

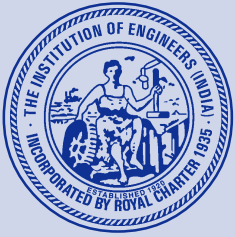
Institution of Engineers (India)

T.N. STATE CENTRE

BULLETIN

Chairman :
Er. K.P. Ramanathan, FIE

Honorary Secretary :
Er. D. Sundarasekaran, FIE



Vol. 14 : No. 12

March 2016

From the Chairman's Desk...

Dear Engineers,

I would like to bring to you that India is currently the seventh-largest producer in the world with an average annual production of 17.5 Million vehicles, of which 2.3 Million are exported. The Indian automobile market is estimated to become the 3rd largest in the world by 2016 and will account for more than 5% of global vehicle sales. India is the second-largest two-wheeler manufacturer, the largest motorcycle manufacturer and the fifth largest commercial vehicle manufacturer in the world. The total turnover in 2010-11 was USD 58.5 Billion, turnover by 2016 is slated to be USD 145 Billion.



Tamil Nadu, till date, is the only State to attract seven automobile giants-Ford, Hyundai, Mitsubishi, Daimler, Nissan, Renault and BMW. Chennai, the capital of Tamil Nadu has an installed capacity to produce over 3,80,000 cars and about 3,50,000 commercial vehicles each year. Tamil Nadu will have significant capacity addition by 2017-18 with players like Yamaha, Toyota, Mahindra & Mahindra establishing their plants in the Region. Tamil Nadu is the largest contributor to the automobile sector in India in terms of Industrial Output and has about 20% of India's total installed capacity of Vehicle production. The state aims to reach 5 million Units production by 2020. Tamil Nadu accounts for 21% of India's automobile exports. It is the Export Hub of Passenger Vehicles accounting for 70% of India's overall exports. It has over 80 automobile component manufacturers, accounting for a turnover of over USD 1.3 billion as in 2013-14.

Tamil Nadu has wide presence of Indian & International Automobiles Manufacturers & Auto Component Manufacturers & growth potentials as envisaged by Public Agencies. Availability of Human Resources right from Technicians to Engineers / Professionals with higher learning & expertise due to the presence of large number of private

and public Institutions. Availability of Automotives Testing infrastructure by ARAI / NATRIP at Orgadam - the growing /vibrant Automotive Hub of Chennai. Chennai Port is the major support for Exports.

Based on the above said National Scenario and Tamilnadu State Scenario in particular for automobile hub, the National Automotive Forum (NAF) proposal was prepared to establish at IE(I), Tamilnadu State Centre and the same was sent to the Honorable IE(I) President, Er HCS Berry, FIE to set up at IE(I), TNSC in Chennai.

I am very happy to inform all the corporate members of the IE(I), Tamilnadu State Centre that our IE(I) President, Er HCS Berry, FIE as directed by him the proposal of IE(I), Tamilnadu State Centre on establishment of National Automotive Forum (NAF) may be situated at the premises of IE(I), TNSC with the controlling of IE(I), Headquarters, and the activities should be organized all over the country based on the proposal received from IE(I), State / Local Centres.

The observations given by the President for National Automotive Forum (NAF) will be included in the proposal.

On behalf of the IE(I), Tamilnadu State Centre and on my own behalf , we wholeheartedly congratulate the Honorable IE(I) President, Er HCS Berry, FIE for having considered our proposal for the establishment of National Automotive Forum (NAF) at Chennai as a gift to the mother institution of IE(I), Tamilnadu State Centre where the IE(I) was established in 1920 at Madras which is added one more feather to IE(I) at National level to expand the IE(I)'s 96 years of relentless journey towards engineering advancement for nation building in the automotive sectors.

Thank you,

I will meet you again.

Er K P Ramanathan
Chairman

One day workshop on “Construction Failures – Causes & Remedies”

6th February 2016



Releasing of Souvenir



A view of audience

Construction failures are of serious concern to the Nation. Recent failures in multi-storeyed housing projects and infrastructure works in different parts of the country make this discussion more relevant.

The Institution of Engineers (India), Tamilnadu State Centre organised a one day workshop on “Construction Failures - Causes & Remedies” on 6th February 2016 at IE (I), TNSC Auditorium, Chennai, under the aegis of Architectural and Civil Engineering divisions jointly conducted the workshop with convenors as Er. Zacharia George (AR) and Er. K.P. Sathyamurthy (CV).

At the workshop construction failure was defined as failure to perform the purpose for which a structure or its elements are designed. In that context, discussions covered simple discolouration of painting to total collapse.

The Indian Association of Structural Engineers and the Indian Concrete Institute supported the event ; Several enterprises joining in to send delegates and avail of publicity for their products and services relevant to the topic. The special feature of the workshop was the attendance of over 106 registered student delegates from both UG and PG courses. A total of nearly 200 delegates attended. The event sponsors are Chettinad Cements, Veda Pile Foundation & CSIR - Structural Engineering Research Centre.

Four Technical sessions were held. One was a panel discussion wherein live interaction with delegates took place for over 1 ½ hours. The Speakers and panelists were eminent Structural Engineers like Er. Zacharia George, Er. A Veerappan and Scientist J Prabhakar and Senior Government Engineers.

Er. K.P Ramanathan, FIE, Chairman, IE(I), TNSC welcomed the gathering. Er T.M. Gunaraja, FIE, Imm Past Chairman & Council Member (MC), IE(I), TNSC delivered the special address. Er K.P. Sathyamurthy , MIE, Convener & Committee Member of Civil Engineering Division delivered about the theme of the workshop. Er T. Kanthimathinathan, Chief Engineer, WRO, PWD (TN) was the Chief Guest and inaugurated the workshop. Er K.P. Ramanathan, Chairman, IE(I),TNSC honoured the Chief Guest with Shawl and Memento. Delegates included researchers, practicing Engineers, Academia, and a large number of students.

Topics discussed at the workshop included several case studies, techniques and materials available for condition survey, test methods and retrofitting. The causes of failures as natural and man made as also from calamities were elaborated.

The workshop concluded that such workshops will be fruitful in creating awareness among the professionals about causes and remedies for such failures. The panel discussions was conducted by Er. Col P. Nallathambi and Er. C. Kalyanasundaram, along with the speakers of the day. Participation Certificates were distributed to the delegates and students. Er. D. Sundarasekaran, Honorary Secretary ,IE(I), TNSC proposed the vote of thanks. The workshop, thus was a grand success, both in technical and financial sense.

Note: “One day workshop on Construction Failures - Causes and Remedies” - a few copies of technical papers presented and discussed at IE(I),Tamilnadu State Centre on 6th February 2016 are available for sale to Members/ Students/ Engineering Colleges.

Papers as Printed books Rs. 250/- per copy

Papers as CD Rs. 100/- each

Talk on “Fertilizer Manufacture in India”

17th February 2016

A technical guest lecture meeting was held on 17th February 2016 at 6.00 PM in IE(I), Tamilnadu State Centre, auditorium . The topic of the day was on “Fertilizer Manufacture in India”. Er D Sundarasekaran, FIE, Honorary Secretary welcomed the gathering and introduced the chief guest Er R Ravichander, FIE, Committee Member (Chemical Engineering Division) of IE(I), Tamilnadu State Centre.

In his speech, he explained the present scenario of production of fertilizers in the country. He emphasized on increasing indigenous production rather than depending mostly on imports.

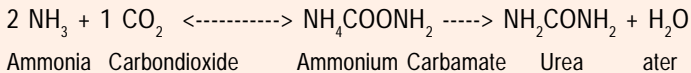
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A large section of Indian population depends on agricultural sector for their livelihood directly or indirectly. The 20th century had seen tremendous development on green revolution in India thanks to agricultural scientists and matching fertilizer production and usage to cater to the ever-growing Indian population. The 1942 Bengal Famine followed by Bihar floods, world wars, post-independence-war with neighbouring countries etc., led to food shortage and we had to depend on import of Rice from Burma, wheat, pulses, cereals, milk etc.

The ecological balance and the nitrogen -carbon cycle can explain the fixation of nitrogen in the air. Growing plants need nitrogen, oxygen Phosphorous and Potassium for their faster growth. Organic farm feeds, manure, etc., were found to be insufficient. Hence the production of Nitrogenous, phosphatic and potassic fertilizers were the need of the hour. Hence Urea, the inorganic fertilizer was in great demand. Also Single super phosphate, Double super phosphate, Diammonium phosphate, Ammonium sulphate etc., were used sparingly. But Urea and NPK fertilizers have come to stay.



The usage must be meticulous so that soil conditions are safe and lab-tested often. The volume of fertilizers manufactured, imported and sold over the past five years show that urea was around 58.3 % and rest all combined was around 42.7% only. The future trend as per population increasing beyond 130 crores need serious thinking by all agencies regarding the environment, soil

condition, indigenous production increase, imports, resorting to other form of fertilizers including organic, bio-fertilizer usage, direct ammonia injection to soil, employment, capital costs of installing new fertilizer units versus revamping old ones considering the extent of corrosion, investment blocked over long gestation and project implementation periods, site selection , development of technical manpower to handle, transportation costs, infrastructure, sales network / distribution, continuation of subsidy in which manner etc., There are over 450 units but very big companies are 43, including National fertilizers Ltd., Rashtriya Chemicals and Fertilizers Ltd., in the Govt. sector having multiple units in various places, IFFCO and KRIBHCO in the co-operative sector, Zuari, Duncans, SPIC, Nagarjuna, Mangalore, GNFC ,in private to cite a few and so on.

The economic size of viable fertilizer factories are nowadays is of the order of manufacturing 6000 to 8000 tons per day . The pricing is so low (urea below Rs.5/- per KG) to the farmer. This in comparison with table salt of Rs 12 to Rs. 16 is possible due to subsidy offered by Govt. The 1950s saw the investment by Govt., 1970s Govt. Co-op., Private. Now it seems that FDI may be one more solution to attract huge investments in India to manufacture Fertilizers at affordable costs so that we need not depend mostly on the imports considering the low oil prices prevailing over a long period now and the gas pipeline via Pakistan taking shape soon.

Er D Sundarasekaran, Honorary Secretary presented the memento to the chief guest Er R Ravichander and proposed the vote of thanks.

DONORS OF FLOOD RELIEF FUND

Er J Sundar Raman	Rs 5000/-	Er V Arthanari	Rs 2500/-
Er M Chelliah	Rs 3000/-	Er A Meenakshi Sundaram	Rs 1500/-
Dr S Ponnuswamy	Rs 2500/-	Er G Ramanujam	Rs 1001/-

To
The Honorary Secretary
The Institution of Engineers (India), Tamilnadu State Centre
19 Swami Sivananda Salai, Chennai - 600 005

Dear Sir,

CONTRIBUTION TO THE FLOOD RELIEF FUND

In response to your appeal, I / we enclose a Cheque/DD for Rs. (Rupees only) as my / our contribution to the Flood Relief Fund.

Encl: Chq./DD No. Dt. for Rs..... Yours faithfully,

From Address:

..... **Memb. No.**



Training Programme on **CONTRACT MANAGEMENT & ARBITRATION**

On 6 Sundays starting from 20 March 2016

Time : 9.30 AM – 5.00 PM

Rare chance for Engineers and Architects to know more about this Field

Tamilnadu State Centre of Indian Institution of Technical Arbitrators has organized a Training Programme at Indian Institution of Technical Arbitrators, TNHB Commercial Complex, Luz, Mylapore, Chennai-600004. The faculty are well experienced and Practising Engineers from Legal and Technical Profession.

There are many developmental projects being undertaken in India specially in the area of Smart Cities, Industry, Power and other Infrastructure. Contract Management involves technical, managerial and legal aspects while dealing with various aspects of contracts entered in to between the Employer and the Contractor for carrying out such complex projects. It is also inevitable that disputes do arise which when not resolved amicably between the parties, need to be addressed through Alternate Dispute Resolution methods as agreed between the parties. Professionals and other connected personnel who attend this programme will learn the intricacies of Contract Management and how to put them in to practice.

The programme aims to educate and train technical personnel in the procedure and practice of Contract Management and Arbitration and update their knowledge and develop their skills. This is useful for Engineers of all branches, Architects and others. Certificate will be awarded to the participants. This certificate may be useful while applying to the departments for empanelment of Consultants / Arbitrators.

Rs.8000/- for IITArb & Other Institutions' members and Rs.9000/- for others. The cheque/DD shall be drawn in favour of "IITArb-TNSC" and sent with the name, address and membership number to Er.P.Karthikeyan, Hony. Secretary, Tamilnadu State Centre, Indian Institution of Technical Arbitrators, 'KANCHI', U-66, 7th Street, Annanagar, Chennai-600 040. Mobile: 9841097974. E-Mail: iitarbchennai@gmail.com. www.iitarb.org

TECHNICAL PROGRAMME FOR MARCH 2016

Lecture: 6.00 p.m.

Venue: IE (I) Auditorium (Unless mentioned otherwise)

Tea: 5.45 p.m.

- 18th & 19th March 2016 2nd IE(I), Tamilnadu State Centre Students' and Technicians' Convention and All India Seminar on "Innovation Technology and Knowledge Economy" by Dr G Ranganath, FIE, Chairman, Students' Chapter at Adhiyamaan College of Engineering, Hosur.
- 22nd March 2016 WORLD WATER DAY on the theme "Water and Jobs" by Er K Tamilselvan, M.E (Agri), Chief Engineer (River Valley Project), Agricultural Engineering Department, Govt.of Tamilnadu.
- 26th March 2016 Talk on "Model Predictive Control in Industries" by Dr R Senthil, Head of Department (Electronics & Instrumentation Engineering Division), KCG College of Technology, Chennai.

FORTHCOMING EVENTS

- 15th&16th April 2016 Two days All India Seminar on "Renewable Energy - Present Scenario" by Er R Balamurugan, Committee Member of the Electrical Engineering Division, IE(I), TNSC.
- 24th&25th June 2016 Two days All India Seminar on "Make in India" by Er K S Ramalingam, MIE, Co-opt Member of the Mechanical Engineering Division, IE(I), TNSC.

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Posted on: 7th March 2016

Posted at: Egmore RMS (Patrika)

Bulletin

IF UNDELIVERED RETURN TO:

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Tamilnadu State Centre

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