

RESUME



Name: **Dr. M. MUZAFFARUL HASAN**

Date of Birth: January 6, 1958

Father's Name: (Late) M.A.SATTAR

Address (Office): **Professor**
Department of Mechanical Engg.
Faculty of Engg. & Technology
Jamia Millia Islamia
Jamia Nagar New Delhi-110025
Tel: (O) 091-011-26981259 Fax 091-11-26981261
E-mail: muzaffar_jmi@yahoo.com
mmhasan@jmi.ac.in

Address (Residence): H.No. B-112, Khan Abdul Ghaffar Khan Enclave
Jamia Enclave , Jamia Nagar
New Delhi-110025
Tel (R) 091-011-26932628 (M) 09891743051

Academic Qualification:

DEGREE	INSTITUTE	DIVISION
B.Sc.Engg. (Mechanical)	AMU, Aligarh	I
M.Sc.Engg. (Mechanical) Thermal Engg.	AMU, Aligarh	I
Ph.D	JMI	Awarded

Title of Ph.D. Thesis “**Experimental Studies of Performance and Emission Characteristics of C.I. Engines Using Alternative Fuel**”.

Subject Taught: Thermodynamics, Heat and Mass Transfer, Power Plant Engg., Applied Thermodynamics, Non-Conventional Energy Sources , I.C.Engines and Air Pollution.

Experience: 34 Years of Teaching and Research experience.

Areas of Interest (Teaching & Research):

I.C.Engines & Combustion, Air Pollution, Energy Studies and Heat Transfer

Administrative Responsibility:

Worked as **Prof. In-Charge (Examinations)** Faculty of Engg. & Technology since July 2009.to March 2016

Particulars of Research Guiding:

Name of the Student	Topic	Status
Ashish Karnwal	Experimental Studies on The Potential Utilization of Biodiesel in a Variable Compression Ratio Diesel Engine	Awarded
Mohd. Nadeem Khan	Analytical And Experimental Studies Of Fluid Flow And Heat Transfer in Microchannels	Awarded
Raghendra Singh	Energy and Exergy Analysis of Solar Distillation System	Awarded
Arvind K Tiwari	Effect of Operating Variables on the Performance of Combined Cycle Cogeneration Power Plant	Awarded
Ajay Kumar Verma	“Performance Evaluation & Combustion Characteristics of a Variable Compression Ratio Engine Using Alternative & Conventional Fuels	Awarded
Ravindra Kumar	“Numerical and Experimental Investigations on the Characteristics of Thermo-Fluid and Geometrical Parameters of Single Phase Liquid flow in Micro channels.”	Awarded
Mohd.Owais Qidwai	“Numerical Optimization of Microchannel Heat Sink”	Awarded
Shahim Haider Abidi	Numerical Simulation for Improving Performance of Diesel Engine	Ongoing
Ahmad Kamal Hassan	Thermal Performance Investigation of Dimple roughened Multiple Arc Pattern Solar Air Heater	Submitted
Yusuf Parvez	Energy and Exergy analysis of steam turbine based cogeneration in Sugar Industries	Ongoing
Najeeb Ullah Khan	An Experimental Investigation Of Heat Transfer In Microchannel Heat Sink	Ongoing
Mukesh Yadav	Some Computational Model, Optimization and Experimental Investigation on Combustion, Performance and Emissions of Biodiesel on CI Engine	Ongoing

Seminars/Conferences/Workshops Attended:

- Xth National Conference on IC Engines & Combustion (NCICEC), PDTC, Rajkot, December 17-19, 1987.
- XIth National Conference on IC Engines & Combustion (NCICEC), IIT, Madras, December 11-15, 1989.
- VIIth ISME Conference on Mechanical Engineering, IIT Delhi, February, 1-3, 1990.
- National Seminar on Fluidization Technology & Application, Coimbatore Institute of Technology, Coimbatore, December 8-9, 1990.
- 36th Congress of Indian Society of Theoretical & Applied Mechanics (ISTAM), IIT Bombay, December 19-22, 1991.
- XIIth September National Conference on IC Engines & Combustion (NCICEC), IIP Dehradun, 15-18, 1992.
- National Seminar on Alternate Fuel & Emission Control in Automobile Engines, BVB College of Engg. & Tech., Hubli, May 8-9, 1993.
- National Seminar on Management of Environment, Delhi College of Engg., February 10-11, 1994.
- National Workshop on Industry-Institute partnership, Govt. Engg. College, Thrissur, November 21-25, 1994.
- National Workshop on Helping Students Develop Better Learning Skills & Habits, S.J. College of Engg., Mysore, September 21-23, 1995.
- XIVth National Conference on IC Engines & Combustion (NCICEC), Institute of Armament Technology, Pune, December 8-10, 1995.
- Xth ISME Conference on Mech. Engineering, Delhi College of Engg., Delhi, December 9-11, 1996.
- National Seminar on Science & Technology-21st century challenges (ST2000), Faculty of Engg. & Tech. Jamia Millia Islamia, New Delhi, March 28, 1998.
- Silver Jubilee Conference of Tata Energy Research Institute (TERI), on “Global Sustainable Development in the 21st century-Directions for Innovation & Change”, TERI, February, 18-21, 2000.
- International Workshop for Asia-Pacific Region on “Information and Communications Technology and the Environment in Asia and the Pacific (ICTEAP)” Jointly Organised by Confederation of Indian Industry (CII), Ministry of Environment and Forests, TERI and United Nations Environment Programme (UNEP) during 2-3 May, 2002 at India Habitat Centre, New Delhi.
- National Symposium on “Towards Self Reliance in Power: SRP-2003” organized by Central Mechanical Engineering Research Institute (CMERI), Durgapur (West Bengal), during 18th and 19th April 2003.
- Workshop on “Current Trends in I.C. Engines Development”, organized by Research Centre Imarat (DRDL), Hyderabad under the Auspices of the Combustion Institute (Indian Section), during 25th and 26th April 2003.
- C.D. Cell Workshop on “Heat Exchangers- Design and Optimization”, organized by Mechanical Engineering Department, I.I.T., Delhi, on March 26, 2004.

- International Conference on “Biofuels: Perspectives and Prospects” organized by Winrock International India during September 16-17, 2004 at Le Meridian, New Delhi.
- Workshop on “ESP Performance: Role of Fly Ash Resistivity”, organized by Centre for Energy Studies, I.I.T. Delhi in Collaboration with USAID, during September 23 –24, 2004.
- South Asia Conference on “Renewable Energy”, organized by MNES and ASSOCHAM during April 18-19, 2006, at Le Meridan, New Delhi.
- International Conference on “India’s Expanding Gas Market”, organized by Observer Research Foundation, on April 16, 2007, at Shangeri La, New Delhi.

Short Term Courses Attended:

- Two weeks short term courses on “Recent Developments in Heat Exchangers”, IIT Madras, Sponsored by ISTE, June 5-16, 1989.
- Two weeks ISTE Sponsored Summer School on “Advanced Fuel Efficient IC Engines for Transportation”, IIT Delhi, June 19-30, 1989.
- Two weeks ISTE Sponsored Winter School on “Computer Aided Design of Reaction Vessels and Heat Exchangers”, Govt. College of Tech. Coimbatore, December 1-14, 1990.
- Two weeks QIP Short Term Course on “Non Conventional Sources of Energy”, Center for Energy Studies, IIT Delhi, June 3-16, 1991.
- Advanced Training Programme on “Gas Chromatograph”, Toshniwal Instrument Pvt. Ltd. Bombay, November 21-26, 1991.
- Two weeks ISTE Sponsored Winter School on “Alcohols & Alcohol Blends as Motor Vehicle Fuels”, SGSITS, Indore, December 16-28, 1991.
- Refresher Course on “Passive Building Systems”, Centre for Energy Studies, IIT Delhi in collaboration with Ministry of Non-Conventional Energy Sources, March 29-31, 1997.
- Two weeks ISTE Sponsored Winter School on “Institute-Industry Linkage-Ways of Effective Implementation”, Periyar Maniammai College of Tech. For Women, Thanjavur, November 17-22, 1997.
- Two weeks AICTE sponsored QIP Short Term Course on “Vehicle Emission & Control Technologies”, Dept., Mech. Engg., IIT Kanpur, July, 12-17, 1999.
- One week Orientation Course on I R E P and Renewable Energy Technologies for University and College Teachers, organized by Mahatma Gandhi Institute of Integrated Rural Energy Planning & Development, Alipur, Delhi-36., Aug.21-25,2001.
- One week AICTE sponsored QIP Short Term Course on” Introduction to Wind Tunnel Testing Technique” organized by National Wind Tunnel Facility, I.I.T. Kanpur during May 27-31,2002.
- One week AICTE sponsored QIP Short Term Course on “ Alternatives Fuels, Emissions and Latest Advances in Internal Combustion Engines”, organised by Department of Mechanical Engineering, I.I.T.,Kanpur during December 23-28,2002.

Short Term Courses/Conferences Organised:

- Co-ordinated ISTE Sponsored Winter School on “Combustion Generated Pollution”, Dept., Mech. Engg., Jamia Millia Islamia, New Delhi, December 13-24, 1994.
- Organised ISTE Sponsored Summer School on “Utility Engineering & Energy Management”, Dept., Mech. Engg., Jamia Millia Islamia, New Delhi, May 20-June 2, 1995.
- Organised An International Conference on CAD/CAM/Automation/ Robotics of Future (INCARF '96), Dept., Mech. Engg., Jamia Millia Islamia, New Delhi, December 17-20, 1996.
- Organised One Day Seminar on “Use of CNG in Power and Automobiles in Delhi” , on April 30,2002 in collaboration with The Institution of Engineers (India).
- International Conference on “Energy and Environment- Strategies for Sustainable Development (ICEE-SSD)” during 23-24 January 2004, Department of Mechanical Engineering, Jamia Millia Islamia, New Delhi.
- Co-ordinated AICTE-ISTE Sponsored Short Term Training Programme on “Combustion Generated Pollution”, during March18-29, 2004, Dept. of Mech. Engg., Jamia Millia Islamia, New Delhi.

Research Projects:

- Co-ordinated a Research Project “Experimental Studies of Alternative Fuel in IC Engines”, Sponsored by MHRD, in the year 1991.
- Co-ordinated a Research Project “Experimental Studies of Methanol & CNG in IC Engines”, Sponsored MHRD in the year 1993.
- Co-ordinating a Research Project “Investigation into Fuel Alternatives for IC Engines-Use of Alcohol & CNG”, Sponsored by AICTE, in the year 1998.

Membership of Professional Bodies :

- Combustion Institute (India)
- Indian Society for Technical Education (ISTE)
- Indian Society for Mechanical Engineer (ISME)
- Indian Society for Heat and Mass Transfer (ISHMT)
- Tata Energy Research Institute (TERI)
- Society of Automotive Engineers (SAE India)

Contribution to Teaching/ Academic Environment/ Institutional Corporate life.

Supervision of Students research/project work:

- Guided Several B.Tech. /B.E. Projects,and M.Tech. Dissertations
- Presently Supervising 9 Ph.D. students on the subject of Thermal Engineering
- Developed Heat Engines Laboratory.
- Developed Heat Transfer Laboratory.
- Developed Combustion Generated Pollution Laboratory.
- Co-ordinated ISTE Sponsored Winter School on “ Combustion Generated Pollution”.
- Organised ISTE Sponsored Summer School on ”Utility Engg.& Energy Management”.

- Organised International Conference on” CAD/CAM, Automation, Robotics & Factories of the Future (INCARF’96).
- Delivered an Extension Lecture at NTPC, Badarpur Thermal Power Station during their In-house Training Programme.
- Delivered an Extension Lecture at A.I.S.E., JMI, during Orientation Course for Science Teachers of Delhi.
- Delivered Extension Lectures at NPTI, Badarpur and Faridabad for their IES Trainees.
- Delivered an Extension Lecture at the Academic Staff College ,JMI during the Orientation Programme of Geography Deptt. on “Energy and Environment”.
- Appointed Several times as the Student Advisor.
- Worked as Superintendent of Examination for B.Tech./B.E. Examinations.
- Appointed Student Advisor for ISTE Student Chapter, JMI and helped the students to organize the extension lectures, Quiz and entertainment programmes.
- Worked as Secretary ISTE Jamia Chapter for several years.
- Working as Faculty Advisor SAE(India) Jamia Chapter.
- Working as Professor In Charge(Examinations) ,F/o Engg.& Technology
- Delivered the Key Note Lecture on “Materials for Supercritical Thermal Power Plants”, during the National Conference on Advancement in Engineering Materials, 24-25 Feb.2016 ,organized by the Department of Mechanical Engg, MJP Rohilkhand University, Bareilly,UP.
- Developed the Course curricula for Certificate in Thermal Power Plant Engineering(CTPPE) for SOET, IGNOU, New Delhi.

LIST OF PUBLICATIONS

1. **Hasan M.M.**, Nizami, A.A., Ahmad, A., and Zaidi, K., “Flame Structure and Emission Characteristics of a Diffusion Flame Issuing from a Vertical Burner”, X National Conference on I.C. Engines and Combustion, Rajkot, December 17-19,1987.
2. Zaidi, K., Nizami, A.A., Khan, A.A., **Hasan, M.M.**, and Ahmad, A., “An Experimental Study of the Combustion Process and Quantification of Common Pollutants in the Cigarette Smoke” X National Conference on I.C. Engines and Combustion, Rajkot, December 17-19, 1987.
3. Ahmad, A., Nizami, A.A., Zaidi, K., and **Hasan, M.M.**, “ Development of an Experimental Facility to Study the Combustion and Emission Characteristics of Synthetic Fuels “, X National Conference on I.C. Engines and Combustion, Rajkot, December 17-19,1987.
4. Zaidi, K., Nizami, A.A., Khan, A.A., **Hasan, M.M.**, and Ahmad, A., “ An Experimental Study of the Burning Process and Analysis of Major Pollutants in the Cigarette Smoke”, 8th. Miami International Conference on Alternative Energy Sources, Miami Beach, Florida, USA, December 14-16,1987.
5. Tomar, S.S., **Hasan, M.M.**, and Mubeen, A.,” Performance of I.C.Engines with Ethanol and Methanol Blended Fuels “, XI National Conference on I.C. Engines and Combustion, I.I.T., Madras, December 11-15, 1989.

6. **Hasan, M.M.**, Zaidi, K., Nizami, A.A., and Mubeen, A.," Design and Development of Experimental Facility to Study the Temperature and Emission Characteristics of Diffusion Flame " 36th. Congress of Indian Society of Theoretical & Applied Mechanics, I.I.T., Bombay, December 19-22,1991.
7. **Hasan, M.M.**,"Alcohol as an Alternative Fuel in Diesel Engines", National Seminar on Alternative Fuels and Emission Control in Automobile Engines, Automobile Engg. Deptt. B.V.B. College of Engg.& Tech., Hubli, May 8-9,1993.
8. Mubeen, A., **Hasan, M.M.**, and Masood, A.," Environmental Issues in Tech. Education " , International Conference on Tech. Education, Papua New Guinea, September, 1994.
9. M.M.Hasan & Mubeen, A.,"A Study of Environmental Impact of Compressed Natural Gas (CNG) Fuel for S.I.Engine", BSME_ASME International Conference on Thermal Engineering, Deptt.of Mech. Engg., BUET, Dhaka, 31 December 2001-2 January 2002.
10. M.Islam, **M.M.Hasan** and B.Alam, " Devices for Highly Accurate Flow Measurement," National Seminar on Materials and Devices , MJP Rohilkhand University, Bareilly, March 9-10,2002.
11. Om Prakash, V.K.Shanranarayanan, M.Islam and **M.M.Hasan**, " Ferrofluid Technology of Lithium Ferrite Nano Particles," National Seminar on Materials and Devices, MJP Rohilkhand University, Bareilly, March 9-10,2002.
12. M.Islam,V.Seshadri, S.N.Singh and **M.M.Hasan**, "An Investigations of Skewed Profile Effect on the Turbine Flowmeter Performance", Published in the Journal of Process Mechanical Engineering, Institution of Mechanical Engineers(I Mech E),2002.
13. **M.M.Hasan**,A.Mubeen and J.A.Usmani, " Combined Cycle Power Plant- A Viable Option Meeting Future Power Needs", published and presented in National Symposium on Towards Self Reliance in Power : SRP-2003, organized by Central Mechanical Engineering Research Institute(CMERI), Durgapur during 18-19,April, 2003.
14. **M.M.Hasan** and A.Mubeen," Nuclear Energy Planning of Electrical Energy Options in India", presented in All India Jamia Electrical Engineering Conference 2003 (JEEC'2003) on "Recent Trends in Power Management", organized by Electrical Engg. Department, Jamia Millia Islamia, New Delhi during August 16-17, 2003.
15. M.Islam, V.Seshadri, S.N.Singh and **M.M.Hasan**,"An Investigation of Skewed Velocity Profile Effect on the Turbine Flowmeter Performance", published in the Journal of Instrumentation and Measurements, Bangalore.
16. **M.M.Hasan**,A.Mubeen and J.A.Usmani,"Major Air Pollution- Status and Trends in Delhi",published in BSME-ASME International Conference on Thermal Engineering, organized by Department of Mech. Engg., BUET, Dhaka, January 2004.
17. A.Mubeen,**M.M.Hasan**,M.Emran Khan, J.A.Usmani,M.Islam and A.Khalique, "Future Power Planning for Sustainable Development" International Conference on Energy and Environment-Strategies for Sustainable

- Development(ICEE-SSD) during January 23-24,2004 organized by Deptt. Of Mech.Engg., Jamia Millia Islamia, New Delhi.
18. A.Mubeen, M.Emran Khan,J.A.Usmani and **M.M.Hasan**, “Mitigation of Green House Gas Emissions in the Agriculture Sector”, International Conference on Energy and Environment-Strategies for Sustainable Development(ICEE-SSD) during January 23-24,2004 organized by Deptt. Of Mech.Engg., Jamia Millia Islamia, New Delhi.
 19. J.A.Usmani, A.Mubeen, M.Emran Khan and **M.M.Hasan**, “Technologies for Reducing CO2 Emissions by Using Biogas as Fuel”, International Conference on Energy and Environment-Strategies for Sustainable Development(ICEE-SSD) during January 23-24,2004 organized by Deptt. Of Mech.Engg., Jamia Millia Islamia, New Delhi.
 20. J.A.Usmani, A.Mubeen, Emran Khan and **M.M.Hasan**, “Greenhouse Effect Mitigation Through Biogas Fuel”, 2nd. BSME-ASME International Conference on Thermal Engineering, organized by Department of Mech. Engg., BUET, Dhaka, Vol.2 January 2004.
 21. A.Mubeen, Emran Khan, J.A.Usmani and **M.M.Hasan**, “Technologies for Reducing Emissions in the Agriculture Sector” 2nd. BSME-ASME International Conference on Thermal Engineering, organized by Department of Mech. Engg., BUET, Dhaka, Vol.2 January 2004.
 22. Z.Mallick, **M.M.Hasan**, Z.A.Khan and A.N.Siddiqui, “ Effect of Organismic Variable Gender on Humans Under the Impact of a Polluted Mobile HCI Environment”, ASEAN Journal on Science and Technology, Vol. 23, No.1&2, June 2006.
 23. Ashish Karnwal, **M.M.Hasan**, “ Evaluation of Oxidation Stability of Different Biodiesel Samples”, PETROTECH-2009, 8th. International Oil and Gas Conference and Exhibition, New Delhi, 11-15 January,2009.
 24. Mohd Nadeem khan, Mohd Islam, **M.M.Hasan** “Brief Review of Fluid Flow and Heat Transfer through Microchannels” National Conference on Advances in Mechanical Engineering (NCAME 2009) February 28th and March 1st 2009 Department of Mechanical Engineering Moradabad Institute of Technology, Moradabad.
 25. Mohd Nadeem khan, Mohd Islam, **M.M.Hasan** “Theoretical Investigation of Fluid Flow and Heat Transfer in Microchannels” National Conference on Advances in Mechanical Engineering (AME09) 30th –31st March 2009. Department of Mechanical Engineering, Don Bosco Institute of Technology, Bangalore.
 26. Mohd Nadeem khan, Mohd Islam, **M.M.Hasan** “Analytical Approach to Examine Fluid Flow and Heat Transfer Through Microchannels” International Journal of Mechanical and Automobile Engineering Vol.5(No 7) ,pp 22-28,2009.

27. Mohd Nadeem khan, Mohd Islam, **M.M.Hasan** “ Flow Characteristics of Blood in Microchannels” International Journal of Applied Engineering Research, Vol.4 No.10, pp. 1871-1876, 2009.ISSN 0973-4562
28. Mohd Nadeem khan, Mohd Islam, **M.M.Hasan** “ Analytical Analysis of Fluid Flow and Heat Transfer through Microchannels” International Journal of Applied Engineering Research, Vol. 11, pp. 2093-2100,2009.
29. Mohd Nadeem khan, Mohd Islam, **M.M.Hasan** “Effect of Relative Surface Roughness On The Performance of Heat Transfer through Microchannels” 3rd International Conference On Advances in Mechanical Engineering (ICAME-2010) 4 – 6 January 2010 Department of Mechanical Engineering, Sardar Vallabhbhai National Institute of Technology Surat – 395 007 Gujarat State, India.
30. Kaushalendra Kumar Dubey, Dr. **M.M Hasan**, Mohd. Nadeem Khan “A Case study of Meteorological analysis for Mohaniya Hill” 3rd International Conference On Advances in Mechanical Engineering (ICAME-2010) 4 – 6 January 2010 Department of Mechanical Engineering, Sardar Vallabhbhai National Institute of Technology Surat – 395 007 Gujarat State, India.
31. Mohd Nadeem khan, Mohd Islam, **M.M.Hasan** “Factors Responsible for Discrepancies between Theoretical And Experimental results of Fluid Flow and Heat Transfer Through Microchannels.” International journal of Applied Engineering Research, Vol 4(12), pp 2629-2640,2009, ISSN 0973-4562
32. Mohd Nadeem khan, Mohd Islam, **M.M.Hasan**, “Comparative Study of Friction Factor for Turbulent Flow Rough Pipe”,International Journal of Theoretical and Applied Mechanics,Vol.5, pp47-52,2010.
33. Mohd Nadeem khan, Mohd Islam, **M.M.Hasan**, “Parameters Affecting the Friction Factor in Rough and Smooth pipes”, International Journal of Fluids Engineering Vol 2(1), P 1-6 ,2010, ISSN 0974-3138.
34. Mohd Nadeem khan, Mohd Islam, **M.M.Hasan** “Alternative Approach for predicting Average Nusselt Number for Fully Developed Flow in Circular Microchannels”, International Journal of Engineering, Science & Technology, Vol 2(8) ,2010.pp 3557-3560.
35. Ashish Karnwal, Naveen Kumar, **M.M. Hasan**. “Evaluation of Oxidation Stability of Different Biodiesel Samples” Petrotech–2009, 8th International Oil and Gas Conference and Exhibition being held at New Delhi during 11th-15th January 2009.
36. Ashish Karnwal, Naveen Kumar, **M.M. Hasan**. “Some Experimental Studies on Utilization of Jatropha Curcus and Pongamia Piñata Biodiesel Blends in an Agriculture Diesel Engine” International Journal of Theoretical and Applied

- Mechanics (IJTAM). Available on line International Journal of Theoretical and Applied Mechanics. ISSN 0973-6085 Volume 5 Number 1 (2010) pp. 15–25, Research India Publication.
37. Ashish Karnwal, Naveen Kumar, **M.M. Hasan**, Arsad Noor Siddiquee, Zahid A. Khan, “Performance Evaluation of a Medium Capacity Diesel Engine on Thumba Biodiesel and Diesel Blends” 1st International Conference on New Frontiers in Biofuels, Organized by Delhi Technological University, Delhi, 18-19 Jan 2010. Poster received second prize.
 38. Ashish Karnwal, Naveen Kumar, **M.M. Hasan**, Arsad Noor Siddiquee, Zahid A. Khan. “Optimization of Diesel Engine Performance Parameters by Applying Taguchi Method and Grey Relational Analysis” PETROTECH-2010, 9th International Oil and Gas Conference and Exhibition being held at New Delhi (31st Oct – 3rd Nov’2010).
 39. Ashish Karnwal, Naveen Kumar, **M.M. Hasan**, Arsad Noor Siddiquee, Zahid A. Khan. “Performance Evaluation of a Medium Capacity Diesel Engine on Thumba Biodiesel and Diesel Blends” Journal of Biofuels Vol.1 No.2, July - December, 2010 pp.172-181. ISSN: 1759-7269
 40. Ashish Karnwal, Naveen Kumar, **M.M. Hasan**, Rajeev Chaudhary, Arsad Noor Siddiquee, Zahid A. Khan. “Production of Biodiesel from Thumba oil: Optimization of process parameters” Iranica Journal of Energy and Environment (IJEE), IJEE Vol1(4) issue of Journal, Published by Babal University of Technology, Iran, 2010.
 41. Kaushalendra Kumar Dubey, Gunjan Aggarwal, **M.M. Hasan**, “Modeling of Solar Photovoltaic White-LED Home Lighting System for Off-Grid Rural Areas”, 16th ISME Conference on Mechanical Engineering for Sustainable Development, Deptt. Of Mech. Engg. I I T Delhi, December 2-4, 2010.
 42. Tiwari, A.K., Islam, M., **Hasan, M.M.** and Khan, M.N., “Thermodynamic Simulation of Performance of Combined Cycle with Variation of Cycle Peak Temperature & Specific Heat Ratio of Working Fluid”, International Journal of Engineering Studies. Vol2(No 4): Pp 415-424, 2010, ISSN 0975-6469
 43. Raghendra Singh, Rahul Dev, **M.M. Hasan**, and G.N. Tiwari, “Comparative Energy and Exergy Analysis of Various Passive Solar Distillation Systems”, World Renewable Energy Congress-2011, Linkoping, Sweden, 8-11 May, 2011.
 44. Ashish Karnwal, **M.M. Hasan**, Naveen Kumar, Arshad Noor Siddiqui, Zahid A. Khan, “Multi-Response Optimization of Diesel Engine Performance Parameters Using Thumba Biodiesel- Diesel Blends By Applying The Taguchi Method and Grey Relation Analysis”, International Journal of Automotive Technology (Springer), Vol.12, No.4, pp599-610(2011) ISSN: 1229-9138. DOI:10.1007/s12239-011-0070-4
 45. Mohd Nadeem khan, Mohd Islam, **M.M. Hasan**, (2011), “Experimental Approach to Study Friction Factor and Temperature Profiles of Fluid Flow in Circular Microchannels”, Journal of Mechanical Engineering Research, Vol. 3(6), pp 209-217, 2011. ISSN 2141-2383, Academic journal, <http://www.academicjournals.org/jmer>

46. Mohd Nadeem khan, Mohd Islam, **M.M.Hasan**, “ Experimental Investigation of Fluid Flow and Heat Transfer in Circular Microchannels”, International Review of Mechanical Engineering, Vol 5 No 6, pp 1144-1151, November 2011.
47. Kaushalendra Kumar Dubey, Gunjan Aggarwal,**M.M.Hasan**, “Energy Efficient Solar Street Lightning System for Rural Areas, Solaris 2012, 7-9 February,2012, Varanasi, India.
48. Ragh Vendra Singh,Rahul Dev, **M.M. Hasan**, E.Khan and G.N.Tiwari, “Theoretical Parametric Study of Evacuated Tubes Integrated Single Slope Solar Still”, Solaris 2012, 7-9 February,2012, Varanasi, India.
49. A.K.Tiwari,**M.M.Hasan**,M.Islam and M.N.Khan, “Energy Analysis of Combined Cycle Power Plant:NTPC Dadri,India”, International Conference on Innovation Technologies in Mechanical Engineering, 24-25 August 2012, organized by KIET, Ghaziabad.
50. Ajay Singh Verma, **M.M.Hasan**,and Ashish Karnwal, “ A Study of Viability of Biodiesel made from Edible oil, Non-edible oil and Waste edible oil as an Alternative Fuel”, 1st International Conference on Innovative Technologies in Mechanical Engineering, 24-25 August 2012, Organised by KIET, Ghaziabad.
51. A.K.Tiwari, **M.M.Hasan** and Mohd. Islam “Exergy Analysis of Combined Cycle Power Plant, NTPC Dadri, India” International Journal of Thermodynamics (IJOT), ISSN1301-9724, Vol. 16 (No.1), pp. 36-42, 2013, doi: 10.5541/ijot.443, www.ijotcat.com
52. A.K.Tiwari, **M.M.Hasan** and Mohd. Islam “Review Paper: Effect of Operating Parameters on the Performance of Combined Cycle Power Plant”, Journal of Applied Mechanical Engineering, Open Access Scientific Report, Vol.1 Issue 7, 2012. <http://dx.doi.org/10.4172/scientificreport.351> OMICS Publication USA
53. A.K.Tiwari, **M.M.Hasan** and Mohd. Islam “ To Investigate the Effect of Pinch Temperature Variation on the Performance of Brayton/Rankine Combined Power cycle”, National Conference on Advancement of Mechanical Engineering(NCAME), 22-23 August 2013, Organized by Al-Falah School of Engineering and Technology, Faridabad
54. A.K.Tiwari, **M.M.Hasan** and Mohd. Islam “Thermodynamic Performance Analysis of a Combined Cycle Power Plant with Variation in Ambient Temperature”, ISTE Convention on Technological Universities & Institutions in New Knowledge Age: Future Perspective and Action Plan, 5-6 September 2013, Organized by ISTE And Delhi Technological University, Delhi.
55. A.K.Tiwari, **M.M.Hasan** and Mohd. Islam “Effect of Ambient Temperature on the Performance of Combined Cycle Power Plant” Trans. CSME-91 Canada, Vol. 37, No.4 pp 1177-1188, 2013,Canadian Society of Mechanical Engineers, Canada, Accession 3549, 2014
56. A.K.Tiwari, **M.M.Hasan** and Mohd. Islam “Effect of Pinch Variation on the Exergy Destruction of Combined Cycle Power Plant” Indian Academy of Sciences, Sadhana 2012

57. A.K.Tiwari, **M.M.Hasan** and Mohd. Islam “Effect of Pinch Variation on the Exergy Destruction of Combined Cycle Power Plant”, NCEVT’14, organized by Parul Institute of Engg. & Technology, Vadodra, Gujrat 4-5 April,2014.
58. Ravindra Kumar, Mohd. Islam and **M M Hasan**, “A Review of Experimental Investigation on Heat transfer Characteristics of Single Phase Liquid Flow in Microchannels”, International Journal of Advanced Mechanical Engineering, Volume 4, No 1(2014), pp 115-120, Research India Publication, ISSN 2250-3234.
59. Mohammad Nawaz Khan, **M M Hasan**, Mohd Atif, “Energy and Exergy Analysis of Supercritical Rankine Cycle”, International Journal of Scientific & Engineering Research, Volume 5, Issue 12, Decmber -2014. P 407-414.
60. Ravindra Kumar, Mohd. Islam and **M M Hasan**, “ Nanofluids as Heat Transfer Enhancers in Microchannels- A Review”, Journal of Basic and Applied Engineering Research, Print ISSN:2350-007 Online ISSN:2350-0255; Volume 1, Number 2; October 2014, pp 65-68.
61. Ajay Singh Verma, **M M Hasan**, Ashish Karnwal, & Vipul Vibhanshu “ Experimental Investigation of Combustion and Exhaust Emission Characteristics of a Variable Compression Ratio Engine Using Isopropyle Alcohol(2-Propanol) –Diethyl Ether Blend with Diesel, SAE International Italy, Technical Paper2015-24-2486, Aug.2015.
62. Ajay Verma, **M M Hasan**, Ashish Karnwal and Vipul Vibhanshu, “ The Effect of Variable Compression Ratio on Performance and Emission Characteristics of Diesel Engine Fuelled with Blends of Diethyl Ether, Linseed Oil Biodiesel and Diesel” Technical Paper JSAE/SAE Koyoto, Japan, Dec.2015
63. Ajay Verma, **M M Hasan**, Ashish Karnwal , “Study of Combustion and Emission Characteristics of Diesel Engine at Variable Compression Ratio Using Low Percentage Waste Cooking Oil Methyl Ester”, 24th National Conference on I C Engines and Combustion, 30 Oct-01 Nov. 2015, Organised by University of Petroleum & Energy Studies (UPES), Dehradun.
64. Ajay Verma, **M M Hasan**, Ashish Karnwal , “ Comparative Analysis of Performance and Exhaust Emission of Variable Compression Ratio Engine Utilizing Blends of Waste Cooking Oil and Linseed Oil as an Alternative Fuel”, 5th International Symposium on Fusion of Science and Technology, Jan.2016, New Delhi
65. Ravindra Kumar, Mohd. Islam and **M M Hasan**, “ Recent Trends, Challenges and Scope in Single-Phase Liquid Flow Heat Transfer in Microchannels- A Review”, Global Sci-Tech, Vol 8 No.2, April-June 2016, pp 113-120, ISSN 0975-9638
66. Mohd Owais Qidwai, **M M Hasan** and Mohd Ariz, “Numerical analysis of friction factors in smooth and rough microchannels”, Invertis Journal of Renewable Energy, Vol. 7, No. 3, 2017 ; pp. 123-130.
67. Ravindra Kumar, Mohd. Islam and **M M Hasan**, “Experimental Investigations on Fluid Flow Characteristics of Single Phase Liquid Flow Through Circular Microchannels” International Journal of Engineering Science & Research Technology, ISSN:2277-9655; Volume 5(3), March 2016 pp 459-466.

68. Ravindra Kumar, Mohd. Islam and **M M Hasan**, “Investigations on Single-Phase Liquid Flow through Semi-Circular Microchannels,” International Journal of Applied Engineering Research ISSN 0973-4562 Volume 13, Number 9 (2018) pp. 6870-6880. <http://www.ripublication.com/>
69. Ajay Verma, **M M Hasan**, Ashish Karnwal , “ Comparative Investigation of Exhaust Emission of Variable Compression Ratio Engine Utilizing Blends of Linseed Oil, Isopropyle Alcohol, Diethyl Ether with Standard Diesel” World Scientific News, An International Scientific Journal WSN 113(2018) ,p 247-259, EISSN 2392-2192, www.worldscientificnews.com
70. Hassan A.K., M.M.Hasan, “Effect of Geometrical and Roughness Parameters on Artificially Roughened Solar Air Heater” , International Conference on Future Technologies in Mechanical Engineering(ICFTME), organized by Malla Reddy College of Engineering, Hyderabad, during 28th & 29th December 2018.
71. Yusuf Parvez and M M Hasan, “Exergy analysis and performance optimization of bagasse fired boiler,” ICCEMME 2019 IOP Conf. Series: Materials Science and Engineering 691 (2019) 012089 IOP Publishing doi:10.1088/1757-899X/691/1/012089
72. Mohd Owais Qidwai, Mohd Muzaffarul Hasan, Noor Zaman Khan & Urfi Khan, “Optimization of Heat Transfer Effects in radia fin Microchannel heat sink”.Energy Resources,Part A:Recovery, Utilization and Environmental Effects, Dec 2019 Taylor Francis Online , <https://doi.org/10.1080/15567036.2019.1704947>
73. Mohd Owais Qidwai, Mohd Muzaffarul Hasan, “Effect of variation of cylindrical pin fins height on the overall performance of microchannel heat sink”, Proc IMechE Part E: J Process Mechanical Engineering 0(0) 1–11 ! IMechE 2019. <http://orcid.org/0000-0002-5970-7647>
74. Ahmad Kamal Hassan, M Muzaffarul Hasan & M Emran Khan “Heat transfer and fluid flow investigation in dimple roughened solar duct arranged in multiple arc pattern.”International Journal of Ambient Energy, Taylor & Francis, Feb 2020, <https://doi.org/10.1080/01430750.2020.1722742>
75. **Shahim Haider Abidi, M M Hasan**, “Effect due to Variation in Bend Angles of Intake Manifold on Turbulent Kinetic Energy for Diesel Engine” International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-9 Issue-5, March 2020
76. **Shahim Haider Abidi, M M Hasan** “Review on Studying Effects of Enhancing Turbulence by Modifying the Intake Manifold of Internal Combustion Engine”, pp-361-368 chapter in Recent Advances in Mechanical Engineering. Lecture Notes in Mechanical Engineering. Springer, Singapore. https://doi.org/10.1007/978-981-15-8704-7_45
77. **M O Qidwai, M M Hasan, N Z Khan and M Ariz**, “Performance Evaluation of simple radial fin design for single phase liquid flow in microchannel heat sink” Proc.Inst. Mech.Eng Part E J.Process Mech. Eng. ,22 July 2020 DOI:<https://doi.org/10.1177/0954408920944269>

- 78.** Ahmad Kamal Hassan , Dr. Mohammad Emran Khan & Dr. M. Muzaffarul Hasan, “Effect of Geometrical and Roughness Parameters on Artificially Roughened Solar Air Heater”, IJRAR- International Journal of Research and Analytical Reviews, e ISSN 2348 –1269, Print ISSN 2349-5138
- 79.** Shahim Haider Abidi, M M Hasan, “Variation of turbulent kinetic energy due to dimples in intake manifold for diesel engine”, Case Studies in Thermal Engineering, Volume 27(2021)101299, Elsevier Publication, <https://doi.org/10.1016/j.csite.2021.101299>
- 80.** Ahmad Kamal Hassan, M Muzaffarul Hasan, Mohammad Emran Khan, “ Parametric investigation and correlation development for heat transfer and friction factor in multiple arc dimple roughened solar air duct,” Renewable Energy, Volume 174, P 403-425, August 2021, Elsevier Publication, <https://doi.org/10.1016/j.renene.2021.03.044>