

Curriculum Vitae

Personal Detail:

Name: Md. Mahbubul Alam
Position: Professor, Department of Mechanical Engineering
Chittagong University of Engineering & Technology
Raozan, Chittagong - 4349.
Present Address: Room No. 409, Single Accomodation Complex, CUET
Raozan, Chittagong -4349
Email address: malam@cuet.ac.bd ; mahbub87@yahoo.com
Telephone: 8801812830127 (Cell)
Field of Interest: Thermo Fluids, CFD and Renewable Energy



Academic Qualifications:

Degree/ Examination	Institution (University / College / School / Department)	Class/Division/GPA	Year
Ph. D. ¹	Saga University, Japan	Successfully completed	2007
M. Sc. Engg. ² (Mechanical)	Saga University, Japan	Successfully completed	2004
B. Sc. Engg. ³ (Mechanical)	Rajshahi University of Engineering and Technology, RUET	First Class	1991
H. S. C.	Kabi Nazrul Govt. College, Dhaka	First Class	1987
S.S.C.	Bausia M. A. Azhar High school, Munshigonj	First Class	1984

¹Specialization: Fluid Mechanics and Computational Fluid Dynamics (CFD),
Aerodynamics

Ph. D. Thesis title: **A Study on the Control of Supersonic Cavity Flow Oscillations**

Courses completed: (a) Advanced Biological Imitating Instrumentation, (b) Control
Information Systems, (c) Environmental Science.

²Specialization: Aeroacoustics, Experimental Methods for Jet Noise Suppression

M. Sc. Thesis title: **Study on Noise Reducing Performance of a parabolic Reflector
Compared with a Flat Plate and a Spherical Reflector.**

*(Under Japanese Government (MONBUKAGAKUSHO) Scholarship Program,
Awarded from 2002 to 2004)*

Courses completed: (a) Advanced Fluid Engineering, (b) Advanced Dynamics of Machine, (c) Advanced Control Theory, (d) Advanced Applied Dynamics, (e) Advanced Manufacturing Process, (f) Advanced Solid Mechanics, (g) Advanced Machine Intelligence, (h) Advanced Technology of Energy, (i) Advanced Aeroacoustics, (j) Advanced Strength of Materials, (k) Advanced Environmental Thermofluid Mechanics, (l) Advanced Signal Processing and Control, and (m) Intelligent Systems Control.

³Project title: **Commissioning of a Super Universal Knee type Milling M/C**

Major courses completed: (a) Thermal Engineering, (b) Basic Thermodynamics, (c) Engineering Mechanics, (d) Strength of Materials, (e) Machine Design, (f) Heat and Mass Transfer, (g) Theory of Machine, (h) Fluid Mechanics, (i) Applied Thermodynamics (j) Fluid Machinery (k) Aerodynamics, (l) Production Planning and Control, (m) Machine Tools (n) Industrial Management (o) Air-Conditioning and Refrigeration, (p) Quality Control and Material Handling, (q) Power Plant Engineering., (r) Operations Research, etc.

Experiences :

Position	Organization	Duration
Dean	Faculty of Mechanical Engineering, CUET, Chittagong-4349	4 th October 2015 to 3 rd October 2017
Provost	Shaheed Tareq Huda Hall, CUET, Chittagong - 4349	1 st December 2014 to 3 rd October 2015
Provost	Dr. Qudrat-E-Khuda Hall, CUET, Chittagong - 4349	4 th June 2012 to 30 th Nov.2014
Head	Department of Petroleum and Mining Engineering, CUET, Chittagong-4349	22 nd April 2012 to 21 st April 2014
Post-Doctoral Research Fellow	Institute of Ocean Energy, Saga University, Japan	3 rd January 2010 to 19 th March 2012 (on leave from CUET)
Professor	Dept. of Mechanical. Engineering, CUET, Chittagong - 4349	13 th December 2009 to present
Head	Dept. of Mechanical. Engineering, CUET, Chittagong - 4349	1 st July 2008 to 2 nd January 2010
Associate Professor	Dept. of Mechanical. Engineering, CUET, Chittagong	4 th May 2008 to 12 th December 2009
Assistant Professor	Dept. of Mechanical. Engineering, CUET, Chittagong	22 nd April 1999 to 3 rd May 2008
Lecturer	Dept. of Mechanical. Engineering, CUET, Chittagong	23 rd October 1995 to 21 st April 1999

Membership / Fellowship of Learned Societies, Professional Institutions and Other Noteworthy Affiliations, etc.:

- (1) Member of Japanese Universities Alumni Association in Bangladesh (JUAAB), Dhaka.
- (2) Member of Alumni of Rajshahi University of Engineering and Technology, RUET, Rajshahi-6204.
- (3) Member of Bangladesh Society of Mechanical Engineers.
- (4) Member of Institute of Engineers, Bangladesh.

Professional Awards / Honors Received:

- (1) Awarded "**Japanese Government (MONBUKAGAKUSHO) Scholarship**" for Research Student, M. Eng. Program (2002-2004)
- (2) **Honors Scholarship for Privately-Financed International Students** from Japan Student Services Organization (JASSO) for Ph.D. Program (10/2005-03/2006 & 4/2007-9/2007)
- (3) **Saga City Scholarship** from Saga, Japan, for Ph.D. Program (4/2006-3/2007)
- (4) **Research Assistantship** from Department of Mechanical Engineering, Saga University (2005-2006)
- (5) Awarded "**Sasagawa Scientific Research Grant (No. 18-056)**" from Japan Science Society for Ph.D. program.
- (6) Awarded "**Technical Scholarship**" while studying B. Sc. Engineering in the Department of Mechanical Engineering, RUET.

Professional Work at National and International Levels:

(i) Academic/Research:

- (1) Chair, Organizing Committee, 3rd International Conference on Mechanical Engineering and Renewable Energy, ICMERE 2015, 26-29 November at CUET, Chittagong 4349.
- (2) Chair, Technical Committee, 4th International Conference on Mechanical Engineering and Renewable Energy, ICMERE 2017 (18-20 December) at Hotel Lord's Inn, Chittagong 4349.
- (3) Session Chair of a Technical Session of the 4th International Conference on Mechanical Engineering and Renewable Energy, 18-20 December 2017, Chittagong, Bangladesh.
- (4) Reviewer, Proceedings of the 4th International Conference on Mechanical Engineering and Renewable Energy, 18-20 December 2017, Chittagong, Bangladesh.
- (5) Session Chair of a Technical Session of 3rd International Conference on Mechanical Engineering and Renewable Energy, 26-29 November 2015, CUET, Bangladesh.
- (6) Session Chair of a Technical Session of 3rd International Conference on Mechanical Engineering and Renewable Energy, 26-29 November 2015, CUET, Bangladesh.

- (7) Reviewer, Proceedings of the 3rd International Conference on Mechanical Engineering and Renewable Energy, 26-29 November 2015, Chittagong, Bangladesh.
- (8) Session Chair of a Technical Session of 2nd International Conference on Mechanical Engineering and Renewable Energy (ICMERE13), 1-3 May 2014, CUET, Bangladesh.
- (9) Session Chair of a Technical Session of 2nd International Conference on Mechanical Engineering and Renewable Energy (ICMERE13), 1-3 May 2014, CUET, Bangladesh.
- (10) Member, Editorial Board, “Mechanical Engineering Res. Journal”, CUET, Chittagong, Bangladesh.

(ii) Technical Consultancy and Testing:

- (1) Worked as a Consultant of “Verification of Installation of Equipment’s for 1050 mm width and 1200 mpm Speed 6HI Reversing Cold Rolling Mill of Kharnaphuli Steel Mills Ltd., Bara Kumira, Sitakunda, Chittagong”, a consultancy work carried out by the Dept. of Mech. Engg., CUET, in association with Bangladesh Customs, 2017.
- (2) Worked as a Consultant of “Verification of Installation of Capital Machinery / Spare Parts for Galvanizing Line of PHP Continuous Galvanizing Mills Ltd., Bara Kumira, Sitakunda, Chittagong”, a consultancy work carried out by the Dept. of Mech. Engg., CUET, in association with Bangladesh Customs, 2017.
- (3) Worked as a Consultant of “Verification of Installation of Capital Machinery for KYCR Coil Industries Ltd., Unit-2, KDS Group, Choto Kumira, Shitakunda, Chittagong”, a consultancy work carried out by the Dept. of Mech. Engg., CUET, in association with Bangladesh Customs, 2017.
- (4) Worked as a Consultant of “Confirmation of dump-truck’s characteristics of brand new Sino truck HOWO 6X4 tipper truck-dumpers for Jamuna Tyre & Rubber Industries Ltd., Jamuna Future Park, Ka 244, Progati Sarani, Kuril, Baridhara, Dhaka”, a consultancy work carried out by the Dept. of Mech. Engg., CUET, in association with Bangladesh Customs, 2017.
- (5) Worked as a Consultant of “Verification of Installation of Capital Machinery / Spare Parts of Industrial Air Conditioning System for Fish Processing and Agro Processing Food Products for Complete Cold Room of M/S Dobash Harbor & Fish Processing Ltd., 116 Strand Road, Bangla Bazar, Chittagong”, a consultancy work carried out by the Dept. of Mech. Engg., CUET, in association with Bangladesh Customs, 2017.
- (6) Worked as a Consultant of “Verification of Installation of Capital Machinery / Spare Parts for BSRM Steel Mills Ltd., Mirsarai, Chittagong”, a consultancy work carried out by the Dept. of Mech. Engg., CUET, in association with Bangladesh Customs, 2016.
- (7) Worked as a Consultant of “Verification of Installation of Capital Machinery / Spare Parts for Fire Extinguisher Systems for Dress Shirt Ltd., Azim Group, Kalurghat Heavy Industrial Area, Chittagong”, a consultancy work carried out by the Dept. of Mech. Engg., CUET, in association with Bangladesh Customs, 2016.

- (8) Worked as a Consultant of “Verification of Spare Parts for Ropeway Services of Sheikh Russel Aviary & Eco-park, Rangunia, Chittagong”, a consultancy work carried out by the Dept. of Mech. Engg., CUET, in association with Bangladesh Customs, 2016.
- (9) Worked as a Consultant of “Verification of Installation of Capital Machinery for Ropeway Services of Sheikh Russel Aviary & Eco-park, Rangunia, Chittagong”, a consultancy work carried out by the Dept. of Mech. Engg., CUET, in association with Bangladesh Customs, 2015.
- (10) Worked as a Consultant of “Verification of Installation of Capital Machinery / Spare Parts for Bangladesh Steel Re-Rolling Mills Ltd.(BSRM), 148/149 Nasirabad I/A, Baizid Bostami Road, Chittagong”, a consultancy work carried out by the Dept. of Mech. Engg., CUET, in association with Bangladesh Customs, 2015.
- (11) Worked as a Consultant of “Verification of Installation of Capital Machinery / Spare Parts for Ratanpur Steel Re-Rolling Mills Ltd. (RSRM), 176 Baizid Bostami I/A, Baizid Bostami Road,, Chittagong”, a consultancy work carried out by the Dept. of Mech. Engg., CUET, in association with Bangladesh Customs, 2013.
- (12) Worked as a Consultant of “Verification of Installation of Materials for Evaporative Air Coolers System for KDS Garment Industries Ltd., 255 Nasirabad I/A, Chittagong 4211”, a consultancy work carried out by the Dept. of Mech. Engg., CUET, in association with Bangladesh Customs, 2013.
- (13) Worked as a Consultant of “Verification of Installation of Fire Protection Machinery/Equipment for Textile Spinning Mills for M/S Pahartali Textile and Hosiery Mills Ltd., Ispahani Bldg., Sheikh Mujib Road, Agrabad, Chittagong”, a consultancy work carried out by the Dept. of Mech. Engg., CUET, in association with Bangladesh Customs, 2013.
- (14) Worked as a Consultant of “Verification of Installation of Fruit and Vegetable Cold Storage Machinery for Haji Nazir Ahmed Cold Storage, Noakhali Bus Stand, Mohipal, Feni”, a consultancy work carried out by the Dept. of Mech. Engg., CUET, in association with Bangladesh Customs, 2013.
- (15) Worked as a Consultant of “Calibrations of Tanks of S Alam Tank Terminal Limited which is a custom bonded Terminal contains Tanks at capacity of 10000 MT each storing imported Crude Edible Oils and Bitumen on commercial basis”, a consultancy work carried out by the Dept. of Mech. Engg., CUET, in association with Bangladesh Customs, 2013.
- (16) Worked as a Consultant of “Verification of Installation of Capital Machinery / Spare Parts for Cement Gringing Mill with Standard Accessories for Heidelberg Cement Bangladesh Ltd., South Halishaher, Chittagong”, a consultancy work carried out by the Dept. of Mech. Engg., CUET, in association with Bangladesh Customs, 2012.
- (17) Worked as a Consultant of “Verification of Installation of Brand New Capital Machinery / Spare Parts for Complete Steel Melting Plants and Continuous Casting Machine for Sitalpur Auto Steel Mills Ltd. (SASM), Sitalpur, Sitakunda, Chittagong”, a consultancy work carried out by the Dept. of Mech. Engg., CUET, in association with Bangladesh Customs, 2012.
- (18) Worked as a Consultant of “Calibrations of Tanks of Van Ommeren Tank Terminal Bangladesh Ltd., North Potenga, Chittagong-4000”, a consultancy work carried out by the Dept. of Mech. Engg., CUET, in association with Bangladesh Customs, 2009.

(19) Involved in various testing conducted by the Dept. of Mech. Engg., CUET, Chittagong, according to International Standards for different organizations throughout the country.

Participation in National Commissions, Committees, etc. commissioned by the Government of Bangladesh and Govt. Institution / Organizations:

- (1) Syndicate member, CUET, Chittagong.
- (2) External reviewer for the promotion/appointment of teachers for the post of Professor/Associate Professor of Mechanical Engineering Department, DUET, Gazipur.
Member, Editorial Board, “Mechanical Engineering Res. Journal”, CUET, Chittagong, Bangladesh.
- (3) Chairman, Tender Evaluation Committee, Chittagong University of Engineering & Technology, Chittagong.
- (4) Member, Selection Board for the appointment of Lecturer/Assistant Professor of Mechanical Engineering Department, DUET, Gazipur.
- (5) Member, Selection Board for the appointment of Lecturer/Assistant Professor of Mechanical Engineering Department, RUET, Rajshahi.
- (6) Member, Selection committee for the appointment of Officer of CUET.
- (7) Member, Planning and Development Committee of CUET.

Supervision of Completed Graduate Research Work:

Level (Masters / Ph.D.)	Thesis Title	Year
M. Sc. Engg.	Numerical Modeling of Turbulent Flow through Bend Pipes	2018

Supervision Thesis / Design Project at undergraduate Level since the last appointment:

Title of the Thesis	Year
1. Fabrication and performance Test of a Flat Plate Solar Collector.	2001
2. Design and fabrication of a Multi-Effect Solar Distillation Plant.	
3. Time Oriented Simulation of a Single Server queuing System.	2002
4. Simulation of a Manufacturing system.	

<p>5. Design and Fabrication of a Wind belt Generator.</p> <p>6. Design and Fabrication of a Solar Car.</p> <p>7. Artificial Water Fountain Design and model Construction.</p> <p>8. Design of a Centrifugal Pump.</p> <p>9. Design and Fabrication of a Silencer of Automobile.</p> <p>10. Development, Setup and Analysis of Beam Reaction and Deflection Apparatus.</p> <p>11. Car Theft Alarm System.</p>	2008
<p>12. Numerical Investigation of Flow Field through a Pipe.</p> <p>13. Computational Study of Laminar Flow Through a Cylinder using FLUENT</p> <p>14. Design and Fabrication of a Stirling Engine.</p> <p>15. Numerical Study of Flow around a Circular Cylinder.</p> <p>16. Implementing an Electric Under floor Room heating system.</p> <p>17. Aerodynamic Design Development of a Concept Car and its Comparison with an Existing one.</p> <p>18. Design and Fabrication of a Solar Power Boat.</p> <p>19. Design and Fabrication of an Electromagnetic Clutch System in Automobile.</p> <p>20. Computational Study of Laminar Flow around a Sphere.</p> <p>21. Computational Study of Supersonic Flow over a Sphere.</p> <p>22. Computational Study of Supersonic Flow over a Wedge.</p> <p>23. Design, Construction and implementation of a Metal Detector.</p> <p>24. Study and Fabrication of a Ball Valve.</p> <p>25. Computational Study of Laminar Flow around a Sphere.</p>	2009
<p>26. Development of a GSM SMS Based Humidity Remote Monitoring and Control system for Industrial Applications.</p> <p>27. Design and Fabrication of a weight Measuring Device.</p> <p>28. Design and Fabrication of a Model Sewage Treatment System.</p> <p>29. The Prospect and Utilization of Hydroelectric Power in Bangladesh.</p> <p>30. Fuel Cell: An advance, Environment friendly Technology of Power Generation System.</p> <p>31. Design and Fabrication of a Juice Maker.</p>	2013

<p>32. Design and Fabrication of a Silencer Box.</p> <p>33. Present Scenario of Ship Breaking Industries and its Contribution in Economic Growth of Bangladesh.</p> <p>34. Design and Fabrication of an Economic Gas leakage Detector System.</p> <p>35. Power Crisis & Its Solution through Renewable Energy in Bangladesh.</p> <p>36. Password Protected Car Engine Ignition & Anti-Theft Car Protection System.</p> <p>37. Design and Fabrication of a Digital Tachometer.</p> <p>38. An Automatic System of Home Appliances Monitoring and Controlling using microcontroller.</p> <p>39. Design and Fabrication of an Automatic Control Rain Wiper.</p>	
<p>40. Design and Fabrication of A vertical Axis Wind Turbine.</p> <p>41. Designing a Smart Wave Energy Conversion System to Achieve Satisfactory Levels of Power.</p> <p>42. Design and Fabrication of a Horizontal Axis Wind Turbine (HAWT) to Achieve Satisfactory Levels of performance.</p> <p>43. Design and Fabrication of a Solar Absorption Refrigerator.</p> <p>44. Design and Fabrication of an Unmanned Aerial Vehicle.</p> <p>45. Present Scenario of Ship Building Industry and its Expanding Probabilities in Bangladesh.</p> <p>46. Radio Frequency Identification Based Library Management System.</p> <p>47. Development of a Robot to be used for Exploring.</p> <p>48. Design and Implementation of USB2 Program Loader (PICkit) for PIC Microcontrollers.</p> <p>49. Design and Fabrication of a Low Cost Arsenic Removal System.</p> <p>50. Design and Assembling of Room Temperature Based Automated Fan Speed Regulation System.</p> <p>51. Design and Fabrication of a Remote Control Fan using a Controller with RF.</p> <p>52. Seismic Earthquake Detector.</p>	2014
<p>53. Construction of a Bluetooth Operated Solar Powered Car Capable to Perform Low Light Condition.</p>	

<p>54. Modelling of an Automatic Domestic Water Tank.</p> <p>55. Study and Fabrication Vacuum Evaporator.</p> <p>56. Design and Fabrication of a Vertical Axis Wind turbine.</p> <p>57. Design and Flow Analysis in a Convergent Divergent Nozzle.</p> <p>58. Construction of a Model Type Wells Turbine for Ocean Wave Energy Conversion using Oscillating Water Column.</p> <p>59. Study of Inviscid Supersonic Flow around a Cylinder.</p> <p>60. Finite Element Analysis of Crane Hook.</p> <p>61. Reduction of Industrial Toxicity and Waste Management in different Industries of Bangladesh.</p> <p>62. Automatic Railway Crossing Bar by Voice Guidance System.</p> <p>63. Design of a Smart Helmet for Mine Workers.</p> <p>64. Construction of a Universal Robotic Gripper Based on Jamming of Granular Materials.</p>	2015
<p>65. Wave Energy Conversion by Oscillating Water Column.</p> <p>66. Designing with Simulation of a Double Decker Student Bed.</p> <p>67. Production of Compressed Air Using Vehicle Suspension.</p> <p>68. Generation of Electricity from Wind Energy.</p> <p>69. Study on Bird's & Insect's Wing Aerodynamics and Comparison with NACA 64A012 Mod Airfoil.</p> <p>70. Fabrication and Performance Analysis of NACA 2412 Airfoil.</p> <p>71. Fabrication of a Thermal Dress for Human Comfort.</p> <p>72. Design and Fabrication of an Electric Mouse Killing Trap.</p> <p>73. Over Speed Indication and Prevention of road Accidents by Automatic Braking System.</p> <p>74. Design and Implementation of automatic Floodgate Control.</p> <p>75. Design and Fabrication of a Juice Maker.</p> <p>76. Design and Fabrication of a Hand-Cranked Mobile Charger.</p>	2016

LIST OF PUBLICATIONS

(a) Journal Publications:

- (1) R. R. Chowdhury, **M. M. Alam** and A. K. M. Sadrul Islam., “*Numerical Modeling of Turbulent Flow through Bend Pipes*”, Mechanical Engineering Research Journal (ISSN: 1990-5491), Vol. 10, pp. 14-19, 2016.

- (2) **M. Mahbubul Alam**, Shigeru Matsuo and T. Setoguchi, “*Computational Study on Supersonic Mixing Enhancement by Cavity-Induced Flow Oscillations*”, Mechanical Engineering Research Journal (ISSN: 1990-5491), Vol. 08, pp. 18-24, 2012
- (3) Shigeru Matsuo, **Md. Mahbubul Alam**, Tae H Kim, Toshiaki Setoguchi and Heuy Dong Kim, “*Effect of Sub-Cavity on Cavity-Induced Pressure Oscillations in Supersonic Flow*”, International Journal of Transport Phenomena , Vol.10, 2008, pp. 203-213
- (4) **Md. Mahbubul Alam**, Shigeru Matsuo, Kenbu Teramoto, Toshiaki Setoguchi, Heuy Dong Kim, “*A New Method of Controlling Cavity-Induced Pressure Oscillations Using Sub-Cavity*”, Journal of Mechanical Science and Technology , Vol.21, No.9, 2007, pp. 1398-1407.
- (5) Miah Md. Ashraful Alam, **Md. Mahbubul Alam**, Shigeru Matsuo, Kenbu Teramoto, Toshiaki Setoguchi, Heuy Dong Kim and Shen Yu, “*The Effect of Non-Equilibrium Condensation on Supersonic Air Flows over Rectangular Cavities*”, *Journal of Thermal Science*, Vol.16, No.1, March 2007, pp. 33-39.
- (6) Toshiaki Setoguchi, Md. Mahbubul Alam, Shigeru Matsuo, Kenbu Teramoto, and Shen Yu, “*A Numerical Study on Passive Control of Cavity Induced Pressure Fluctuations in Two-dimensional Supersonic Flow*”, International Journal of Turbo and Jet Engines, Vol.23, No.3, 2006, pp. 155-164.
- (7) **Md. Mahbubul Alam**, Shigeru Matsuo, Kenbu Teramoto, Toshiaki Setoguchi, and Heuy Dong Kim, “*A computational Investigation on the Control of Cavity-Induced Pressure Oscillations Using Sub-cavity*”, Journal of Thermal Science, Vol.15, No.3, September 2006, pp. 213-219.
- (8) Omar Faruque, AKM Shahnewaj Chy and **Md. Mahbubul Alam**, “*Numerical Solutions of Flow Characteristics of Wedge in Laminar Slot Jet*”, Journal of the Institution of Engineers, Bangladesh, Vol. 27, No. 1&2, 1999, pp. 20-25.
- (9) Omar Faruque and **Md. Mahbubul Alam**, “*Numerical Computation of Velocity, Pressure and Temperature at the Region of Sudden Expansion*”, Journal of the Institution of Engineers, Bangladesh, Vol. 26, No. 1&2, 1998, pp. 19-28.

(c) AIP (American Institute of Physics) Proceedings:

- (1) Md. Nesar Ali, **Mahbubul Alam**, Md. Abed Hossain, Md. Imteaz Ahmed., “*Study on bird’s& insect’s wing aerodynamics and comparison of its analytical value with standard airfoil*”, AIP Conference Proceedings, 1851, 020056 (2017); doi: 10.1063/1.4984685, Published by the American Institute of Physics.
- (2) Md. Nesar Ali and **Mahbubul Alam**., “*Study on flow over finite wing with respect to F-22 raptor, Supermarine Spitfire, F-7 BG aircraft wing and analyze its stability performance and experimental values*”, AIP Conference Proceedings, 1851, 020079 (2017); doi: 10.1063/1.4984708, Published by the American Institute of Physics.

- (3) Rana Roy Chowdhury, Suranjan Biswas, **Md. Mahbubul Alam** and A. K. M. Sadrul Islam., “*Turbulent Flow Analyssis on Bend and Downstream of the Bend for Different Curvature Ratio*”, AIP Conference Proceedings, **1754**, 040020 (2016); doi: 10.1063/1.4958380, Published by the American Institute of Physics.

(d) Conferences (*national and international conferences*):

- (1) Sanjoy Kumar Saha and **Mahbubnul Alam**, and A.B.M. Toufique Hasan, “*Numerical Investigation of Gurney Flap Aeordynamics over a NACA 2412 Airfoil*”, Proceedings of the 12th International Conference on Mechanical Engineering (ICME2017) 20-22 December 2017, Dhaka, Bangladesh.
- (2) **Md. Mahbubul Alam** and Rafi Bin Adnan, “Design and Fabrication of a Mode Sewage Treatment System with Oil Separator and RBC”, Proceedings of the International Conference on Mechanical Engineering and Renewable Energy 2017 (ICMERE2017) 10-20 December 2017, Chittagong (Paper ID. 359).
- (3) Sanjoy Kumar Saha and **Md. Mahbubul Alam**, “Numerical and Experimental Investigation of the Influence of Serrated Gurney Flap over NACA 2412 Airfoil”, Proceedings of the International Conference on Mechanical Engineering and Renewable Energy 2017 (ICMERE2017) 10-20 December 2017, Chittagong, Bangladesh (Paper ID. 129).
- (4) Md. Nesar Ali, Shamim Anwar and **Md. Mahbubul Alam**, “A Comparative Study on Various Model Bird’s Wing And Standard Airfoil and Track down the most effective Airfoil using CFD Solver Software”, Proceedings of the International Conference on Mechanical Engineering and Renewable Energy 2017 (ICMERE2017) 10-20 December 2017, Chittagong, Bangladesh (Paper ID. 113).
- (5) Chandan Deb Sharma, Asma Ul Hosna and **Md. Mahbubul Alam**, “A Thermal Dress for Human Comfort”, Proceedings of the International Conference on Mechanical Engineering and Renewable Energy 2017 (ICMERE2017) 10-20 December 2017, Chittagong, Bangladesh (Paper ID. 128).
- (6) Md. Nesar Ali, **Md. MahbubulAlam**, Limon Paul, Ahasan Habib, “*Study on Thin Airfoil Theory & Performance Test of Elliptical Wing as Compared to Mosquito Wing and NACA 64A012 mod Airfoil*”, Proceedings of the 7th BSME International Conference on Thermal Engineering, 22-24 December 2016, Dhaka, Bangladesh.
- (7) Md. Nesar Ali, **Md. MahbubulAlam**, Limon Paul, A.B.M. Toufique Hasan, “*Study on Bird’s Flapping Wing Aerodynamics and Compared its Analytical Values with NACA 64A012 mod Airfoil*”, Proceedings of the International Conference on Mechanical, Industrial and Energy Engineering 2016 (ICMIEE2016), 26-27 December, 2016, Khulna, Bangladesh.

- (8) Nahin Bahar Chowdhury, Bikash Kumar Bhawmick, Mohammed Liaket Ali, **Md. Mahbubul Alam**, “*Development of an Automatic Solar Heat Tracking Parabolic Heliostat Panel System*”, Proceedings of the 11th Global Engineering Science and Technology Conference, 18-19 December 2015, BIAM Foundation, Dhaka.
- (9) Al Shahriar and **Mahbubul Alam**, “*A Finite Volume Discretization Technique to Simulate & Visualize an Inviscid Supersonic Flow over a Blunt Body*”, Proceedings of the International Conference on Mechanical Engineering (ICME2015) 18-20 December 2015, Dhaka, Bangladesh.
- (10) Rana Roy Chowdhury, **Md. Mahbubul Alam** and A. K. M. Sadrul Islam., “*Numerical Modeling of Turbulent Flow through Bend Pipes*”, Proceedings of the International Conference on Mechanical Engineering and Renewable Energy 2015 (ICMERE2015) 26-29 November 2015, Chittagong, (Paper ID. 143).
- (11) **Md. Mahbubul Alam**, Partha Pratim Chakraborty, Shuva Biswas and A. M. Jahirul Islam., “*Design of an Intelligent Helmet for Mine Workers*”, Proceedings of the International Conference on Mechanical Engineering and Renewable Energy 2015 (ICMERE2015) 26-29 November 2015, Chittagong, Bangladesh (Paper ID. 093).
- (12) Shah Muhammad Fuad, **Md. Mahbubul Alam**, Muhammad Reaz Uddin, Md. Mezba Uddin and Md. Asif Rezwana, “*Development of a GSM SMS Based Humidity Remote Monitoring and Control System for Industrial Applications*”, Proceedings of the International Conference on Mechanical Engineering and Renewable Energy 2013 (ICMERE2013) 1-3 May 2014, Chittagong, Bangladesh (Paper ID. 303).
- (13) **Md. Mahbubul Alam**, Manabu Takao, “*A Twin Impulse Turbine for Ocean Energy Conversion,*” Proceedings of the 10th Joint Research Seminar on Ocean Energy, August 27-28, 2011, Nokonoshima Island Park, Fukuoka City, Japan
- (14) **M. Mahbubul Alam**, S. Okuhara, M. Takao and T. Setoguchi, “*A Study on the Performance of Twin Impulse Turbine Topology for Wave Energy Conversion*”, Proceedings of the International Conference on Mechanical Engineering and Renewable Energy 2011 (ICMERE2011) 22- 24 December 2011, Chittagong, Bangladesh.
- (15) **M. Mahbubul Alam**, Shigeru Matsuo and T. Setoguchi, “*Computational Study on Supersonic Mixing Enhancement by Cavity-Induced Flow Oscillations*”, Proceedings of the International Conference on Mechanical Engineering and Renewable Energy 2011 (ICMERE2011) 22- 24 December 2011, Chittagong, Bangladesh.
- (16) Manabu Takao, Toshiaki Setoguchi, **Md. Mahbubul Alam**, V. Jayashankar, “*Experimental Study on a Twin Unidirectional Impulse turbine for Wave Energy Conversion*”, The Proceedings of the ASME-JSME-KSME Joint Fluids Engineering Conference, July 24-29, 2011, Hamamatsu, Shizuoka, Japan.
- (17) Manabu Takao, **Mahbubul Alam**, V. Jayashankar, Toshiaki Setoguchi, “*A Twin-impulse turbine System for Wave Energy Conversion*”, The Proceedings of the

Fluids Engineering Conference, Released June 19, 2017, Online ISSN 2424-2896, Print ISSN, <https://doi.org/10.1299/jsmefed.2010.397>, published by the Japan Society of Mechanical Engineers.

- (18) **Md. M. Alam**, M. takao, T. Setoguchi and V. Jayshankar, “*Performance of Twin Unidirectional impulse Turbine for Wave Energy Conversion*”, Proceedings of 3rd Asian Joint Workshop on Thermophysics and Fluid Science, Matsue, Japan, 10-13 September, 2010.
- (19) Miah Md. Ashraful Alam, Shigeru Matsuo, **Md. Mahbubul Alam**, Toshiaki Setoguchi, Heuy Dong Kim, “*Numerical Study on the Self-Sustained Oscillations in Supersonic Impinging Moist Air Jets*”, Proceedings of 3rd Asian Joint Workshop on Thermophysics and Fluid Science Page: 467-472, Matsue, Japan, 10-13 September, 2010.
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- (22) Shigeru Matsuo, **Md. Mahbubul Alam**, Tae Hun Kim, Toshiaki Setoguchi and Heuy Dong Kim, “*Characteristics of High Pressure Air Gas Flow through a Critical Nozzle,*” Proceedings of the 13th Asian Congress of Fluid Mechanics, 17-21 December 2010, Dhaka, Bangladesh
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- (30) Toshiaki Setoguchi, **Md. Mahbubul Alam**, Shigeru Matsuo, Masanori Tanaka, Md. Mamun and Heuy-Dong Kim, “*Attenuation of Cavity Pressure Oscillations in Two-Dimensional Supersonic Flow by Passive Control*”, Proceedings of the 3rd BSME-ASME International Conference on Thermal Engineering, 20 -22 December 2006, Dhaka, Bangladesh.
- (31) **Md. Mahbubul Alam**, Shigeru Matsuo, Kenbu Teramoto, Toshiaki Setoguchi, Heuy Dong Kim, “*A New Method of Controlling Cavity-Induced Pressure Oscillations Using Sub-Cavity*”, Proceedings of the 5th Asian-Pacific Conference on Aerospace Technology and Science (APCATS’2006), Oct.30~Nov.3, 2006, Guilin, China.
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- (44) **Md. Mahbubul Alam** et.al., “*Experimental Study of a Multi-Effect Solar Distillation Plant*”, Proceedings of the International Conference on Renewable Energy for Rural Development, Organized by the Department of Mechanical

Engineering, Bangladesh University of Engineering and Technology, BUET and Centre for Renewable Energy Systems Technology (CREST), Loughborough, UK, Dhaka, 19-21 January, 2002

- (45) **Md. Mahbubul Alam** and Omar Faruque, “*Correlation’s for Lift and Drag Coefficients for the Fluid Flow around Aerofoil Models*”, 5th Annual Paper Meet, Mechanical Engineering Division, 5-7 November, 1998, Organized by – Chittagong Centre, Institution of Engineers, Bangladesh.
- (46) **Md. Mahbubul Alam** and Omar Faruque, “*Effects of Reynolds Number and Cylinder Diameters on Pressure and Drag Co-efficients due to Flow around Cylinder*”, 5th Annual Paper Meet, Mechanical Engineering Division, 5-7 November, 1998, Organized by – Chittagong Centre, Institution of Engineers, Bangladesh.
- (47) **Md. Mahbubul Alam** and Omar Faruque, “*Effects of Reynolds Number and Cylinder Diameters on Pressure and Drag Co-efficients due to Flow around Sphere*”, 5th Annual Paper Meet, Mechanical Engineering Division, 5-7 November, 1998, Organized by – Chittagong Centre, Institution of Engineers, Bangladesh.
- (48) **Md. Mahbubul Alam**, et.al., “*Study of a Parabolic type Solar Heater*”, National Seminar on Renewable Energy for Poverty Alleviation (NSREPA), 21-23 October, 1997, Dhaka, Bangladesh, Organized by – Dhaka Centre, Institution of Engineers, Bangladesh, Ramna, Dhaka.

(e) Others:

- (1) **Md. Mahbubul Alam**, “A Study on the Control of Supersonic Cavity Flow Oscillations”, Ph. D. Thesis, Saga University, Japan, 2007.
- (2) **Md. Mahbubul Alam**, “Study on Noise Reducing Performance of a parabolic Reflector Compared with a Flat Plate and a Spherical Reflector”, M. Engg. Thesis, Saga University, Japan, 2004.
- (3) **Md. Mahbubul Alam**, “Commissioning of a Super Universal Knee type Milling M/C”, B. Sc. Engg. Thesis, Rajshahi University of Engineering and Technology, 1993.

Training/ Short Course/ Workshop attended:

- (1) Attended the 3rd WNF Seminar on “Total Quality Management (TQM)” organized by Chattagram AOTS Alumni Society (CAAS) in association with the Overseas Human Resources and Industry Development (HIDA) Japan, Japan Sri Lanka Technical & Cultural Association (JASTECA) and Department of Mechanical Engineering of CUET held during 14-16 November, 2014, Chittagong.
- (2) Attended the Short Course on “Remote Sensing and GIS in Water Management” organized by Directorate of Continuing Education (DCE) in association with

Institute of Water and Flood Management (IWFM) of BUET held during 27–30 January, 2008, Dhaka.

- (3) Completed a Regional Training Course on "Simulation Models in Engineering and Technology", Organized by IIT Madras, India, from 12th March to 23rd March, 2001, Sponsored by UNESCO, New Delhi.
- (4) Attended the Training Workshop on “Reverse Engineering,” organized by Institute of Appropriate Technology (IAT), BUET, Dhaka, 18-22 May, 2001.

Offered Undergraduate (UG) Courses:

- ME 421: Fluid Machinery [L-4 T-II]
- ME 423: Aerodynamics [L-4 T-II]
- ME 321: Fluid Mechanics – I [L-3 T-I]
- ME 323: Fluid Mechanics –II [L-3 T-II]
- ME 361: Measurement and Instrumentation [L-3, T-1]
- ME 211: Thermodynamics [L-2 T-I]
- ME 235: Mechanics of Solids [L-2 T-II]
- ME 271: Engineering Mechanics and Theory of Machines [L-2, T-1]
- ME 201: Basic Mechanical Engineering [L-2, T-1]

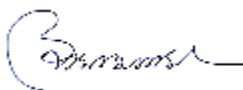
Offered postgraduate (PG) Courses:

- ME 6324: Mechanics of Inviscid Incompressible Fluid
- ME 6332: Fluid and Gas Dynamics
- ME 6155: Heat Transfer Enhancement
- ME 6145: Advanced Convection Heat Transfer

Present Research Activities:

(a) On-going M.Sc. Engg. Thesis:

Level	Thesis Title
M. Sc. Engg.	Simulation Based Analysis of 4 Degree of Motion of a Model Ship in Calm Water
M. Sc. Engg.	Exergy and Energy Analysis of Gas Based Steam Power plant



[Signature]

Date: 14/09/2020