

**A
Report
On
Two Days Workshop on
“STEAM, FUELS & COMBUSTION AND WATER TREATMENT
FOR BOILERS”**

Organizing Committee

Dr. Latesh B. Chaudhari, Principal-FETR

Prof. K. B. Rathod, HOD, FETR

Mentors

Dr. P.A. Joshi, Chairman

Prof. S. J. Vasavada, Asso. Coordinator
Anchor Institute, D.D.U., Nadiad

Workshop Coordinators:

Prof. Jitendra B. Chaudhari

Prof. Vishal P. Bhagatwala

Jointly Organized by

Nodal Institute - Faculty of Engineering Technology and Research & N.G. Patel Polytechnic, Bardoli

Under stewardship of

Anchor Institute

Chemicals & Petrochemicals

Promoted by

Industries Commissionerate,

Government of Gujarat

In Partnership with

Dharmsinh Desai University, Faculty of Technology, DDU Nadiad.

Nodal Institute N.G. Patel Polytechnic Bardoli & Faculty of Engg. Tech & Research, Bardoli, has organized Two Days Workshop on “**STEAM, FUELS & COMBUSTION AND WATER TREATMENT FOR BOILERS**” on 23rd - 24th June 2014. N.G. Patel Polytechnic, Bardoli, is recognized by the AICTE and affiliated to Gujarat Technological University (GTU), Ahmedabad. N G Patel Polytechnic functions as Nodal Institute for Anchor Institute-Chemicals & Petrochemicals. Till date it has organized 29 training courses for different level of participants. 483 industrial, 266 faculty members and 1049 students of Degree, Diploma Chemical Engineering and ITI Chemical trade and junior and senior level personnel have attended the training courses.

In accordance with GTU INNOVATION COUNCIL, we at Faculty of Engineering Technology & Research have decided to put our efforts in for students/faculties those having an inclination towards entrepreneurship and innovation and thus initiate Students Startup Support System (S4) Committee. The agenda of this committee will be to arrange workshops and seminars that help final year and alumni students and faculties explaining the needs of entrepreneurship, impart the knowledge to achieve/startup such entrepreneurship and in need help them startup/implement their ideas. As required, experts, Industrial persons and successful entrepreneurs shall be called in to relay their knowledge and experiences with the students/faculties. This committee shall also pay attention on outstanding pre-final year students that have exceptional knowledge and feasible innovative ideas that could be implemented and worked upon.

The main objective of the training program is to provide an improved up-to-date understanding of the fundamentals, principles and practices associated with the design, operation and maintenance of industrial boilers and, in a broader view, of industrial systems and processes generating, transforming or using thermal energy from combustion. The course will provide in-depth knowledge right from the formation of steam to the standard procedure for installation, operation and maintenance of Boilers. The Conference will provide a forum for delegates involved in research, design and operation of boiler systems, and will also be of interest to those working in areas such as combustion science, energy efficiency and environment control.

Almost 30 engineers from different industries, 15 faculties of Mechanical and Chemical engineering Department from different Engineering College and 6 students from Chemical engineering department have participated in the workshop. M/s Aarati Industries Pvt. Ltd. – Vapi, M/s Elico Pvt. Ltd. – Ahemadabad, Shree Khedut Sahkari Khand Udhog Mandli Ltd., - Bardoli and Shree Madhi Vibhag Khand Udyog Sahkari Mandli Ltd., -Madhi shared financial support in terms of sponsorship for the workshop.

The detailed content of the workshop:

Session 1: Introduction to Steam, Steam accessories, Steam pipe line, Tutorials/Case study

Session 2: Boilers, Selection of boilers

Session 3: Case study discussions

Session 4: Fuels, Combustion of liquid and gaseous fuels

Session 5: Combustion of solid fuels, Tutorials and case study discussions

Session 6: Water and its properties

The list of Participants is as follows:

Sr.No	Name of Participant	Institute/Organization
1	Vikashsinh D. Solanki	Shree Ganesh Udhyog,Vatariya
2	Yuvraj A. Garasiya	Kamrej Sugar
3	Dharmendra B. Patel	Kamrej Sugar
4	Anil B. Kushwaha	Kamrej Sugar
5	Rahul G. Chaudhari	Madhi Sugar
6	Niral N. Bhavsar	Madhi Sugar
7	Atul P. Chaudhari	Madhi Sugar
8	Pritesh P. Chaudhari	Madhi Sugar
9	Hiren B. Mistry	Dadariya Sugar
10	Dilip T. Rana	Dadariya Sugar
11	Rikul P. Bhaktta	Dadariya Sugar
12	Manojbhai R. Patil	Bardoli Sugar
13	Sandip B. Patil	Bardoli Sugar
14	Harishbhai Manubhai Patel	Mahuva, Sugar
15	Shankarbhai Kantubhai Chaudhari	Mahuva, Sugar
16	Kamlesh K Araniya	MED,FETR

17	Bhargav B. Patel	MED,FETR
18	Hardik B. Nayak	MED,FETR
19	Himanshu S. Chaudhari	MED,FETR
20	Vatsal M. Gohil	MED,FETR
21	Ashish K. Desai	MED,FETR
22	D. V. Patil	GIL Ankleshwar
23	Aditya Parab	GIL Ankleshwar
24	Jayesh Solanki	GIL Ankleshwar
25	Ashok Sapariya	UmraKh
26	Rinkesh Patel	UmraKh
27	Patel Akshit G.	CHED,FETR
28	Thakor Snehal K.	CHED,FETR
29	Patel Zinal	CHED,FETR
30	Sarang Dhara V.	CHED,FETR
31	Maru Chetan L.	CHED,FETR
32	Tejas C. Patel	Chalthan Sugar
33	Vispi M. Pithawala	Chalthan Sugar
34	Rohit A. Desai	Sayan Sugar
35	Jayesh D. Bhavasar	Sayan Sugar
36	Jayesh C. Rathod	Sayan Sugar
37	Bharat G. Patel	Yashashvi Rasayan Pvt. Ltd
38	Arun Sheladiya	Green Design
39	Uday desai	Green Design
40	Nirav B. Rathod	MED, FETR
41	Sejal M. Chauhan	CHED, FETR
42	Taruna N. Patel	CHED, FETR
43	Ankursinh Solanki	MED, FETR
44	Chirag K. Balar	MED, FETR
45	Dharmin M. Patel	MED, FETR
46	Ghansyam Patel	ELICO Ltd
47	Mr. Subbarao	ELICO Ltd

The workshop started with inaugural function at 10:00 A.M. The inaugural session begun with Lightening the lamp and prayer. The secretary of SVPES trust, Shree Arunbhai Patel welcomed Mr. Arul Selvan with flock of flowers. The secretary of SVPES trust, Shree Arunbhai Patel was welcomed by Dr. Latesh B. Chaudhari with flock of flowers. The vice president of SVPES trust, Shree Manharbhai Patel was welcomed by Prof. A. B. Suthar with flock of flowers.



Lightening of Lamp



Dignitaries on the Dies



A brief introduction about invited expert Mr. Arul Selvan (Consultant, SAS, Pune), was given by Prof J. B. Chaudhari. Mr. Arul Selvan is an engineering professional of high repute, who carries more than 30+ years experience in process industry relating to erection of boilers, mineral oil heaters, incinerators and water treatment plants. During his 23 working years at Thermax Ltd (formerly Wanson India Pvt Ltd) he has installed steam, water, mineral oil and fuel oil piping along with pumps. Besides this he has supervised erection of chimney, ducting, tanks and structures. He was also responsible for training of engineers and dealer's engineers in the Process Heat division and Vapour Absorption Division of Thermax Ltd. He also worked as the Vice President and CEO for engineering, maintenance and projects divisions of Texmaco Group in Indonesia catering to sectors like textiles,

garments, polyester filament yarn, vegetable oil, leather and automobiles. He is a practicing engineering consultant to industries and business enterprise; providing solutions in the area of process boilers, heaters, water treatment plants, pumps and heating and cooling problems.



Dr. Latesh B. Chaudhari acknowledges the participants about the Nodal centre and briefly explained the objectives of the workshop. Mr. Arul Selvan gave some idea about the importance of this workshop in their organization.

The first session of expert talk started at 11:00. A.M by Mr. Arul Selvan. He started with introduction of steam and its application in the industry. He also talked about the Steam pipeline and its accessories. At the end of the session he solved some tutorial on pressure drop in the pipe and sizing of pipe. The second session started at 02:00 P.M. In this session he explained about the different types of boiler and selection of boiler. He also gave some idea about installation, operation and maintenance of boiler. In the last session of the day, he talked about the case study regarding the boiler problem in the industry.



Participants of Workshop

On the next day, first session was started at 10:00 A.M. In this session, the expert has given the introduction of different types of fuels and the advantage & disadvantage of different types of fossil fuel. He has also discussed about the combustion phenomenon for liquid and gaseous fuels. In the next session, he talked about the combustion phenomenon for solid fuels and discussed case studies relating to the present topics. In the last session of the day, he gave brief introduction about the properties of water used in the boiler and treatment done on it before fed to the boiler.

At the end of workshop, the valedictory function was carried out giving away a Memento as token of love to Mr. Arul Selvan by Shree Arunbhai Patel. The participants also distributed the certificates by Prof. Ashish K. Desai & Prof. C. K. Balar. The concluding speech was given by Prof. K. B. Rathod. Next day post workshop tour was arranged by Prof. V.P. Bhagatwala & Prof. P. S. Chaudhari at bardoli sugar factory along with participants and explored sugar



Certificate Distribution



Industrial Visit