

## Quamrul H. Mazumder

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### **Education:**

- Ph.D. Mechanical Engineering, The University of Tulsa, 2004
- M.B.A. Oklahoma State University, 1998
- M.S. Mechanical Engineering, South Dakota State University, 1988
- B.S. Engineering, Bangladesh Agricultural University, 1982

### **Professional Experience:**

July 2015-	July 2016	Associate Chairman and ABET coordinator
July 2012-	July 2012	Associate Professor and Program Director
July 2006 -	June 2012	Assistant Professor, University of Michigan-Flint
July 2005 -	June 2006	Assistant Professor, Pittsburg State University
May 2000 -	June 2005	Engineering Manager, Honeywell Aerospace, Tulsa, OK
July 1983 -	May 2000	Senior Project Engineer, Ingersoll-Dresser, Flowserve, REB

## **Scholarly and Creative Work**

### **Books Published/Submitted**

1. **Quality in Higher Education- A Global Approach** (Submitted for Publication)
2. **Introduction to Engineering- An Assessment and Problem Solving Approach**, CRC publication, Taylor and Francis Group, USA, February, 2016, ISBN number 978-1-4987-4748-6.
3. **Academic Enhancement in Higher Education** , Quamrul H. Mazumder, Rezaul Karim and Ashiq Ur Rahman, Published by Higher Education Quality Enhancement Project, University Grants Commission of Bangladesh, December 2013, ISBN: 978-984-90017-6-8
4. **Prediction of Erosion in Particulated Multiphase Flows**, VDM publishing Company, July 2010, ISBN 978-3-639-0263-2

### **Refereed Journal Papers (2012-Present)**

#### **Multiphase Flow and Engineering Research**

1. **Mazumder**, Quamrul H, "S-Bend Erosion in Particulated Multiphase Flow" Journal of Ocean Engineering, ISSN 0029-8018, Paper no.OE-D-15-00486. Elsevier Publication, UK, 2015 (in review)
2. **Mazumder**, Quamrul H. " S-Bend erosion in particulated multiphase flow with air and sand" The Journal of Computational Multiphase Flows, 2016, vol. 8(3), 157-166, DOI: 10.1177/1757482X16668363.
3. **Mazumder**, Quamrul H., Zhao, Siwen, Ahmed Kawshik " Experimental Investigation of Solid Particle Erosion in S-Bend" ASME Journal of Fluids Engineering, 2016; 138(4),044501 Paper no. FE-14-1748, doi: 10.1115/1.4031685
4. **Mazumder**, Quamrul H., Zhao, Siwen, Ahmed Kawshik " Effect of Bend Radius on Magnitude and Location of Erosion in S-Bend", Modelling and Simulation in Engineering Volume 2015 (2015), Article ID 930497, 7 pages

5. **Mazumder**, Quamrul H. “ CFD Analysis of the Effect of Elbow Radius on Pressure Drop in Multiphase Flow” Modeling and Simulation in Engineering, Volume 2012 (2012), Article ID 125405, 8 pages, doi:10.1155/2012/125405, November, **2012**
6. **Mazumder, Quamrul H.** “Effect of Liquid and Gas Velocities on Magnitude and Location of Maximum Erosion in U-Bend”, Online Journal of Fluid Dynamics, Vol.2 No.2, PP. 29-34 DOI: 10.4236/ojfd.2012.22003, June **2012**
7. **Mazumder**, Quamrul H. “ CFD analysis of Single and Multiphase Flow Characteristics in Elbows” Journal of Engineering, Vol.4 No.4, PP. 210-214 DOI: 10.4236/eng.2012.44028, April **2012**

#### Engineering Education Research

8. **Mazumder**, Quamrul H. “Student Motivation and Learning Strategies of Students from USA, China and Bangladesh”, International Journal of Evaluation and Research in Education (IJERE), Vol.3, No.4, December **2014**, ISSN: 2252-8822
9. **Mazumder**, Quamrul H. “Analysis of Quality on Public and Private Universities of Bangladesh and USA”, International Journal of Evaluation and Research in Education (IJERE), Vol.3, No.2, June **2014**, pp. 31-41, ISSN: 2252-8822
10. **Mazumder**, Quamrul H. “Metacognition Strategies and Teaching Efficaciousness in US and Asian Classrooms” International Journal of Evaluation and Research in Education (IJERE) Vol. 2, No.4, December **2013**, ISSN: 2252-8822
11. **Mazumder**, Quamrul H. “Comparative Analysis of Learning Styles of Students of USA and Bangladesh” International Journal of Education and Practice, ijep/057/13, Park Publishing Group, December **2013**, ISSN: 2310-3868.
12. **Mazumder**, Quamrul H. “Student Satisfaction in Private and Public Universities in Bangladesh”, International Journal of Evaluation and Research in Education (IJERE) Vol. 2, No. 2, pp 78-84, June **2013**, ISSN: 2252-8822
13. **Mazumder**, Quamrul H, ”Improvement Of Confidence And Motivation Using Online Metacognition Tool”, American Journal of Engineering Education, vol 3, Number 1, March **2012**

#### Refereed Journal Papers ( Before 2012)

##### Multiphase Flow and Engineering Research

14. **Mazumder**, Quamrul H, Siddique, Saiful “ CFD analysis of Two-phase Flow Characteristics in a 90 degree Elbow” The Journal of Computational Multiphase Flow, Multi-Science Publishing Volume 3, number 3, **2011**.
15. Aluko, Olanrewaju, **Mazumder**, Quamrul H. “ The accuracy of characteristic length method on failure prediction of composite pinned joints” Journal of Mechanics Engineering and Automation, David Publishing Company, USA June **2011**
16. McLaury, B., Shirazi, S., Viswanathan V., **Mazumder, Q.**, Santos, G. “ Distribution of Sand Particles in Horizontal and Vertical Multiphase Flow in Pipes and the Effects of Sand Erosion” ASME Journal of Energy Resources and Technology, vol. 133, pages 02300101- 0230010, June **2011**
17. **Mazumder**, Quamrul H., Shirazi, S., McLaury, B., “*Experimental Investigation of The Location of Maximum Erosive Wear Damage in Elbows*”, Journal of Pressure Vessel and Technology, vol. 130, no. 1, pages 113031- 38, February **2008**
18. **Mazumder**, Quamrul H., Shirazi, S., McLaury, B., “*Prediction of Solid Particle Erosive Wear of Elbows in Multiphase Annular Flow- Model Development and Experimental Validations*”. Journal of Energy Resources and Technology, Volume 130, Issue 2, 023001-1 to1-10, June **2008**

19. **Mazumder**, Quamrul H., “*Prediction of Erosion due to solid particle Impact in Single-Phase and Multiphase Flows*” *Journal of Pressure Vessel and Technology*, vol. 129, no. 4, p 576-582, Nov. **2007**
20. **Mazumder**, Q., Shirazi, S., McLaury, B, Rybicki, E., Shadley, J., “*Development and Validation of a Mechanistic Model to Predict Solid Particle Erosion in Multiphase Flow*”, *Journal of Wear*, vol. 259, Issue 1-6, pages 203-207, July-August **2005**
21. **Mazumder**, Quamrul H. “*Fostering Passion Among First Year Engineering Students*” *American Journal of Engineering Education*” Vo. 1, No. 1, pages 21-34, December **2010**
22. **Mazumder**, Quamrul H., “*A Comparative Analysis and Evaluation of Different Approaches of Globalization of Engineering Curriculum in the USA*” *International Journal of Modern Engineering*, Volume 10, No. 1, Spring/Summer **2009**

### **Refereed Conference Papers (2012-Present)**

#### *Multiphase Flow and Engineering Research*

1. **Mazumder**, Quamrul H., and Zhao, Siwen “Magnitude and Location of Maximum Erosion in S-Bend with Water-Sand Mixture”, Paper no. HTFEICNMM2016-1053, ASME Fluid Engineering Division Summer Conference, July 10-14, 2016, Washington DC, USA.
2. **Mazumder**, Quamrul H. “ Effect of Particle Size on Magnitude and Location of Maximum Erosion in S-Bend” Paper no. FEDSM2014-21216, Proceedings of the ASME 2014 Fluids Engineering Summer Meeting, August 3-7, 2014, Chicago, USA
3. Dakeev, Ulan and **Mazumder**, Quamrul, “Design and Development of a Small Scale wind Turbine Blade” Paper no. ASEE2015-13073, American Society of Engineering Education Annual Conference, July 14-17, 2015, Seattle, USA
4. Dakeev, Ulan, **Mazumder**, Quamrul H. “ Analysis of Wind Power Generation with Application of Wind Tunnel Attachment, ASEE 2014-8501, 121st ASEE Annual Conference, June 13-15, 2014, Indianapolis, USA

#### *Engineering Education Research*

5. **Mazumder**, Quamrul H. and Kilaru, Vasudha “ Motivation fo learning Strategies of High School and University Students”. Paper no. ASEE2016-15125, American Society of Engineering Education Annual Conference, June 26-29, 2016, New Orleans, Louisiana, USA
6. **Mazumder**, Quamrul H. and Mahankali, Raghava “ Ethical Standards of Students in Bangladesh, India and USA”. Paper no. ASEE2016-15128, American Society of Engineering Education Annual Conference, June 26-29, 2016, New Orleans, Louisiana, USA
7. **Mazumder**, Quamrul H. and Shadik, Mohammad “ Integration of Design Experience in a First Year Engineering Course”. Paper no. ASEE2016-16864, American Society of Engineering Education Annual Conference, June 26-29, 2016, New Orleans, Louisiana, USA
8. Dakeev, Ulan and **Mazumder**, Quamrul H. “Motivation and Learning Strategies of Students in Kyrgyzstan Paper no. ASEE2015-13061, American Society of Engineering Education Annual Conference, July 14-17, 2015, Seattle, USA
9. **Mazumder**, Quamrul H. and Dakeev, Ulan “A Comparative Study of Motivation and Learning Strategies Between High School and University Students” Paper no. ASEE2015-13071, American Society of Engineering Education Annual Conference, July 14-17, 2015, Seattle, USA
10. **Mazumder**, Quamrul H. “Quality Function Deployment in Higher Education”, Paper no. ASEE2014-8406, 121st ASEE Annual Conference, June 13-15, 2014 Indianapolis, USA

11. **Mazumder**, Quamrul H. “ The Effects of Teaching Style and Experience of Student Success in the USA and Bangladesh” Paper no. ASEE 2014-8407, 121st ASEE Annual Conference, June 13-15, 2014, Indianapolis, USA
12. **Mazumder**, Quamrul H. “ Applying Six Sigma in Higher Education Quality Improvement, ASEE 2014-8594, 121st ASEE Annual Conference, June 13-15, 2014, Indianapolis, USA
13. **Mazumder**, Quamrul H. and Ahmed, Kawshik “A Comparative Study of Motivation and Learning Strategies Between Public and Private University Students of Bangladesh” Proceedings of the 2014 ASEE North Central Section Conference, April 4-5, 2014, Oakland University, USA
14. **Mazumder**, Quamrul H, Karim, R. Md.” Comparative Analysis of Learning Styles of Students of USA and Bangladesh, Paper no: AC2012-5075, 119th ASEE Annual Conference, June 10-13, 2012, San Antonio, TX, USA
15. **Mazumder**, Quamrul H, Improving Confidence Level and Performance of First Generation and Female Students using Metacognition Strategies, Paper no: AC2012-4969, 119th ASEE Annual Conference, June 10-13, 2012, San Antonio, TX, USA
16. **Mazumder**, Quamrul H, Karim , Rezaul Md., Bhuiyan, I. Serajul” Higher Education Quality Improvement in Bangladesh, Paper no: AC2012-5127, 119th ASEE Annual Conference, June 10-13, 2012, San Antonio, TX, USA
17. Murali Mani, **Quamrul Mazumder**: Active learning in computer science education using metacognition (abstract only). SIGCSE 2012: 671, February 29 - March 3, 2012 | Raleigh, North Carolina, USA

#### **Refereed Conference Papers (Before 2012)**

18. **Mazumder**, Quamrul H., Ainsworth, Anita “*Metacognition Strategies to Improve Confidence and Academic Performance of First Year Engineering Students*” Paper no. 83, American Society of Engineering Education, North Central Section Conference, April 1-2, **2011**, Midland, Michigan, USA
19. **Mazumder**, Quamrul H. “*Improvement of Engagement and Participation of First Year Engineering Students through Metacognition Learning Tool*”, Paper no. 81, American Society of Engineering Education, North Central Section Conference, April 1-2, **2011** Midland, Michigan
20. **Mazumder**, Quamrul H., “ *Metacognition approaches to enhance learning effectiveness in engineering classroom*” , *World Congress on Engineering, Jun 30-Jul 2, 2010, London, UK*
21. **Aluko, O, Mazumder, Quamrul**, “*The Accuracy of Failure Prediction of Composite Pinned Joint by Characteristic Length Method*” *World Congress on Engineering 2010, June 30-July 2, 2010, London, UK.*
22. **Mazumder**, Quamrul H., Ainsworth, Anita “*Use of Metacognition Tools to Improve Student Learning*” Paper no. AC2010-1265, ASEE Annual Conference, June 20-23, **2010**, Louisville, KY
23. **Mazumder**, Quamrul H., Finney, Mary Jo, “Factors Affecting Passion Towards Learning in Engineering Classroom”, Paper no. CICE-2010- 650, Canada International Conference on Education, April 26-28, **2010**, Toronto, Canada
24. Castro-Cedeno Mario, **Mazumder**, Quamrul H. “*Motivation and Maturity Level of Engineering and Engineering Technology Students with and without Co-op Experience*” Paper no. AC2010-82, ASEE Annual Conference, June 20-23, **2010**, Louisville, KY
25. **Mazumder**, Quamrul H., Aluko, Olanrewaju “ *A Pre-Engineering Program to Motivate High School Students Towards Engineering*”AC2010-1265,ASEE Annual Conference, June 20-23, **2010**, Louisville, KY
26. **Mazumder**, Quamrul H. “Evaluation of Magnitude and Location of Solid Particle Erosive Wear in an Elbow Geometry using CFD Analysis” Paper no. ASME FEDSM 2009-78282, **2009** ASME Summer Meeting, August 2-5, **2009**, Vail, Colorado, USA

27. Panini Kolavennu<sup>1</sup>, Susanta K. Das<sup>1,1</sup>, Quamrul **Mazumder**<sup>2</sup> and K. Joel Berry<sup>1</sup> “Hydrogen Generation On-Site by Steam Reforming of Hydrocarbons for High Temperature PEM Fuel Cell” Paper no: A-110-0012-00197, HFC2009 Conference, May 31-June 3, **2009**, Vancouver, British Columbia, Canada
28. **Mazumder**, Quamrul, H. “Integration of Computational Fluid Dynamics Analysis in Undergraduate Research Program” Paper no. F-73, ASEE North Central Section Conference, April 3-4, **2009**, Grand Rapids, MI.
29. **Mazumder**, Quamrul H., “A Comparative Analysis and Evaluation of Different Approaches of Globalization of Engineering Curriculum in the USA” Paper no. 115, IJME 2008 Conference, Nov. **2008**, Nashville, TN
30. **Mazumder**, Quamrul H., Baishya, Dhruba, “Globalization of Engineering Education: Are We Preparing Students to Succeed in the Global Economy?” paper no. AC 2008-752, ASEE Annual Conference, June 24-27, **2008**, Pittsburgh, PA, USA.
31. McLaury, B., Viswanath, V., Shirazi, S., **Mazumder**, Q., “Effect of Upstream Pipe Orientation on Erosion/Corrosion in Bends for Annular Flow”. Paper 06572, Corrosion 2006, Mar. **2006**, San Diego, CA, USA
32. **Mazumder**, Quamrul H., “Prediction of Erosion due to solid particle Impact in Single-Phase and Multiphase Flows” . Paper no. IMECE2005-75948. 2005 ASME International Mechanical Engineering Congress and Exposition, Nov, **2005**, Orlando, Florida, USA
33. McLaury, B., Shirazi, S., **Mazumder**, Q., Viswanath, V., Santos, G., “Distribution of Sand Particles in Horizontal and Vertical Annular Multiphase Flow in Pipes and Their Effects on Sand Erosion” International Conference of Multiphase Technology, BHR Group (UK), May 2005, Barcelona, Spain.
34. **Mazumder**, Q., Shirazi, S., McLaury, B., “A Mechanistic Model to Predict Erosion in Multiphase Flow in Elbows Downstream of Vertical Pipes”, Proceedings of CORROSION **2004** Conference, Paper no. 04662, March 29-April 2, 2004, New Orleans, Louisiana, USA
35. **Mazumder**, Q., Shirazi, S. McLaury, B., Santos, G. “Effect of Sand Distribution on Erosion in Annular Three-Phase Flow” Proceeding of Eighth International Symposium on Liquid-Solid Flow, Paper no. 45498, 2003 ASME FED Summer meeting, July 6-10, **2003** Honolulu, Hawaii, USA

**Student Co-Authored Conference Papers:**

1. Siddique, Saiful, **Mazumder**, Quamrul, “ Design, Development and CFD Validation of a Subsonic Wind Tunnel” Meeting of Minds Conference paper and Presentation and Undergraduate Journal Publication, University of Michigan-Dearborn, May, **2012**
2. Johnston, Andrew, Carpenter, Brandon, Taylor, Timothy and **Mazumder**, Quamrul “ Design and Development of a Turbo Jet Engine” Meeting of Minds Conference paper and Presentation and Undergraduate Journal Publication, University of Michigan-Dearborn, May, **2012**
3. Skorski, S., Stokes, K., Lavene, L., Isaac, M. and **Mazumder**. Q. “Johnston, Andrew, Carpenter, Brandon, Taylor, timothy and Mazumder, Quamrul “ Design and Development of a Thermoelectric Beverage Cooler” Meeting of Minds Conference paper and Presentation and Undergraduate Journal Publication, University of Michigan-Dearborn, May, 2012

4. Siddique, Saiful, Wagel, Aaron, and **Mazumder**, Quamrul, “ Design and Development of an Open Circuit, Subsonic Wind Tunnel” Meeting of Minds Conference Presentation and Undergraduate Journal Publication, May **2011**
5. Lengyel, Michael, and **Mazumder** Quamrul H. “ Comparative analysis and validation of pressure drops in elbow using Fluent and OpenFoam Computational Fluid Dynamics Codes” , Meeting of Minds Conference paper and Presentation and Undergraduate Journal Publication, University of Michigan-Flint, May, **2010**
6. Beauvais, B, Leece Adam, Lamson, Diane and **Mazumder**, Quamrul, “ Design and Development of a Low speed, Vertical Axis Wind Turbine for Urban Applications” Meeting of Minds Conference paper and Presentation and Undergraduate Journal Publication, University of Michigan-Flint, May, **2010**
7. Kemmer Ray, Weber Donald, Harwood, Samuel, Howard-Coolin, Daryl, and **Mazumder** Quamrul H. “Design and Development of a Low Speed, Horizontal Axis Wind Turbine for Urban Applications” Meeting of Minds Conference paper and Presentation and Undergraduate Journal Publication, University of Michigan-Flint, May, **2010**
8. Keegan, Joshua, Meribeth Manzella and **Mazumder**, Quamrul, “ An investigation of Small Wind Turbine Design, Performance, and Reliability”, Meeting of Minds Conference paper and Presentation and Undergraduate Journal Publication, University of Michigan-Flint, May, **2010**
9. Tambey, Preshit, Lengyel, Michael, and **Mazumder**, Quamrul H. . . “Effect of Mesh size on CFD Analysis or Erosion in Elbow Geometry”, Meeting of Minds Conference and Presentation and Undergraduate Journal Publication, University of Michigan-Dearborn, May, **2009**
10. Li, Chen Guang, and **Mazumder**, Quamrul H. “CFD Comparison of Erosive Wear in Elbows due to Particulate Gas-Solid Flow” , Meeting of Minds Conference Presentation and Undergraduate Journal Publication, University of Michigan-Dearborn, May, **2009**
11. Li, Chen, **Mazumder**, Q., Baishya, Dhruba “Globalization of Engineering Education” ASEE 2008 Annual Conference, Pittsburg, PA, June 25, **2008**
12. Tantipitham, Somkiat, Elisia Willis, **Mazumder**, Quamrul (Faculty Advisor) “Design and Development of a Hydro turbine for Flint River” Meeting of Minds conference paper and presentation, Oakland University, May **2008**
13. Huddas, Victor, Malek, Justin, **Mazumder**, Quamrul (Faculty Advisor), “ Hydraulic power vehicle design and performance evaluation” Meeting of Minds conference paper and presentation, Oakland University, May **2008**

#### **Invited Conference Presentations (2012-Present)**

1. **Mazumder, Q.** “Using student satisfaction as a determinant of quality of Higher Education in Bangladesh” Keynote Speech, Seminar on quality in higher education, Khulna University, Khulna, Bangladesh, June 16, 2013
2. **Mazumder, Q.** “Active Learning and Assessment in Higher Education”, Keynote speech, Bangladesh Agricultural University, Mymensingh, Bangladesh, June 30, 2013
3. **Mazumder, Q.** “Comparison of quality of higher education in Public and Private Universities in Bangladesh” presented at University Grants Commission of Bangladesh, Dhaka, Bangladesh, July 1, 2013.
4. **Mazumder, Q.** “Active learning in Higher Education” Seminar on Quality in Education, International University of Business, Agriculture and Technology, Dhaka, Bangladesh, July 8, 2013

5. **Mazumder, Q.** “Improving Quality of Education in Bangladesh” Keynote Speech, Ahsanullah University of Science and Technology, Dhaka, Bangladesh, August 4, 2012
6. **Mazumder, Q.** “Quality Assurance in Higher Education” Keynote Speech, University Grant Commission of Bangladesh, Dhaka, Bangladesh, August 8, 2012
7. **Mazumder Q.** Keynote Speaker, “Curriculum Development in Graduate Business Programs” Workshop on Higher Education Quality, Chittagong University, Chittagong, Bangladesh, August 10-11, 2012
8. **Mazumder, Q.** Keynote Speaker, “ Introduction to Blackboard and Graduate Curriculum in Urban Planning: Workshop, Khulna University, Bangladesh, August 13-14, 2012
9. **Mazumder, Q.** Keynote Speaker” Training workshop on Quality Higher Education Through Self-assessment” Bangladesh Agricultural University, August 27-28, 2012
10. **Mazumder, Q.** Keynote Speaker “Quality in Higher Education Seminar” International University of Business, Agriculture and Technology, Dhaka, Bangladesh, August 29, 2012
11. **Mazumder, Q.** “ Quality in Higher Education” Workshop presented at Canadian International Conference on Education (CICE 2012), Guelph, Ontario, Canada, June 18-21, 2012
12. **Mazumder, Q.** “ Defining Quality in Higher Education” Workshop presented at Sixth Annual Conference on Teaching and Learning, Oakland University, Michigan, May 9-10, 2012

#### **Invited Conference Presentations (2012-Present)**

13. **Mazumder, Q.** “ A Comparative Analysis and Evaluation of Different Approaches of Globalization of Engineering Curriculum in the USA”, IJME 2008 conference, Nov. 2008, Nashville, TN, USA
14. **Mazumder, Q.** “Development of a Higher Education Accreditation Standard” University Grant Commission Seminar, July 20, 2008, Dhaka, Bangladesh
15. **Mazumder, Q.,** Baishya, Dhruba “Globalization of Engineering Education” ASEE 2008 Annual Conference, Pittsburg, PA, June 25, 2008
16. **Mazumder, Q.,** “ Prediction of Erosion Due to Solid Particle Impact in Single-Phase and Multiphase Flows” ASME Mechanical Engineering Congress, Orlando, FL, Nov. 2005
17. **Mazumder, Q.,** Shirazi, S., McLaury, B. “A Mechanistic Model to Predict Erosion in Multiphase Flow in Elbows Downstream of Vertical Pipes”, Presented at the CORROSION 2004 Conference, New Orleans, Louisiana, April 1, 2004
18. **Mazumder, Q.,** Shirazi, S., “ SPPS (Sand Production Pipe Saver) Erosion Prediction Computer Program” Presented at the Erosion/ Corrosion Research Center Advisory Board Meeting, University of Tulsa, November 2003
19. **Mazumder, Q.,** Shirazi, S. McLaury, B. “Effect of Sand Distribution on Erosion in Annular Three-Phase Flow “ ASME Fluid Engineering Division Summer Meeting, Honolulu, Hawaii, July, 2003
20. **Mazumder, Q.,** “ Erosion in Multiphase Flow and Validation of SPPS,” Presented at the Erosion/ Corrosion Research Center Advisory Board Meeting, University of Tulsa, May 2002
21. **Mazumder, Q.,** “Experimental investigation of Erosion in Multiphase flow,” Presented at the AIAA /ASME conference, Oklahoma, February 2001

#### **Grants and Awards**

1. Investigation of Erosion in S-Bend Geometry Using Experimental and Computational Methods , *Research and Creative Activity Award*, Office of Research, University of Michigan- Flint, 2013-14

2. *Fulbright Scholarship Award*, “Quality improvement in Agricultural Engineering Program”, Bangladesh Agricultural University, Dhaka, Bangladesh, 2013
3. *Boyer Faculty Scholarship Award* for Community Engagement, University of Michigan-Flint, 2012
4. Thomson Center for Learning and Teaching *Faculty Fellowship Award*, Winter 2011
5. Lois Matz Rosen Junior Faculty *Teaching Excellence Award*- 2009
6. Alvin D. Loving *Junior Faculty Initiative Awards*- 2009
7. Mazumder, Q. and Samson Perry” Evaluating meta cognition tools and their use in large classroom” *National Science Foundation Grant DUE 0837139*, Sept. 2009
8. Mazumder, Q. “Prediction of Fluid Flow and Particle Velocities”, *Research and Creative Activity Award*, Office of Research, University of Michigan- Flint, U 022754, March 2008
9. Mazumder, Q. “Redesign of Fluid Mechanics course” Teaching Fellowship Grant, Thomson Center for Learning and Teaching, 2007
10. Mazumder, Quamrul H. “Evaluation of Fluent and ANSYS software for Computer Aided Engineering Analysis” Technology Fee Software Fund Grant, 2007
11. Mazumder, Quamrul H. “Alternate Energy Simulators for Engineering Laboratory Courses” Technology Fee Hardware Grant, 2008
12. Mazumder, Quamrul H. “ International Travel Grant to attend Hydrogen-Fuel Cell Conference-2008” University of Michigan-Flint, Office of Research
13. Mazumder, Quamrul H. “Development of EGR310- Engineering Economics – Online course” Office of Extended Learning, 2007
14. NASA Summer Faculty Fellowship Award 2007. Glenn Research Center, Cleveland, Ohio
15. NASA Summer Faculty Fellowship Award 2006, Glenn Research Center, Cleveland, Ohio

## **Teaching**

*Over 15 years of teaching experience in undergraduate and graduate engineering and business administration courses*

*Have taught a total of 18 different courses ranging from introductory to advanced and graduate courses in engineering and business that includes first year experience, introduction to engineering, computer aided design, statics, dynamics, materials, engineering economics, fluid mechanics, machine design, renewable energy, senior design project, independent study, etc.*

*Developed 12 new courses such as introduction to technology, technology and society, global energy, computational fluid dynamics, renewable energy, advanced Topics, renewable energy, etc.*

*Provided supplementary instructions to students to introduce them with different approaches of problems solving and decision making using concept maps, hierarchies, Bloom’s Taxonomy, etc.*

*Evaluated by students in overall effectiveness as “Highly Effective for 75% of the courses he taught and Effective for 25% of the courses he taught. The following section highlights innovative teaching practices in the courses.*

*Introduced learning theory, metacognition and problem solving skills to the students, developed collaborative learning using team-based, problem-based modules, first year design experience, provided in-class hands-on demonstrations of engineering systems and problems.*

## **Professional Development**



1. Overcoming Implicit Bias in Higher Education: How to Recruit, Hire, Manage, and Retain a Diverse Team of Academic Faculty, September 29, 2016, Michigan Room
2. How to write Clear Exams and Prompts, TCLT Conference Room, Spt. 29, 2016
3. Laser and Laser Safety training, Sept. 29. 2016
4. Peer Observation Worskhop, Kettering University, June 1, 2016
5. Tenure and promotion Workshop, Feb 19, 2016
6. International Group Travel Worskhop for Study Abroad Course, UCEN, Feb 12, 2016
7. Academic Advising Workshop, Student Success Center, February 5, 2016
8. Intercultural Competency Workshop, TCLT, Janury 22, 2016
9. Teaching Philosophy Workshop, TCLT, January 8, 2016
10. Workshop on "My Degree Plan" TCLT, UM-Flint, December 2, 2015
11. Classroom Peer Observation workshop, TCLT, UM-Flint, November 6, 2015
12. Engineering New Student Orientation, September 11, 2015
13. Leadership Development program (LEAD), University of Michigan-Flint, 2013-2014.
14. ABET institutional representatives workshop on accreditation, Washington D.C., July, 2013
15. ABET Program Evaluator Training, March 7-8, 2013, Baltimore, Maryland, USA
16. Institute for Development of Excellence in Assessment Leadership (IDEAL) workshop, Accreditation Board of Engineering and Technology, January 7-10, 2013, Tampa, Florida, USA
17. Community-Based Participatory Research: Rationale, Principles, and How to use a CBPR approach. Presented by: Barbara Israel and Zachary Rowe. North bank Center, University of Michigan-Flint, June 15, 2012
18. The scholarship of Engagement: Foundations, Trends and Getting Published. Presented by: Hiram Fitzgerald, Tuscola Room, University of Michigan-Flint, June 1, 2012
19. Dynamics of Identity in University-Community Partnerships: Lessons from the Black Church Project. Presented by Angela Dillard- University of Michigan- Ann Arbor. Happening Room, University of Michigan-Flint, May 11, 2012
20. CRLT (Center for Research in Teaching and Learning) conference, University of Michigan-Ann Arbor, May 4, 2012
21. ABET Symposium 2012, St. Louis, MO, USA, April 19-21. 2012
22. Internationalization Summit 2012, University of Michigan-Flint, April 17, 2012
23. TK-20 Assessment Software Training, University of Michigan-Flint, January 18, 2012
24. Student Success Center Workshop, University of Michigan-Flint, December 13, 2012

## **Service**

### **Department Service**

1. Senior Secretary Search Committee (Winter 2015, Fall 2015)
2. Chairman, Mechanical Engineering Faculty Search Committee (2015-16, 2014-15)
3. Member, Mechanical Engineering Faculty Search Committee (2013-14)
4. Lecturer III search Committee Chairman, DEEP program (2012-13)
5. Program Director, Mechanical Engineering (Jan 2013-Present)
6. Chairman, Engineering Search Committee 2012-13
7. ABET accreditation Coordinator 2012-Present
8. Chair, Engineering Faculty Search Committee, 2011-12
9. Member, Engineering faculty search committee 2007-2009

10. Faculty Advisor, American Society of Mechanical Engineers (ASME), 2007-Present
11. Academic Advisor- Mechanical Engineering and Engineering Science 2007-Present
12. Freeman Scholarship Committee member, 2007-present
13. David Zick Scholarship Committee member, 2007 –present

**College Service:**

1. Member, Summer Interim Committee, Summer 2016
2. Member, Summer Interim Committee, Spring/Summer, 2015
3. Member, Nominating Committee, College of Arts and Science, 2014-15
4. Elected member of College of Arts and Science Curriculum Committee (2007-2010)
5. Chairman, Curriculum Committee, University of Michigan-Flint, 2009-2010.
6. Member, Earth and Resource Science Faculty Search Committee, 2009-2010

**University Service:**

1. UM-Flint 60<sup>th</sup> University Time Capsule Committee, Fall 2016
2. Member, General Education Review Committee (March 2016-Present)
3. Core Faculty, International and Global Study Advisory Committee, 2015-2018
4. Member, College of Engineering and Science Proposal Team, 2013-2014
5. Member, STEM (Science, Technology, Engineering and Mathematics) Taskforce (2012-13)
6. Chairman, Scholarships, Awards, and Special Events Committee, 2012-13
7. Chairman, General Education Curriculum Committee, 2012-13
8. Elected member, General Education Curriculum Committee, 2011-14
9. Elected member, Scholarship, Awards and Special Events Committee, 2011-14
10. Elected member, General Education Curriculum Advisory Committee 2009-2010
11. Member, Director of Research Search Committee, 2009-2010
12. Member, 2010-11 Strategic Planning Committee on Student Services

**Community Service:**

1. Presentation at Lapeer Educational and Technogy Center on STEM profession (Feb 3, 2016)
2. Presentation to University Grants Commission, Bangladesh, OEL Conf. Room (July10, 2015)
2. Organized and conducted Engineering Summer Camps (July 6-8 and July 14-15, 2015)

**Professional Service:**

1. Director, American Society of Engineering Education, Design in Engineering Education Division, 2016-2019
2. Editorial Board Member (2011-Present), Journal of Education and Training Studies, Redfame Publishing, 9450 SW Gemini Dr. 99416, Beaverton, OR 97008, USA, (2013-present) [jets@redfame.com](mailto:jets@redfame.com), <http://jets.redfame.com>
3. Editorial Board Member (2013-Present) Studies in Engineering and Technology, Redfame Publishing, 9450 SW Gemini Dr. #99416, Beaverton, OR 97008, USA, [set@redfame.com](mailto:set@redfame.com), (2014-present)
4. Editorial Board Member (2014-Present), International Journal of Higher Education, 1120 Finch Avenue West, Suite 701-309, Toronto, ON., M3J 3H7, Canada, (2012-present) E-mail: [ijhe@sciedu.ca](mailto:ijhe@sciedu.ca) <http://www.sciedu.ca/ijhe>
5. Reviewer, International Journal of Heat and Mass Transfer, Elsevier, <http://ees.elsevier.com/hmt/>

6. Reviewer, International Journal of Multiphase Flow, Elsevier, <http://ees.elsevier.com/ijmf/>
7. Program Evaluator, Accreditation Board of Engineering and Technology (ABET), 2012-Present
8. Session Chair, Meeting of Minds Conference 2012, UM-Dearborn
9. Reviewer, National Science Foundation (S-STEM Proposals, 2009)
10. Reviewer, National Science Foundation (CCLI Proposals. 2010)
11. Reviewer, Fulbright scholars program, 2010-present
12. Reviewer, ASME Journal of Fluid mechanics
13. Reviewer, ASEE conference 2008, 2009, 2010, 2012, 2013
14. Reviewer, Canadian International Conference on education Conference 2010
15. Professional Engineering Exam Reviewer, National Council of Examiners for Engineers and Surveyors
16. ASME Saginaw Valley Section professional dev. and student activity committee chairman 2007- present
17. Session Chair, Globalization of Engineering Education Session, ASEE 2008 conference, Pittsburgh, PA
18. Session Chair, International Journal of Modern Engineering Conference, Nashville, TN, Nov 2008

**Community Service and Outreach Activities:**

- 1) Debate Judge, Michigan Intercollegiate Forensic Association Debate, Frankenmuth, Michigan, 2011, 2012, 2013
- 2) Presentation, UM-Flint DEEP outreach program, Howell, MI, Feb 28. 2013
- 3) Presentation, UM-Flint DEEP outreach Program, Lapeer, MI, March 14, 2013
- 4) Super Science Friday Presentation, UM-Flint, April 2012
- 5) Presentation at Troy High School and Athens High School, Troy, Michigan, April 2012
- 6) Wolverine Express presentation at Northwestern and Northern High School, Flint, Michigan April 2012
- 7) Presentation at Rochester High School, Rochester, Michigan, April 2012
- 8) Spring Preview/ Open House presenter, UM-Flint, March 2012
- 9) Advisory Board Meeting presentation, Lapeer Pre-Engineering Program, March, 2012
- 10) Judge, Regional High Schools Debate Competition, Frankenmuth, MI, November 21, 2011
- 11) Advisory Board Member, Winsol Electronics, Flint, MI (Wind turbine manufacturer), 2010-11
- 12) Advisory Board Member, Mid-Michigan Solar, Flint, MI, 2010-11
- 13) Proposed development of alternate power in Hamilton dam of Flint river, 2008-2009
- 14) Career Day Presentation, Lakeville High school, Otisville, MI, February 24, 2009
- 15) Advisory Board Member, Lapeer Education and Technology Center, 2009-2011
- 16) Pre-Engineering program presentation, Lapper Intermediate School District, February 2009
- 17) Engineering career night, Office of Admission, University Center, Detroit, February 2008
- 18) Career Day Presentation, Grand Blanc East Middle School, March 2008
- 19) Investigator, Gilkey Creek Identity Program, CAER, University of Michigan-Flint, 2008-2009
- 20) Proposed energy efficiency plan to Urban Alternative Housing project of City of Flint, 2008
- 21) Super Science Friday Presentation, UM-Flint, 2008, 2009, 2011
- 22) Judge, LEGO robotics state competition for High school students, Oct. 2006, Flint, MI
- 23) Career Day presentation, Hamady High school, City of Flint, 2007

**PROFESSIONAL AFFILIATIONS:**

- Member, American Society of Mechanical Engineers (1988-present)
- Member, American society of Engineering Education (2005-present)

**PROFESSIONAL LICENSE:**

Registered Professional Engineer, State of Oklahoma (PE 17923)

## **INTERNATIONAL COLLABORATIONS/ PRESENTATIONS/ ACTIVITIES**

1. Advisory Board Member, Cambrian University, Dhaka, Bangladesh, (2013- Present)
2. Developed 2+2 articulation agreement between UM-Flint Engineering Program and International University of Business, Agriculture and Technology of Bangladesh **(2008)**
3. Developed 2+2 articulation agreement between UM-Flint Engineering Program and Ahsanullah University of Science and University of Business, Agriculture and Technology of Bangladesh **(2008)**
4. Conducted pedagogical workshop for faculty members of Khulna University about Faculty involved in curriculum development to improve quality of higher education in Bangladesh (July 19-21, **2011**)
5. Presentation in seminar on Education Quality Assurance at North South University, Dhaka, Bangladesh, August 1, **2011**
6. Presentation at U.S. Embassy, Dhaka Bangladesh to potential students about How to be successful in Higher education in USA, July 14, **2011**
7. International collaborative research on Teaching Styles and Learning Styles at Higher education institutions in Bangladesh, **2011**