# Umme Amina Mannan

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# **EDUCATION**

PHD IN CIVIL ENGINEERING University of New Mexico Albuquerque, NM May 2017 GPA 4.03/4.00

MS IN CIVIL ENGINEERING University of Akron Akron, OH August 2012 GPA 3.953/4.00

BSC IN CIVIL ENGINEERING Bangladesh University of Engineering & Technology Dhaka, Bangladesh August 2012 GPA 3.64/4.00

#### **LINKS**

Google Scholar:// Amina LinkedIn:// AminaEl

#### **GRADUATE COURSEWORK**

Foundation Engineering I Soil Improvement Advance Soil Mechanics Applied Numerical Methods I Geographic Information Systems

## **PAVEMENT SOFTWARE**

AASHTOWare • WinJULEA • KENPAVE • GIS • LTPP

#### **SOFTWARE**

ABAQUS • ANSYS • STAAD • AutoCAD • ArcGIS • SPSS • Microsoft Office • MS Project • OriginLab

#### **PROGRAMMING**

Matlab • LATEX • R • C • JAVA

#### **REVIEWING SERVICES**

• Applied Rheology • Journal of Testing and Evaluation • Transportation Research Board

## **WORKSHOPS**

- Introduction To Rheology with Anton-Paar • Asphalt Binder Extraction and Recovery (Rotavapor) for NMDOT
- DSR Testing for NMDOT

## RESEARCH EXPERIENCE

ASPHALT BINDER LAB | University of New Mexico & University of Akron 2012—Present & 2010—2012 | Albuquerque, NM & Akron, OH

- Conducted experiments on asphalt binders using RTFO, PAV, DSR, BBR and Rotational Viscometer
- Supervised and trained undergraduate, masters and new PhD students
- Coordinated communication between professors and suppliers

PAVEMENT LAB | University of New Mexico

2012-Present | Albuquerque, NM

- HMA mix design and volumetric properties of mixture
- Dynamic Modulus Test, Low-Temperature Thermal Cracking Test, Four-point Bending Beam Test, Hamburg Wheel Tracking (HWT) Test, Moisture Induced Sensitivity Test (MIST).

CHEMICAL TESTING | University of New Mexico & University of Akron 2010—Present | Albuquerque, NM & Akron, OH

• Experience on FTIR, GPC, DSC, TGA, SEM

#### **TEACHING EXPERIENCE**

MECHANICS OF MATERIALS | Instructor Spring 2015 | University of New Mexico, NM

Developed course syllabus, assignments and exams; handled teaching and grading with full responsibility; advised students during office hours

SOLID MECHANICS | Teaching Assistant Fall 2011 & Spring 2010 | University of Akron, OH

Graded the assignments; gave lectures while professor was out of town; advised students during office hours

SOIL MECHANICS & SOIL MECHANICS LAB | Teaching Assistant Fall 2010 & Spring 2012 | University of Akron, OH

Graded the assignments; advised students during office hours

Supervised undergraduate students during the lab; graded lab reports

#### **CERTIFICATIONS**

ENGINEER INTERN (E.I.) | Ohio Board of Registration for Professional Engineers and Surveyors

May 2012 | OH

#### **AWARDS**

2017	\$1,000	APANM Best Poster Award
2017	\$1,000	UNM Civil Engineering Scholarship
2016	\$2,000	APANM Asphalt Industry Scholarship
2016 & 2015	\$500	UNM Civil Engineering Travel Grant
2015	\$1,000	Elvidio V. Diniz, P.E. UNM Water Resources Scholarship, ASCE.
2014	\$500	Student Research Grant (SRG), GPSA, UNM

## **PROFESSIONAL AFFILIATIONS**

- University of New Mexico-Future Leaders in Pavement and Transportation (UNM-FLPT)
- Society of Women Engineers (SWE)
- New Mexico Section of American Society of Civil Engineers (ASCE)
- Engineers Without Borders UNM (EWB-UNM)
- American Society of Civil Engineers (ASCE)