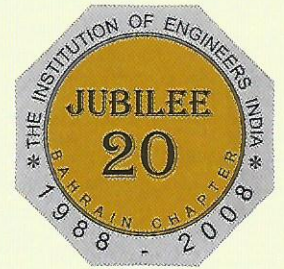


# IEIBC MINI TECHNICAL JOURNAL



## THE INSTITUTION OF ENGINEERS (INDIA), BAHRAIN CHAPTER

(Affiliated to the Bahrain Society of Engineers)

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On the Independence day of this year, the president of India gave this speech to the nation which was inspiring to each citizen to perform their duties with sincerity. We provide the extracts from the address to the nation by the Hon'ble President of India Smt. Prathiba Patil on the eve of 62nd Independence of India as below:

At the time of independence Pandit Jawaharlal Nehru spoke about India as the rising star, the star of the freedom of the East. He reminded us that the freedom will bring responsibilities and burdens, and that we must face them in the spirit of a free and disciplined people. Due to our efforts and perseverance, we have many achievements to our credit but there are several tasks that await to be completed and new challenges to be addressed to. A nation's work never ends. In fact we must work ceaselessly to advance our common destiny of a strong democratic India that is economically vibrant and modern but rooted in its age old values of harmony, tolerance and mutual respect. One should never forget that these are the values that make us emotionally strong and hold our country together. We may have a long way to eradicate poverty, disease and illiteracy but our countries in the world respect India because of these values.

Or constitution provides the nation strong pillars of stability. It gives to citizens their fundamental rights and freedom but also lays down fundamental duties. Often, we are vocal about our rights but we tend

to focus less on our duties. We have duty towards our country, society, and family of which we can ignore none. We must remember that while discharging our duties, we have an obligation to act responsibly.

Great nations are built with the contributions and hard work of one and all. On the other hand violence in any form undermines the progress. There have been instances in our country of people taking the law into their hands and causing destruction to life and public properties. Whatever the problem, whatever the cause, whatever the reason, there is no place for violence in our society. There is no issue that does not lend itself to dialogue and reconciliation. The paths of peace and compromise can be complex and difficult, but pursue them we must. They alone will enable the nation to grow and prosper. I appeal that calm must always be maintained in all parts of the country and whatever the differences exist, all efforts be directed towards reconciliation.

As developing country our demands for energy is growing. We can not let lack of energy become a constraint on our

ability to deliver high level growth. With the challenges of the increased oil prices and climate change, the question of energy security confronts us. We need to look at energy mixes that are sustainable in the long run and are cleaner sources of energy, gradually making a deliberate shift to renewable energy. It should be our national mission to begin exploring the ways in which the new sources energy can be harnessed viably. Technologies that increase efficiency in energy intensive sector needs to be developed. Similarly, patterns of consumption based on conservation and efficient use that save energy and reduce levels of emissions that need to be adopted. Any contribution to save energy is a step towards environment protection and in saving the wide diversity of flora and fauna on the planet.

Let us pledge to proclaim to perform our duties towards our great nation with dedication, hard work and sincerity. I conclude with these lines:

Hard work opens the doors of progress,  
Dedication brings success.

Tranquil minds shun violence

### EDITORIAL

While our chapter completes twenty years of its existence this year, the publishing of the mini technical journal/news letter has been successfully going on for the past twelve years continuously. We recall the vision of the founding members who had the foresight to spread the professional knowledge to the engineering community. We thank the authors who presented the articles and our readers for their cooperation for this success.

We thank the patron of our chapter, His Excellency Mr. Bal Krishna Shetty for his support and the encouragement all these years. He is the champion of the underprivileged. There was a conversation with a businessman on the issue of minimum salary for the labourers. Our ambassador rightly pointed out to him that it was not the employer who gives the employee, but it was the employee who has given more to the employer in order that the employer can give part of it to the

employee.

The Thirukkural says that the educated persons are welcomed in all nations as their every act is a reality. We are proud to welcome the eminent educationist, Dr. P. Mannar Jawahar, Vice chancellor, Anna University, India.

We are really honoured by his presence at the twentieth anniversary celebrations.

*Editor.*

## The need for the hour- blended concrete -- Raj Kumar

The recent scarcity of cement in the market, and the delay in completion of many projects in Bahrain requires for an alternate solution. It is high time the engineers and specifiers think of an alternate material to resolve the issue. The solution is none other than the use of flyash concrete.

Fly ash is a fine, glass-like powder recovered from gases created by coal-fired electric power generation. The power plants produce millions of tons of fly ash annually, which is usually dumped in landfills. Fly ash is an inexpensive replacement for Portland cement used in concrete, while it actually improves strength, segregation, and ease of pumping of the concrete. Fly ash is also used as an ingredient in brick, block, paving, and structural fills.

The first ASTM specification for fly ash cement was written in the 1950s, and amended in 1977 to include Class C fly ash from Western coal. Fly ash cement is ASTM listed and approved as a mineral admixture for use in mortar, patching, and structural concrete

Fly ash concrete was first used for the construction of Hoover Dam and was found to be very successful in partial replacement of cement. It is now used allover the world. Consisting mostly of silica, alumina and iron, fly ash is a pozzolana substance containing aluminous and silicious material that forms cement in the presence of water. When mixed with lime and water it forms a compound similar to Portland cement. The spherical shape of the particles reduces internal friction thereby increasing the concrete's consistency and mobility, permitting longer pumping distances. Improved workability means less water is needed, resulting in less segregation of the mixture. Although fly ash cement itself is less dense than Portland cement, the produced concrete is denser and results in a smoother surface with sharper

detail.

Class F fly ash, with particles covered in a kind of melted glass, greatly reduces the risk of expansion due to sulfate attack, as may occur in fertilized soils or near coastal areas. Class C fly ash is also resistant to expansion from chemical attack, has a higher percentage of calcium oxide, and is more commonly used for structural concrete.

Although this has been used for decades, this is yet to make a break through in the Middle East. Competition from Portland cement is one consideration. Because fly ash comes from various operations in different regions, its mineral makeup may not be consistent; this may cause its properties to vary, depending on the quality control of the manufacturer.

The recent regulation on environment requires power plants to cut nitric oxide emissions, causing higher carbon content in flyash. Researchers at Brown University are studying why the high-carbon ash doesn't work for cement, and other treatment options.

But the Indian low calcium fly ashes have higher values in loss of ignition compared to high calcium flyashes from the Western countries. Hence importing the flyash from India and blending them at the local plants is a viable solution.

This concrete not only improves Chloride durability, but also reduces permeability, lowers heat evaporation, and improves workability. Fly ash is cost competitive with Portland cement. Some manufacturer's proprietary fly ash cement is considered a non-shrink material with advantages in workability, water retention, and strength. Because fly ash mixes with less water, it is less likely to crack. An industrial by-product that is otherwise waste, fly ash is environmentally friendly because it is recycled and has low embodied energy.

Hence it is proposed that the local

cement plants arrange to import the fly ash, construct dry collection system and storage silos in the plant, provide appropriate dosing system and weight feeders to ensue quality, develop data and procedure in concrete mix design, allow other independent quality control agencies to verify the production and train the end users and other professionals to use fly ash concrete.

### A good example of how a stock market functions.

Once upon a time in a village, a man appeared and announced to the villagers that he would buy monkeys for Rs10. The villagers seeing that there were many monkeys around, went out to the forest and started catching them.

The man bought thousands at Rs10 and as supply started to diminish, the villagers stopped their effort. He further announced that he would now buy at Rs20. This renewed the efforts of the villagers and they started catching monkeys again. Soon the supply diminished even further and people started going back to their farms. The offer rate increased to Rs25 and the supply of monkeys became so little that it was an effort to even see a monkey, let alone catch it!

The man now announced that he would buy monkeys at Rs50! However, since he had to go to the city on some business, his assistant would now buy on behalf of him. In the absence of the man, the assistant told the villagers. Look at all these monkeys in the big cage that the man has collected. I will sell them to you at Rs35 and when the man returns from the city, you can sell it to him for Rs50. The villagers squeezed up with all their savings and bought all the monkeys.

Then they never saw the man nor his assistant, only monkeys everywhere!!

Welcome to the Stock Market !!!!!

*A Wish will not change anything, however a Decision will change everything*

*It may not be the Best, but simply Better than the Rest*

## Philosophy in Architecture

-- Sidney Ponniah

Architecture is a visual language that corresponds to the philosophy of people.

Christopher Wren calls classical architecture as the Latin of Architecture. The classical orders devised by Vitruvius were based on the earlier concepts of columns and arches from Egypt and Mesopotamia which had the bearing on their philosophy of that civilization.

Until the seventeenth century, it was characterized by the divinity unknown before. The unified and hierarchy of the ordered cosmos was disintegrated during the renaissance and a new element of choice was introduced in the life of man. In the earlier system, every phase of reality was assigned its unique place. This place goes complete determination of its value with respect to its first cause. There is no room for doubt and thinking that there is the consciousness of being sheltered by this inviolable order which is not the business of thought but to accept. With the rise of Humanism, the man's freewill came to the front, and in Florence it received a social and political foundation. Leonardo Bruni said that equal liberty exists for all. Even before this period, Florentines had appointed their magistrates by lot. Thus the absolute system of middle ages was replaced by an active political life.

But the idea of ordered universe continued in the Renaissance period, but a new interpretation of geometry and musical harmony was obtained whereby new scale of values were introduced according to its degree of perfection. Within this frame work, man had his freedom of choice.

But Renaissance idea of freedom within the harmonious and meaningful universe did not last long. Erasmus and Luther represent doubt in the freedom and dignity of man. Copernicus removed the concept of the earth at the centre of universe. Their change at the political thinking changed the Florentine civilization along with the Reformation. thereby

changing the thinking at the absolute world. The world of Michael Angelo broke the barrier.

Towards the end of sixteenth century, the analytical thinking of Descartes had the impact on the architecture too. Having found that everything can be doubted, he concludes his own doubt of being a thought represents the only certainty. He says, that after examining attentively what I was and seeing that I could pretend that I had no body, and that there was no place I was in, I could not for all that pretend that I did not exist and that on the contrary from the very fact that I thought of doubting the truth of other things, it followed very evidently and very certainly that I existed. On this basis, he continues constructing comprehensive system of facts. The great originality of Descartes and that which enables him to avoid the conclusions of Montaigne is that, instead of considering the objects of doubt, he detaches the act of doubting from anything external to itself and in that way cuts the ground from beneath the feet of skepticism.

The general spirit of the seventeenth century rarely possessed the originality. Man sought security on the basis of choice between the current alternates of that period; the new world of pluralistic thinking came in due to the disintegration of the old order. Man could choose from the different alternatives offered from political, religious and social ways.

All the alternates were characterized by the aim found in Descartes thinking. The attitudes were natural as the options of the earlier system of absolute monarchy or eternity also existed.

So the design not being a single unit, their propagation was essential and a dynamic, centrifugal character became general. Propagation however becomes meaningful when in relation to a centre which represents the basic axioms and properties of the system. The religious, economic and political centers were the foci points of radiating forces. So the system

became dynamic in character. Departing from a fixed point, they can be infinitely extended. Giordano Bruno says infinite spaces have infinite potentiality and this infinite potentiality have infinite act of existence. He then goes on to imagine the infinity world with infinite suns with countless planets. Hence the special extension came into force with different property of things and different movement. Geometry therefore is the appropriate tool of understanding, both in the static geometry of renaissance, to Baroque open and dynamic world. We thus see two seemingly opposite aspects in Baroque phenomenon, systematism and dynamism, the need to connect to absolute and open dynamic system to form a meaningful totality.

The general expansion had as a necessary to correlate a growing specialization of human activities and each activity defining its own field. It is also important to note the split of the unity of art and science was the basis of Renaissance period. The artist was no longer required to be a philosopher or scientist. Persuasion became the key factor for all systems. Persuasion became the participation as its goal. Such participation presupposes Imagination, a faculty which was educated by means of art. The general aim was to instigate a way of life in conformity with the system. Hence art became official and institutionised in the academics. The earlier system lost its initial place. Renaissance architecture also gave importance to centralized pattern of organization, but within the defined limits. In the sixteenth century, static harmony of renaissance was broken and an incessant experimentation reflecting the general human doubt and insecurity. But the end of sixteenth century a desire for systematization became evident. Huge and grandiose plans were established in Rome with the support of powerful authorities. The pattern of cities and streets developed in

this fashion became the prototype and a reference point for the whole world.

The eighteenth century saw the Victorian era of architecture. The taste of that day was eclectic since Victorian art and architecture reflected an era that loved a wide variety of cultures and styles, and combined them in every which way to suit personal expression. A love of the Far East, Egypt, the Italian Renaissance, Ancient Greece and Rome was also prevalent, and writers, artists, crafts people and architects drew from these cultures and incorporated motifs into their own globalized vision of the world. Decoration and clutter were in vogue. Homes were filled with furniture, walls covered with paintings and every item was embellished with intricate detailing. The Industrial Revolution of this period caused another form known as industrial architecture.

However, tastes changed with the

times. In the 1920s and 1930s a new movement was afoot that shunned any form of decoration in architecture and industrial design. Architects such as Walter Gropius, Le Corbusier and Adolf Loos were the men who rallied for the lack of ornamentation. Anything fake, anything not registering visually as an essential component in the structure was discarded. A love of the future, and not a love with the past, was the theme of the day. This was partly due to the Industrial Revolution and the fascination with machines. Everything became modern. Metal, not wood, was the popular material. Everything from cars to houses were made to represent the power of the machine and appear futuristic. Art Deco is the name given to the aesthetic that combined elements of the machine and decorative flourishes left over from the Victorian era. From the 1920s up to the present day, modern architecture has reflected two major

styles, severe utilitarian and no-nonsense modernity and a more digestible, decorative modernity appealed to the masses.

### Membership News

Compiled by Vivek Helwatkar

IEIBC Membership as

on 12-12-2008

#### Discipline Wise

Civil and structural	: 124
Electrical	: 87
Mechanical	: 91
Chemical	: 10
Instrumentation and Control	: 13
Computer Science	: 8
Electronics & Communication	: 16
Architecture	: 8
Metallurgical	: 3
Production	: 2
Fire engineering	: 1
Textile	: 1
Marine	: 1
Others	: 19
<b>Total</b>	<b>: 384</b>

## Sustaining health for engineers

-- Saminath Sekar

It is quite obvious expatriates particularly engineers neglect their health due to their routine work pressure. In order for one to provide a happy home and work place, one should take care of his health.

There was a person who went to a doctor and said that he usually felt hyper tense, could not concentrate and focus, and drained his energy on unnecessary works. The doctor immediately asked that if he was an expatriate engineer. It is a great irony in this part of the world that people work hard to make money neglecting their health, and later spend their hard earned money to restore their lost health.

A healthy body is required to provide a healthy mind. But globally we find people experience helplessness and uncertainty due to the personal, social and environmental changes and do not foresee any solutions within their means. In spite of all the advantages we feel on the technological and scientific advancements, the modern life

style stems up an imbalance in the life. There is an immediate need to balance and harmonize our health to suit the present day conditions.

A healthy body is required to provide a healthy mind. In order to achieve this, every one should carry out simplified physical exercises that will balance the circulation of blood with heat, air and life energy. This will also keep the body and mind with out stress and strain. People of all ages can practice and benefit from this. These daily exercises develop general fitness, improve immunity system.

It is said that prevention is better than cure. Hence routine exercises have to be practised in order to prevent the diseases.

For maintaining a person's good health, one must guard against the disturbances to his body, life force and the three media namely blood, heat and air. Improper usage of body, overindulgence in food, sex, and work should be avoided.

To avoid diseases, we must take care of five things such as, body containing the cells, the flow of liquid in it which is blood, the maintaining of the constant proper temperature in the body, proper circulation of breathing and lastly the life force contained in it.

It is said that an idle mind is a devil's workshop. A person should have a clear thought force otherwise it will disturb the normal functioning of the body in many ways. Natural causes such as the climate, heredity, environment and association will disturb the body's health and mind. Regular exercises improve the circulation of the blood flow to the brain and provide for the clear thought process.

Therefore to achieve better health simple regular exercises are designed. Engineers are advised to practice the simple breathing and body exercises. This will improve the functions of the organs of the body and keep one's body from pain and diseases.

# Value Engineering

- - S.P. Daniel

During the second world war, there were shortages of skilled labour, raw materials, and component parts. Lawrence Miles and Harry Erlicher at G.E. looked for acceptable substitutes to resolve the problem. They noticed that these substitutions often reduced costs, improved the product, or both. What started out as an accident of necessity was turned into a systematic process. They called their technique "value analysis".

Value Engineering also known as Value Analysis, is a systematic and function-based approach to improving the value of products, projects, or processes. VE involves a team of people following a structured process. The process helps team members communicate across boundaries, understand different perspectives, innovate, and analyze. Value is a personal perspective of your willingness to pay for the performance delivered by a product, process or project.

Good value is achieved when the required performance can be accurately defined and delivered at the lowest life cycle cost. *Value Engineering improves value.* On highway projects, improvements to value might include reducing the life cycle cost of an interchange, enhancing safety in a design, or reducing impacts to the public by shortening the duration of a construction project.

VE focuses on delivering the product or service at the best price by incorporating those value characteristics deemed most important by the customer and also provides alternate ways to achieve objectives.

The use of function analysis differentiates value engineering from other problem solving approaches. In Function Analysis, an active verb and a measurable noun describe a function. As an example, the function of this website is to "inform reader".

VE follows a structured thought process to evaluate options. Every VE session goes through a number of steps:

It gathers information, measures

performance, analyse functions, generates Ideas (brainstorming), evaluates and ranks ideas, develops and expands Ideas, presents Ideas and alternatives

Value Engineering is a tool that will improve your ability to manage projects, solve problems, innovate, and communicate.

A VE program in your organization will provide your staff with a definitive tool to improve value in any product, project or process.

Cost savings, risk reduction, schedule improvements, improved designs and better collaboration have been the outcomes of some of MTO's VE studies.

A typical VE study involves a multi-disciplinary team at a workshop lasting 3 to 5 days. The payback from the investment in VE normally exceeds 10:1.

Value engineering is a systematic method to improve the "value" of goods and services by using an examination of function. Value, as defined, is the ratio of function to cost. Value can therefore be increased by either improving the function or reducing the cost. It is a primary tenet of value engineering that basic functions be preserved and not be reduced as a consequence of pursuing value improvements.

In the United States, value engineering is specifically spelled out in Public Law 104-106, which states "Each executive agency shall establish and maintain cost-effective value engineering procedures and processes."

Value engineering is sometimes taught within the project management or industrial engineering body of knowledge as a technique in which the value of a system's outputs is optimized by crafting a mix of performance (function) and costs. In most cases this practice identifies and removes unnecessary expenditures, thereby increasing the value for the manufacturer and/or their customers.

VE follows a sequence that is based exclusively on "function", i.e. what

something "does" not what it is. For example a screw driver that is being used to stir a can of paint has a "function" of mixing the contents of a paint can and not the original connotation of securing a screw into a screw-hole. In value engineering "functions" are always described in a two word abridgment of an active verb and measurable noun (what is being done - the verb - and what it is being done to - the noun) and to do so in the most non-prescriptive way possible. In the screw driver and can of paint example, the most basic function would be "blend liquid" which is less prescriptive than "stir paint" which can be seen to limit the action (by stirring) and to limit the application (only considers paint.) This is the basis of what value engineering refers to as "function analysis".

Value engineering uses rational logic (a unique "how" - "why" questioning technique) and the analysis of function to identify relationships that increase value. It is considered a quantitative method similar to the scientific method, which focuses on hypothesis - conclusion to test relationships, and operations research, which uses model building to identify predictive relationships.

Value engineering (VE) is also referred to as or "value management" or "value methodology" (VM), and "value analysis". VE is above all a structured problem solving process based on function analysis—understanding something with such clarity that it can be described in two words, the active verb and measurable noun abridgement. For example, the function of a pencil is to "make marks". This then facilitates considering what else can make marks. From a spray can, lipstick, a diamond on glass to a stick in the sand, one can then clearly decide upon which alternative solution is most appropriate.

Value engineering is often done by systematically following a multi-stage Job Plan. Larry Miles' original system was a six-step procedure which he called the Value Analysis Job Plan. Others have varied the Job Plan to fit their constraints. Depending on the application, there may be four, five, six, or more stages. One modern version has the following eight

steps:

1. PREPARATION
2. INFORMATION
3. ANALYSIS
4. CREATION
5. EVALUATION
6. DEVELOPMENT
7. PRESENTATION
8. FOLLOW-UP

Four basic steps in the Job Plan are:

- Information gathering - This asks what the requirements are for the object. Function analysis, an important technique in value engineering, is usually done in this initial stage. It tries to determine what functions or performance characteristics are important. It asks questions like; What does the object do? What must it do? What should it do? What could it do? What must it not do?
- Alternative generation (Creation) - In this stage value engineers

ask; What are the various alternative ways of meeting requirements? What else will perform the desired function?

- Evaluation - In this stage all the alternatives are assessed by evaluating how well they meet the required functions and how great will the cost savings be.
- Presentation - In the final stage, the best alternative will be chosen and presented to the client for final decision.

## Nature and Engineering

- - Thirukamu

Man had invented many things that are useful for his benefit since the beginning of civilization. It is said the inventions of the last century are of grater utility than the inventions of all the previous centuries put together. I wonder whether these can be called as inventions at all as most of them already exist in nature.

Around 50 years ago, Prof. G.S. Ramasamy wrote a book on Shell Structures which is still an authority in that field. He explains about the about the principle of doubly curved structures which have two different curvatures in mutually perpendicular planes. He says that the famous hyperbolic paraboloid is derived from the nut of a fruit.

The structural system known as the grid system of interconnecting beams in opposite directions was found to take more load than the system with beams in single direction. But this system already exists in the spider web. The principle of the rope bridge and fabric structure is also appearing in the spider web.

The important element of the ball and socket joint in the Mechanical engineering already exists in the human body. The system of blood vessels in the human body is similar to the plumbing system with pipes. The heart is comparable to the pumping station.

The cross section of a bamboo gives a circular pipe in nature. For the given load and functions human skeleton is a perfectly designed structure with minimum material for the optimum use, and with no equivalent light and strong material for that use.

An arch is a beautiful form that transmits the load purely by compression members and it is not only found in the

naturally formed caves but also in the human feet.

Those who work on steel structures will know that hollow sections take more tensional forces than that of normal steel sections. This came into force only a few decades ago. Where as human bones and bamboo plants are of hollow sections for millions of years.

A dome is nothing but a shell of the tortoise or crab, where the animal takes shelter.

A human hand is subjected to pressure points at four locations. It is able to take the impact because of the absorption taken by the skin, the principle used in machine foundation.

Around 2000 years ago. the Greek Physician, Galen found out that our nervous system functions by the electrical principle, even before electricity was found. He used dead frogs connected to wires and passed lightning through them. He proved the body of the dead frogs twitches at the passage of electrical energy.

The camera works in the principle of the lenses in the eye. The radio changes the electromagnetic sound waves to mechanical sound waves, what the brain does to the mind.

We know that the aeroplane works on the principal of aerodynamic which the birds use to fly. Recently, I read in readers digest that a person in a glider was caught along with a bird in an air current and was pulled down. He used the same technique that was used by the bird and came out of it.

The insulation for current leakage in signal transmission already exists in our

body as methyl sheathing and is secret positioning transmits signals at 1/100th of a second.

Eventhough the computer Deep Blue has defeated Karporov, the human brain is a marvelously complex, data crunching, algorithmic, sound, sight, touch, smell wonder, capable of producing thousands of inputs in parallel with the cycle time of 30,000th of second.

The famous Spanish architect Calatrava, designs his buildings based in the human body postures.

Therefore, there is still plenty to learn from the nature as there is an intelligent design in the nature provided by the intelligent designer.

### All smiles

1) Teacher tells a student  $a=b, b=c$  implies  $a=c$ . Tell me an example.

Student : I love you - You love your daughter - so I love your daughter.

2) Its funny when people discuss over

“ love marriage ” and “arranged marriage” It is like asking a person if he would like to “ hang himself ” or “ shoot himself ”.

3) What is a girl friend?

Addition of problems, subtraction of money, multiplication of enemies & division of friends.

4) A married man was asked to perform his SWOT (Strength, eakness, Opportunity, Threat) Analysis. He said, my strength is my wife. My weakness is my neighbour's wife. Opportunity comes when neighbour goes out. Threat comes when I myself go out

5) Guide: I welcome you all to Niagara Falls. These are the world's largest waterfalls and the sound intensity of the waterfall is so high, even 20 supersonic planes passing by can't be heard. Now may I request the ladies to keep quite so that we can hear the Niagara Falls?

## Save time with Email discipline

-- P K Kasinathan

When writing was invented centuries back, Plato viewed it with ambivalence. As the legend goes, around 380 B.C., he told the king that before the invention of writing, people had the ability to memorise the songs, poems and even legal agreements. But with the technology of writing came into force, the skills of remembering became extinct.

True, every coin has two sides. I believe that ancient men had amazing memory than the modern men. Similarly, the recent revolutionary invention – the Email communication - has become a part of our life in modern culture and communication as much as it happened when the telephones were invented half a century ago, dispelling some of our previous qualities. And, it also has the most adverse effect on us – it robs us of our precious time.

I neither spent nor observed others spending the length of time daily as we do with emails now. I spend an hour or more each day dealing with emails at home, and three or four hours at work: reading emails, sorting them, purging and filing them, keying in responses, and so on. Anyone with an email account

can send emails to everyone else at almost zero cost overwhelming them with emails and spams. Certainly, the email communication robs our quality time both at work and at home as well.

Though we cannot avoid the email communication, we can help to save our time by cultivating the following Email habits.

1. Nothing is called free lunch in this world. We should not unnecessarily subscribe to newsletters because it is claimed to be sent free of cost to us. If we have subscribed to them on a trial basis, we should at once unsubscribe if they are found not useful. Waterford technologies found in a company in the UK, that newsletters second most deleted type of emails.
2. We should pay more attention to the subject line of the email.
3. While copying emails to many, we should add their emails in the Bcc field. This does not pass on all the email ids to others.
4. We should avoid writing or responding to personal emails while at work, as they distract us from productive work.
5. We should talk to people as much as

we can instead of emails; drafting the email takes 2 or 3 fold time than that telephone conversation in brief takes. A case was found where two employees sent 300 emails back and forth to each other in a single day. Assuming that it takes a minute to read and respond, this email conversation took 5 hours.

6. We should name the attachments sensibly so that enables reader to be selective in opening and reading them.

7. We should avoid inappropriate forwarding of those emails that are claimed to bring in luck.

8. We should allocate specific time and duration for checking he emails, both at work and off work; not every time an email is dropped in the inbox.

9. We should use automatic routing feature of the browser, to the bin for recognisable Spam emails.

10. We should avoid long email trails (emails that are attached or linked to the sent emails).

I am confident that if we cultivate and master the above habits, we will save our quality time appreciably.

### Engineers Children Shine

Congratulations



**Sureka, D/o Mr. P.K. Kasinathan, The Indian School, Kingdom of Bahrain.** Achievements: Secured Second place in the school; scoring 93.4%. Topped the list in Computer Science with 99% in the School. Achieved A1- grade in all the subjects. - Pursuing higher studies in NIT Trichy



**Sidharth S/o Mr. Muthu Kumaran, The Indian School, Kingdom of Bahrain.** Achievements: Achieved A1-grade in all the subjects Pursuing higher studies in NIT Trichy

### Chapter News

1. Mr.Zacharia Varughese, and Mrs Twinkle Sara Zacharia, are the first couple to obtain PMP Certificate in the Arabian Gulf /Bahrain
2. Mr.KKU Nair will be retiring from Comsip and is leaving for good to India.
3. Mr.P Gangadharan quit Alba to join Emal.
4. Past Chaiman Mr.S Deshmukh had retired from MEW and left for India.
5. Mr. D Gnanasekar migrated to Canada and joined Bechtel.
6. Mr.T, Stanley resigned from GPIC and joined Reliance, India at Kakkinada.
7. Mr. Dan Johnson has expired.
8. Mr. G Krishnan has left Alba and left for India.
9. Mr. R Srinivasan has left Bahrain; continues with ETA Dubai.
10. Active member Laasya Chakraborty has left Bahrain; pursuing higher studies in India.
11. Mr. Arasu has left and joined in Qatar Ministry.

## Modern Laws of Nature

### Lorenz's Law of Mechanical Repair:

After your hands become coated with grease, your nose will begin to itch.

### Anthony's Law of the Workshop:

Any tool, when dropped, will roll to the least accessible corner.

### Kovac's Conundrum:

When you dial a wrong number, you never get an engaged one.

### Cannon's Karmic Law:

If you tell the boss you were late for work because you had a flat tire, the next morning you will have a flat tire.

### Obriens Variation Law:

If you change queues, the one you have left will start to move faster than the one you are in now.

### Bell's theorem

When the body is immersed in water, the telephone rings.

### Ruby's principle of close encounters :

The probability of meeting someone you know increases when you are with someone you don't want to be seen with.

### Willoughby's law

When you try to prove to someone that a machine won't work, it will.

### Zadras law of biomechanics

The severity of the itch is inversely proportional to the reach.

### Breda's rule

At any event, the people whose seats are furthest from the aisle arrive last.

### Owen's law

As soon as you sit down to a cup of hot coffee, your boss will ask you to do something which will last until the coffee is cold.

# Report of Activities

M. Mahendhran  
Hon. Secretary

- \*\* On 21st September 2007, we celebrated 40th Engineers' day and 19th anniversary of Bahrain chapter with science and technology model contests by school students. Our ambassador His Excellency Bal Krishna Shetty was the chief guest of the day. Mr. Mohammed Khalil Al Sayed, President of Bahrain society of engineers was the guest of honour of the day.
- \*\* On 23rd October 2007 Mr.Hisham Shehabi Vice-president, World Federation of engineers & Past President of Bahrain Society of Engineers delivered a technical seminar on "Concrete work in hot and humid conditions"
- \*\* On 14th November 2007 a team of executives from Shell technology India delivered a seminar on the subject, Project, the People and the Future.
- \*\* AMIE winter examinations were conducted in the Indian embassy from 1st December to 7th December 2007.
- \*\* On 9th January, Dr. S.K Dhava former professor of IIT and a power plant consultant delivered a seminar on "Reliability of Turbine Generators and other rotating components of power plants"
- \*\* On 6th February 2008, Mr. Nijkamp Kasper and Mr. Hoojmans Joop, KEMA experts delivered a seminar on LV and MV panel testing inspection and certification.
- \*\* On 7th March 2008, our EC member Er. Saminath Sekar spoke on "Sustaining Health for Engineers"
- \*\* On 16th March 2008 the Bahrain Society of engineers presented a memento to Institution of Engineer, India- Bahrain chapter in appreciation of our cooperation with them.
- \*\* On 9th May our annual family get together was organized in a grand manner in Golden Tulip hotel. His Excellency Bal Krishna Shetty, Ambassador of India, graced the occasion as chief guest and Er.Younis Ali, Director of activities of BSE was the guest of honour.
- \*\* AMIE summer examinations were conducted in the Indian embassy from 7th June 2008 to 13th June 2008.
- \*\* On June 2008 nine students from the Indian school Bahrain were honoured with shields for achieving highest marks in Engineering Drawing exam of class XII of the Central Board of Secondary Education, INDIA.
- \*\* On 17th June there was a technical seminar in the Bahrain Society of Engineers on Design & Development of fuel efficient single seater car for SAE Super mileage competition 2007. Our chapter secretary, Mr. M. Mahendhran was the speaker. The event was organized by the Bahrain Society of Engineers.
- \*\* On 25th September, a seminar cum demonstration on Intelligent Lighting systems was provided by M/S GECOM.
- \*\* On 26th November 2008, Er. L Praveen Kumar Reddy Technical Engineer, Kooheji Contracting WLL delivered a talk on "Quality Control in Concrete Works and Related Field Practices"
- \*\* On 1st December 2008 a seminar was arranged for the benefit of engineers and their family on "High Quality life through Pranayam & Yoga. The renowned mechanical engineer Dr. Shrikant Bhave was the speaker.
- \*\* As part of 20th Jubilee celebrations many completions such as drawing contest, speech contest, energy contest, safety contest and essay writing contest were conducted for engineers and their family members during July, August, November and December 2008.

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