



NEWS LETTER

The Institution of Engineers (India)

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"46 Years of Relentless Journey towards

Engineering Advancement for Nation-building"

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Er. A. S. Satish. FIE

Chairman

Er. T. Ananthapadmanabha. FIE

Honorary Secretary and Editor

From the Chairman's Desk:



Greetings to Engineering fraternity on the occasion of 44th Engineers' Day and 150th Birth Anniversary of Dr. Sir. M. Visvesvaraya. The occasion is celebrated in a grand and befitting way to remember great Engineer Statesman - Nation Builder, across the country more so by Mysore Local Centre in a festive mood and outlook. The theme of the year given by Headquarters "Engineering preparedness for Disaster Mitigation" is the current topic exhorting we the engineers to re-orient our preparedness to control / minimize the effects of Natural or manmade disasters on the human kind. The programmes and activities organized by Mysore Local Centre was given an auspicious start on the occasion of presumed alternative birthday of Dr. Sir. M. V. on 27th August 2011 by way of garlanding Sir. M. V. Bust followed by a workshop on Creative thinking for Performance Excellence - Dr. Sir. M. V. Role Model. Sports Meet and Quiz for members and their family were held on 28th August 2011 Young and Seniors enthusiastically participated in all the events. On 4th September 2011, extraordinary presentation on Contributions of Wodeyars and Dewans to Royal Mysore was given by Dr. Vikram Sampath (An Engineer and author of the highly acclaimed book 'Royal splendours of Mysore - An untold story) which was an eye opener on the history and times of Greater Royal Mysore era. On 10th September 2011, Dr. H. Maheshappa, Vice Chancellor, VTU Belgaum Inaugurated the technical Models, Arts & Crafts Exhibition as well as the Technical Seminar Session and addressed the delegates. Er. Vidyashankar Hosakere made Keynote presentation on the theme 'Disaster Mitigation - A holistic approach' which received standing ovation from the audience. On 11th September 2011, presentations on the Sub-themes were made by Er. Shama Sundara, Er. Balasubramanayam, Sri. Nagana Gowda and Er. Lawrence Surendra. Dr. P. Wooday Krishna as Chief Guest moderated and concluded the session. The Cultural Meet organized on 11th September 2011 evening for Members and their family to encourage the hidden talent among themselves was a huge success. The Grand great occasion 44th Engineers Day and 150th Birth Anniversary of Dr. Sir. M. V. was held on 15th September 2011 in the August presence of Er. G. Prabhakar, President, IEI as Chief guest, Er. Madan Lal, Immediate Past President IEI and Dr. L. V. Murali Krishna Reddy, Imme. Past Chairman, IEI, KSC as Guests of Honour adding the substance and relevance to the occasion.

Chairman wishes to express his heartfelt thanks to the organizing committee consisting of Past Chairmen, Past Honorary Secretaries and Committee members for extending their whole hearted co-operation in organizing this annual great event. Special thanks goes to all our members and their families for their enthusiastic attendance and participation in all our activities & making the programme a grand success. A special word of appreciation to Press and Media for giving wide publicity and message to large section of our people on all our activities.

Thanking you,

With warm regards,

A.S. Satish.

Chairman, IEI, Mysore

44th Engineers' Day & 150th Birth Anniversary of Bharata Ratna Dr. Sir. M. Visvesvaraya

Sunday, 4th September 2011

SEMINAR ON "CONTRIBUTIONS OF WODEYARS & DEWAN'S TO ROYAL MYSORE WITH SPECIAL EMPHASIS ON DR. SIR. M. VISVESVARAYA".



Guest Speaker Sri. Vikram Sampath (An Engineer & Author of highly acclaimed book 'The Splendours of Royal Mysore - An untold story) was felicitated on the occasion.

A BRIEF ON THE PRESENTATION

The history of Mysore and its rulers has fascinated me since childhood. When I was barely 12-13 years old there was a controversial tele-serial called the Sword of Tipu Sultan in which the Maharaja and Maharani of Mysore were portrayed in very poor light. If you recall, this led to lot of protests in different parts of Karnataka then. To this day the royal family of Mysore is held in great regard and reverence and this TV serial had upset several sections of society. I was a student of class 6 or so then for whom history lessons meant memorizing dates and details that were presented in a very uninspiring manner! But this project on Mysore was a child's curiosity to find the truth behind what was seemingly false and thus began my journey of research that took me nearly 12 long years. Starting that that king and queen who were misrepresented in the serial, the study slowly broadened itself to the reign of the entire dynasty of the Wodeyar Maharajas. I realized then that there were so few books that were written from a modern perspective which traced this fascinating story of Mysore and the Wodeyars who had held sway over the region for close to 550 years and were among India's longest reigning royal houses. Right from being one of India's first provinces to give a spirited defence to the colonial ambitions of the British under Haidar and Tipu, the erstwhile Mysore state had numerous firsts to its credit under the later Wodeyars. All these aspects of Mysore and its history seldom made for a national discourse on Indian history, in which the south of the Vindhyas sadly remains largely unexplored. That is when I decided to put all the material gathered in the form of a book. With the assistance of my grandmother and parents and also several eminent historians, scholars

and members of the royal family my first book 'Splendours of Royal Mysore: the untold story of the Wodeyars' took shape. It was launched in 2008 by His Excellency Shri Rameshwar Thakur, the then Governor of Karnataka.

In the course of this lecture here I hope to give a bird's overview of the manner in which the legacy of the Wodeyars lives on in the Karnataka of today, the various visible and subtle manifestations of the same. But it might be appropriate to give a very brief sketch of the historical background of Mysore under the Wodeyars.

A substantial part of the Karnataka of today was the erstwhile princely state of Mysore and the capital city bearing the same name epitomized the grandeur and glory of its rulers, the Wodeyars. The Wodeyars ruled this state for close to 550 years, starting from 1399. The dynasty was founded supposedly by two young princes, Yaduraya and his brother Krishna, who according to myth came in from Dwaraka in Gujarat guided by Divine dispensation. Of course this is a popular belief though I have argued in my book that they were possibly brave local heroes. In fact the name "Wodeyar" signified the humble beginnings of this family. It was a title conferred to anyone who occupied the position of governor of a small district, comprising of usually 33 villages. While many of the feudal lords and chieftains were content with this position of eminence, the Wodeyars, by virtue of their characteristic valour and the benign influence of lady luck, emerged as one of the most powerful Kingdoms of the Deccan---their position further bolstered by the elimination of the once mighty Vijayanagara Empire. The Wodeyars as the natural claimants of the legacy handed down by the Glorious Empire.

The credit of establishing Mysore as a force to reckon with in the Deccan goes to the chivalry and far-sighted reign of Kings like Raja Wodeyar, Ranadhira Kanthirava Narasaraja Wodeyar and Chikkadevaraja Wodeyar. But like all dynasties the Wodeyar dynasty too went through its period of trough with weak and ineffective rulers who let the polity slip into the hands of the powerful ministers or Dalavoy. The situation went entirely in favour of a man, whom the monarch had bought for a paltry sum a couple of years ago. This marked the 40-year Interregnum Period of the chivalrous Haidar Ali starting 1761 and his celebrated son Tipu Sultan who took over the kingdom from the Wodeyars. The crushing defeat that Mysore inflicted on the British in the first and second Anglo-Mysore Wars made Mysore emerge as the veritable nightmare of the East India Company. However, Tipu was defeated and killed in the Fourth and Last Anglo-Mysore War in 1799 and the kingdom was restored to the Wodeyars by the British.

But unlike the other princely states of India that chose to remain as mere vassals of the British Raj, the later rulers of Mysore aided by some of the best brains of the country, their able Dewans, like Rangacharlu, Sheshadri Iyer, Bharat Ratna Sir M. Vishweshwaraiiah and Sir Mirza Ismail ensured that the State attained a high degree of industrial and socio-economic growth by the time of India's Independence. These Dewans were suave, English-educated, well-read and exposed to modern Western philosophies of freedom, liberty and justice. They knew that their professional performance would be the only way to earn fame, rather than the earlier Dalavoy, infamous for storming palace doors with elephants and deposing the king unceremoniously. Education and exposure ensured that the Dewans had a broader vision of development-one that included the welfare of common people and projects of public utility. These measures, carried out successfully over decades of nurturing by the Dewans, catapulted Mysore into the forefront of successful states of imperial India.

But in describing the successes and achievements of the Dewans, we must not forget to praise the foresight of the rulers who made all this possible. Rather than the autocratic kings of earlier centuries, who appointed and dismissed Dalavoy at whim, the later Wodeyars, especially Nalwadi Krishnaraja Wodeyar, gave their Dewans the freedom and power to make Mysore a better and modern kingdom. In an

environment free of interference, with a supportive and broad-minded king, the Dewans could make full use of their powers to make a difference during their reign. It was thus a team work of the highest order which had the progress of the state and its people as a common goal. So, while the planning and implementation of various developmental projects is to the Dewans' credit, we must not neglect the significant role played by their kings in this scenario. It is this legacy of the erstwhile Mysore State that I hope to trace in the course of my talk now.

It is fashionable to talk of legacy and its protection and preservation. In the case of most Indian royal families, their legacy lives on in decrepit monuments which are crumbling and crying for help from an insensitive government and public. But in the case of the Wodeyars, I prefer to call it a 'Living legacy' -one that goes beyond the obvious palaces and temples, which anyway do exist, to aspects that closely touch the lives of people of Karnataka to this day. It is another thing that we might not acknowledge or thank them for this, but that apart, their legacy quietly lives on. We as a nation have very little regard for our past. And I think nowhere else does that disregard and ignorance come through than in the reasons Bangaloreans themselves attribute to their city's growth. I work for a software company and the usual topic of discussion is attributing reasons for the phenomenal success story that Bangalore has been. I am amused when they attribute it to the salubrious climate and wonder that if weather was the only deciding factor, why wouldn't companies set shop in hill stations like Ooty or Simla which perhaps have better climates. Bangalore, like Rome, was not built in a day. It had a long process of building and nurturing that happened during the reign of the later Wodeyars and their enlightened Dewans.

I think each time a Bangalorean switches on his light or turns on the tap in his house, he connects to the Wodeyar legacy! As alarming as that might sound, it was under the Wodeyars that Bangalore emerged as India's first city to be electrified in the year 1905, thanks to the Shivanasamudra Hydroelectric project which was India's first hydel plant. Some of the irrigation schemes that were conceptualized during the Wodeyar time, like the Hessarghatta project and the Thippagondanahalli reservoir, are the ones we Bangaloreans are beneficiaries of to this day. The Krishnaraja Sagara Dam on its completion in 1931 created the biggest reservoir in Asia and was second only to the Aswan Dam across the Nile in Egypt.

The reign of Nalwadi Krishnaraja Wodeyar which lasted for almost 50 years was like a fairy tale of sorts for Mysore. Modern Karnataka would not have been what it was but for his enlightened rule. And it was not his court poets and eulogizers but Gandhiji himself who likened his kingdom to the mythical Rama Rajya and him to a Rajarishi. He had wondered if a province as prosperous as Mysore, even needed freedom. Perhaps one reason it took a long time for the Congress Party to gain ground in Mysore State and win the people's confidence.

Paul Brunton, a Western philosopher who came to India seeking oriental wisdom, saw Krishnaraja Wodeyar as living the ideal expressed in Plato's Republic. Speaking about the Maharaja Brunton wrote "You have rescued philosophy from those who would make it a mere refuge from disappointment, and converted it into a dynamic inspiration to higher action for service" Analyzing Brunton's impression of the Maharaja Annie Cahn Fung says and I quote "He met the supreme embodiment of his ideal of the sage as philosophic man of action. The Maharaja, open to science and modern technology, had founded the great iron and steel industry of Bhadravati, one of the most important in the British Empire. His strong example was both a source of inspiration for the English author and a reassuring confirmation of the latter's belief that philosophy and the active life are not incompatible. The Maharaja's life, which unfolded before Brunton's eyes during those years, was proof of the point."

Krishnaraja Wodeyar took over as ruler under pitiable conditions. His father Maharaja Chamarajendra Wodeyar who had ushered in great progress for the State died a sudden and untimely death in 1894 and 10 year old Krishnaraja was crowned ruler. Till he attained majority, his mother Maharani Kempnanjammani Vanivilasa Sannidhana

avaru served as the Regent with the able assistance of Dewan Sir Seshadri Iyer. Several schemes that were implemented during her Regency had far-reaching impact on Mysore—be it the measures to augment irrigation through establishment of dams like the Marikanave, the Hessarghatta project, rural and urban electrification and eradication of several social evils like child-marriage and the devadasi system.

George Bernard Shaw had once famously commented that 'Democracy is a device that insures we shall be governed no better than we deserve.' That Mysore and her people deserved the best in the country in those times becomes amply clear when we see some of the pioneering experiments in democracy in India being successfully tried in this small southern kingdom. The first province to have a democratic form of government in the form of Prajpratinidhi Sabha or Representative Assembly and later the Legislative Council in 1907; extension of franchise to women—again a novel concept in India; the first province to provide reservations to backward sections of society in government jobs, first to implement animal husbandry and family planning measures, large scale spurt of educational institutes all over the kingdom to cover various sections of society—women, minorities, tribal communities, backward castes etc—-the list just goes on.

Two interesting incidents are perhaps worth a mention here. One is the background of the construction of the KRS Dam. When the initial plans were drawn they were inimical to the farmers of the State and despite being a subservient kingdom, Mysore rejected the proposals. After a lot of back and forth between Mysore and Madras, British Chief Engineers drew the plan for this dam in 1908, the approximate cost of the project was estimated at about Rs 2.5 crores—-an amount that overshoot the State Budget itself! But since the project was a beneficial one to the people of that region, the then Regent Queen Vanivilasa Sannidhana and young Nalwadi Krishnaraja came up with an ingenious solution to overcome the fiscal deficit. The jewels, costly diamonds, ornaments and gold and silver plates of the royal family were dispatched to Bombay and sold at competitive prices there. The money so obtained was used as seed-capital for the project. How often in the history of princely India do we have such instances of selflessness in the royal family? But sadly, these are facts that have been lost with the passage of time!

The other interesting incident that comes to my mind is with regard to the establishment of the Indian Institute of Science, which celebrates its centenary this year. In retrospect, 1901 proved to be a decisive year in the history of Bangalore. Sir William Ramsay, Noble Prize winner for Chemistry, was requested by the Royal Society of London to choose an appropriate site for the establishment of an institute of excellence in higher education. Ramsay toured the entire country and recommended Bangalore as an ideal place. These days it is politically incorrect to say Bangalore has the best infrastructure in India! But back then, with the City Improvement Trusts etc that were set up, Bangalore and Mysore cities were planned and well-laid, availability of power by the hydel project, the amiable nature of people, and the salubrious climate— all added to its advantage.

At around the same time, there was a competitive bid by Roorkee for their town as a possible location. But what clinched the deal in favor of Bangalore was the vision of a lady who herself was not too highly educated. The city would have lost the prestigious Indian Institute of Science but for the timely initiative of the Regent Queen of Mysore—-Vani Vilasa Sannidhana. She immediately seized opportunity and quickly signed a contract offering 371 acres of prime land in the city and a generous grant of Rs 50,000 a year. The overjoyed Committee that was looking for an ideal venue looked no further and Bangalore became the chosen city. The spin offs that came with the establishment of the IISc in Bangalore were amazing. It catapulted the city into a knowledge capital of India—-and an ideal destination for the Space Research, Aeronautics and Information Technology industry to find its roots here, many decades later. So I guess history has so many lessons to teach, if only we bothered to listen and learn!

It was into this illustrious polity that Sir MV made his entry around 1909. Born on September 15 1860 to Sanskrit scholar Srinivasa Sastry and Venkachamma at Muddenahalli in Kolar district, Vishweshwarayya belonged to the Mulukanadu Smartha community that hailed from Mokshagundam in today's Andhra Pradesh. Three generations before Sir MV, they had migrated to Mysore. Vishweshwarayya lost his father at an early age and we all know about the legendary stories of the hardships he faced to complete his education. Attending primary school school at Chikballapur and high school at Bangalore. He earned his B.A. from Madras University in 1881 and later studied civil engineering at the College of Science, Pune, now known as the College of Engineering, Pune (COEP). He then took up a job at the Public Works Department of Bombay and was later invited to join the Indian irrigation in the Deccan area. His impressive work for the Khadakvasla reservoir near Pune attracted the attention of the Mysore Government that invited him as a Chief Engineer of the State. He made significant contributions to the construction of the Kannambadi Dam across the Cauvery that irrigates close to 1.5 Lakhs of dry land in the Mandya and Malavelly regions.

Sir MV succeeded T Ananda Rao as the Dewan of Mysore in 1912. This period saw an amazing spurt of industrial activity all over Mysore with the establishment of the Mysore soap factory, the Bhadravati iron works, Sandal Oil Factory, spun silk works, the SJP polytechnique, a school at Hebbal (which grew into the University of Agricultural Sciences in Bangalore decades later), the State Bank of Mysore, Mysore Chamber of Commerce and Industry the Mysore Sugar Mills and numerous other industrial ventures. Several new railway lines were laid all over the State and they accelerated the pace of Industrial growth. Factories for manufacture of paper, cement, agricultural implements, porcelain ware, electric goods, glass and enamelware, Bakelite products, matches, machine tools, lac, paints, pipes, pottery, sugar, power alcohol, chemicals, fertilisers, chrome and leather were established. Interestingly, many of these achievements occurred at the time of the First World War when the state had to contribute substantial amounts of money to the British war efforts.

Sir MV also encouraged private investment in industry during his tenure as Dewan. Being an academic himself, his thrust was on education and on the increase of number of primary and middle schools. His pet project was female literacy and education for the backward classes of society. The Mechanical Engineering College, Commercial and Agricultural Schools, Chamarajendra Technical Institute (Bangalore), Industrial Schools at the District headquarters, Bangalore Engineering colleges (1917), Karnataka Sahitya Parishat at Bangalore (1916), libraries in Bangalore and Mysore, the famed Mysore University (in 1916) were all established during his Dewanship. Maharaja Krishnaraja Wodeyar was the guiding force and inspiration in all these measures.

Sir MV was also known for his sincerity, time management and dedication. When public gatherings were organised to felicitate him on assumption of office, he modestly remarked:

"It will, I hope, not be regarded an affectation of modesty on my part if I say that all I have wanted is opportunity for work, and that thoughts of personal advancement have not influenced my action in recent years. With the important duties now graciously entrusted to me by His Highness the Maharaja, I have all the scope for work that I may have ever longed for. I seek no further reward. The pleasure of working for a few more years, of serving my Sovereign and my country, is enough for me. Their interests will be my constant thought and their appreciation, if I am able to secure it, will be my best reward."

He was constantly seeking to improve himself and all he encountered, to serve better and to learn more. His panacea for the ills facing the state and the country was simple—cut slackness, and work! As early as 1907 he wrote "A Vision of Prosperous Mysore", in which he outlined his plans for economic development of the state. The book stressed the need for the spread of education, technical knowledge and proposals for irrigation, industrialisation and commercial progress. He firmly believed that investment of the state's finances in income-yielding

projects would completely preclude the need for maintaining reserves out of its income.

In Sir MV's words: "Slackness is the worst curse of the country... The number of working hours is fewer here than in Europe. There are more government holidays in the State than even in British India. Official employment is sought for because once a man gets into service whether efficient or weak, wise or imprudent, he is practically sure of a competence for the rest of his life. Closely associated with slackness is lack of initiative. The more energy we put forth and the more we use our intelligence, the greater the pleasure provided we do not overdo it to the point of fatigue. With industry, and by studying technical books and papers, even men of mediocre talent can excel. But unless people consider slackness a disgrace, there is no hope of improvement. Our efficiency as a country depends not on our better position compared with our past. But on our progress in relation to the other civilized countries of the world, to the other members of the family of nations... We should dismiss from our mind the idea that any great work can be accomplished, that any reputation in the profession can be made, without drill, discipline and iron labor!"

The greatness of a man, they say, lies in the timelessness of his thoughts. If one were to sit back and just go through the thoughts expressed in this stirring speech, how many of us would deny that the thoughts remain as germane and as relevant to the India of today as it was about 100 years ago when Sir M.V. first articulated his thoughts! He was thus a man far ahead of his times in terms of his vision, his dedication and single-minded devotion to work for the all-round development of the state. The far-sighted Sir M.V. seems to hold up quite a mirror to the slack bureaucratic machinery of governments in modern India!

The social churning that was going on in Mysore with a clamour for reservation for backward castes in Government jobs led to the Justice Miller Committee which recommended this policy of keeping seats for the depressed castes. Sir MV however firmly believed that merit alone ought to be the criteria for government jobs. When his voice was lost in the clamour of populist demands, he resigned from the post of Dewan in 1918-an act that brought him much criticism from the social-justice lobbies of society. But he continued to be associated with the growth saga of Mysore, serving as advisor for several projects like the Bhadravati Iron Works, the Kannabadi Dam, the Thippagondanahalli water supply system, Hindustan Aircraft Factory (later HAL) to name a few. For all his pioneering services, he was awarded the highest civilian honour of Independent India-the Bharat Ratna in 1955. This great son of Mysore died on 14 April 1962 at the ripe age of 101.

But along with these social and economic progress that was ushered in, in Mysore, under the Wodeyars and their Dewans, I think one of the biggest and visible manifestations of their that we in Karnataka proudly inherit is of course the cultural ethos. Mysore evolved its own distinct philosophy and ethos, totally different from the neighbours it had; the people were and continue to remain genial, cordial and hospitable-to a large extent! This nature finds its manifestation in almost all the art forms of the times, be it music, dance, literature, painting, folk arts etc. The other hallmark of the Mysorean ethos was its cosmopolitanism. We had a polity that allowed people from all sections of society to work as equals-you had a Muslim Dewan Sir Mirza Ismail, you had the Iyengars, the Bengalis, the Telugu Brahmins and also the local Kannadigas who occupied various positions of power or seats of excellence in the arts. This cultural melting pot that Mysore became was something that has come down through the ages as well.

This unique element of synthesis and harmony is something we see in all aspects of Mysore's culture. In the architecture of even the Mysore Palace, we see the amalgamation of so many styles-the Indo-Saracenic, the Hindu styles, the Muslim domes, the European cathedral influence in the ceilings of the Kalyana Mantap. In the field of dance, Mysore evolved its unique style of Bharatanatyam, distinct from the Tanjore style, which even borrowed mudras from the north Indian style of Kathak. This dance form is sadly extinct today, after the last doyen of the style

Padmabhushana Dr Venkatalakshamma died about a decade ago. It was something that relied heavily on abhinaya or facial expressions and emotions and was done seated, unlike the normal Tanjore Bharatanatyam that we see today. The Mysore school of painting too was always marked by its delicate line work, low relief, and gentle touches and never too loud and jarring.

Mysore, alongside Tanjore and Travancore, also emerged as the seat of classical music in the South. But once again we find the 2 aspects of geniality and inclusiveness in music as well. The Mysore Bani or style that evolved, especially in the Veena was characterized by very soft plucking of the strings and one that was devoid of the usual gimmickry. Some of the greatest names in Indian classical music, like Mysore Vasudevacharya, Bidaram Krishnappa, Veene Sheshanna, Shamanna, Subbanna, Veene Venkatagiriappa, Mysore Sadashiva Rao, Dr Harikesanallur Mutthaiah Bhagavathar, Phiteel Chowdaiah and others were given liberal patronage by the culturally conscious Maharajas.

But unlike the other princely states, which emerged as seats of one or the other of the Indian classical styles of music, in Mysore we find an amalgam of the two. Hindustani musicians like Ustad Fiaz Khan of the Agra Gharana, Ustad Abdul Karim Khan of the Kirana Gharana, Ustad Aftab Barkatullah Khan, Gauhar Jaan of Calcutta and others, as also Carnatic musicians of neighbouring kingdoms like Ariyakudi Ramanuja Iyengar, Tiger Varadachar, Veene Dhanammal and others were constantly invited to Mysore to stay on. The interaction helped a scholar like Mutthai Bhagavathar to draw many Hindustani ragas into Carnatic music and they continue to be so even to this day. The symbiosis worked the other way as well. When Rabindranath Tagore's niece Sarala Devi Choudharani was invited to be the Assistant Superintendent of the Maharani Girls school in Mysore, she picked up a lot of Carnatic tunes which she sung to Tagore later. So impressed was he that Tagore composed many of his Rabindra Sangeet songs based on these tunes which occupy a whole new genre called the Bhanga Gaan. Western Classical music too received great patronage in Mysore, with Prince Jayachamaraja Wodeyar and his talented sister Rani Vijaya Devi being ace pianists themselves. His liberal grant to anonymous Russian composer Nizholski Medtner and the formation of the Maharaja of Mysore's Medtner Society, where he liberally funded and brought to light 12 of the maestro's best compositions, is almost part of folk lore. Of course later on Jayachamaraja Wodeyar gravitated towards Carnatic music and composed over 97 Kritis or compositions which have been masterpieces.

Perhaps the best eulogy for the visionary rule of the Wodeyars came from C. Rajagopalachari, the first Governor General of Independent India. In an address to the newly formed Government of Independent Mysore State, he said:

"Successive and able administrators under His Highness' predecessors have built this province to an enviable degree of progress and glory. My colleagues in national agitation have taken over, I feel, a very high responsibility. It is not easy to maintain the State and keep it up to the level it had reached through the talent, industry, devotion and patriotism of previous administrators... If I were here, I would not sleep happily."

History they say is a mirror in which we can identify ourselves as a nation, as a people. I think a study of the history of Mysore, an analysis of the growth saga that unfolded in the last 150 years or so of the Wodeyar history, hold this mirror to all of us. It is often debated whether history is at all relevant and if it is the present that drives the future and the past is totally removed from it. But I do feel that the study of history, and that too an inspiring history like this one, has a dual objective. It gives us a sense of pride and a feeling of rootedness, that we didn't after all emerge so successful from nowhere. While we might soar in the sky, we need to have our feet firmly grounded in the earth. As Sri Aurobindo rightly mentions 'Earth bound, heaven amorous.' Along with this sense of pride, comes an even great feeling---one of duty and responsibility, like what Rajaji mentioned in his address.

TECHNICAL SEMINAR ON SATURDAY 10 SEPTEMBER 2011
THEME "ENGINEERING PREPAREDNESS FOR DISASTER MITIGATION"



Chief Guest Dr.H.Maheshappa Vice Chancellor Visvesvaraya Technological University Belgaum Inaugurated the Technical Models, Arts & Crafts Exhibition and delivered Inaugural address.

Prof.H.Maheshappa highlighted during the seminar that ' India is a large country that has more than its share of major natural hazards like drought , floods , earthquake and cyclones throughout its history of civilization. Naturally, the country has developed its own practices and strategies for coping with the expected calamities. Since independence , the country has developed a nationwide relief administration programme, which envisages a lead role for the state governments.

Statistical probability of the occurrence of natural hazards with a certain destructive capability in an area within a specific duration can often be estimated. In some cases, likelihood of occurrence can be established for several hours or days in advance. If a hazard is unlikely to cause any damage to the environment or lead to any loss of life, intervention to minimize the hazard is not required.

Because of uneven distribution of industrial centres, lifeline facilities and population densities, estimated risk is not expected to have a perfect correlation with the corresponding hazard estimated across the region. It may not be appropriate to directly adopt the risk estimates, considered admissible , in developed countries, in the Indian context by policy makers, because of the differences in psychological perceptions of a more affluent may be prohibitively expensive.

High density population and expansive infrastructure in cities and large towns implicate high risk. On the other hand, in smaller towns and villages, alternative mitigation measures such as organizing the local community to cope with hazards may be more suitable , because of the unorganized nature of the construction industry. Implementation of these measures would require participation of all stake holders, particularly, the local population and government as well as non-governmental organizations.

Specific short -term action plan towards risk management with regards to major natural hazards includes , quantification of hazard associated with a natural event, estimation of the potential impacts, and thereafter implementation of measures to reduce vulnerability. Measures such as building bylaws, zoning ordinances, insurance and tax incentives are also used to manage the risk associated with several types of natural hazards in developed countries.

The difficulties associated with hazard and risk management are mostly due to inherent unpredictability of the hazard and the dearth or outright absence of damage statistics in many jurisdictions across India. This is further increased by the lack of proper management and co-ordination amongst participating stakeholders . Resource management is an important aspect that can deal with shortage of resources. Disaster risk management and development process must go hand in hand. Policies should incorporate socio-cultural aspects through involvement of grassroots workers.

Population pressure, environmental degradation and unplanned urbanization are some of the major factors contributing to

increased vulnerability in the country . As such, need has been felt to accelerate the pace of disaster mitigation efforts in the country. It is planned to lay more emphasis on the following areas:

- " Linkage of disaster mitigation with development plans
- " Effective communication system
- " Use of latest information technology
- " Insurance in all relevant sectors
- " Extensive public awareness and education campaigns
- " Particularly in the rural areas
- " Legal and legislative support
- " Greater involvement of NGO's & private sectors

For rapid progress towards appreciable reduction in the disastrous impact of natural hazards, the policy of the government may include the following:

- " To invest on global observations, and to give a boost to the science of observation and measurement on which the real progress depends.
- " To enhance the scientific content of prediction methodologies and reliability of forecast, if and when it becomes feasible.
- " To map the earthquake hazards on a large scale and link the maps intimately with the process of development planning; to conduct micro-zonation of urban areas at earthquake risk.
- " To foster closer partnerships with financial and legal institutions, insurance companies, community-based organizations and industry.
- " To create an All India Institutional Network , to involve in disaster preparedness , mitigation management and prevention.
- " To invest more on public awareness, education, training and human resource development in the areas of disaster mitigation.

On this occasion, I would like to draw your attention that an Engineer plays an important role in the application of Science and technology for progress. Technology is however a double edged instrument, which is beneficial as well as harmful. Application of technology has made exciting contributions for the growth of human civilization, enhancing quality of life, health, wealth and welfare. Application of technology, if not done with care and moderation may produce harmful effects, causing injury to human, animals and environment. It can also be used to make weapons of mass destruction. New technology process and products can also have associated risk and safety problems. Engineering education in addition to imparting technical knowledge and skill must train the engineers to act with professional responsibility and ensure ethical code of conduct. Engineers foremost responsibility is to avoid harm to society, animals and environment. Engineers while performing their duties may come across many moral dilemmas and conflict of interest. Hence, there is a need for educating engineers on professional ethics and empower them to analyse the ethical issues and act responsibly and solve the conflict of interest and moral dilemmas.

GUEST SPEAKER



Er.Vidyashankar Hosakere Managing Director and Principal Consultant, Des Build Projects Pvt. Ltd., Bangalore
 Managing Partner, Turnkey Construction Engineers, Bangalore
 Founder Director and Patron, Dhaatu - Center for Sharing, Bangalore, India

DISASTERS Mitigation Engineering Preparedness - A Holistic View
Er. Vidyashankar Hoskere MS(USA), PE(Cal.),

LIFE ON EARTH

NO LONGER, CONSIDERED AS, PART OF NATURE!, NO NEGATIVE EFFECT, FROM DISASTERS !, CREATING PRESSURE, THRU INCREMENTAL, WANTS / NUMBERS!, USING /RE-MOLDING, NATURAL RESOURCE LAYERS OF CAUSELAYERS CAUSES

TYPES OF DISASTERS

‘ GEOLOGICAL [NATURAL], ‘ Earthquakes, ‘ Volcanoes.....etc.,, METEOROLOGICAL, [INFLUENCED BY MAN], ‘ Tornadoses, ‘ Hurricanes ‘ Floods, Tsunamis, ‘ Winter Storms.....etc.,, ‘ MAN-MADE

HURRICANES

TORNADOES

‘ Rotating, funnel-shaped clouds from powerful thunderstorms
‘ Winds up to 300 MPH capable of producing major damage

EARTHQUAKE

‘ Shaking caused by movements of plates in the earth’s crust, Occur along faults – borders between two plates, ‘ Occur most often along the Ring of Fire

VOLCANOES

‘ More than 500 active volcanoes in the world; over half in the Ring of Fire, ‘ Pressure builds below the earth’s surface, producing eruptions of lava, rock, and volcanic gases

TSUNAMIS

Floods, ‘ Flonrdmsi dase sa urnedseurlt t ohfe eoacretahnquakes, volcanoes, or, ‘ Waves grow taller as they reach the coast, ‘ Four out of Five occur in the Ring of Fire, ‘ OOvceera n2 t0s0u,n0a0m0i people killed in the 12/26/05 Indian, 1970: Earthquak1970: Earthquake wipes out Yungay, claims 18,000 lives

THE ROLE OF AN ENGINEER

‘ OBSERVE and STUDY CAREFULLY, ‘ CATALOGUE SYSTEMATICALLY, ‘ ANALYSE OBJECTIVELY, ‘ GET OPINIONS OF INFORMED PEOPLE, Bharata Ratna ‘ FORM PLAN OF ACTION, Mokshagundam Visvesvaraya, ‘ IMPLEMENT SCHEME, ‘ CONTINUE REGULAR CHECKS/FEEDBACK, ‘ PERIODIC REVIEW/ IMPROVEMENT, Sep.15,1860 – April 14, 1962
Avalanche wiped out the city of Yungay

GLOBAL BACK GROUND CONTEXT

‘ “There has been a rapid escalation in the incidence of severe disaster events in recent decades., ‘ Total reported global costs have risen 15-fold over the past five decades, ‘ While numbers of people affected tripled between the 1970s and 1990s.”, (ProVention Consortium, “Measuring Mitigation,” 2004), ‘ No Light At The End of The Tunnel – Here or Abroad

NATIONAL SCIENCE AND TECHNOLOGY COUNCIL, USA ON NATURAL HAZARDS

“Future prospects are sobering., ‘ Continued population growth, ‘ Increased urbanization and concentration in hazard-prone coastal areas, ‘ Increased capital and physical plant, ‘ Accelerated deterioration of the urban infrastructure, and ‘ Emerging but unknown new vulnerabilities posed by technological advance ‘ Virtually guarantee that economic losses from natural hazards will continue to rise throughout the early part of the coming century. ‘ Losses of \$100 billion from individual events, and perhaps unprecedented loss of life, loom in our future.”

UNDER LYING PROBLEMS

‘ We Build in Floodplains ‘ We Destroy Wetlands ‘ We Build Along Earthquake Faults ‘ We Build On The Coast ‘ We Build On Alluvial Fans (spilling from mountains) ‘ We Build In and Near Forests Susceptible to Wildfires ‘ We Try To Control Nature ‘ We Don’t Zone, Code, Build, Maintain (Aging Infrastructure), Inspect and Enforce Appropriately Enough ‘ Thus – Disasters Are A Growth Business

TYPICAL DISASTER PLATYPICAL PLAN - TO BE DEVELOPED BY LOCAL AGENCY

‘ Disaster Prevention Checklist, ‘ A. Disaster Prevention and Preparedness Guidelines ‘ B. Housekeeping Guidelines ‘ C. Hazards Survey ‘ D. Building Safety Checklist ‘ II. Disaster Response ‘ A. Emergency Contact List ‘ B. Procedures ‘ III. Disaster Recovery ‘ A. Restoration Methods ‘

B. Recovery and Completion ‘ IV. Appendices
‘ Appendix A - Floor Plans ‘ Appendix B - Priorities List ‘ Appendix C - Human Resources (Disaster Action Team, Emergency Phone Numbers, Staff Phone Numbers) ‘ Appendix D - Services ‘ Appendix E - Supplies ‘ Appendix F - Emergency Purchase Order Form

LIFE ON EARTH – ROLE OF THE HUMAN IDEA

Just for Human Consumption & Fire-Fighting? OR for a FUNDAMENTAL CHANGE?

WHAT IS MANKIND’S MANDATE?

Is it to endlessly think, out ideas and create, things using the, resources available? How do we select ideas worthy of realisation?

SOURCING THE HUMAN IDEA :insights from ancient Indian thoughts
IN ANCIENT CULTURES The Human Idea was treated as very special!

The people were both industrious and calm! Most were content and happy Deep down they resisted wild adventures and fancies They worked hard but did not kill themselves trying to work hard. Life was designed to retain its identity with nature.

THE WRITING IS ON THE WALL!

Nature with all its events, always seems to be in balance, What does this mean for the human being? The advent of the human being on earth

is merely another event in the ancient calender of the earth And if human advent seemingly upsets the natural balance, nature has the wherewithal to react and restore a new balance.

” There is enough for everyone’s need but not for everyone’s greed”

The concept of the Universal and the Individual Universal [No trading, possessing and hoarding allowed] Food – cooked food, seeds, grains, vegetables Education – value based education

Eliminate Greed as a source of Human Ideas

Eliminate Misplaced Trust And Misplaced Respect

We must re-create a society in which people who contribute are more respected than people who consume.

ABANDON THE COMPLEX, EMBRACE THE SIMPLE

COMPLEX	SIMPLE
IGNORANCE	TRUTH
FALSE SELF	TRUE SELF
SERVING YOURSELF	SERVING OTHERS
MEGA-ORGANISATIONS	SIMPLE COMPANIES
COMPLEX BUILDING SYSTEMS	SIMPLE BUILDING SYSTEMS
COMPLEX SERVICES	SMALLER LOOPS -SELF-SUFFICIENT

#9) STOP GROWTH OF CITIES ADOPT RE-VITALISATION OF RURAL AREAS-NEWTOWNS’ MUST BE PLANNED, WHICH ARE STREET SUFFICIENT FUEL, POWER, MILK, WATER, VEGETABLES AND WASTE RECYCLING MUST BE DONE WITHIN THESE STREET COMMUNITIES

OFFER YOUR INDIVIDUATED PASSION AND GREED DRIVEN IDEAS TO A PURIFYING FIRE LET US AGREE – THAT THE ‘IDEAL OF UNIVERSAL AND COLLECTIVE WELL BEING’ SHALL BE THE SINGLE ‘KARTA’ AND LET ALL OF US RESPECTFULLY TAKE OUR POSITION AS ROLE-PLAYERS IN THIS GREAT OFFERING OF LIFE ACTIVITY

THE BIG QUESTION

‘ CAN WE TRULY CONTINUE THE WAY WE ARE LIVING OUR LIVES ?
‘ OR SHOULD WE REALLY CHANGE?

THEREFORE, WHAT IS MANKIND’S MANDATE? Is it to endlessly think out ideas and create things using the resources available

AND IF WE TRULY HOPE TO REDUCE THE NUMBER OF DISASTERS WE MUST ADOPT A MORE SUSTAINABLE WAY OF LIFE

COSMETIC AND ISOLATED CHANGE COSMETIC CHANGES

ARE NO LONGER SUFFICIENT! LET US WAKE UP TO THE CALL OF MOTHER NATURE LET US COMMIT TO BRING ABOUT A CHANGE IN CONSCIOUSNESS

LET ALL OUR IDEAS BE ROOTED IN THE IDEA OF SUSTAINABILITY

Sustainability can no longer be a fad. It has to become our passion! ADOPT SUSTAINABLE AND NOBLE VALUES IN LIFE – ATLEAST AVOID A DISASTER IN YOUR PERSONAL LIFE!

**TECHNICAL SEMINAR ON SUNDAY, 11 SEPTEMBER 2011
THEME "ENGINEERING PREPAREDNESS FOR DISASTER MITIGATION"**



Chief Guest: Dr.Wooday Krishna.FIE, Former Member Karnataka State Disaster Management Authority, IEL- Council Member being felicitated on the occasion.

Er.V.Jagannatha Programme co-ordinator Scientist/Engineer-SE,CEPO, ISRO Hq on deputation) State Institute of Urban Development, Administrative Training Institute, Mysore

GUEST SPEAKERS : Er.Sham Sundar, Asst.Professor, Dept.of Mechanical Engineering ,NIE & Director, NIE-CREST , Mysore

Er. A. Balasubramanyam., AGM, Larsen & Toubro Limited, Plant Engineering Department, Mysore,

Dr.H.Nagana Gouda, Director, National Training Centre for Solar, KPCL, Bangalore.

Dr. Lawrence Surendra,

EXHIBITORS : Powertronix Systems Ltd, Bangalore
Genius Industrial Services, Mysore
NIE-CREST , Mysore

LARSEN & TOUBRO, MYSORE CAMPUS,

By A. Balasubramanyam, AGM, Head Plant Engg.

Larsen & Toubro is situated in KIADB Industrial Area, Hebbal-Hootagalli manufacturing Electronic products including Energy Meters, Tri-vector Meters, Protective Relays & Medical Equipments. Also we have two software divisions. There are about 1500 employees working.

Our campus is certified for : • ISO 9001:2008 (Quality Management System) • ISO 14001:2004(Environmental Management System) • OHSAS 18001:2007 (Occupational Health & Safety Assessment Series) Besides this we have ISO13485, BIS, CE, FDA, AS9000 & CMMI certifications. We follow Six sigma, Value Engineering, Lean Manufacturing, 5S & Pokeyoke for improving product quality, resource optimisation & house keeping. Initiatives taken to conserve natural resources

- Greenery in & around the campus- to reduce dust level, temperature & planted varieties of medicinal plants to improve the air quality.
- Carried out carbon foot mapping for taking necessary steps to reduce Carbon foot print.

Initiatives taken to reduce , energy consumption, LED Street lights Wattage : 90 Watts compared to 250W of sodium vapour lamps. Total no. of lights replaced : 102 Savings/month : 4896 Kwh (saving of Rs.24,500/- per month) Pay back period : 42 months (Project cost Rs. 10.2 lakhs) At shopfloor: • 72 watts CFL replaced by 36 w LED fixtures for lighting. • Savings/month : 539 Kwh (saving of Rs.2695/- PM) • Pay back period : 44 months.

Turbo ventilators in Non AC areas

- Savings/month : 70 Kwh, • Payback period : 48 months, • Project cost : Rs. 16000/

Hallow clay tiles for terrace

- Terrace area considered : 30,855 sq.ft
- Project Cost : Rs.11.00 L
- Cost saving/month : Rs.28730/-
- Pay back period : 38 months

Solar water heater at canteen & Training centre Hostel, Solar Water heater in Canteen, Capacity 1000 Its, Solar Water heater in Hostel, Capacity 4000 Its, Solar water heater at canteen & Training centre Hostel Savings/month : 7920 Kwh, Project cost : Rs. 5 L, Pay back period : 13 months

Timer for AC to switch ON and OFF during breaks, Installation of electronic occupancy/movement , sensors for all common area like corridors, wash rooms etc., Installed gravitation conveyor to shift the finished goods from shopfloor to finished goods stores. Fresh air fan for pumping in fresh air in the morning to reduce the room temperature

• Inverter based AC, • Auto Power factor controller, • Installed Air-curtains between AC and non- AC, areas to reduce loss of conditioned air., • Installation of VFD for water pumps., • Battery operated platform truck inside the campus., • Initiatives taken to reduce water consumption

• Rain water harvesting pond both for storage & percolation, • Rain water harvesting pond (5 nos.) ; • Capacity : 69 Lakhs Litres. , • Savings: Rs.1.75 Lakhs/year, • Use of treated STP water for gardening. Generation of one lakh litre/day, Rainwater Harvesting refers to the collection and storage of rainwater.,

Rainwater is harvested for two purposes. The first purpose is direct storage (above or below ground). The second purpose is re-charging of ground water.

No. of STPs : 3, Total Capacity : 65 KLD, The treated water is used for gardening., Dishwashers at canteen , Two nos. of dishwashers were installed in the canteen to reduce the water consumption and also to improve the hygiene of the utensils., Saving of 3,00,000 liters of water per year., Pressmatic taps installed at wash rooms to reduce the consumption of water., • Flush tanks with option for 3/6 Its., • Sprinkler system for gardening. Kitchen waste Bio gas plant

EXERCISE ON BIO-GAS PLANT , Plant Specification :

Capacity : 200 KGs (input waste/day), Generation of Bio-gas = 18 m³

Equivalent for LPG = 1m³ = 0.4 kgs, Cost of LPG = Rs.72/-, Green manure generation = 10% of input, Cost of manure = Rs.3/- per Kg, No. of working days in a month : 22, Total Project cost = Rs.2.60 L

What is the pay back period ?, Details of Bio gas plant (Contd.) , Capacity : 200 KGs, Reduction of LPG cylinders/month : 10, Savings per month: Rs. 12096/-, Savings through manure : Rs. 1800/-, Project cost : Rs. 2.6 Lakhs., Pay back period : 18 months., Highlights of Synchronising cum load sharing panel, Before : During power cuts, all the four DG sets were independently supplying power to various buildings irrespective of the load & all the three transformers were operating throughout the day. , After : All DG sets, transformers & connected loads are connected to the common bus.

Advantages:

- During Power cuts only 3 DG sets will synchronise with each other & share the load.
- 2. Only one transformer is sufficient to take the load during night & holidays., • Savings : Rs. 29.35 Lakhs/year by way of reduction in Diesel power consumption., • Cost of the project : Rs. 60 lakhs, • Pay back period : 2 years, • Vermiculture is the process of using worms to decompose organic food waste, turning the waste into a nutrient-rich organic manure., • It helps to rebuild the soil. , • t reduces the need for synthetic fertilizers., Food waste from the kitchen like fruit and vegetable peels, Yard trimmings, grass clippings, leaves are great for Vermiculture. • Cost of Organic manure required for gardening per Annum Rs.25,000.00., • No need of organic manure., • Cost of Synthetic fertiliser required for gardening per Annum Rs.20,000.00., • No need of synthetic fertiliser, • Total savings per annum : Rs 45,000.00

**CULTURAL MEET OF MEMBERS AND THEIR FAMILY
SUNDAY, 11 SEPTEMBER 2011**



**44TH ENGINEERS' DAY & 150TH BIRTH ANNIVERSARY OF
DR. SIR.M.VISVESVARAYA THURSDAY, 15 SEPTEMBER 2011**



44th Engineers' Day & 150th Birth Anniversary Celebrations of Bharata Ratna Dr.Sir.M.Visvesvaraya was Inaugurated by chief guest Er. G. Prabhakar. FIE President IEI. With Guests of Honour Er.Madan Lal.FIE Immediate Past President, IEI & Er.L.V.Muralikrishna Reddy.FIE Immediate Past Chairman, IEI,KSC.



Eminent Engineers S.Narayana Rao, J. B. Yogegowda, S.L.Ramachandra and Dr. T. H. Udayashankara were Honoured on the occasion. The compiled published technical paper booklet of Dr.T.Ananthpadmanabha, Honorary Secretary,IEI,Mysore was released by IEI president Er. G. Prabhakar.



IEI President Er.G.Prabhakar addressed the audience reminding them that the Institution is 6,70,000 members strong across the country and the foundation is legally, socially and politically formidable. Among all the centres which are striving hard, Mysore is in the lead in serving the Engineering fraternity over the years and has grown from strength to strength from its inception in the year 1964.

He called upon IEI members to give priority to young and women engineers and adequate space for their active involvement in the affairs of the Institution. He gave a clarion to all Engineers to emulate great Engineer Statesman Dr.Sir.M.V. and work towards his dream and vision for India. Immediate Past President Er.Madan Lal while remembering Dr.Sir.M.V. became emotional and called upon the youth to imbibe the qualities of Honesty, work culture and perseverance which have become a rarity in the present context.

Chief Guest Er.G.Prabhakar.FIE President IEI, Guests of Honour Er.Madan Lal.FIE Immediate Past President IEI. & Er.L.V.Muralikrishna Reddy.FIE Immediate Past Chairman, IEI, KSC, were felicitated on the occasion. The programme concluded with grand dinner.

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