

MUNSUR RAHMAN

Department of Civil and Mechanical Engineering
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Education

- ❖ **Ph.D. in Mechanical Engineering**, University of Missouri-Kansas City (UMKC), Kansas City, Missouri, USA, 2014 – pursuing
- ❖ **Master of Science in Mechanical Engineering**, University of Missouri-Kansas City, Kansas City, Missouri, USA, 2012-2013
- ❖ **Bachelor of Science in Mechanical Engineering**, Bangladesh University of Engineering & Technology, Dhaka, Bangladesh, 2004-2009

Professional experience

- **Graduate Research Assistant**, Musculoskeletal Biomechanics Research Laboratory, University of Missouri-Kansas City, Kansas City, Missouri, USA
 - Project tile: Developing musculoskeletal model of human upper extremity
 - Duration: June 2014 - Present
- **Graduate Research Assistant**, Department of Biomedical Engineering, Stony Brook University, Stony Brook, New York, USA
 - Project tile: Developing finite element model of human stem cell
 - Duration: January 2014 - May 2014
- **Graduate Research Assistant**, Musculoskeletal Biomechanics Research Laboratory, University of Missouri-Kansas City
 - Project tile: Developing computational multibody model of human elbow joint
 - Duration: January 2012 – December 2013
- **Assistant Director**, Walton Hi-Tech Ind. Ltd, Ltd.-(Biggest manufacture of Refrigerator, Air Condition, T.V, Motorcycle, and Cell Phone), Gazipur, Dhaka, Bangladesh.
 - Job responsibility: Design and Manufacturing of various company own usable machine (e.g. Power press, Extruder Machine, Mixture machine, Dust Separator etc.)
 - Job duration: April 2011 – December 2011
- **Maintenance Engineer**, Beximco Textile (Pvt.) Ltd. – (Prominent manufacturer of garments and textile products in Bangladesh), Gazipur, Dhaka, Bangladesh.
 - Job responsibility: Maintenance, overhauling and troubleshooting of warping, sizing, yarn dyeing and winding machine
 - Job duration: May 2009 – January 2010

Research experience

➤ **Ph.D. Research Project:**

Title: Development and validation of musculoskeletal model of human upper extremity

Institute: Department of Mechanical Engineering, University of Missouri-Kansas City, Kansas City, Missouri, USA.

Advisor: Dr. Antonis P. Stylianou

Duration: June 2014- Present

➤ **Master's Thesis:**

Title: Development and validation of a computational mutibody model of human elbow joint

Institute: Department of Mechanical Engineering, University of Missouri-Kansas City, Kansas City, Missouri, USA.

Advisor: Dr. Trent M. Guess

Duration: January 2012- December 2013

➤ **Undergraduate Thesis:**

Title: Analyzing the effects of external forces & boundary conditions on the 3D wedge shape elastic body made of isotropic & FGM by finite element method

Institute: Department of Mechanical Engineering, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh

Advisor: Dr. M. Ashiqur Rahman

Duration: January 2008- February 2009

Publications

- **Rahman, M.,** Cil, A., Johnson, M., Lu, Y., Guess, T.M., “Development and Validation of a Computational Multibody Model of the Elbow Joint”, Advances in Biomechanics & Applications, 2014. 1(3): p. 169-185.

Conference presentation

- **Rahman, M.,** Guess, T.M., Johnson, M., Cil, A., “Development and Validation of a Computational Multibody Model of the Elbow Joint”, 37th Annual Meeting of the American Society of Biomechanics, Omaha, Nebraska, September 2013
- **Rahman, M.,** Cil, A., Stylianou, A., “Prediction of elbow joint contact pressures in the multibody framework”, Under review, SB³C2015, Utah, USA

Skills

◇ **Software and Programming Skills:**

Programming Languages: C, C++, MATLAB, Simulink

Simulation software: MD ADAMS, ABAQUS

Design Software: Geomagic, AutoCAD (2D, 3D), Solid Works

Operating system: Windows, Mac

Others: OpenSim, 3D Slicer, Arctec Studio, Microsoft office Package, Adobe Photoshop, Illustrator

◇ **Team Work:**

- Worked as an **international student ambassador** as a group with other eight international student ambassadors
- As part of my course I participated in various group projects namely our junior year Instrumentation project: “**Design & Manufacture of Electronic Strainer** ”.

◇ **Communication:**

- Excellent verbal and written skills (English & Bengali).
- Smart conversation and presentation skills.
- Strong communication and interpersonal skills with a proactive approach.

Training experience

- 3 weeks Industrial Attachment in **Jamuna fertilizer company limited**, Jamalpur, Bangladesh
- Field of study:
 - Overview of Manufacturing Process
 - Study about the various components and their practical applications.

Academic excellence

- Awarded Research Assistantship to pursue Ph.D. on computational modeling development in the mechanical engineering department, UMKC
- Awarded Research Assistantship to pursue M.S. on computational modeling development in the mechanical engineering department, UMKC
- Awarded full financial support to attend a workshop and conference titled “37th Annual Meeting of the American Society of Biomechanics”, Omaha, Nebraska, September 2013
- Awarded International Student Ambassador Program scholarship in UMKC from August 2013 to December 2013
- Received Junior High School Scholarship
- Received Scholarship from the district due to first place in the district in HSC exam.
- Received ‘Rajshi Board Scholarship’ for achieving excellence in the HSC exams.
- Achieved many awards in high school athletics and cultural program

Affiliations

- American Society of Mechanical Engineers (ASME).
- Bangladesh Society of Mechanical Engineers (BSME).
- Mechanical Engineering Association of BUET (MEA-BUET).
- BUET Environmental Watch.
- BUET Drama Society.
- BUET Debate Club

Hobbies

- **Sports:** Soccer, Cricket, Volley ball, Basketball, and Swimming
- **Social Activities:** Served as president of BADHON- BUET’s voluntary blood donors' association. Served as a member of Social welfare club, Bangladesh