visits to the U.S. by high-level Bangladesh government officials as well as civil society and business leaders

- Reinstate the U.S. Peace Corps program in Bangladesh, which was discontinued in 2006 for security reasons at that time

- More academic exchange and cultural exchange programs

Bangladeshi and Bangladeshi-American Community in the US

The Bangladeshi and Bangladeshi-American community faces several barriers that prevent them from participating fully in civic, political and economic life in the U.S. The Obama Administration should address some of these issues:

- Bangladesh is one of the top 10 countries with the most waitlisted family-based visa applications. The U.S. Citizen and Immigration Service should address this issue and expedite the processing on family-based visas.

- Special registration/National Security Exit-Entry Registration System (NSEERS), a program instituted by the Department of Justice following 9/11 required certain male nationals from predominantly Muslim and Arab countries to report to immigration authorities for interviews and processing. As a result, many individuals within the South Asian community were deported. While the initial phase of this program is over, many South Asian and Muslim immigrants are still required to continually register with the government or face serious immigration consequences. The Administration should terminate the NSEERS program and repeal related regulations. It should also provide relief to individuals who were placed in removal proceedings because of their participation in NSEERS.

- Half of the Bangladeshi community in America consider themselves limited in English proficiency. In areas of the U.S. with a high concentration of Bengali speakers, it is important to provide language assistance so that people can vote during elections and take advantage of legal services, medical services etc.

- The majority of Bangladeshis in the United States live at 200% of the poverty line (2000). Providing migrants better access to job training and finance can help to lift them out of poverty.



This document has been compiled by Drishtipat DC using information from various sources. **Drishtipat DC** is a non-partisan network that will seek to address human rights and social justice issues that impact the Bangladeshi and Bangladeshi-American community in the United States. Email us at dc.drishtipat@gmail.com



Being one of the major donors, the U.S. should work closely with the Bangladesh Government and other international donors at the country-level to better coordinate and streamline aid activities.

A NOTE FROM THE EDITORS

It is our humble hope that our audience will appreciate the fact that AABEA is more than just a disparate collection of engineers and architects with a faint coloration of Bangladeshi heritage. AABEA is in fact a rich mosaic of multi-faceted tentacles extending an ecosystem of community and political leaders, business and entrepreneurs, for profit and charitable entities, media and entertainment sectors as well as the technical community.

The engineers and architects it represents are also from as varied background as the discipline itself. We now boast members not only from the traditional and well established civil, electrical and mechanical engineering but also from the bioinformatics, software, systems, petrochemical, fluid mechanics and nuclear engineering. AABEA has become as fluid and all encompassing as the demand of the ecosystem of the 21st century. It is this open and non-exclusive approach to our membership that has made this organization so vibrant, meaningful and successful.

It is also worth noting that the AABEA members and the members of the Executive Committee are all vested in a wide variety of community oriented organizations.

Drishtipat, Dhroopad, ORCA (Old Rajshahi Cadets Association), FOBANA and Baba Music are simply a few segment of our diverse community where AABEA has been welcomed and been given an opportunity to contribute.

AABEA is truly blessed with an unique blend of people, organizations, skills and experiences that its potential to be a substantial positive force for this community and beyond can hardly be surpassed. There are always challenges to make any potential to actualize. The greater the potential the greater the risks and uphill battle it seems. AABEA is not without these challenges. It is clear though from the perspective of these editors that these challenges are not insurmountable and the current administration is actively meeting them.

The old adage, "United we stand, divided we fall," is as true today as it was during Aesop's time when he was quoted to have observed this universal truth. The AABEA's executive committee is acutely aware of this fable and is actively encouraging unity in vision and execution.

We are continuously astounded at the vast talent and reach we have secured in our community with a philosophy of open doors and

hearts. We are equally encouraged by those who have chosen to enter to collectively take on the challenges to move forward our agenda. Indeed, united we stand and so we challenge you to stand with us. We shall not fall.

Faisal, Ahmed, Misu, Nancy & Raja



Bangladesh and America meeting at the most exclusive corridors of power in Washington, DC.



Tantalizing greener pasture is on the other side. Let's break the barriers. It is no match for our strength.



We invite you to take the empty seats. It beckons you.

UPCOMING CALENDAR

SCHEDULE OF EVENTS

[AUGUST 2009]

SUN	MON	TUE	WED	THU	FRI	SAT
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5

- Aug 10 - EC Meeting
- Aug 16 - EC Meeting
- Sep 6 - EC Meeting
- Sep 20 - EC Meeting
- Seminars - TBD, Please stay tuned.
- Oct 10 - AABEA's 25th Anniversary with Bangladeshi celebrities Tony Dias, Priya Dias, Tahsan, & Mithila
- Oct 18 - EC Meeting

[SEPTEMBER 2009]

SUN	MON	TUE	WED	THU	FRI	SAT
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	1	2	3
4	5	6	7	8	9	10



Full moon over Lincoln Memorial and Washington Monument. An open invitation to the nation's capital for all of our events.

[OCTOBER 2009]

SUN	MON	TUE	WED	THU	FRI	SAT
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31
1	2	3	4	5	6	7



Next generation of superstars waiting to blaze a new set of trails.

Contact us at:
contact@aabeadc.org

A A B E A
WASHINGTON DC



AABEA is a non-profit, non-political, and non-religious Tax-exempt voluntary scientific and technical professional organization organized exclusively for educational, scientific, and charitable programs.

AABEA was established in 1984 in the State of Pennsylvania. An amended constitution and by-laws ratified by the general members in May 1999 is the guiding document for the organization.

AABEA presently has nine chapters: Southern California, Tristate, Washington DC, New England, Seattle, North Texas, Silicon Valley, Arizona and Central Ohio.

LETTER TO THE EDITOR: FEEDBACK FROM 1ST AABEA NEWSLETTER

“A very well-designed and informative newsletter. Way to go!”

“Nice work Faisal. Enjoyed reading lots of new information.”

“Congratulations Faisal! A job well done! The newsletter looks very professional.”

“Congratulations. Great work. Our country needs more organizations like this.”

“Congratulations to you and the team members involved in this wonderful initiative. I have been reading through it. Its truly awesome!! It has captured so many relevant themes. It is very inspiring. Lots of hardwork involved in developing this. Well done to all!”

: The Newsletter is excellent and the content with the layout has a laminarity in its flow yet provided the activities of your Chapter. It is a matter of pride and editing was very good and expressed the maturity of the editing board. Thanks for sharing and hope other chapters will follow the leads.”

“It looks great. Thanks to you and your team for doing such a great job.”

