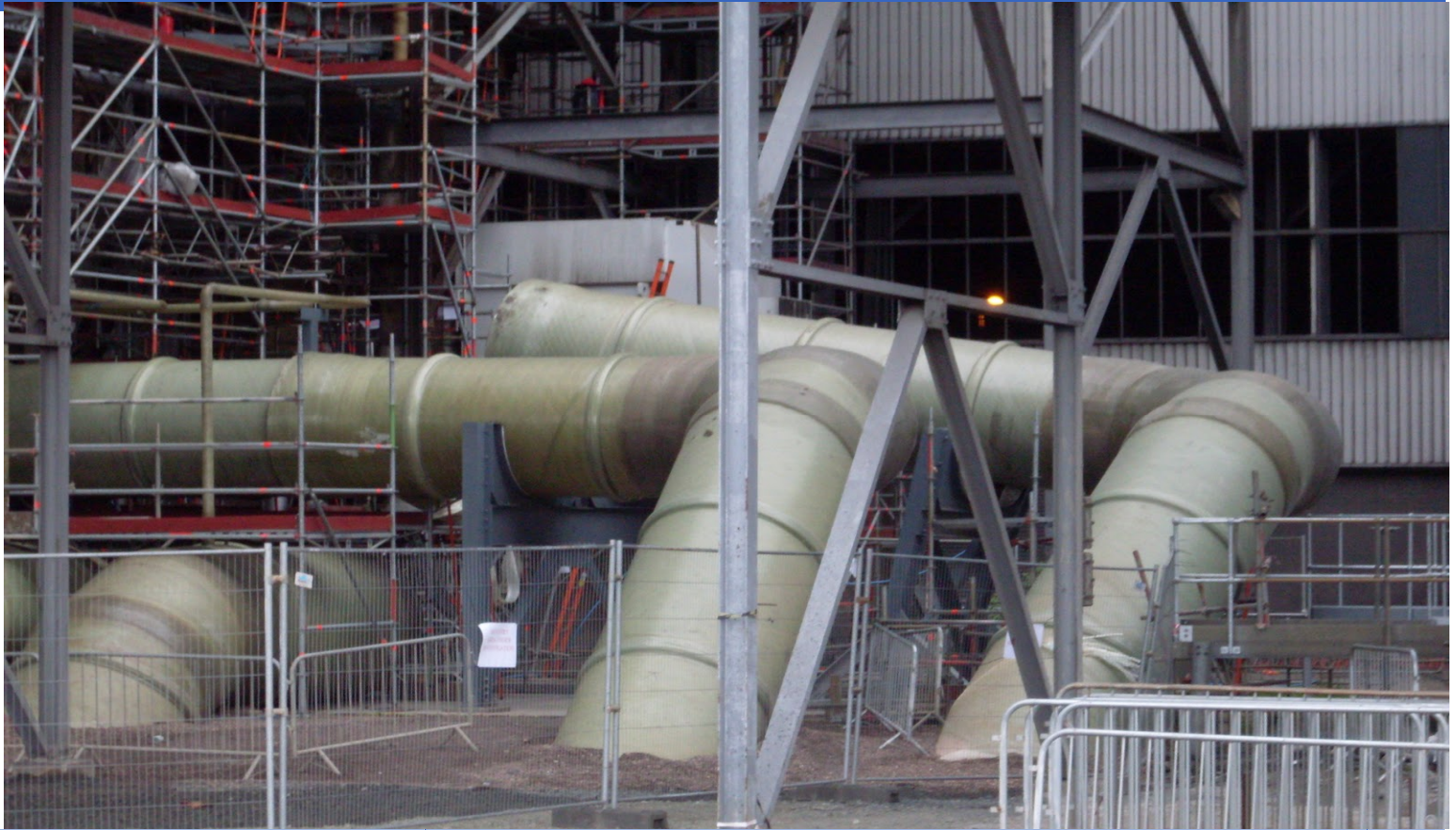


**RTRP Piping Systems (GRE/GRV/GRP) –
Manufacture Design, Installation & Inspection**



Course Dates : 14th Sep – 16th Sep 2019

Venues : IPEBS Hyderabad, INDIA.

Duration : 03 Days



PROGRAM DESCRIPTION

RTRP Piping Systems (GRE/GRV/GRP)

RTRP is Reinforce Thermosetting Resin pipe & is a Non-metallic piping system with varied applications for use in Process Industries. RTRP piping systems are also known as GRE or FRP piping systems. You may also hear of terms such as GRP (glass reinforced plastic), RTP (reinforced thermosetting plastic) and RTRP (reinforced thermosetting resin pipe). Even more specific, there is GRE (glass reinforced epoxy), GRVE (glass reinforced vinyl ester) and GRUP (glass reinforced unsaturated polyester). The list of terms seems to go on and on.

Typical applications include Potable Water, Sea Water, water treatment, fire water, sewer systems, industrial & chemical Fluids.

WHO WILL ATTEND

Piping Engineers working for Process Plants including Project Managers, Design Engineers, Piping Erection Engrs., Pipe Stress Analysis Engineers, Pipeline Engineers, Piping QA/QC Personnel, Piping Inspectors, Operating, Repair & Maintenance Personnel.

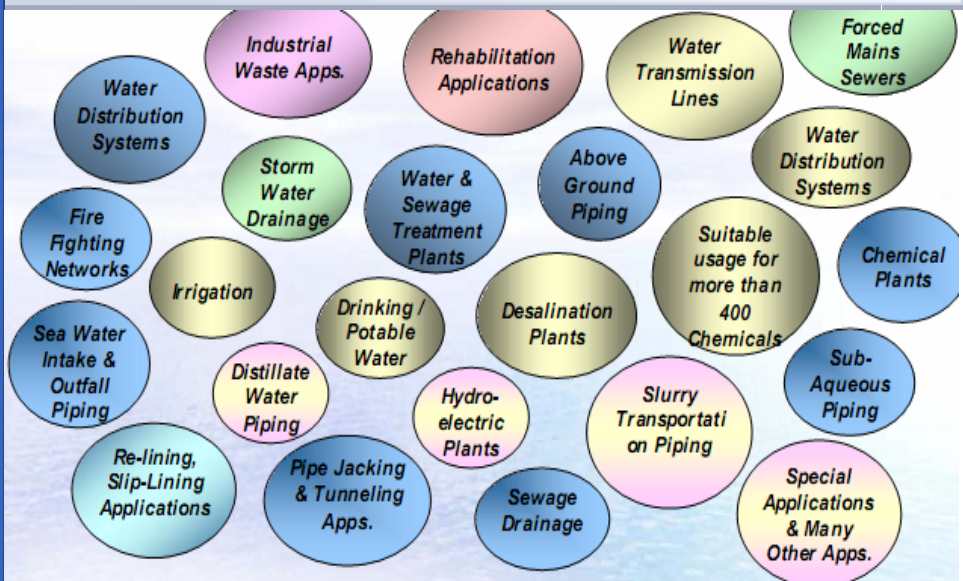
WHAT YOU WILL LEARN

Upon the successful completion of the course, participants will be Able to:

- Complete Engineering of RTRP piping systems & applications.
- Design , Analysis of RTRP Piping Systems
- Testing & Examination requirements
- International Standards for design of RTRP piping systems.
- GRP piping analysis in CAESAR II requirements.
- Repair & Maintenance of GRP piping systems.

“Gain complete understanding of Material of Choice of all Applications of FRP piping Systems ”

“Understand the Design, Codes, applications, analysis, testing, examination, erection & Repair or FRP/GRP/RTRP Piping Systems”



WHY TRAIN WITH US

IPEBS team develops the training programs based on the practical consulting and site construction expertise that has been built up over the years in various specialist areas.

We set out to teach top-quality engineering skills training courses and we have achieved this - we constantly strive to make them as good as it's possible to - but over the years we have also refined our methods, adding several enhancements to the construction stages of course description, design of the courses and assessment.

We believe that these are important to our training participants; it's easy to see what the courses consist of, what value they will gain from attending them and how they can apply their new knowledge and skills in their workplace in a structured, evidence-rich way.

"POWER YOUR CAREER FORWARD WITH IPEBS SPECIALIZED TRAINING COURSES"



WORKSHOP OVERVIEW

RTRP (GRE/GRV/GRP) - THE MISUNDERSTOOD MATERIAL INFORMATIVE SESSIONS ON MANUFACTURE, DESIGN, INSTALLATION & INSPECTION

DAY-1

- Introduction
- Classifications of RTRP Pipes
- Important definitions of RTRP world.
- Various Manufacturing processes of RTRP Pipes.
- Why use RTRP?
- When and Why No to RTRP?
- Design of RTRP based on UKOOA.
- Design of RTRP based on BS 7159.
- Design of RTRP based on ISO 14692.
- Joints selection for GRP. Which one and Why?
- Support design for GRP
- Hydraulics and possible design deficiency in GRP.

DAY-2

- Why failures in GRP and how to avoid it (Evaluation).
- Inspection Techniques and evaluation of failure cases in GRP.
- Various tests on old GRP material (1982) and discussion on these tests?
- Which is more brittle and which is better for surge GRP or steel & why?
- NDE IN GRE?
- Short term test (ASTM D1599)
- Long term test (ASTM D2992)
- C.S OR S.S VS GRP
- Qualifications and requirements from the contractors
- Hydro Test in GRP
- Recommended Services for GRP that has been tested and proven
- Possible defects and acceptance criteria.

DAY-3

- GRP piping system analysis using Caesar II. Which code to follow and why?
- Underground GRP analysis using Caesar II.
- Special GRP coding technique in Caesar II
- Closing comments.

SELECTED CLIENTS



GENERAL INFORMATION:

- Class begins at 09:00 AM and ends at 05:30 PM. Participants are expected to be present each day and during all training periods. Participants who do not fulfill the attendance requirement will not be certified. Please remember this when making your travel arrangements.
- Participant fee includes printed course material (containing all slides and presentation handouts), participation certificate.
- Accommodation can be arranged for the participants near to the training venue (accommodation is not included in the participants fee).
- The training is restricted to registered participants only, Visitors are not permitted.
- Course attendance certificate will be issued to all participants.
- Use of mobile phones, Personal Data Assistants (PDA, Blackberry) and pagers is not permitted during workshop training periods. Same applies for use of laptop, tablet, and computer for any purpose (E-mail, games etc.) other than workshop training.
- The recommended attire is business casual.
- Participants are expected to maintain a professional standard of appearance and behavior. Any participant wearing inappropriate attire or behaving in an unprofessional manner will be given a verbal warning. Further incidents may result in the participant being asked to leave the class without refunding their fee.
- Failure to meet or comply with these requirements will result in non-certification.

ABOUT IPEBS

"Energizing Engineering – Empowering Engineers"

IPEBS is a premium professional training service provider based in Hyderabad, India.

IPEBS has expertise in providing knowledge packed training courses related to Plant Engineering with specialized training programs in Mechanical, Electrical, Instrumentation & Control, Civil/Structural, Process Engineering & Projects Management.

IPEBS core team comprises of Internationally renowned course speakers and domain specialists.

People behind IPEBS have trained thousands of engineers/draftman from all over the Globe.

IPEBS trainers are Subject Matter Experts with real time Consulting & Construction experience.

INSTRUCTOR PROFILE

Mr. Atiq Rahman, P.E. (Texas)

***Registered Professional Engineer – Texas State Board – USA
Certified Project Manager from PMI, USA.***

Summary

Mr. Atiq has over 23 years of progressive experience in design and maintenance engineering including piping material specifications, material requisition, pipe stress analysis, mechanical systems, pipe support design, valves specifications and piping specialty items. It includes Design, evaluation, testing, fabrication interpretation and modification of piping systems.

Mr. Atiq has Lead major projects for piping discipline with the world's most recognized design and owner companies including

- Kellogg Brown & Root, Texas, USA.
- B.P. Lima – USA.
- Saudi Aramco, KSA.
- Exxon Mobil, Japan & France.
- ADNOC, UAE.
- QatarGas – Qatar
- Etc.

Mr. Atiq is Master's in Mechanical Engineering & is a Registered Professional Engineer with Texas State Board, USA. Additionally Mr. Atiq is a Certified Project Management Professional from PMI, USA. Mr. Atiq has successfully achieved ASME B 31.3 certification at Pittsburg, Pennsylvania, USA.

Mr. Atiq has worked with various Owner & Leading EPC companies in the USA and Gulf Countries providing his specialist services for world's major projects in different piping design areas.

Mr. Atiq has also reviewed pipe stress software for accuracy & code compliance and achieved CAESAR II certification from Brown & Root Inc, USA. He is a piping specialist since 1989 and has administered many training courses in Piping Engineering, Pipe Stress Analysis, and CAESAR II & Piping Dynamic Analysis.

PARTICIPANT FEES:

RTRP Piping Systems (GRE/GRV/GRP) 3 - Days Workshop	Registration Fee	Group Discounts
Indian Participant	15,000/- INR	2 or more at 7% off 5 or more at 10% off
International Participant	400/- US \$	

Account Name: IPEBS	Account No :	03182020005287
Branch Name : ABIDS	Bank Name :	HDFC
RTGS/NEFT/IFSC Code : HDFC0004125	Swift Code :	HDFCINBB

All bank charges to be borne by payer. Please ensure that **IPEBS** receives the full invoiced amount.

Interested in Onsite training - save over 40% off in total fees, for further information on Onsite training please contact,
E-mail : corptrain@ipebs.in Mobile- +91- 9885946711

Terms & conditions:

CANCELLATIONS & SUBSTITUTIONS: Cancellations done 2 weeks prior to the course start date a full refund will be promptly made after a written cancellation is received. Cancellations done 1 week prior to the course start date a minimum charge of 50% of the total fee will be charged. No cancellations are accepted 6 Days before the course start date. However, credit maybe granted to a later workshop or you could send a substitute participant. After registration you may substitute a participant anytime.

COURSE MATERIAL AGREEMENT: It is the intention of **IPEBS** that the course text and materials supplied to participants at **IPEBS** courses are prepared and issued for the participants' sole use. Codes and standards constantly change and interpretations are issued by the publishing societies. Information contained in **IPEBS** course materials is based on the best available data obtained by **IPEBS** at the time of publication. **IPEBS** is in no way responsible for subsequent use regardless of intention.

PROGRAM CHANGE POLICY: Please note that instructors and topics were confirmed at the time of publishing this document; however, circumstances beyond the control of the workshop organizers may necessitate substitutions, alterations or cancellations of the instructors and/or topics. As such, **IPEBS** reserves the right to alter or modify the instructors and/or topics if necessary. Any substitutions or alterations will be updated on our web site.

COURSE CANCELLATION BY IPEBS: **IPEBS** reserves the right to cancel any WORKSHOP/course due to circumstances beyond our control. All tuition fees will be refunded in the event of cancellation. **IPEBS** liability is limited to only those tuition fees paid in advance.

FORCE MAJEURE: Except for the obligations to make money payments as outlined hereunder, neither party shall be responsible to the other for delay or failure to perform any of the terms and conditions, or other activities, of this agreement if such delay or failure is caused by strike, war, act of God, or force majeure.

REGISTRATION

Please print or type clearly & use separate form for each Participant.

Please visit www.ipebs.in for details on courses we offer and more updated information. You can also Register online.

For applications by E-mail, please fill the form below and send to register@ipebs.in

Course Title: RTRP Piping Systems (GRE/GRV/GRP) – Manufacture, Design, Installation & Inspection

COURSE DATE: _____ COURSE LOCATION: _____

NAME: _____

QUALIFICATION: _____ WORK EXPERIENCE (if any): _____

JOB TITLE: _____ COMPANY: _____

ADDRESS: _____

CITY: _____ STATE: _____ POSTAL CODE: _____ COUNTRY: _____

PHONE: _____ FAX: _____ EMAIL: _____

In case of Emergency, contact

NAME: _____ PHONE: _____

ADDRESS: _____

EMAIL: _____

NOTE: Registrations are not confirmed until full payment is received, course confirmation will be sent via Email.

I, acknowledge to the terms & conditions of the organizer.

Date: _____

Signature: _____

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