

SHAHEEN AHMED

CONTACT INFORMATION

Associate Professor

Automotive and Manufacturing -
Engineering Technology
Minnesota State University
Mankato, MN 56001
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<http://faculty.mnsu.edu/shaheenahmed>
www.theopeneducator.com
<https://www.youtube.com/theopeneducator>
<https://www.strava.com/athletes/shaheenahmed>
www.linkedin.com/in/shaheenahmedphd
www.researchgate.net/profile/shaheen_ahmed2
<https://twitter.com/educatoropen>
www.facebook.com/shaheen.ahmed.520
<http://scholar.google.com/citations?user=qn1BqQ8AAAAJ&hl=en>

EDUCATION

PhD in Industrial and Systems Engineering Mississippi State University (MSU) USA	2013
MS in Industrial and Systems Engineering Mississippi State University (MSU) USA	2010
MS in Automotive Industrial Design Engineering Chalmers University of Technology (CTH) Sweden	2008
BS in Mechanical Engineering Bangladesh University of Engineering and Technology (BUET)	2004

LICENSE/ CERTIFICATION

PE , Professional Engineer in Industrial and Systems Engineering License Number: 58925 Minnesota Board of Architecture, Engineering, Land Surveying, Landscape Architecture, Geoscience and Interior Design, AELSLAGID (https://mn.gov/aelslagid/roster.html)	2021-Present
CQE , Certified Quality Engineer Certification Number: 104493 American Society for Quality, ASQ (https://asq.org/cert/registry)	2020-Present
CPE , Certified Professional Ergonomist Certification Number: 1932 Board of Certification in Professional Ergonomics, BCPE (www.bcpe.org/find-a-certificant/certificant-directory)	2017-Present

HONOR

Distinguished Teaching Scholar Fellow, Minnesota State University, Mankato	2020
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CREATOR OF THE OPEN EDUCATOR

2017-Present

Video demonstrations on the difficult to learn topics/subjects. All Examples are created/written by me based on the current real-life industrial problems. Open to all over the world for free of cost. Channel is not monetized to minimize learners' distractions!

www.TheOpenEducator.com

www.YouTube.com/TheOpenEducator

YouTube Channel Statistics: <https://socialblade.com/youtube/c/theopeneducator>

EMPLOYMENT/WORK EXPERIENCE

Treasurer , Board of Certification in Professional Ergonomics, BCPE	2021-Present
1. Oversees all financial transactions, including budget planning, financial reporting, record-keeping, and managing incoming and outgoing funds	
Director , Board of Certification in Professional Ergonomics, BCPE	2020-Present
1. Question Editor/Writer	
2. Subject Matter Expert (SME) and Certification Exam Standard Setting	
3. Accreditation Expert to the Certifications	
University Assessment Team Trainer Minnesota State University, Mankato, Minnesota	Fall 2021 – Spring 2022
1. Train the assessment team consisting of representative faculty and staff members from various units across the institution. Some example trainings include	
I. Develop measurable learning outcomes, rubrics, assessment instruments	
II. Interpret standards and guidelines from external accreditation boards	
III. Assess, evaluate, and provide feedback to the assessment reports and plans from Bachelor and Graduate (including doctoral) Programs at MSU	
University Assessment Coordinator Minnesota State University, Mankato, Minnesota	Fall 2019 – Fall 2021
1. Assessment of Student Learning Process Improvement	
2. Assess and provide feedback to over 300 programs to improve student learning	
3. Provide training to faculty, staff, and administrator in student learning assessment	
Associate Professor Department of Automotive and Manufacturing Engineering Technology Minnesota State University, Mankato, Minnesota	Fall 2019 – Present
1. Research, Teach and Service in the areas of my expertise, including,	
a. Quality Management Systems, Design of Experiments, Human Factors and Ergonomics	
b. STEM Education, Teaching and Learning.	
2. Serving in the Department, College and University Committees	
3. Tenured and promoted one year earlier	
Assistant Professor Department of Automotive and Manufacturing Engineering Technology Minnesota State University, Mankato, Minnesota	Fall 2015- Spring 2019
1. Research, Teach and Service in the areas of my expertise, including, Quality Management Systems, Design of Experiments, Human Factors and Ergonomics	
2. Developed five existing courses and new labs for two courses	
3. Chaired and served four University level committees	
Assistant Professor Tenure Track, Engineering Technology The University of West Alabama, UWA	Fall 2013 – Spring 2015
1. Designed four new courses, labs, and develop four existing courses	
2. Chaired faculty search and accreditation committees	
3. Developed training program for Mercedes Benz US International Inc, Vance, AL	
Research Assistant Department of Industrial and Systems Engineering, Mississippi State University	Fall 2007 – Spring 2013
1. Leading team member in projects funded by government agencies and industries	
2. Provide training to undergraduate and graduate student co-workers/team members	

Instructor		2012
Department of Industrial and Systems Engineering, Mississippi State University		
1. Taught Engineering Economy as a Full Instructor of Record		
2. Nominated as the Best Instructor as a Graduate Student		
Teaching Assistant		2009
Department of Industrial and Systems Engineering, Mississippi State University		
1. Teaching, evaluation/assessment of quizzes, exams and assignments, and helping students under the supervision of a faculty member		
Instructor		1998-2005
Physics, Mathematics, & Inorganic Chemistry		
Admission Coaching for Engineering Schools in Bangladesh		
WORK EXPERIENCE/ CONSULTANCY		2017-Present
1. Trained Professional Engineers and Managers		Spring 2018
Condux International, Mankato, Minnesota		
Topics: Statistical Process Control, Control Charts, Acceptance Sampling, Regression Analysis, Response Surface Modeling, Design of Experiments, Tolerance, and Tolerance Stack-up Analysis. Length: Over 50 hours. Organizer: MSU Continuing and Professional Education. https://www.mnsu.edu/continuinged/		
TEACHING, TRAINING & DESIGN OF COURSES & PROGRAMS		1998-Present
Assessment, Evaluation, Accreditation, & Certification Training		2020-Present
For Instructor, faculty, staff, and administrator		
Please visit http://www.theopeneducator.com/assessment for more information.		
1. Teaching and Learning Certificate, MSU		2021-Present
2. Assessment of Student Learning Certificate, MSU		2020-Present
3. Program-Level Assessment Certificate, MSU		2020-Present
Design of Courses added to the UWA Catalogue from 2015-2016		2014-2015
4. TY 300 – Fundamentals of Mechanical Engineering Technology. (3 credit)		2015
5. TY 453 – Statistical Quality Control (3 credit)		2015
6. TY 400 – Introduction to Human Factors and Ergonomics (3 credit)		2014
7. TY 101 – Introduction to Engineering Technology (3 credit)		2014
Courses Taught	Rating	1998-Present
8. MET 654 – Design of Experiments, MSU	4.5/5	2016-Present
9. MET 423/523 – Ergonomics & Work Measurement, MSU	4.2/5	2016-Present
10. MET 426 – Logistics and Transportation, MSU	-	2021-Present
11. MET 425 – Project and Value Management, MSU	-	2021-Present
12. MET 386 – Metrology for Engineering Technologist, MSU	-	2021-Present
13. AET 334 – Fluid Power, MSU	4.5/5	2015-Present
14. MET 324 – Strength of Materials and Dynamics, MSU	4.5/5	2015-2019
15. MET 427/527 – Quality Management Systems, MSU	4.5/5	2015-2019
16. MG 453 – Quality Management Systems, UWA	3.2/4	2013-2015

17. BQ 371 – Business Analytics, UWA	3.6/4	2013-2015
18. MG 322 – Manufacturing Process Management, UWA	3.4/4	2013-2015
19. TY 210 – TPM and Mechanical Systems, UWA	3.4/4	2013-2015
20. MG 455 – Safety Risk Management, UWA	3.2/4	2014-2015
21. TY 230 – Blueprint Reading and Drafting, UWA	3.0/4	2015
22. MG 351 – Managing Occupational Safety and Health, UWA	3.4/4	2015
23. BQ 271 – Business Statistics, UWA	3.8/4	2014
24. TY 240 – Fluid Power, UWA	3.5/4	2014
25. AU 201 – Fundamentals of Automotive Technology, UWA	3.4/4	2013
26. IE 3913 – Engineering Economy I, Mississippi State University	3.9/5	2012
27. Physics, Inorganic Chemistry, and Mathematics, Engineering Admission Coaching in Bangladesh	N/A	1998-2005

PUBLICATIONS 2008-Present

CREATOR OF THE OPEN EDUCATOR 2017-Present

Video demonstrations on the difficult to learn topics/subjects. All Examples are created/written by me based on the current real-life industrial problems. Open to all over the world for free of cost. Channel is not monetized to minimize learners' distractions!

www.TheOpenEducator.com

www.YouTube.com/TheOpenEducator

YouTube Channel Statistics: <https://socialblade.com/youtube/c/theopeneducator>

Open-Source Online Textbook 2020

1. **Ahmed, S.**, (2020). *Design of Experiments*. The Open Educator.
<https://www.theopeneducator.com/doi>

Featured Article on my Teaching philosophy and method 2016

2. **Ahmed's** philosophy and theory of Teaching. Case Study: The human factors of teaching, by David Brandt, *Institute of Industrial and Systems Engineers Society official magazine*, 48, (8).

<http://faculty.mnsu.edu/shaheenahmed/theory-of-teaching/>

<http://faculty.mnsu.edu/shaheenahmed/teaching-philosophy/>

Refereed Journal Articles 2013-Present

3. **Ahmed, S.**, Babski-Reeves, K., DuBien, J., Webb, H., & Strawderman, L. (2016). Fatigue Differences between Asian and Western Populations in Prolonged Mentally Demanding Work-Tasks. *International Journal of Industrial Ergonomics*, 54, 103-112. 2016
4. Huang, Y., Strawderman, L., Babski-Reeves, K., **Ahmed, S.**, & Salehi, A. (2013). Training Effectiveness and Trainee Performance in a Voluntary Training Program: Are Trainees Really Motivated? *Nonprofit and Voluntary Sector Quarterly*. 2013

Refereed Conference Proceedings 2008-Present

5. **Ahmed, S.**, (2017). Theory of Sustained Optimal Challenge in Teaching and Learning. *Proceedings of the 2017 International Annual meeting of Human Factors and Ergonomics Society*, Austin, TX, USA, October 9-13. 2017
 6. **Ahmed, S.**, Babski-Reeves, K., and DuBien, J., and Webb, H. (2014). A Proposed Relationship between Time and Load to Quantify Fatigue. *Proceedings of the 2014 International Annual meeting of Human Factors and Ergonomics Society*, Chicago, IL, USA, October 27-31. 2014
 7. **Ahmed, S.** and Babski-Reeves, K. (2012). Assessment of Upper Extremity Postures in Novice and Expert during Simulated Carpentry Tasks. *Proceedings of the Human Factors and Ergonomics Society, 56th Annual Meeting*, Boston, MA, USA, October 22-26. 2012
 8. **Ahmed, S.** and Babski-Reeves, K. (2011). Making Life Meaningful: Designing Workstations for Physically and Cognitively Impaired Adults. *Proceedings of the Human Factors and Ergonomics Society, 55th Annual Meeting*. Las Vegas, NV, USA, September 19-23. 2011
 9. **Ahmed, S.** and Babski-Reeves, K. (2009). Analysis of Subjective Body Discomfort Ratings during Simulated Prolonged Driving Tasks: What Measures are most Effective? *Proceedings of the Human Factors and Ergonomics Society, 53rd Annual Meeting*. San Antonio, TX, USA, Oct. 19-23. 2009
 10. Salehi, A., Huang, Y., Strawderman, L. Babski-Reeves, K. and **Ahmed, S.** (2009). Effectiveness of Three Training Delivery Methods in a Voluntary Program. *Proceedings of the Human Factors and Ergonomics Society, 53rd Annual Meeting*. San Antonio, TX, USA, October 19-23. 2009
 11. **Ahmed, S.**, Strawderman, L. and Babski-Reeves, K. (2008). Evaluation of a Conceptual Warning System for Mobile Phone Use While Driving to Increase Public Awareness. *Proceedings of the Human Factors and Ergonomics Society, 52nd Annual Meeting*, New York, NY, USA, September 22-26. 2008
- Refereed Conference Posters / Abstracts** 2009-Present
12. Guerrero, A., Miller, C., Gruber, J. & **Ahmed, S.** (2021). Ergonomics of a Giant Door Manufacturing Process Evaluated. *24th Annual Applied Ergonomics Conference*. Virtual, March 19-25. 2021
 13. Meyer, M., Burnham, D., Noeldner, B. & **Ahmed, S.** (2021). Warehouse Storage Facility Ergonomics. *24th Annual Applied Ergonomics Conference* in virtual, March 19-25. 2021
 14. Buckley, M., Holmes, I., Larson, A. & **Ahmed, S.** (2020). Ergonomics of Lifting a 500-Pound Object Manually and Safely. *23rd Annual Applied Ergonomics Conference* in virtual, March 16-19. 2020
 15. Tasler, C., Ortiz, F., Rickleff, L., & **Ahmed, S.** (2020). Ergonomics of Hydraulic Insertion Press Job Evaluated and Redesigne. *23rd Annual Applied Ergonomics Conference* in virtual, March 16-19. 2020
 16. Welscher, D., Stutsman, L., Buchman, S. & **Ahmed, S.** (2019). Tire Shop Ergonomics. *22th Annual Applied Ergonomics Conference* in New Orleans, Louisiana, March 25-28. 2019

17. Sanchez, G., G., Nielsen, C., Bartho, R., White, S., & **Ahmed, S.** (2019). Evaluation and Redesign of the Glue Spraying Process for Boat Manufacturing. *22th Annual Applied Ergonomics Conference* in New Orleans, Louisiana, March 25-28. 2019
18. Hee Jin, S. & **Ahmed, S.** (2018). Anthropometric Evaluation of the Formula SAE Car: A pilot study. *21th Annual Applied Ergonomics Conference* in Atlanta, Georgia, March 26-29. 2018
19. Antolak, J. Paulson, P, & **Ahmed, S.** (2018). Ski/Snowboard Tech Shop Ergonomics. *21th Annual Applied Ergonomics Conference* in Atlanta, Georgia, March 26-29. 2018
20. Ryan, M., Caffin, B., Goettl, C., & **Ahmed, S.** (2018). Ergonomics vs Traditional Squat Bar: A pilot study. *21th Annual Applied Ergonomics Conference* in Atlanta, Georgia, March 26-29. 2018
21. **Ahmed, S.** (2014). The Ergonomic Teaching and Learning Application of Human Factors & Ergonomics in Effective Class Room Teaching. *17th Annual Applied Ergonomics Conference* in Orlando, Florida, March 24-27. 2014
22. **Ahmed, S.** & Babski-Reeves, K. (2014). A Pilot Study on Human Fatigue: Induced by Prolonged Mentally Demanding Work-Tasks. *17th Annual Applied Ergonomics Conference* in Orlando, Florida, March 24-27. 2014
23. Cobb, D., Gokaraju, B. and **Ahmed, S.** (2014). Using GIS for Recruiting in Higher Education. *2014 Annual Conference of The Association of Technology, Management, and Applied Engineering.*, St. Louis, Missouri, November 19-22. 2014
24. **Ahmed, S.**, Nash, K., Babski-Reeves, K. and Strawderman, L. (2011). Content Design and Presentation for University Websites. *MSU Human Factors Working Group*, MS, USA, April 13. 2011
25. **Ahmed, S.** and Babski-Reeves, K. (2009). Effects of automotive seating foam and perceived buttock discomfort ratings. *Proceedings of the Industrial Engineering Research Conference*. Miami, FL, May 30-June 3. 2009
26. **Ahmed, S.** Babski-Reeves, K. and Mendoza, P. A. (2009). Communication User Interfaces for Long Haul truck Drivers: Design Implications. *Proceedings of the Industrial Engineering Research Conference*. Miami, FL, USA, May 30-June 3. 2009
27. **Ahmed, S.**, Strawderman, L., Babski-Reeves, K., Haung, Y. and Salehi, A. (2009). Evaluating Training Effectiveness of the National Highway Watch[®] Program. *Transportation Workshop at Mississippi State University, Mississippi State, MS, USA*, February 6, 2009. 2009
28. Patnaik, S., **Ahmed, S.**, Littlejohn, R., Blackledge, C., Carruth, D., Babski-Reeves, K., Tarapore, A., Close, D. and Nash, K.(2009). Comparison of Postural Analysis Techniques: Application of Ergonomic Tools with a Law Enforcement Perspective. *Proceedings of the Industrial Engineering Research Conference*. Miami, FL, USA, May 30-June 3. 2009
- Refereed Journal Articles is in Progress** 2020-2021
29. What Causes the Difference in Fatigue Between Ethnic Groups in the Workplace? 2021
30. Effectiveness of Cortisol Hormone Secretion as an Objective Measure of Fatigue 2021
31. Post-Pandemic Application of Theory of Sustained Optimal Challenge in Teaching and Learning 2021-2022

Invited and Campus Talk	2013-Present
32. Ahmed. S. (2017). Bring all your students in the same page before meeting them in the classroom. <i>Minnesota State University, Mankato, MN 56001.</i>	2017
33. Ahmed. S. (2016). Resume Writing Tips, AMET students, <i>Minnesota State University, Mankato, MN 56001.</i>	2016
34. Ahmed. S. (2015). Philosophy of Teaching, <i>Minnesota State University, Mankato, MN 56001.</i>	2015
35. Ahmed. S. (2015). Human Fatigue in Prolonged Mentally Demanding Work-tasks, <i>Minnesota State University, Mankato, MN 56001.</i>	2015
36. Ahmed. S. & Cobb, D. (2015). Using GIS for Recruiting and Retention, Co-presenter at the Grand Design Luncheon, <i>University of West Alabama, Livingston, AL 34570.</i>	2015
37. Ahmed. S. (2015). What is Engineering Technology? Presented to the Business Learning Community in Gilbert Hall, <i>University of West Alabama, Livingston, AL 34570.</i>	2015
38. Ahmed. S. (2014) Teaching Philosophy of Shaheen Ahmed, Presented at the Grand Design Luncheon, <i>University of West Alabama, Livingston, AL 34570.</i>	2014
39. Ahmed. S. (2013). Human Fatigue in Prolonged Mentally Demanding Work-tasks, <i>University of West Alabama, Livingston, AL 34570.</i>	2013
CONTINUING PREPARATION AND STUDY	2008-Present
Active Participations in Professional Meetings	2008-Present
1. 24 th Annual Applied Ergonomics Virtual Conference, March 19-25	2021
2. 23 rd Annual Applied Ergonomics Conference in Louisville Kentucky, March 16-19. Scheduled to presented two posters with six undergraduate students as co-authors. Scheduled to moderate a Session.	2020
3. 22 nd Annual Applied Ergonomics Conference in New Orleans, Louisiana, March 25-28. Presented two posters with six undergraduate students as co-authors. Moderating a Session. Volunteered for the Board of Certified Professional Ergonomist (BCPE)	2019
4. 21 st Annual Applied Ergonomics Conference in Atlanta, Georgia, March 26-29. Presented three posters with six students as co-authors	2018
5. 2017 International Annual Meeting of Human Factors and Ergonomics Society (HFES), Austin, TX. Presented my Theory of Teaching and Learning.	2017
6. Performance Racing Industry (PRI) Show/Conference. Take students to the PRI show to explore more options for student's design of their racing car (FSAE, MSU, Mankato) for the competition in May, 2016. December 9 th -12 th , 2015, Indiana Convention Center, Indianapolis, IN.	2015
7. 2015 Alabama Automotive Manufacturers Association (AAMA) bi-annual match-making events, Renaissance Montgomery Hotel & Convention Center, 201 Tallapoosa Dr. Montgomery, AL 36104. April 14-15. Represented the automotive programs at the University of West Alabama, as well as created partnerships with both government agencies and industries.	2015
8. 2014 International Annual Meeting of Human Factors and Ergonomics Society (HFES), Chicago, IL. Article presentation, chairing a sessions, co-chair two sessions, and mentoring a PhD candidate.	2014

9. 17th Annual Applied Ergonomics Conference, Orlando, FL. Two Posters Presentation, Round-Table Speaker, and Session Chair. 2014
 10. Annual Conference of the Association of Technology, Management, and Applied Engineering (ATMAE), New Orleans, Louisiana. Trained to become an evaluator of ATMAE accreditation board. 2013
 11. 56th Annual Conference of Human Factors and Ergonomics society, Boston, MA. Session Co-Chair, and Presented a Refereed article. 2012
 12. 55th Annual Conference of Human Factors and Ergonomics society, Las Vegas, NV. Presented a Refereed article. 2011
 13. Human Factors Working Group, Mississippi State University, USA Presented a poster. 2011
 14. 53rd Annual Conference of Human Factors and Ergonomics society, San Antonio, TX. Presented a Refereed Article, and Volunteer as a tour guide to a local shoe industry. 2009
 15. Institute of Industrial Engineering Research Conference, Miami, FL Presented A Refereed Article, and Two Posters/Abstracts. 2009
 16. Transportation Workshop at Mississippi State University, Mississippi State, MS. Presented a poster. 2009
 17. 52nd Annual Meeting of Human Factors and Ergonomics society, New York, NY. Presented a Refereed Article. 2008
- Certifications & Trainings** 2011-Present
Other significant training in addition to CPE, CQE and PE
18. Over 100s of in-job trainings for professional development 2015-Present
 19. Certified by Quality Matters, Specialized for online teaching and learning. 2017
<https://www.qualitymatters.org/>
 20. Program-Level Assessment, Center for Excellence in Teaching and Learning (CETL) – Minnesota State University, Mankato 2016-2017
 21. Flipped Instruction Classroom Model, Center for Excellence in Teaching and Learning (CETL) – Minnesota State University, Mankato 2016-2017
 22. Shadow Dr. Evers's AET 364 to learn his teaching methods, techniques, and tips. 2017
Minnesota State University, Mankato
 23. Team-Based Learning, Center for Excellence in Teaching and Learning (CETL) – Minnesota State University, Mankato 2015-2016
 24. Assessment of Student Learning, Center for Excellence in Teaching and Learning (CETL) – Minnesota State University, Mankato 2015-2016
 25. Students Consulting On Teaching (SCOT) Program Evaluation on MET 427/527 Quality Management Systems – Minnesota State University, Mankato 2016
 26. Students Consulting On Teaching (SCOT) Program Evaluation on MET 324 Strength of Materials and Dynamics – Minnesota State University, Mankato 2016
 27. Shadow Dr. Evers's AET 160 to learn his teaching methods, techniques, and tips. 2016
Minnesota State University, Mankato

28. Feedback on the Course Design and Materials from Industry Advisory Board Member and Chair, Recarda Schmitz, Engineering Manager at Coloplast. Currently at 3M. 2015
29. Certified by the “Preparing Future Faculty” at Mississippi State University. Details on the program can be found at <https://www.ctl.msstate.edu/programsandservices/preparingfuturefaculty/> 2011-2012

SERVICES TO MSU, MY PROFESSION AND BEYOND 2013-Present

Committee Services and Understanding the Academia

1. University Assessment and Evaluation Committee, MSU, Mankato 2019-Present
 1. Leading the revision for the assessment procedure of the service and cocurricular programs
2. GECIC Chair, University Common Curriculum Assessments, Goal Area 3: Natural Science. MSU, Mankato 2017-2018
 1. Lead the analysis and report writing
3. University Common Curriculum committee (formerly known as General Education and Diversity) MSU, Mankato 2016-2018
 1. Reviewed over **139 Course proposals in the general education and diversity area** submitted for review between 2016 and 2018
 2. Reviewed uncountable number of students appeals (more than 100)
 3. Reviewed and modified the general education assessments
4. University Writing Advisory Committee (WAC), MSU, Mankato 2017-2018
 1. Review and made recommendations 15 proposals
 2. Developed/modified the writing-intensive review process
 3. Reviewed and provided feedback on the 2016-17 strategic plan
 4. WAC program assessment
5. Redesigning and Developing department website, as well as the website for Minnesota Center for Automotive Research, MSU, Mankato 2015-Present
6. Department Personnel Committee, MSU, Mankato 2015-Present
7. ABET Accreditation Committee, AMET, MSU, Mankato 2018-2019
8. AMET Faculty Search Committee, MSU, Mankato 2017-2018
9. AMET Faculty Search Committee, MSU, Mankato 2016-2017
10. Attending all Industrial Advisory Board Meetings 2015-Present
11. Chair of the Faculty Hiring Committee in the College of Business for the position of Tenure-track position in Statistics and Quantitative Analysis. UWA 2015
12. Chair of Continuous Improvement of the Operating Principles of the College of Business, UWA to execute an accreditation requirement by the Accreditation Council for Business Schools and Programs, ACBSP. Similar to ABET Continuous Quality Improvement, and ISO Continual Improvement. 2014-2015
13. Team Member, Accreditation Committee, College of Business, UWA 2014-2015
14. Leading team member, collaboration with local industries to create state-of-the-art programs as per the requirements, UWA 2014-2015
15. University Research Committee, UWA 2013
16. College of Business Research Committee, UWA 2013-2015

17. Leading team member, Development of Auto-Technician Training Program collaboration between Mercedes-Benz and the UWA 2013-2015
18. Team member, establishing a laboratory for the Auto-Technician Training Program at the UWA 2013-2015
19. Industrial tour for the students in automotive program Mercedes-Benz U.S. International, Inc., Vance, Alabama 2013
20. Industrial tour for the students in automotive program Hyundai Motor Manufacturing Alabama, Montgomery, Alabama 2013
- Service to my Profession: Accreditation Evaluator, Reviewer, & Editor** 2013-Present
21. Actively serving in the Board of Certification in Professional Ergonomics, BCPE. <http://www.bcpe.org/>. Continuously (each year) serving as one of the question writers for the CPE certification exams since 2017. 2017-Present
22. Actively serving in the Board of Certification in Professional Ergonomics, BCPE. <http://www.bcpe.org/>. Volunteered, BCPE booth at the Applied Ergonomics Conference in 2019. 2019
23. Editorial board member in the International Journal of Mechatronics and Automotive Research (IJMAR). 2017-Present
24. Manuscript Review: International Journal of Industrial Ergonomics. 2016-Present
25. Manuscript Reviewer: WORK: A Journal of Prevention, Assessment, and Rehabilitation. 2016-Present
26. Manuscript Reviewer: Sleep Health: Journal of the National Sleep Foundation. 2008-Present
27. Manuscript Reviewer: Society of Automotive Engineers, SAE 2012-Present
28. Manuscript Reviewer: Journal of Advances in Mechanical Engineering 2013-Present
29. Book Reviewer: Human Factors and Ergonomics for Taylor and Francis Publisher 2015-Present
30. Accreditation Evaluator for Association of Technology, Management, and Applied Engineering (ATME) 2013-Present
31. Manuscript Review, Proceedings of Human Factors and Ergonomics Society Annual Meetings. 2008-Present
- Service to the Community: Community Involvement and Outreach** 2018
32. Science Fair for Elementary School Students, MSU, Mankato (expecting) 2021
33. Science Fair for High School Students, MSU, Mankato (expecting) 2021
34. Special Award Judge, Science Fair for Elementary School Students, MSU, Mankato 2020
35. Special Award Judge Coordinator, Science Fair for High School Students, MSU, Mankato 2020
36. Special Award Judge, Science Fair for Elementary School Students, MSU, Mankato 2019
37. Special Award Judge Coordinator, Science Fair for High School Students, MSU, Mankato 2019
38. A member of the Bicycle Advisory Group at Minnesota State University, Mankato. Improving bicycle experience for MSU community 2018-Present
39. Science fair judge for High school students, MSU, Mankato 2018-Present

40. Science fair judge for Elementary school students, MSU, Mankato	2018-Present
41. MS150 Ride: 150 miles bike ride from Duluth, MN to Twin cities, MN to raise fund for MS research and patients. Fund Raised: over \$350	2018
42. Presented in Engineering and Academic Days, MSU, Mankato	2017
43. Paper Reviewer to Science Fair, MSU, Mankato	2017
44. MS150 Ride: 150 miles bike ride from Duluth, MN to Twin cities, MN to raise fund for MS research and patients. Fund Raised: over \$350	2017
45. MS150 Ride: 150 miles bike ride from Duluth, MN to Twin cities, MN to raise fund for MS research and patients. Fund Raised: over \$350	2016
46. What is Engineering and Technology? How do engineers design products and services? Middle school students, Demopolis, AL	2013
47. Judge in the Vintage Car show at UWA in Homecoming 2013	2013
48. Science fair judge for K-5 students, Outreach program, Mississippi State Univ.	2012
COMMUNICATION, ORGANIZATION, LEADERSHIP & MANAGEMENT	2006-Present
1. Faculty Advisor , SME & APICS student chapters, MSU, Mankato	2018-Present
2. Faculty Advisor , Bangladesh Student Organization, MSU, Mankato	2016-Present
3. Vice President of students, American Production and Inventory Control Society (APICS) Southern Minnesota Student Chapter	2018-Present
4. Team Leader , International fiesta to represent Bangladesh, its food and culture, MSU	2011
5. President , Bangladesh Association, Mississippi State University. Revived the association	2008-2010
6. Team Leader , Organization of the Bangladesh Night, Mississippi State University	2009
7. President , Association of Bangladeshi Students, Chalmers University of Technology,	2006
8. Team Leader , Organization of the Happy New Year, Chalmers University of Tech.	2006
PROFESSIONAL MEMBERSHIPS	2008-Present
1. Human Factors and Ergonomics Society, HFES	2008-Present
2. Applied Ergonomics Society, AES (Member since the inception of the society)	2019-Present
3. American Society for Quality, ASQ	2019-Present
4. Society of Automotive Engineers, SAE	2008-Present
5. Institute of Industrial Engineers, IIE	2009-Present
6. Design and Emotion Society	2009-Present
7. Association of Technology, Management, and Applied Engineering, ATME	2013-2014
8. Higher Education Partnership, HEP, Advocates of Alabama's Public Univ.	2013-2015
SOFTWARE, HARDWARE, TOOLS, METHODS, & PROGRAMMING SKILLS	2000-Present
1. Human Factors and Ergonomics: Numerous Tools and Methods, including 3D Motion Capture, EMG Systems, Pressure Map, and Modeling. Measurements of Changes in Endocrine, cardiovascular and musculoskeletal systems. A comprehensive list for Ergonomics Tools and Methods: http://www.theopeneducator.com/ergonomics	2008-Present
2. Statistics: SAS, SPSS, Minitab, and MS Excel.	2010-Present
3. Human Modeling: AnyBody Modeling System.	2010-2016
4. Data Visualization: Advanced Visual Systems (AVS/Express).	2012-2014

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| 5. Mechanical & Industrial Engineering: ALIAS, RTT, CATIA, AutoCAD, Pro/ENGINEER, ProModel | 2000-2009 |
| 6. Programming Language: C. | 2000-2009 |

PROJECTS

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| <ol style="list-style-type: none"> 1. Supervise and mentor human factors and ergonomics projects with local industries <ul style="list-style-type: none"> • Analysis, design, validation and integration at the product, process, organization, job, task, environment, element and system levels • Over twenty projects (10) completed since 2015 <ul style="list-style-type: none"> ○ Seven (7) of which are published in the Applied Ergonomics Conference • Trained students on principles, tools, and methods in cognitive, physical and organizational ergonomics. Few examples include <ul style="list-style-type: none"> ○ Occupational biomechanics, occupational physiology, work station design using anthropometric principles, NIOSH lifting equation, Borg Scale, SOFI, RULA, REBA, Snook Table, Strain Index, temporal ergonomics, work climate evaluation, noise, OSHA standards, time study and work measurement, methods-time measurement, MTM-1, MTM-2, and MOST 2. Supervise and mentor formula SAE students at MSU in vehicle cockpit ergonomic analysis, design, validation and system integration, including, <ul style="list-style-type: none"> • Anthropometric data collection and analysis • Develop wood vehicle cockpit prototype in determining the measurements • Finally, integrating design into the fabrication of the formula SAE vehicle • MSU ranked 17 in the world in 2016 competition, got more points in ergo design 3. Supervise students in emission testing in the EPA recognized lab at MSU <ul style="list-style-type: none"> • Statistical quality, gage R&R, MSA, DOE, process performance and control 4. Human fatigue in prolonged mentally demanding work-tasks: an observational study in the field. Funded by the Department of Industrial and Systems Engineering, MSU <ul style="list-style-type: none"> • Design of experiment, data collection, analysis and report writing • Objective measures including changes in autonomous nervous and endocrine system <ul style="list-style-type: none"> ○ Analyzed cortisol hormone, heart rate, psychophysics, SOFI, Borg, NASA-TLX, workload, and fatigue • Extensive use of Statistical Analysis System (SAS) 5. Scientific data visualization for relay engineers. Funded by the Department of Energy, DOE <ul style="list-style-type: none"> • Big data analysis and visualization, including factor and cluster analyses using of SAS • Visualization of Phasor Measurement Units (PMU) big data using AVS/Express 6. Quantify and contrast expert and novice worker strategies and associated ergonomic risks for selected carpentry tasks in residential construction. Funded by The National Institute for Occupational Safety and Health (NIOSH) <ul style="list-style-type: none"> • Leading team member of design and analysis of experiment • Trained undergraduate/graduate coworkers/students to run the experiment • Electromyography and 3D motion capture – experimental setup and data collection • Developed a human model in AnyBody Modeling System for MoCap data analysis • Extensive use of Statistical Analysis Systems (SAS) 7. Investigation of the effects of increased coverage area for soft body armor. Funded by National Institute of Justice (NIJ) <ul style="list-style-type: none"> • Trained researchers on pressure mapping system data collection and analysis | <p>2015-Present</p> <p>2015-Present</p> <p>2015-Present</p> <p>2010-Present</p> <p>2011-2013</p> <p>2010-2012</p> <p>2009-2012</p> |
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- Design and analysis of experiments for pressure mapping system data
8. The national highway watch analysis and improvement program. Funded by the Department of Homeland Security (DHS) 2009-2011
 - Reviewed the existing training program
 - Determined the strengths and weaknesses, suggested action items
 - Survey data analysis using SAS and report writing
 9. Effect of backrest angle on operator discomfort. Funded by the Department of ISE, MSU. 2008-2010
 - Design and analysis of experiments
 - Pressure mapping system data collection and analysis
 - Psychophysics and perceive rating of exertion/Borg/SOFI scale
 - Use of a driving simulator
 10. Designed workstations for physically and cognitively impaired adults. Volunteered to serve to a local state funded organization in Louisville, MS 2009
 - Design of experiment, data collection, analysis and report writing
 - Use of anthropometry and workstation design principles
 - Designed and developed 2 workstations
 11. The relationship between muscle activity and thermographic readings of the shoulder muscles. Funded by the Department of Industrial and Systems Engineering, MSU. 2007-2009
 - Evaluated of cycle time, fatigue, and discomfort using psychophysics and Borg scale
 - Trained undergraduate student workers and run the experiment
 - Analyzed both subjective and objective data, including the thermographic data
 12. Validation of optimization-based formulations and performance of dynamic human models. Funded by the Tank Automotive Research, Development and Engineering Center (TARDEC). 2007-2008
 - Range of Motion (ROM) data collection
 - Trained undergraduate and graduate team members in ROM data collection
 - Run 3D motion capture camera systems
 13. The development and enhancement of current delivery service provider training programs to improve safety and driving performance of UPS drivers. Funded by United Postal Service (UPS). 2007
 - Evaluated and suggested changes in the final training program for UPS drivers
 14. Cab development for the next generation truck driver. Funded by Volvo Truck, Gothenburg, Sweden. 2006
 - Leading team member of a large design group of 17 students
 - Extensive teamwork that includes brainstorming and hand sketching
 - CAD drawing using CATIA, ALIAS and RTT
 - Proposed redesign of the entire Cab for long-haul trucks
 - Presented final design recommendations to Volvo, Gothenburg, Sweden
 15. Design, construction and fabrication of an impact testing machine for plastic materials Funded by the Department of ME, Bangladesh University of Engineering and Technology 2003
 - Led the design and development of an impact testing machine for plastic materials
 - Developed process starts from scratch to finished product
 - Used Welding, Drilling, Milling, and Lathe machines
 - Developed the lab test protocol
 - Since then, the machine is being used for lab/project purposes in BUET