

LUBNA AHMED

Graduate Research Assistant (PhD), Texas A&M University
3122 TAMU, Rm 609, Jack E Brown Building, College Station, TX-77843

Phone: 9797397463

Email: lubna.ahmed@tamu.edu

Objective

Chemical Engineering Graduate seeking 2016-17 Internship or Co-op opportunities

Education

Dec, 2017 (Expected) **Texas A&M University (TAMU), College Station, TX**
Ph.D. Candidate in Chemical Engineering, Mary Kay O'Connor Process Safety Center (MKOPSC), GPA 3.88

Nov, 2010 **Bangladesh University of Engineering and Technology (BUET)**
Bachelor of Science, Chemical Engineering, GPA 3.79

Professional Experience

Jun, 2014-present **Project Participation, MKOPSC, TAMU**
Research Project (NSF Funded): Flame Retardancy of Polymer Nanocomposites
Synthesis and characterization of polymer nanocomposites to study the physical barrier and catalytic charring effect during pyrolysis through kinetic modeling.

Feb, 2014-present **Ocean Energy Safety Institute**
Jan- May, 2015 **Comparison between US regulations and UK HSE:** Conducted comprehensive comparison among the Safety and Environmental Management System (SEMS), Health and Safety Executive (UK HSE) and Norway PSA Framework to identify the gaps, similarities and inconsistencies between different regulatory regimes.

Aug, 2015-present **Human Factors in Offshore Drilling and Production:** Conducted applied research that informs re-engineering of the design lifecycle to include Human-System Integration and Human-centered design.

Jul, 2014-present **Advanced Procedure Research Study - A Human Factored Approach**
Incorporated information on regulatory compliance, input from interviews and surveys of operators and risk matrix associated with procedure risk ranking in developing an upgraded writer's guide.

Jan, 2014-present **Process Safety Taxonomy**
Developed and maintained Process Safety Taxonomy Wiki site while communicating with process safety experts for continuous review of taxonomy.

Nov, 2015-present **A Critical Analysis of Crude Oil Transportation by Rail**
Identifying the flammability characteristics and other properties of crude oil and developing correlation between variables for understanding the consequence of a railcar collision and subsequent explosion while transporting crude oil.

Nov-Dec, 2015 **Hazard and Risk Assessment of Garment Industries in Bangladesh**
Identified the recurring root causes of fire incidents and studied the involvement of Government and International entities subsequently in ensuring fire safety of Ready-Made-Garment (RMG) sector in Bangladesh.

Mar, 2011-Jul, 2013	Department of Chemical Engineering, BUET <i>Lecturer:</i> Taught Undergraduate Theory and Laboratory Courses to classes ranging in size from 50 to 60 students.
Mar, 2011-Jul, 2013	<i>Consultant and Lab Tester, Bureau of Research, Testing and Consultation (BRTC):</i> Experience with standard laboratory testing methods for compliance with ASTM, API standards; verified the design specification of the distillation column product in a refinery using Aspen Hysys.
April, 2010	ASM Chemical Industries Ltd., Gazipur, Bangladesh <i>Trainee Engineer:</i> Performed daily operation activities and prepared PFD, PID etc. around individual sections of caustic soda production plant.

Publications

2016	L. Hatanaka, L. Ahmed, S. Sachdeva, Z. Cheng, Q. Wang and Sam Mannan, 'Kinetics of Thermal Degradation in Cross-Linked Silica Nanocomposites'. <i>Thermochimica Acta</i> .(under review)
2016	Peres, S. C., Quddus, N., Rahmani, S., Kannan, P., Ahmed, L., Ritchey, P., Johnson, W., Mannan, M. S. 'Development of an effective procedure writer's guide using a human factors and regulatory compliance approach'. <i>Journal of Loss Prevention in the Process Industries</i> (submitted)
Dec 29-30, 2011	L. Ahmed, F. Quddus and M. A. A. S. Choudhury, 'Modeling of Air Pollution in Dhaka City from Northern Brick Kilns using AERMOD', International Conference for Chemical Engineers 2011, BUET, Dhaka, Bangladesh.

Professional Skills

Characterization Technique: Scanning Electron Microscopy (SEM), Differential Scanning Calorimetry (DSC), Thermogravimetric Analysis (TGA), X-Ray Diffractometer (XRD)

Software: AERMOD, Aspen HYSYS, GAMS, FORTRAN, AutoCAD, Solid Works, Labview, AgenaRisk, MATLAB, JMP and Microsoft Office

Risk Analysis Technique: Quantitative Risk Analysis, Bow-tie analysis, Fault/Event tree analysis, Dow Fire and Explosion Index, Human Factor Integration Tool

Awards and Honors

Oct, 2014	Recipient of 'Lamiya Zahin Memorial Safety Scholarship', TAMU
2006-2010	Full-Tuition Waiver in undergraduate studies for academic excellence at BUET
2006-2010	Dean's List Award, Engineering Faculty, BUET

Outreach/Volunteer Activities

2014-present	Active member, American Institute of Chemical Engineers (AIChE)
2016-17	Treasurer, Bangladesh Student Association (BSA), Texas A&M University

Work Authorization

Eligible to intern in the U.S. with Curricular Practical Training (CPT)