



No. DCE- 007(207)

Date: 26/08/2023

Announcement of Short Course on “Boiler Operation, Maintenance & Safety”, Batch 03 (22 – 24 September 2023) Organized by Directorate of Continuing Education (DCE), BUET.

Dear Sir/Madam,

We have the pleasure to inform you that a 3 days short course on ‘Boiler Operation, Maintenance & Safety’ is going to be organized by the Directorate of Continuing Education (DCE), on 22 – 24 September 2023.

The short course on boiler operation, maintenance, and safety is thoughtfully designed, offering a comprehensive curriculum and interactive learning methods. Led by the esteemed professors of **Bangladesh University of Engineering and Technology (BUET)** and experienced professionals from **the Office of the Chief Inspector of Boilers (Ministry of Industries, Government of the People’s Republic of Bangladesh)**, the course equips participants with the necessary expertise to confidently manage boilers, emphasizing safety and efficiency. By striking a balance between theory and practice, the course prepares professionals to handle complexities while mitigating risks.

The registration fee for this short course is **TK. 15000/- (Taka fifteen thousand only)** as per person to be paid in advance, through Pay-Order or Demand draft, in favor of “**Director, BRTC, BUET**”. Course registration fee may also be electronically deposited at Savings Account No. 4404034173888, Account Name: **Director, Directorate of Continuing Education (DCE), Sonali Bank Ltd., BUET Branch, Dhaka**. Course Fee includes all costs of printed course materials, exams, certificates, refreshments, etc., and excludes VAT & TAX.

Seats are limited and the application /nomination would be selected on a First Come First Served basis, **Registration Deadline is 17 September 2023.**

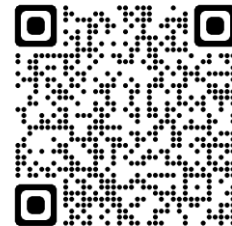
For further information, please contact the DCE office, BUET, Cell: **01303183113, 01611510056**, Tel: **58610738**, PABX. 55167100 Ext. 7848, E-mail: info@dce.buet.ac.bd. You may also visit our official website: <https://dce.buet.ac.bd>

It is highly appreciated if you could kindly participate and/or nominate the concerned official(s) from your esteemed organization in this proposed short course.

Thank You

Prof. Dr. Mohammad Nasim Hasan
Director, Directorate of Continuing Education (DCE)
Bangladesh University of Engineering and Technology
Mail: info@dce.buet.ac.bd

For registration in this course,
Please scan below



CONTACT

Director
Directorate of Continuing Education (DCE)
BUET, Dhaka-1000

Tel: 02 58610738
PABX: 02 55167228-57 ext. 7848, 7452
Cell: 01303183113
Email: info@dce.buet.ac.bd

- **Batch 01: 25 – 27 August 2023:** (3 days)
- **Batch 02: 01 – 03 September 2023:** (3 days)
- **Batch 03: 22 – 24 September 2023:** (3 days)

About DCE

DCE established in **1995 at BUET**, a platform for decentralized and adaptive learning to bridge the gap between Professionals and Academicians, promotes pedagogical development with a combined experience of Academicians and Professionals and offers distance training opportunities. So far, **202** short courses/training workshops have been offered to serve more than **10,000** professionals.

Short Course Outcomes

At the end of this course, participants are expected to learn and subsequently apply knowledge on:

- Fundamentals of industrial boiler operation
- Boiler rules and regulations in Bangladesh
- Requirements of boiler rooms
- Developed maintenance program for boilers
- Inspection of boiler
- Boiler feed water treatment methods
- Efficiency in boiler operation
- Causes of explosions, failures, and accidents of boilers
- Hands-on experience in boiler operation
- Boiler safety check

RESOURCE PERSON

Experts from both **Academic and Professional** domains will conduct the proposed short course.

For details please visit: dce.buet.ac.bd

DURATION

- Batch 01: 25 – 27 August 2023:** (3 days)
- Batch 02: 01 – 03 September 2023:** (3 days)
- Batch 03: 22 – 24 September 2023:** (3 days)

LANGUAGE

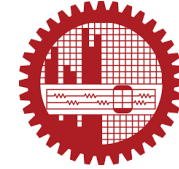
English and Bangla

CERTIFICATE

A certificate of attendance will be provided.

Short Course On

Boiler Operation, Maintenance and Safety



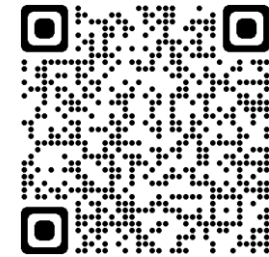
Batch 01 (25 - 27 August 2023)
Batch 02 (01-03 September 2023) &
Batch 03 (22-24 September 2023)

BUET, Dhaka

Organized by

Directorate of Continuing Education (DCE)
Bangladesh University of Engineering and Technology
Dhaka-1000

For registration and Details Please Scan



Boilers play a vital role in industries, providing steam or hot water for various applications. Proper operation is crucial, with skilled personnel monitoring temperature, pressure, and fuel supply for optimal performance. Regular maintenance, including inspections and cleaning, ensures safe and efficient operation, extends boiler lifespan, and prevents breakdowns. Safety measures like safety valves and temperature controls mitigate risks. Compliance with safety standards and regulations is essential, with inspections and audits verifying adherence. Training workers on operations, maintenance, and emergency procedures promote safety awareness. By prioritizing operation, maintenance, and safety, industries ensure efficient and safe boiler operation, minimizing risks, and maximizing productivity.

Join the official workshop on boiler operation, maintenance, and safety, presented by DCE, BUET. Gain comprehensive knowledge aligned with local regulations and international standards. Learn from industry experts, engage in practical sessions, and enhance your skills. Don't miss this invaluable learning opportunity. Register now!

WHO SHOULD ATTEND?

This workshop is designed for anyone who has an interest in boilers and needs to understand the fundamental operation of boilers to improve efficiency and safety at their plants. The following participants will get the most benefit from attending this short course:

- Project Directors / Managers / Engineers
- Plant and facility maintenance personnel/managers/ supervisors
- Apprentice and experienced boiler technicians
- Energy auditors/ managers/ safety officers
- Boiler/ Mechanical/ Maintenance Engineers
- Purchasing managers/ Contractors / Manufacturers
- Graduates looking for Safety professional jobs

PROGRAM OVERVIEW

Contents of the workshop are:

- Fundamentals of boilers
- Industrial boiler operation
- Boiler Rules and Regulations in Bangladesh
- Requirements of the boiler room and its safety
- Industrial boiler maintenance
- Boiler operation log sheet preparation
- Boiler inspection procedure and frequency
- Hands-on experience in boiler operation
- Boiler safety check
- Boiler energy efficiency
- Requirements for higher efficiency of the boiler
- Boiler explosion and failure-case study
- Boiler registration procedure
- Boiler operator certification procedure

VENUE

Directorate of Continuing Education (DCE), 3rd Floor, Institute Building, BUET, Polashi, Dhaka-1000. (Near Dr. M A Rashid Student Hall, BUET and BUET Gymnasium)

REGISTRATION FEE

BDT **15,000/-** per Person (Tk. Fifteen Thousand Only)

The fee will cover printed lecture instructions, workshop kits, comprehensive materials, refreshments, certificates, etc.

PAYMENT

Registration Fee is to be paid in advance payable through Pay Order/Demand Draft (DD) in favor of **Director, BRTC, BUET**, or electronically deposited at - Savings **Account No. 4404034173888**, **Account Name:** Director, Directorate of Continuing Education (DCE) Sonali Bank Ltd., BUET Branch, Dhaka.

Seats are limited and the selection procedure will be First Come First Serve basis.

REGISTRATION FORM

Short Course On Boiler Operation, Maintenance, and Safety DCE, BUET

Please complete the registration form in BLOCK LETTERS and return it to the address overleaf.

Name:

Affiliation:

Company Name:

Address:

Cell Phone:

Email:

Payment:

- Pay Order/ Demand Draft (DD)
- Online Banking

Please attach the original copy of the payment.

Details of Pay Oder/Demand Draft:

Signature:

Date:

COURSE INSTRUCTOR'S BIOGRAPHY



Professor Dr. Md. Ehsan, Former Head of the Department of Mechanical Engineering, BUET, received his Ph.D. titled “A New Type of Malone Engine with Digital Displacement Hydraulic Drive” under the Commonwealth Scholarship Program in 1997. He had done his Postdoctoral research on the Dynamic Simulation of a Hydraulic Excavator Arm under a Post-Doctoral Fellowship, at the University of Edinburgh, UK in 2005. His key research fields are Alternative Fuels for I.C. Engines, Dynamic System Modeling, Thermal Engineering, Automobiles, and CAD. He was the former Director, of the Centre for Energy Studies, BUET. He has published over 60 research articles in top academic international and national level journals and conferences.



Professor Dr. Engr. Mohammad Arif Hasan Mamun, has around 26 years of teaching experience at Department of Mechanical Engineering, Bangladesh University Engineering and Technology (BUET) as well as practical Testing and Consultancy experience. He completed his B.Sc. in Mechanical Engineering from BUET in 1997 and has been awarded the **Dr. V.G. Desa Gold Medal** for his First Class First position with honors. He has started his professional life as a Lecturer at the Dept. of Mechanical Engineering, BUET from September 1997. He completed his M.Sc. in Mechanical Engineering from BUET in 1999. He obtained Ph.D. from University of Waterloo, Canada in 2003 under **Commonwealth Scholarship Program**. He also served as a Post-Doctoral Research Fellow at Institute of Ocean Energy, Saga University, Japan, from 2009 to 2010.

He has conducted numerous research works on Experimental Methods for Enhancement of Heat Transfer and thermal efficiency, Co-Generation, Waste Heat Recovery system, Efficient HVAC system, Energy Conservation through Energy Audit, Experimental Study of the Solar Powered Photovoltaic DC motor Driven Pumping System, Power Generation from Tidal Energy in the Coastal Area of Bangladesh, Analysis of Four Twisted Bladed S-shaped Savonius rotor to Get Energy from Wind, Co-Creation of Biogas Socket in Bangladesh, Biogas production from Tanery Wastage Using Mesophilic Anaerobic Digestion Process. He has published his research works in several referred journals and books. He is a Certified Energy Auditor (CEA) from Association of Energy Engineer (AEE) and AEE authorized trainer for the CEA course in Bangladesh. He has experience in conducting Energy Audits in various industrial sectors in Bangladesh. He received

COURSE INSTRUCTOR'S BIOGRAPHY

the **Asia Subcontinent Region Energy Professional Development Award** for 2016 from the Association of the Energy Engineers (AEE).



Professor Dr. Monjur Morshed, professor at the Department of Mechanical Engineering at the Bangladesh University of Engineering and Technology (BUET) and director of Institute of Appropriate Technology (IAT), BUET. He is the LEED Accredited Professional Operation and Maintenance and Certified Energy Auditor (ISO50001). He received his Ph.D. in Mechanical Engineering from the University of South Carolina in 2012 and Post-Graduation and Graduation in 2008 and 2005 respectively from BUET. His research interests include heat and mass transport in microscale, heat transfer with phase change, and renewable energy. He has published over 40 papers in top academic conferences and journals. He is a proud member of the Association of Energy Engineers (AEE). He is also a recipient of the Young Scientist Award from the Bangladesh Academy of Sciences and the 'Generation Next' scholarship from Govt. of Russia (2013). Energy Engineering, Engineering Thermodynamics, Heat Transfer Equipment Design, and Advanced Convection Heat Transfer are some key courses along with other regular courses offered by him in Post-Graduate and Graduate Level in BUET.



Professor Dr. Md. Ashiqur Rahman is a professor in the Department of Mechanical Engineering at BUET, Dhaka, Bangladesh. He received his Ph.D. degree from the University of Illinois at Urbana-Champaign, USA in 2013. Before that, he completed his BS and MS from Bangladesh University of Engineering and Technology (BUET). Dr. Rahman conducts both numerical and experimental studies in the field of fluid mechanics, thermal sciences, and energy systems. Of particular interest are the study of Fire Dynamics, Fire and Evacuation Modelling, Surface Wettability, and Energy Storage Systems. Dr. Rahman is highly interested in interdisciplinary works and hence is enthusiastic about research collaborations. He has served on many technical committees and has worked on a range of projects of both national and international importance and exposure.

COURSE INSTRUCTOR'S BIOGRAPHY



Engineer Mohammad Abdul Mannan joined in Office of the Chief Inspector of Boilers as the Chief Inspector of Boilers on 1st June 2015. He was born at a renowned Muslim family on 1975 at Joukura in Rajbari District. He passed SSC from “Rajbari Govt. High School” and HSC from “Rajbari Govt. College”. He achieved B.Sc in Mechanical Engineering Degree from RUET. He joined in Office of the Chief Inspector of Boilers as an Inspector of Boilers in 2004. Then he promoted as Deputy Chief Inspector of Boilers in 2013.



Engr. Md. Ziaul Hoque is a prominent, experienced in the field of boiler inspection. He obtained his graduation degree from BIT, Chittagong in Mechanical Engineering. He started his carrier as an Assistant Engineer in Jamuna Fertilizer Company Ltd. (JFCL). He Joined as Inspector of Boilers in the office of Chief Inspector of Boilers in 2004. Presently he is serving as Deputy Chief Inspector of Boilers. He had completed “Boiler operation and Maintenance Training” from Forbes Marshal Boiler Manufacturing Company Limited India. He had also completed his “Training on Energy Auditing “Combodia Under APA (Asian Productivity

Organization).



Engr. Md. Sharafat Ali has had an illustrious and diverse career in the field of mechanical engineering and boiler safety. His journey has taken him through various roles, both in the private sector and in governmental organizations under the Ministry of Industries in the Bangladesh government. Starting with his graduation in mechanical engineering from RUET, Mr. Ali ventured into the private sector, working as a mechanical engineer in different organizations before joining the BJMC (Bangladesh Jute Mills Corporation) as an assistant engineer in the Mechanical department. Later on, he pursued further education and obtained his MBA degree from Dhaka University, which likely equipped him with valuable managerial skills to complement his technical expertise.

COURSE INSTRUCTOR'S BIOGRAPHY

Mr. Ali's career took a significant turn when he joined the boiler department under the Ministry of Industries. He initially worked as an inspector of boilers at the office of the chief inspector of boilers and eventually progressed to the position of Deputy Chief Inspector. In this capacity, he became a crucial figure in ensuring boiler safety and compliance within Bangladesh's industries. His commitment to professional development is evident from the extensive local and overseas training he has undergone. Notably, he conducted a knowledge-sharing program on boiler manufacturing processes with Indonesian and Malaysian government boiler authority. He also completed PPM (Project planning Management) courses from NAPD, Bangladesh, (LED) Local Economic Development courses from EDI, India and Sustainable Development Goals (SDGs) related course from Curtin University, Australia.

Mr. Ali's contributions extend beyond his role as an inspector. He has authored notable publications such as "Boiler Scenario, Inspection and Safety Issues in Bangladesh," presented at ICEP-2018 in Sydney, Australia, and "Boiler Safety in South Asia," published by the Institution of Engineers, India. These publications highlight his dedication to sharing knowledge and best practices within his field. His commitment to professionalism is evident through his certifications, including ISO 9001:2008 and ISO/IEC 17020:2012 Assessor training, as well as his NDT (Non-Destructive Testing) UT Level-2 certification. These certifications reflect his dedication to ensuring quality and safety standards in his work.

Furthermore, Mr. Ali's influence as a trainer is noteworthy. He conducts boiler-related training and workshops in prestigious institutions like BUET, RUET, BITAC, as well as in organizations such as DIFE, BGMEA, and BKMEA. This highlights his role in imparting knowledge and expertise to the next generation of professionals in his field. His international exposure is also remarkable. Through his participation in knowledge-sharing programs and visits to boiler manufacturing industries across countries like India, China, Thailand, Indonesia, Malaysia, Singapore, Japan, the United Kingdom, Scotland, and Australia, Mr. Ali has enriched his understanding of global best practices and technologies in his domain. He received the NIS (National Integrity Strategy) award and the Innovation award from the Bangladesh government, underscoring his impact on the industry and his commitment to excellence.

COURSE INSTRUCTOR'S BIOGRAPHY



Engr. Md. Hanif Hossan is a Deputy Chief Inspector of Boilers in the Office of the Deputy Chief Inspector of Boilers, Narayanganj under the Ministry of Industries, Bangladesh. He has more than 10 years of experience in Boiler Operation, Maintenance, & Manufacturing in Government & Private organizations. He completed his B.Sc. in Mechanical Engineering from Khulna University of Engineering and Technology (KUET), Bangladesh in 2011. Mr. Hanif served as Assistant Manager (Mechanical) in Carew and Company (Bangladesh) Ltd. an organization of Bangladesh Sugar and Food Industries Corporation (BSFIC) (2012-2016), Assistant Engineer (Mechanical) in Eastern Cables Ltd. an organization of Bangladesh Steel and Engineering Corporation (BSEC), Assistant Engineer (Mechanical) in Shahajalal Fertilizer Company Ltd. an enterprise of Bangladesh Chemical Industrial Corporation (BCIC) (2016). He has published papers on boilers at international conferences and is the author of two books on boilers, “Boiler Babohorkarir je tottho jana uchi” and “Fundamentals of Boiler”. He is also the guest trainer in the Skills for Employment Investment Program (SEIP) about Boiler safety in Industries organized by BKMEA. Mr. Hanif has attended many workshops, seminars, and training programs about Boiler Operation, Maintenance & Safety in Bangladesh & abroad.



Short Course on
Boiler Operation, Maintenance, and Safety

Venue: Lecture room, DCE, 3rd Floor, Institute Building, BUET

PROGRAM SCHEDULE

Day	Time	Topics	Resource Person
Friday	8:45 AM-9:15 AM	Registration	
	9:15 AM-10:45 AM	Lecture 04: Boiler Inspection Procedure	Engr. Md. Sharafat Ali Deputy Chief Inspector of Boilers Ministry of Industries Government of Bangladesh
	10:45 AM-11:15 AM	Tea Break	
	11:15 AM-12:30 PM	Lecture 02: Boiler Registration and Renewal Procedure due to Regulation	Engr. Md. Hanif Hossan Deputy Chief Inspector of Boilers Ministry of Industries Government of Bangladesh
	12:15 PM-2:30 PM	Prayer and Lunch Break	
	2:30 PM-4:00 PM	Lecture 03: Industrial Boiler Operation	Prof. Dr. Md. Ehsan Department of Mechanical Engineering BUET
	4:00 PM-4:45 PM	Lecture 01 (Part 01): Introduction to Boilers	Prof. Dr. A.K.M. Monjur Morshed Department of Mechanical Engineering, BUET.
	4:45 PM-5:00 PM	Prayer & Tea Break	
	5:00 PM-5:45 PM	Lecture 01 (Part 02): Introduction to Boilers	Prof. Dr. A.K.M. Monjur Morshed Department of Mechanical Engineering, BUET.
Saturday	2.30 PM – 4.00 PM	Lecture 06: Efficiency Estimation and Efficient Boiler Operation	Prof. Dr. Arif Hasan Mamun Department of Mechanical Engineering, BUET.
	4.00 PM-4.45 PM	Lecture 05 (Part 01): Industrial Boiler Maintenance	Engr. Md. Ziaul Hoque Deputy Chief Inspector of Boilers Ministry of Industries Government of Bangladesh
	4.45 PM-5.00 PM	Prayer & Tea Break	



Short Course on
Boiler Operation, Maintenance, and Safety

Venue: Lecture room, DCE, 3rd Floor, Institute Building, BUET

PROGRAM SCHEDULE

Day	Time	Topics	Resource Person
	5.00 PM- 5.45 PM	Lecture 05 (Part 02): Industrial Boiler Maintenance	Engr. Md. Ziaul Hoque Deputy Chief Inspector of Boilers Ministry of Industries Government of Bangladesh
	5.45 PM- 7.00 PM	Lecture 07 (Practical): Hands-on Experience in Boiler Operation and Safety Check (Boiler Lab, ME)	Prof. Dr. Md. Ehsan & Prof. Dr. A.K.M. Monjur Morshed Department of Mechanical Engineering, BUET
Sunday	2.30 PM – 4.00 PM	Lecture 08: Requirement of Boiler Room	Prof. Dr. Md. Ashiqur Rahman Department of Mechanical Engineering, BUET.
	4.00 PM- 4.45 PM	Lecture 09 (Part 01): Case Study: Boiler Explosion and Failure	Prof. Dr. A.K.M. Monjur Morshed Department of Mechanical Engineering, BUET.
	4.45 PM- 5.00 PM	Prayer Break	
	5.00 PM- 5.45 PM	Lecture 09 (Part 02): Case Study: Boiler Explosion and Failure	Prof. Dr. A.K.M. Monjur Morshed Department of Mechanical Engineering, BUET.
	5.45 PM- 7.00 PM	Lecture 10: Boiler Act, 2022	Engr. Mohammad Abdul Mannan Chief Inspector of Boilers Ministry of Industries Government of Bangladesh
	7:15 PM~	Closing and Certificate Awarding	

Course Co-Ordinator:

Prof. Dr. A.K.M. Monjur Morshed

Department of Mechanical Engineering, BUET



CONTINUING EDUCATION

Path to Excellence