ADULLAH ARAFAT

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EDUCATION

The University of Utah, Salt Lake City, UT 84112, USA *Aug 2022 - Now*
(M.S) Master of Mechanical Engineering

Khulna University of Engineering and Technology (KUET)
Khulna 9203, Bangladesh *Feb 2017 - Mar 2022*
(B.S) Bachelor of Materials Science and Engineering CGPA: 3.65 (Among top 15%)

RESEARCH EXPERIENCE

The University of Utah, Salt Lake City, UT 84112, USA *Aug 2022 - Now*
MS Thesis Research

Integrated Multiphysics Laboratory (IMP) Lab

WORK EXPERIENCE

The University of Utah, Salt Lake City, UT 84112, USA *Aug 2022 - Now*
Graduate Teaching Assistant

Mechanics of Materials ME EN 3315

Emprotec Limited, Khulna 9100, BD *Nov 2018 - Aug 2022*
Design Engineer

Responsibilities:Designing LPG Spherical storage tanks, Cylindrical storage tanks, Ball valves and Actuated valves using SOLIDWORKS Designing P&ID of LPG network, P&ID of Fire fighting network, P&ID of Industrial air network, 3D Pipe Routing of different LPG Plants using AutoCAD Plant 3D and SOLIDWORKS Pipe Routing Designing Land Layouts of different LPG Plants using AutoCAD Designing different sample P&IDs using Microsoft Visio

FabLab KUET, Khulna 9203, BD *Aug 2019 - Mar 2020*
Student Operator

- Operated CNC Milling Machine (Roland MDX-540)
- Operated Laser Cutter (Epilog Laser MINI 18)
- Operated 3D Printer (Ultimaker 3)

PUBLICATIONS

Book Sections:

1. Mubin, Shafat, Jichen Li, and Steven Plimpton. Extending and Modifying LAMMPS Writing Your Own Source Code: A pragmatic guide to extending LAMMPS as per custom simulation requirements. Packt Publishing Ltd, 2021: Page(304-311)

Peer Reviewed Journals:

1. Hossain Sarkar, Md Mosarof, Md Sherajul Islam, **Abdullah Arafat**, ASM Jannatul Islam, Naim Ferdous, Md Tawabur Rahman, Minhaz Uddin Sohag, Md Al Imran Fahim, Catherine Stampfl, and Jeongwon Park. "Effects of the Substrate Structure on the CVD Growth of Two-Dimensional Hexagonal Boron Nitride." The Journal of Physical Chemistry C 126, no. 14 (2022): 6373-6384.

2. Komol, Md Mostafizur Rahman, Md Karimul Joarder, **Abdullah Arafat**, and Amit Kumer Podder. "Fingerprint and password controlled garage access system with belt pulley and power screw driven mechanism." International Journal of Advanced Mechatronic Systems 8, no. 1 (2020): 36-45.

3. Komol, Md Mostafizur Rahman, Amit Kumer Podder, **Abdullah Arafat**, and Tanzim Nabeed. "Remote sensing global ranged door lock security system via mobile communication." International Journal of Wireless and Microwave Technologies 9, no. 5 (2019): 25-37.

Conferences:

1. Md. Jarir Hossain, Md. Mahbubur Rahman, Fahim Islam Anik, MD Ikramul Hasib, **Abdullah Arafat**. "Numerical Investigation on Fatigue Life Estimation of Aluminum Structure for Uniaxial Cyclic Loading by Finite Element Modeling." International Conference on Mechanical Engineering and Renewable Energy 2019 (ICMERE2019)

AWARDS

1. **Department Dean List Award 2018** — Organized by KUET
   Academic Excellence in the Department

2. **Wash Innovation Challenge 2018** — Organized by UNICEF and BRAC
   Finalist (South Asia Region)

3. **9th International Olympiad On Astronomy and Astrophysics (IOAA)**
   Bangladesh National Team

4. **Ignition 2018 CAD Contest**
   Champion

5. **ASME CUET Extrusion CAD Contes**
   1st Runner up

6. **IPE Fest 2018 CAD Contest**
   2nd Runner Up

7. **Bangladesh Astronomy Olympiad**
   2nd and 1st in Divisional Round (2013, 2015)

TRAINING AND COURSES

- **From Atoms to Materials: Predictive Theory and Simulations** — Institution: PurdueX
  Platform: Edx — Status: Completed

- **Materials Data Sciences and Informatics** — Institution: Georgia Institute of Technology
  Platform: Coursera — Duration: 1 month. (August 2019) — Grade: 91.1% — Credential ID: 4NJG5524REYV

- **Python for Data Science and AI** — Company: IBM
  Platform: Coursera — Duration: 1 month. (February 2020) — Grade: 98% — Credential ID: MBAN9P4DZGBD

- **Design for Machining, Design for Additive Manufacturing, Abaqus Heat Transfer, Abaqus Stress Analysis, Abaqus Thermal Stress and Deformation, SOLIDWORKS Efficient Modeling and Design Intent, SOLIDWORKS Mold Tools and Plastic Design**
Platform: SOLIDprofessor — Duration: 2-3 months

SOFTWARE SKILLS

Modeling and Analysis	LAMMPS, Python, C++, Bash Scripting, VMD, Ovito, Vesta Materials Studio, ANSYS, SOLIDWORKS, AutoCAD Plant 3D.
Software & Tools	Key Shot 8, Adobe Illustrator CC19, Adobe Photoshop CC19, Microsoft Word, Microsoft PowerPoint, Microsoft Excel.

CERTIFICATIONS

- **Duolingo English Test (DET)**
Score: 135/160 — Organization: Duolingo
Credential link: certs.duolingo.com/7b97a1a4e3e85414886c5c28ae4461b0

- **Certified SOLIDWORKS Associate (CSWA) Examination**
Score: 240/240 — Organization: Dassault Systmes — Credential ID: C-49FPLUKRNS

- **Certified SOLIDWORKS Professional (CSWP) Examination**
Score: 318/318 — Organization: Dassault Systmes — Credential ID: C-A6HWVU5MSB

EXTRA-CIRRUCULAR ACTIVITIES

Organization: Youth Opportunities (YO) — Position: Campus Ambassador — Duration: 2018-2019

Organization: YSI Bangladesh — Position: Head of Campus Representatives — Duration: 2018-2019

Club: CADers — Position: Head of IT and Resource — Duration: 2018-2020

Club: Spectrum (Professional Skill Development Club of KUET) — Position: Chief Technology Officer (CTO) —Duration: 2017-2020

Club: KUET Career Club — Position: Head of IT and Resource — Duration: 2018-2022