SPE News Letter

SPE(I), Vadodara Chapter

January, 2024 Issue: 1/2024

ENERGY CONSERVATION DAY

HAPPY CHRISTMAS

POWER DAY

Society of Power Engineers (India)
Vadodara Chapter (Estd. 1996)

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FROM THE CHAIRMAN'S DESK

Dear Readers,

Welcome to the first quarterly issue of SPE of the year 2024.

As you all know, the SPE (I), Vadodara chapter had arranged a Conference on "**Civil & Structural Engineering Practices in Power Sector and Industries**" on 07 & 08 Dec 2023 at the FGI, Sevasi, Vadodara.

It was indeed a very well planned and well organised conference. I take this opportunity to thank all the members of various committees and sub committees, specially formed for this event, and other members who directly or indirectly helped the SPE in making this seminar a reality and a grand success.

I thank Er SM Takalkar, Er PH Rana, Er. KC Yadav, Er. PH Mahani and many other members who helped us in collecting funds or by getting sponsors, co-sponsors, supporters, advertisers or in many other ways.

Most of us had forgotten the importance of the role of civil engineering in the power sector/ industry and had taken it for granted. The conference highlighted the need to understand the importance of civil engineering and also the advancements taking place in civil engineering by way of new materials, technologies, new design tools etc.

The papers submitted and presented covered varieties of topics such as design of transmission line towers / switchyard structures, foundations. Design and testing of piles, case studies on non-destructive testing, construction of Civil works in power stations, soil stabilization techniques etc.

A similar conference on Metallurgy last year was also a grand success.

These days all the Engineering disciplines are connected to each other and therefore the SPE should conduct such conferences on allied subjects, not concentrating only on the Electrical equipment like transformers, motors, etc.

This is bound to enhance the general knowledge required in all the allied subjects.

After I took over as a Chairman of SPE (I) Vadodara, this is the first conference. It gave me an opportunity to understand the manner in which the event is organized by all the committee members and volunteers.

The event also provided an opportunity to me to evaluate the organizational capacity of SPE (I) Vadodara. The event also brought me closer to many members who have been active behind the curtain.

It is difficult to name all of them but prominent roles played by Er. YV Joshi, Er. SM Godkhindi, Er. Deepak Gupte, Er. PK mahani, Er. NG Yadav, Er. SM SBaxi, Er. YD Mehta, Er. SP Trivedi are worth mentioning. The registration committee members Er. NV Lathiya, Er. HD Joshi, Er. NC Solanki and others have also rendered very useful services.

We are contemplating to organize seminar on PLC and Automation in the coming quarter. We request members to inform us the subjects in which they are interested for whicht no such lecture or seminar has been held so far.

Although the conference was a success, we are a little unhappy with the number of delegates attending the Seminar. There may be many reasons for less attendance. We have to learn some lessons from this and make the next subsequent seminars better with regards to attendance.

I wish all members and their families a very **Happy New Year 2024**.

Er. Mohan R Tilwalli

FROM THE EDITOR'S DESK

Dear Readers

In November this year, a 23-year young woman and her nine-month baby died in Bengaluru due to electrocution.

A conductor of 11kV line snapped laying casually on the pavement. Innocent duo of mother and daughter unknowingly entangled in the conductor and lost their lives.

The ill-fated place was just few hundred meters away from the local office of DISCOM in Bengaluru. In another incident, 3 men, including an electrical engineer, died after being electrocuted inside a water tank in Delhi last week of Nov-2023. We hear such sad news now frequently which are really disheartening to us, as for no fault of victims, their innocent lives are lost. Accidents do not just happen. Sometimes they are made to happen. This certainly raises the questions on the sensitivity and integrity towards works of field staff of Power Utility.

Statistics of electrical accidents are eye opener; all India level report reveals panic figure of 12,971 electrocution in the year 2022 which is also 3.4 % higher in numbers than that in the year 2021 and at state level 311 fatal human and 463 fatal animal accidents are reported by Distribution Utilities of Gujarat in FY-2023. Each of this number has a story behind it, which needs to be decoded, understood properly and preventive actions must be initiated at all levels. This also helps in mitigating reoccurrence of accidents. I feel, this is high time to inculcate target of Zero electrocution in our society.

The colossal loss of human and animal lives are grim and unacceptable.

Such unfortunate deaths continue to occur and safety regulations / norms are being flouted by concerned with no fear of punishment which is the root cause of such accidents/ deaths.

Deteriorated electrical networks, overloaded circuits, open LT distribution boxes as well as the term 'bypass' pose serious threats. Periodic maintenance under the supervision of engineer, adherence to safety regulations / practices, and safety awareness drives can significantly mitigate the risks. Small measures also contribute to a safer home environment**.**

Electrical safety is a collective responsibility which needs co-ordination between individuals, industries, society and Government. Safety must have highest priority over any other task. Investment in safety gives highest returns than any other sector as well as empowers lives and ensures that benefits of electricity can be harnessed without compromising wellbeing of individual. Electrical safety is not merely a regulatory compliance but a fundamental necessity to provide safe and quality life.

Having worked in the electricity sector for long, we all know that Electricity is good servant but bad master. Respecting electricity and regulations will help in mitigating electrical accidents.

Let us join hands together to work for Safety and bridge the gap between Safety regulations / norms and Stakeholders.

Wishing all members and their families, a **Healthy & Happy New Year** ahead.

Er. Umesh Parikh

CHAPTER'S ACTIVITIES

➢ On **03 Oct 2023, Chapter** organized ***Satyanarayan Pooja*** as a part of celebration of **Foundation Day**. The pooja was performed at the Office of SPE (I), Vadodara Chapter. About 60 Members and their spouse attended Pooja. The members and their family availed Prasad and greeted each other. The pooja was performed by **Er. Mohan Tilwalli**, Chairman and his better half **Mrs. Rupa Tilwalli**.

➢ On **11 Oct 2023, Chapter,** jointly with **IE (I), Vadodara,** organized evening lecture on **"Testing & Preventive Maintenance of Circuit Breaker and Transformer"** at Vasvik Auditorium. The speaker was **Er. Manish N Pandya,** Director, Manish Engicorp Pvt. Ltd. and Executive Member-SPE (I) Vadodara.

His presentation revolved around effective condition monitoring of power transformer and extending the life of it. He mainly covered the following:

- Detailed explanation of Capacitance and Tan Delta and Power Factor and its relevance to power transformer
- Importance of RI and PI tests
- Asset management with condition monitoring
- Condition monitoring and maintenance philosophy for service life extension.

Er. MR Tilwalli, Chairman, SPE(I), **Er. YV Joshi,** I/c Vice-Chairman, SPE(I), **Er. VB Harani,** I/c Secretary, SPE (I) and **Er. Ambikesh Padhya,** Chairman, IE(I) Vadodara were on dais. **Er. Tilwalli** and **Er. Padhya** presented welcome address. **Er. Harani** presented vote of thanks. **Er. PA Shah,** Advisory Committee member anchored the event.

Chairman, SPE (I) Vadodara presenting Welcome Address

➢ On **07 & 08 Dec 2023 Chapter,** jointly with **CBI&P New Delhi,** organized a **2-Day Conference** on **"Civil & Structural Engineering Practices in Power Sector and Industries"** at FGI, Sevasi-Gotri, Vadodara. Around **150** participants from all over the country attended the Conference.

Detailed report of the same is brought out in this issue.

ACKNOWLEDGEMENT

Er. BN Raval, AC Member of SPE (I) Vadodara donated Monitor Screen of Computer to SPE (I) Vadodara Office.

SPE (I) Vadodara extends gratitude to Er. Raval for a good gesture.

Brief Report of 2-Day Conference on Civil & Structural Engineering in Power Sector & Industry

The Vadodara Chapter of SPE (I) organised a 2-Day Conference on the topic of **"Civil & Structural Engineering in Power Sector & Industry"** on 07 & 08 Dec 2023 at FGI Auditorium, Vadodara.

About 150 delegates from all over the country participated in the Conference. The delegates hailed from GETCO, GSECL, MPPTCL, TSGENCO, NLC, Academic institutions, Constructing firms, individuals, Adani Power, L&T (bullet train), L&T(S&L) etc.

The inaugural function was attended by **Er. Upendra Pande** (MD, GETCO) and **Er. S Bandopadhyay** (MD, GSCEL). Other on the dais included **Er. Mohan Tilwalli**, (Chairman, SPE (I) Vadodara), **Er. SM Takalkar** (Conference Convener), **Er. (Dr.) SK Damle**, (Veteran Civil Engineer of Vadodara). **Er. Mohan Tilwalli** presented Welcome speech and highlighted the activities of SPE (I) Vadodara. **Er. Upendra Pande** praised SPE (I) Vadodara for organizing event on such an important topic which is a base for each project. He shared his views and experience on the topic. **Er. Bandopadhyay** expressed his happiness over being invited as a Guest of honour for the event. He explained how Civil & Structural Engineering is important for Thermal Power Projects. **Er. SM Takalkar** briefed about the basic theme of the Conference, **Er.(Dr.) SK Damle** thanked SPE (I) for inviting and felicitating him. He talked about his journey as an academician and a consultant. He also revealed secret of his long life of 92 years and advised all to keep feet moving, regulating diet and keeping head cool. He was also happy that SPE (I) had invited galaxy of veteran Civil Engineers which included his past students.

Following the address by dignitaries on dais, prominent Civil & Structural Engineers were felicitated by presentation of citation, memento, bouquets and a shawl.

Er. DC Bagde, Chairman, Transrail Lighting Ltd., Mumbai was felicitated for his contribution in Power Transmission line tower design, manufacturing and for construction work in India and many other countries. **Er. Bagde** expressed pleasure over his felicitation and recalled his association with Gujarat State and the Electricity Board while he was in Vadodara. He also recalled memories of his association with **Er. SM Takalkar** while working in Gujarat State and also working for various R&D projects, CBIP manual, BIS etc.

Er. Girish A Desai was also felicitated for his contribution in the development of Design and Engineering in transmission line towers, switchyard structures and foundations. Replying to his felicitation, he remembered his association with **Er. (Dr.) SK Damle** and **Er. SM Takalkar**. He highlighted a need for understanding the fundamental & theoretical aspects of Civil & Structural engineering before attempting work on software. He lamented that the use of software is killing desire to learn and understand basic approach to design philosophy.

Er.(Dr.) AV Shroff was felicitated for his contribution in the field of civil engineering in general and Soil Mechanics in particular. In reply he expressed gratitude for felicitation. He was also, happy to see many of his students present in the hall. He also recalled his association with **Er. SM Takalkar** in IGS events and in consultancy work.

Er.(Dr.) SK Damle was felicitated for his valuable contribution as a teacher in the Faculty of Technology and Engineering, the MS University of Baroda, Vadodara. He had served as a head on many Government assignments, NGOs, Social & Cultural organizations.

Er. RD Mistry was felicitated for his valuable contribution in the power

Transmission sector in general and the design of tower/switchyard structures in particular. Replying to the felicitation, he recalled his days while working with Kamani Engineering Corporation in Mumbai and that with GEB on various projects. He was proud to be associated with Gujarat Power sector in general and with **Er. SM Takalkar** in particular.

Er. YV Joshi, Secretary, SPE(I) Vadodara presented vote of thanks and thanked Sponsors, Donors, Advertisers, Authors, FGI authorities, MD GETCO, MD GSECL, Awardees and delegates.

The inaugural function was anchored by **Er. Deepak Gupte**, an active member of SPE (I) Vadodara. The citations given to each awardees were read out by **Er. PK Mahani**, an active member of SPE (I) Vadodara.

All audio visuals starting from prayer till Concluding Session were designed by **Er. PA Shah**, Advisory Committee Member, He was actively supported by **Er. Gargey Bhatt** and **Er. Kuldeep Barge**. The logistics and other support were provided by **Er. SM Godkhindi**, **Er. RS Shah**, **Er. Sanjay Shiledar Baxi**, **Er. VB Harani**, **Er. NG Yadav, Er. JK Surti**. The proceedings was compiled by **Er NV Rede**.

After the inaugural session and a tea break, technical sessions for the first day were taken up one by one as following:

Day-1

SESSION-I

Session Chair: **Dr. AV Shroff**

Paper-1 ***Non-Destructive Testing of Steel Structures and Foundations of Switchyard***
Author: **Er. SM Takalkar, SV Rana**
Takalkar Power Engineers & Consultants

Paper-2 ***Benefits of Exposure to the Practices used in International Transmission Line Projects***
Author: **Er. (Dr.) Dipak Lakhpati**
Trans Engineering

Paper-3 ***Overview of Methods for Testing Pile Foundations and Structures for Power Projects***
Author: **Er. Ravikiran Vaidya**
Consultant

SESSION-II

Session Chair: **Er. (Dr.) Dipak Lakhpati**

Paper-4 ***Civil & Structural Engineering for establishing Solar Projects GSECL***
Author: **Er. SS Sheth**
GSECL

Paper-5 ***Perspective of Utilities for Civil Construction in Power Plants***
Author: **Er KC Yadav, Er. JD Darji**
Consultants

Paper-6 ***Non-Destructive Testing of Concrete Structures – Purpose, Methods, Advantages and Limitations***
Author: **Er.BR Dhanani, Er.MM Gheri, Er. UR Uttekar**
GETCO

SESSION-III

Session Chair: **Er. YV Joshi**

Paper-7 ***Significance of Electrical Engineering for Designing of Substation by Civil / Structural Designer***
Author: **Er. PP Shah -** Consultant

Paper-8 ***Civil related O&M challenges in GIS cable Cellar Rooms, Data Centers and Substation Control Panel Room***
Author: **Jagdish Sandhanshiv** -
Consultant

Paper-9 ***GIS Substation Design – Case Studies***
Author: **Er. Milan Shah, Er. Apurva Das**
L & T S & L

Day-2

SESSION-IV

Session Chair: Er PH Rana

Paper-10 ***Use of Tubular sections for Transmission Towers***

Author: Er. BB Shah - Jyoti Structures Ltd.

Paper-11 ***Rectification of Foundation in Switchyard before Commissioning – Case Study.***

Author: Er.SM Takalkar
Er. Kuldip Barge TPEC

Paper-12 ***Seismic Analysis and Design of Control Room Building of GIS Sub-station by Using STAAD. Pro Software***

Author: Er.PM Dalal, Er.BG Patel
GETCO
Er. PP Shah
Consultant

SESSION-V

Session Chair: Er SM Takalkar

Paper-13 ***Role of Civil and Structural Engineers in Reliable and Environment Friendly Designs - particularly for Power Plants***

Author: **Er. (Dr.) SK Damle**,
Consultant
Er.SM Takalkar
TPEC

Paper-14 ***Engineering Support for Aviation Work for Heli-Lifting of Transmission Towers***

Author: Er. Jitendra Tiwari - L & T S & L

Paper-15 ***Increasing Role of Civil Engineering in Mining Industry***

Author: Er. SA Goswami
Er Syed Irfan Ali
GPCL.

SESSION-VI

Session Chair: Er. KC Yadav

Paper-16 ***Enhancing Consolidation in Problematic Soils with Sand-Filled Drains and Prefabricated Vertical Drains using Jute fibers and Geosynthetics***

Author: Er.(Dr.) Ruchi Shrivastava
Parul University
Er.(Dr.) AV Shroff
Consultant
Er.(Dr.) Sweta Dave
Govt. College, Gandhinagar

Paper-17 ***Application of Ground Improvement and Settlement Control for Power Plant Foundation System***

Author: Er Shadab Ghadiya
Er Vishal Pathak
L&T S&L

Paper-18 ***A Revolutionary Approach to calculate the Wind Load on Steel Towers under Diagonal Wind Condition***.

Author: Er. Girish A Desai - Consultant

SESSION-VI

The last session was a **Concluding session. Er. MR Tilwalli, Er SM Takalkar, Er. RS Shah, Er. YV Joshi, Er. GV Akre** and **Er. KC Yadav** were on the dais. **Er. SM Takalkar** briefed about the entire conduct of the Conference. The other SPE members expressed their views and thanked all the stake holders of the Conference.

The delegates from Power Grid and other organizations presented their views on the total proceedings of the Conference.

The following organizations supported the Conference through the sponsorship, Co-sponsorship, donation and submitting advertisement. **(List of organizations on page-17)**

The staff members of FGI co-operated in the best possible manner.

The presentation of each paper and Author's biodata were nicely compiled and presented by **Er. PA Shah**, **Er. Gargey Bhatt** and **Er. Kuldeep Barge.**

Anchoring of Tech. Session was done in a rotation by **Er. Gupte and Er. Mahani**.

Viewing in totality, the Conference was a **Grand Success**.

GLIMPSES OF 2-DAY CONFERENCE

Registration

INAUGURAL SESSION

Prayer, the Beginning of the Event

Lighting of Auspicious Lamp by (R to L)
Er. Upendra Pande
Er. Mohan Tilwalli
Er. SM Takalkar

DIGNITARIES ON DAIS

Dignitaries on dais (L to R)
Er. MR Tilwalli, Chairman SPE (I) Vadodara
Er. (Dr.) SK Damle, Consultant
Er. S Bandopadhyay, MD, GSECL
Er. Er. Upendra Pande, MD, GETCO
Er. SM Takalkar, Conference Convener

ADDRESS BY DIGNITARIES

Welcome address highlighting SPE (I) Vadodara activities by Er. MR Tilwalli

Praising SPE (I) Vadodara for organizing Conference on important topic and sharing views by Er. Upendra Pande

Expressing happiness being a Guest of Honour explaining Conference topic's importance in Thermal Power Projects by Er. S Bandopadhyay

Briefing about basic theme of the Conference by Er. SM Takalkar

ADDRESS BY DIGNITARIES

Er. (Dr.) SK Damle, thanking SPE (I) and talking about the journey as an Academician and a Consultant

FLORAL WELCOME TO DIGNITARIES ON DAIS

Er. RS Shah, Vice-Chairman, SPE Vadodara Welcoming Er. S Bandopadhyay MD, GSECL

Er. YV Joshi, Secretary, SPE Vadodara Welcoming Er. Upendra Pande MD, GETCO

Er. MR Tilwalli, Chairman, SPE Vadodara Welcoming Er. (Dr.) SK Damle Consultant

RELEASE OF PROCEEDINGS OF CONFERENCE

Releasing PROCEEDINGS of Conference by dignitaries on dais

FELICITATION OF PROMINENT CIVIL & STRUCTURAL ENGINEERS & AWARDEES BY PRESENTATION OF CITATION, MEMENTO, BOUQUET AND A SHAWL

Er. SM Takalkar felicitating **Er. DC Bagde**

Er. RS Shah felicitating **Er. Girish A Desai**

Er. PH Rana felicitating **Er. (Dr.) SK Damle**

Er. MR Tilwalli felicitating **Er. (Dr.) AV Shroff**

Er. SM Takalkar felicitating **Er. RD Mistry**

VOTE OF THANKS

Vote of Thanks **Er. YV Joshi**

ANCHORING THE INAUGURAL FUNCTION

Er. Deepak Gupte Anchoring the Inaugural function

Er. PK Mahani reading out citation

Er. PA Shah designed Audio Visuals starting from the Prayer till Concluding Session

Conference Organizing Committee Members

Understanding the Power System using the co-relation with the Hydrology & Mechanical Transmission

1.0 Introduction

1.1 Power system is a generalized term. It can be for your house, a small/large industry, public places, city, state or a country.

1.2 Every power system has a source and the load

1.3 Voltage, current, resistance/reactance and frequency are the basic parameters of Alternating current power system. Power factor depends upon the Reactance & Capacitance of the line and the load.

1.4 Even though most of the Electrical Engineers are aware of the basic parameters of the AC Power System, understanding it from the co-relation with hydrology and mechanical transmission will provide opportunity to re-visit the fundamentals. The presentation below will help Engineers of other disciplines to understand the basic parameters of power system through different lens.

2.0 Co-relation of Power system with Water supply system

2.1 An urban or rural water supply system has generally the following layout.

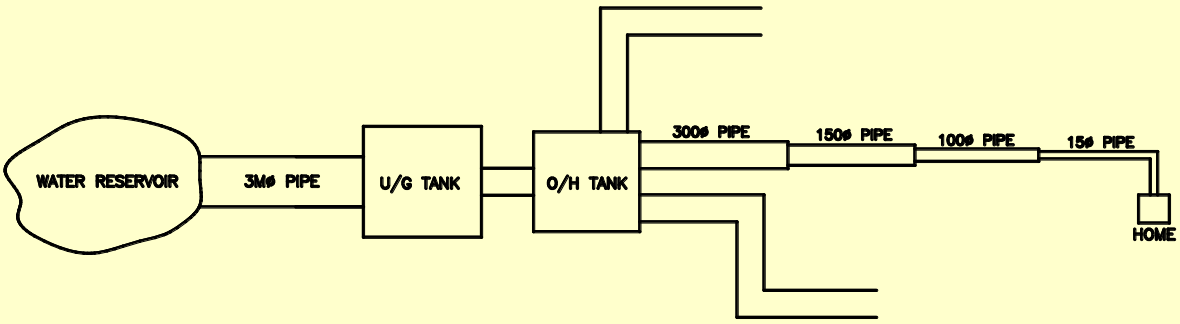


FIGURE-1

It can be seen that for providing a tap water with 15mm ϕ pipe (½") we have to draw big diameter pipes from reservoir to city/town centre. The water is stored in underground tank and then pumped in the overhead tank.

After the pumping, the pipes of 300mm ϕ are brought down from the tank and taken in various residential localities. The pipe diameters are gradually decreased till final 15mm ϕ pipe reaches to the house hold or user.

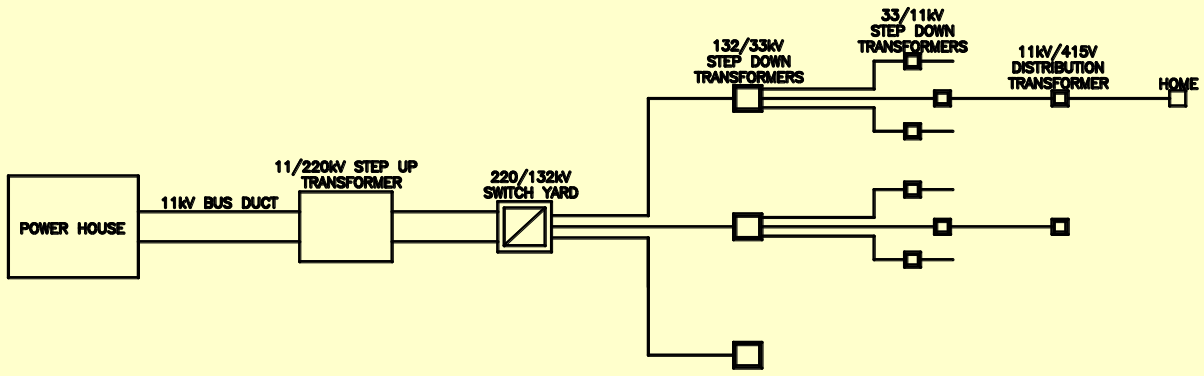


FIGURE-2

Similarly in a power system power is generated at medium voltage (say 11kV) which is conducted from generator by BUS-DUCT to the step up transformer (say 11/220kV). Number of lines travel in different direction and the voltage is stepped down gradually like 220kV/ 132kV/66kV & 11kV. The last transformation is 11kV/415V. The consumer uses power at 415V/230V.

The BUS-DUCT is big pipe from reservoir to the underground tank. The overhead tank is a step up transformer and gradual reduction in pipe size is the reduction in transmission/distribution voltage. The water is supplied in a limited quantity at limited pressure. Similarly limited quantity of power is supplied at 415V/230V to a consumer.

Thus Water = Current, Pressure = Voltage, Friction of pipe is a Resistance of wires.

We want to use water but we cannot, unless there is a pressure.

We want to use current but we cannot, unless we have voltage.

After doing the desired work the current goes back to the source. After doing the work water goes back to source (Nature)

The discharge (Q) and pressure (P) go on decreasing as the pipe network becomes longer.

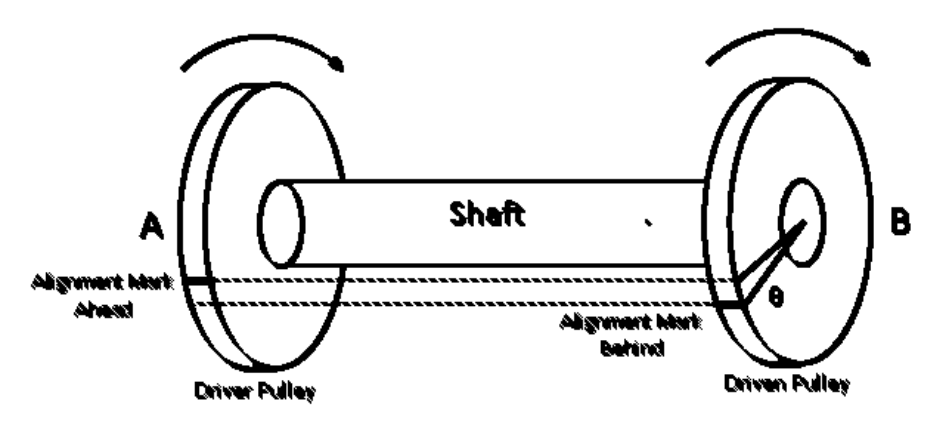
The power/current carrying capacity reduces as distribution network goes on extending. This is due to step down transformation and load requirement.

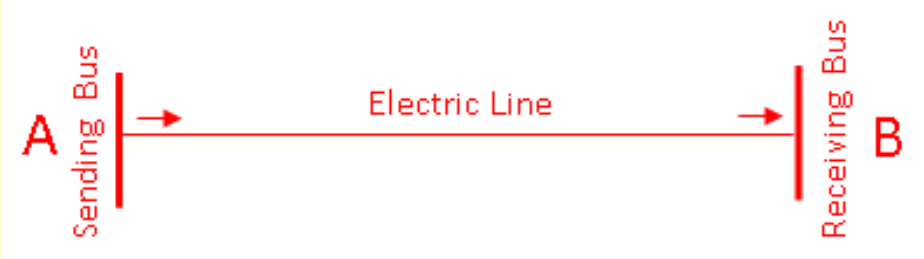
Inadequate capacity of water pipe line network and large number of water users in the area will lead to pressure drop and quantity of water.

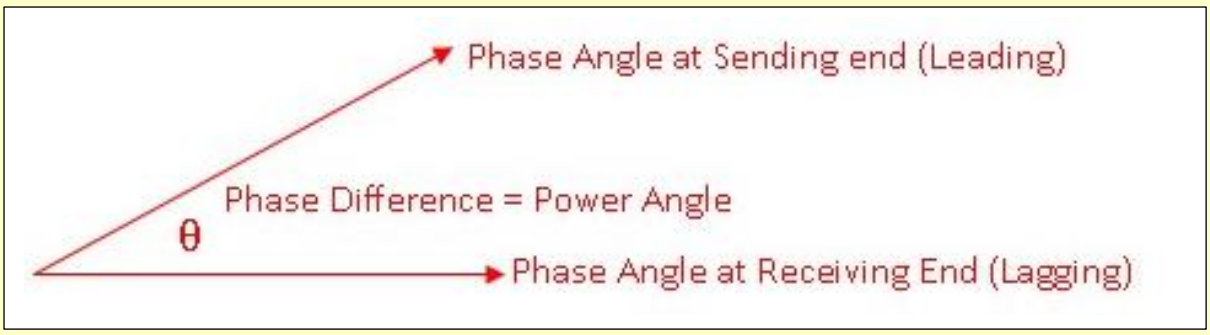
Inadequate transmission and distribution network will lead to voltage drop and damage to users electrical equipment.
Booster pumps are installed in the pipe to increase the pressure to water.
Capacitor banks are used to boost the voltage.

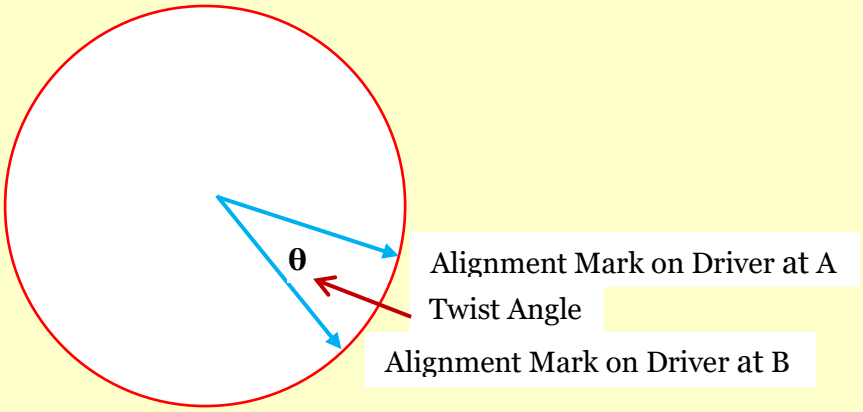
Thus there is much common between water supply system & power supply system.

3.0 Power Transmission from Point A to Point B by Mechanical System and Electrical System









Metallic SHAFT used between A & B
Electric LINE used between A & B

A has Driver Pulley & B has Driven Pulley
A is sending Bus & B is receiving Bus

Pulleys at both ends rotate in Same Direction
Similar Phase Sequence at both ends

Pulleys at both ends Rotate at Same RPM
Both ends have the same frequency

Shaft has mechanical twist
Line has electrical twist

Refer Stress Strain Diagram
Refer Power Angle Diagram

Driven pulley is Backward with respect to driver pulley
Voltage at receiving bus B is legging with respect sending bus A

Shaft Twist Angle between driver and driven pulley is torsion stress.
Angle between sending and receiving voltage is Power Angle

Shaft twist depends on to power transfer
Power Angle depends on power transfer

Shaft twist depends on to power transfer
Power Angle depends on power transfer

Shaft twist depends on shaft length
Power Angle depends on line length

Shaft twist depends on shaft thickness
Power angle depends on line grade (66, 132, 220, 400kV)

Shaft twist dependable on shaft material (elastic module)
Power Angle depend on line formation (characteristic impedance)

Maximum safe power transfer up to Yield Point.
Maximum safe power transfer up to SSSL

Shaft fails when power transfer is higher. A & B is isolated
Synchronization is lost when power transfer is higher. A & B is isolated

The above presentation is useful for those who want to have better understanding of Power System

Presenters: **Er. SM Takalkar**
Patron
Er. ND Makwana
Former Secretary
SPE(I) Vadodara

MEMBERS IN NEWS

Er. PB Mehta, Life Member of SPE (I) Vadodara conducted a 2-Week training programme on **"Advance Sub-station Design and Power System Study" from 25 Sep 2023 at** Persotech Solutions Vadodara for Engineers of Burundi (Africa)

Prof. AK Singh, former Vice-Chairman of SPE (I) Vadodara conducted a 5-Day training programme on **"Steam Turbine Technology"** at UAE.

The aim of the training programme is to increase participants' confidence and competence while working on the equipment and employ correct maintenance and usage practices thereby increasing efficiency and effectiveness resulting in increased lifespan of the turbine and minimal equipment downtime.

The course involves interactive learning by means of discussions, case studies so as to ensure maximum comprehension, retention and understanding of the information presented.

The course participants will carry with them the requisite skills and knowledge required to enable them to select, operate and maintain the steam turbine equipment.

On behalf of **Yash Highvoltage Ltd.**, Khakharia, Savali, an **Institutional Life Member** of SPE (I) Vadodara, **Mr. Keyur Shah**, MD and **Mr. Jatin Tyagi**, Sr. Manager (BD) were felicitated by **Ministry of Heavy Industries, Govt. of India** and **BHEL** for outstanding contribution towards **"Atmanirbhar Bharat"** and **"Make in India"**.
Congratulations to **Yash Highvoltage Ltd.** on receiving such an honour.

Er. Yogesh V Joshi, Secretary SPE(I) Vadodara chairing session "**Challenges and Best Practices for onsite Storage, Repair and Replacement of Transformers**" in a **3-Day International Conference "TRAFOTECH GLOBAL-2023"** on 24 Nov 2023 at the Manekshaw Centre, New Delhi.

Er. Ravindra B Desai, LM, SPE(I) Vadodara delivering a talk on **IEEE Standards** addressing the climate change mainly on Renewables and Grid integration during a **Conference Power Africa 2023 "Affordable and Clean Energy for Africa"** during 6-10 Nov 2023 at Marrakeh, Morocco (Africa)
Well done Er. RB Desai

During SAMBANDH programme organised by United Way of Baroda (UWB) an NGO, **Er. Mrugen G Mehta**, Life Member of SPE (I) Vadodara was felicitated by Trustees and Director for his meritorious services rendered during his 30 years association with the NGO.
Congratulations to **Er. Mehta** and Best Wishes.

L to R: KK Singh (CEA), HR Karandikar, PA Shah, BN Raval, AK Dinkar, Anil Sinha and SK Batra(CBIP)

Er. BN Raval and **Er. PA Shah** and **Er. HR Karandikar**, Life Members of SPE(I) Vadodara have conducted **Workshop on Energy Management, Energy Conservation and Energy Audit** during 30 Nov 2023 and 01 Dec 2023 at CBIP, New Delhi.

Other Life Members **Dr. Shivani Sharma** and **Er. Bhavesh Vasyani** have also delivered lecture in the Workshop

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List of organizations supported the Conference through Sponsorship, Co-sponsorship, Donation and submitting Advertisement

1. Adani Energy Solutions
2. L&T Construction (Bullet Train)
3. NLC India
4. MGVCL
5. SVIT, Vasad
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7. Gujarat Plug-in Devices
8. REO GPD Inductive Components
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12. Urja Power
13. Ganpati Infrastructure
14. Daulti Pole Industries
15. Parth Enterprise
16. SR Agrawal
17. Gujarat Pole Industries

OBITUARY

Er. Chimanbhai K Patel (CK Patel), Retd. Executive Engineer, GETCO and **Life Member** of SPE(I) Vadodara passed away on **04 Oct 2023.**

He was an energetic, hardworking and knowledgeable engineer. He was active in GEB Engineers' Association. He was very popular in South Gujarat. Whenever GETCO faced any difficulty in land acquisition for new s/s or any way-leave issue for new transmission line erection, he used his local contacts and political influence and solved. He was an asset to GETCO & DGVCL.

He was active member & Well-wisher of SPE (I). He too was instrumental in organizing various events of SPE (I) in South Gujarat. In his death, SPE (I) Vadodara lost a good worker and sympathiser.

May God give peace to the departed soul and give strength to his family members to bear the impact.

Er. Kantilal B Parikh, Retd. SE (RE), GEB and **Life Member** of SPE(I) Vadodara passed away on **04 Oct 2023.**

Graduated in Electrical Engineering from LE College-Morbi, he joined erstwhile GEB in 1964 as Deputy Engineer and worked in Rajkot, Anand and HO (P&P Deptt.). He retired as SE (RE).

May God give peace to the departed soul and give strength to his family members to bear the impact.

Er. Rajeshbhai R Vishwakarma, Retd. Addl. Chief Engineer (Met.), GSECL, Vadodara and **Life Member** of SPE (I) Vadodara passed away on **15 Nov 2023.**

A graduate in Metallurgical Engineering from The MS University of Baroda, Vadodara, he joined erstwhile GEB as Executive Engineer (Met.) at Wanakbori TPS.

A learned metallurgist, he was the pioneer of Metallurgy Department and made valuable contribution in developing Metallurgical Labs in GEB. The in house testing and inspection facilities were provided in most of the Power Stations of GEB with Wanakbori TPS as a fulcrum. His initiative in field of Corrosion, RLA study of all Power Stations of GEB, could prevent many failures of equipment through predictive maintenance.

A simple straight forward, sensible, noble person and brilliant engineer, he was gem of a person, thorough gentleman and lifeline of SPE (I) Vadodara Chapter.

Under his able leadership and guidance, SPE (I) Vadodara organized a very rare Conference on **"Metallurgy in Power Sector & Industries"**. The conference was a grand success.

In his travel to heavenly abode, SPE (I) Vadodara has lost a Well Wisher. May God give peace to the departed soul and strength to the family members to bear the impact.

Er. Shirish S Takalkar (cousin of our Patron Member Er. SM Takalkar) left for his heavenly abode on **11 Dec 2023.** He was a **Life Member** of SPE (I) Vadodara.

He worked for **Waste to Energy** projects of **GEDA** and other Civic Bodies in the country. He actively participated in the technical and cultural activities of the Chapter.

His last performance was at FGI in the event called **"SPE has got a Talent"** organized to celebrate Silver Jubilee Celebration of SPE (I) Vadodara.

May his soul rest in peace and prayer to almighty to give strength to his family members to bear the impact.

Er. Rajesh Vishwakarma presenting paper during Conference on Metallurgy in Power Sector & Industries

NEW LIFE MEMBERS

GR No.	Name	Grade	GR No.	Name	Grade
2418	**Sudhir J Shukla**	LM	2425	**Sanjiv Shivkerkar**	LM
2419	**Gunjan S Patel**	LM	2426	**Apurva N Das**	LM
2420	**Atulkumar J Varma**	LM	2427	**Maheshkumar V Bhatiya**	LM
2421	**Shishir V Halkunde**	LM	2428	**Satishkumar L Chauhan**	LM
2422	**Bharatkumar J Upadhyay**	LM	2429	**Bhupendra P Dalwadi**	LM
2423	**Excelsource Int. Pvt. Ltd.**	LM	2430	**Atulkumar K Parikh**	LM
2424	**Ms. Apexa R Monani**	LM	2431	**Siddharth R Mistry**	LM