

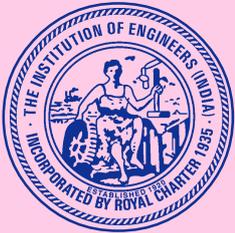
Institution of Engineers (India)

T.N. STATE CENTRE

BULLETIN

Chairman :
Er. K.P. Ramanathan, FIE

Honorary Secretary :
Er. D. Sundarasekaran, FIE



Vol. 14 : No. 11

February 2016

From the Chairman's Desk....

Dear Engineers,

This is to inform you about an appeal of Flood Relief Contribution Fund that already we have published in the last bulletin (January 2016). So far we have received a very few amount from our corporate members. As it is for a noble cause once again we request you to contribute liberally for the flood relief contribution fund.



We have much pleasure to inform that All India Council for Technical Education (AICTE), through Extraordinary Gazette notification, part III, Section IV published by Government of India, clarified that passing Sections A & B examinations (AMIE), along with M.E./M.Tech degree acquired through contact mode (i.e. regular/part time), is accepted for the appointment as a faculty in Technical Education. This will go a long way for the aspirants passed Sections A & B examinations and obtained M.E./M.Tech. degree for teaching assignments in technical institutions. The corporate members and the Engineers who are eligible under this gazette notification can avail this opportunities.

The Institution of Engineers (India) is marching towards the century celebrations, I would like to share the history and developments of our Institution of Engineers (India) under royal charter for the knowledge of young corporate members and all Engineers through this bulletin once again.

History of the Institution of Engineers (India)

The Institution of Engineers (India), 8 Gokhale Road, Kolkata (IEI) is the national organization of engineers in India. The Institution of Engineers (India) has more than one million members in 15 engineering disciplines in 114 centers or chapters in India and overseas; it is the world's largest multi-disciplinary engineering professional society in engineering and technology world.

History: IEI was established in 1920 in Madras with Sir Thomas R. J. Ward as the founding president. It was formally inaugurated in 1921 by Lord Chelmsford, the then-Viceroy of British India. In 1935, IEI obtained the Royal Charter of Incorporation from King George V 'to promote and advance the science, practice and business of engineering'. Sir Thomas Guthrie Russell (President 1933-34) led the successful petition for a Royal Charter. Harold Williams served as President for a period in the 1950s. The Institution obtained the full membership of the Engineers Mobility Forum (EMF) at the Bi-annual International Engineers Meetings 2009 held at Kyoto, Japan on 17 June 2009.

The Associate Member of the Institution of Engineers India (AMIE): is a professional certification given by The Institution of Engineers (India). The qualification can be earned by passing Section A, Section B, Project Work and Laboratory experiments examination of the Institution. If an applicant passes both sections of the examination, he or she becomes an Associate Member of The Institution of Engineers (India) (AMIE). The Indian

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Ministry of Human Resource Development considers this qualification is equivalent to a degree in engineering. AMIE was earlier Grad IE (Bachelor's degree of Institution). Government of India in continuation to its earlier recognition, has recognized passing of sections A and B examinations as revised, conducted by The Institution of Engineers (India), as equivalent to bachelor's degree in the appropriate branch of Engineering of the recognized universities in India and has notified in the gazette of India, Part I, Section I, dated February 11, 2006. AMIE is also recognized by UK-NARIC as British bachelor's honours degree. AMIE is also recognized by FCSA Foreign credential service of America as equivalent to Bachelor's degree in engineering.

Fora: There are five fora of the IEI: the National Design & Research Forum (NDRF), Water Management Forum (WMF), Safety and Quality Forum (SQF), Sustainable Development Forum (SDF) and Rural Development Forum (RDF). The IEI also has an autonomous organ, the Engineering Staff College of India.

Functions: In addition to representing India in the Engineers Mobility Forum, the institution has been prominent in World Mining Congress (WMC), the World Federation of Engineering Organizations (WFEO), the Commonwealth Engineers' Council (CEC), the Fédération Internationale du Béton (fib), and the Federation of Engineering Institutions of South and Central Asia (FEISCA). It has no worldwide bilateral agreements with other professional societies.

Members mainly of two types: (a) Corporate (members) and (b) non-corporate (members). Members and associate members is calculated in advance. Respected members of type II members, brothers (Companion), graduate, student, associate members and auxiliary (subscriber) is counted. According to the official declaration of the first type member "chartered engineer" . The first type of applicant's eligibility for membership is mainly determined on the following points: the proper proof of general and engineering education; Engineered as proper practical training; Take up the responsibility as an engineer as well as personal integrity.

Fellow (F.I.E.):- Fellowship (F.I.E.) is the most senior grade of Corporate Membership awarded by The Institution of Engineers (India). Holders are entitled to use the post-nominals, F.I.E.

Member (M.I.E.):- Membership is also a more senior grade of Corporate Membership awarded by The Institution of Engineers (India). Holders are entitled to use the post-nominals, M.I.E.

Before concluding, I appeal to all the corporate members once again to contribute liberally for the Flood Relief Contribution Fund for the social and noble cause.

Thank you,

I will meet you again.

Er K P Ramanathan
Chairman

Talk on “Nonlinear Dynamics in Power Converters”

30th January 2016

A technical guest lecture meeting was held on 30th January 2016 at 6.00 PM in IE(I), Auditorium of TamilNadu State Centre. The topic of the day was on “Nonlinear Dynamics in Power Converters”. Er K P Ramanathan, FIE, Chairman, welcomed the Chief Guest Er R Geetha, Assistant Professor, Velammal Engineering College and the gathering. Er R Geetha delivered the lecture on the above topic.



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In her speech, Power electronics circuits are rich in nonlinear dynamics. Their operation is characterized by the switching of circuit topologies, which gives rise to a variety of nonlinear dynamic behavior. In recent years many researchers are interested in observing the deterministic chaotic behavior of converters employed in industries. Unstable circuits are conventionally considered unacceptable for engineering applications, largely because their performance seems unpredictable and unquantifiable. A barrier appears to separate stable circuit behavior from unstable; yet both cases are governed by the same laws of circuit theory. Unstable systems can be tamed and set to perform valuable work with certain control topologies.

Most common DC-DC converter circuits have always been designed to operate in only one type of periodic operation, commonly known as period-1 operation in which all the waveforms repeat at the same rate as the driving clock, thereby being stable in this regime under all possible disturbances. Anyhow, period-1 operation is not

the only possibility. For instance, under certain conditions, the circuit may operate in a period-n regime in which the periods of all waveforms are exactly 'n' times that of the driving clock. We can immediately appreciate the complexity in the operation of switching converters, with a variety of operational regimes due to the variations in circuit parameters such as reactive elements, load and even source. The operation jumps from one regime to another, sometimes even to an abrupt or unstable manner for variations in these parameters. Such a phenomenon, where one regime fails to operate and another picks up, is termed bifurcation. The various bifurcation phenomenon observed in DC-DC converters which will be dealt in this lecture.

Er. K P Ramanathan, Chairman presented the memento to the Chief Guest Er R Geetha . Er D Sundarasekaran, Honorary Secretary proposed the vote of thanks. About 30 members participated in the program.



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: itarbchennai@gmail.com. www.itarb.org

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.**

DONORS OF FLOOD RELIEF FUND

| | | | |
|-----------------------|------------|-------------------------|-----------|
| Er I Amuthan | Rs 10000/- | Er K V Ananthanarayanan | Rs 2500/- |
| Er A Jayaraman | Rs 3000/- | Er N R Ranganathan | Rs 2500/- |
| Er P M Harinath | Rs 3000/- | Er S Arjunan | Rs 1500/- |
| Er P T Sankaran Nayar | Rs 3000/- | Er G Shunmugasamy | Rs 1000/- |

TECHNICAL PROGRAMME FOR FEBRUARY 2016

Lecture: 6.00 p.m.

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

Tea: 5.45 p.m.

- 17th Feb. 2016** Talk on "**Fertilizer Manufacture in India**" by **Er R Ravichander**, FIE Committee Member, Chemical Engineering Division.
- 27th Feb. 2016** Talk on "**Requirements of ISO 9001:2015**" by **Er G Venkataraman**, B.E., Chief, Quality Services International, Chennai.

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Posted on: 6th February 2016
Posted at: Egmore RMS (Patrika)

Bulletin

IF UNDELIVERED RETURN TO:
The Institution of Engineers (India)
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