Dr.Ahmed M. Ashetyat
Academic Rank: Professor

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EDUCATION:

- **Ph.D. Civil Engineering: Materials , May,2004, USA**
  Department of Civil Engineering, University of Akron, Akron, Ohio, USA.

- **M.Sc. Civil Engineering: Structures, April 2000.**
  Department of Civil Engineering, Jordan University of Science and Technology, Irbid, Jordan.
- **B.Sc., Civil Engineering: Structures, January, 1997.**
  Department of Civil Engineering, Mutah University, Al-Karak, Jordan

PROFESSIONAL EXPERIENCE

- July, 2019-present, Professor, (structures) Department of civil Engineering, The University of Jordan
- Sep.2015-July 2019, Associate Professor, (Structures), Department of Civil Engineering (Structures)
- Sep.2013 –Sep.2015, Associate professor (Structures) at civil engineering department Yarmouk University.
- Oct. 2012- Sep.2013 Associate professor at civil engineering department Applied Science University Amman, Jordan.

- Sep. 2005 until Oct.2012: Assistant professor at civil engineering department, Applied Science University (ASU) Amman Jordan.

- June 2004 to Feb. 2005: working as a material engineer at SOLAR TESTING LABORATORIES Inc, USA.

- Jan. 2001 to May 2004: Teaching and Research Assistant at the Civil Engineering Department of the University of Akron, Akron, Ohio, USA.
- Sep. 1997 to Jan. 2001: Research and Teaching assistant at the Civil Engineering Department, Jordan University of Science and Technology, Jordan.

Teaching Experience

I have been involved in teaching the following courses:

- Static
- Strength of Materials
- Construction Material
- Reinforced Concrete I and II
- Structural Analysis I and II
- Structural Mechanics
- Introduction to structural design
- Soil mechanics

Funded Research Projects:

1) Grant No. DRGS-2007-8 (Scientific Research Support), "Utilization of cement dust in asphalt hot mixes" Deanship of Scientific Research Applied Science University.

2) Grant No. DRGS-2009-9 (Scientific Research Support), "Production of Self compacted concrete by using oil shale dust", Deanship of Scientific Research Applied Science University.

3) Grant (Scientific Research Support), "Production of Self compacted concrete by using white cement by pass dust", Deanship of Scientific Research Yarmouk University.

4) Deanship of Scientific Research, Yarmouk University -Jordan (Grant No. 7/2014) Retrofitting of partially damaged reinforced concrete beam-column joints using various plate-configurations of CFRP.

5) Retrofitting of Reinforced SCC cantilever beam exposed to elevated temperature using CFRP-under static and dynamic loading, Scientific Research Support Fund (Ministry of Higher Education).

6) Effectiveness of production of cement grout using oil shale ash, Deanship of Scientific Research, University of Jordan.

Training Courses Attended

- Workshop on structure rehabilitation
- Course on bridge design
- AASHTO LRFD design code for bridges
- An intensive course on the “Cross Hole Sonic and Pile Integrity Testing” at the Pile Dynamics Inc. (PDI), Cleveland, Ohio.

COMPUTER AND APPLIED SKILLS

- STABL (slope stability analysis software).
- SAP, ETABS, Proken.

- AutoCAD

MEMBERSHIP

- Member in the American Society of Civil Engineers (ASCE), since May 2001.
- Member in the Jordan Engineers Association, since March 1997.
- Member in the Jordan University of Science and Technology Alumni club, since June 1999.

Research interests:

Fiber Reinforced Concrete, Behavior of concrete under high temperatures; Bond behavior of reinforcing steel and deteriorated concrete; Durability aspects of fiber reinforced concrete; Non-destructive testing, self compacting concrete. Using of bi-product in concrete and pavement. Soil structure interaction, modeling using Artificial Neural network.

Journal Publications

- Rami H. Haddad, Ahmed M. Ashteyat (2001).“Role of synthetic fibers in delaying steel corrosion cracks and improving bond with concrete” *Canadian Journal of Civil Engineering*, No. 28, pp. 787-793.

- *Khaled Z. Ramadan, and Ahmed M. Ashteyat, (2009). "Utilization of White Cement Bypass Dust as Filler in Asphalt Concrete Mixtures" Canadian Journal of Civil Engineering, Volume 36. No.2. pp:191-195.*

- *Rami Haddad, N. AL-Mekhlafy, Ahmed. M. Ashteyat, (2011). "Repair of heat-damaged reinforced concrete slabs using fibrous composite materials" Construction and Building Materials, Volume 25, No. 3, pp: 1213-1221.*

- *Ahmed M. Ashteyat, Khaled Z. Ramadan and Rami H. Haddad, Abdalla Qudah, (2011) " Properties of Portland Cement Mortar Incorporating White Cement By-Pass Dust" Canadian Journal of Civil Engineering. 38:(12) 1355-1362, Published on the web 25 November 2011*

- *Ahmed M. Ashteyat, Rami H. Haddad, Mohammad M. Yamin, (2012). "Production of self-compacting concrete using Jordanian Oil Shale Ashe". Jordan Journal of Civil Engineering, (JJCE). Volume 6, No.2, pp:202-214.*

- *Ahmed M. Ashteyat, Muhanad Ismaiek and Khaled Z. Ramadan (2012) "Strength development models of concrete with silica fume as fine aggregate replacement material.'*

Global Journal of Researches in Engineering, (GJRE) Volume 12 Issue 2 Version 1.0 pp:33-37.

- Muhannad Ismeik, Ahmed M. Ashteyat & Khaled Z. Ramadan (2012): "Stabilisation of fine-grained soils with saline water" *European Journal of Environmental and Civil Engineering*, DOI:10.1080/19648189.2012.720399

- Ahmed M. Ashteyat Rami H. Haddad, Muhanad Ismaiek (2014) " Prediction of mechanical properties of post-heated self-compacting concrete using non-destructive tests" European Journal of Environmental and Civil Engineering Volume 18, Issue 1.

- Izz Aldin, Osama Kh. Nusier, Ahmed M. Ashteyat and Mohammad M. Yamin,*(2014)* Design of Geogrid Reinforced Earth Walls: Transition of Limits and Critical Surfaces Electronic Journal of Geotechnical Engineering.

- Mohammad M. Yamin, Ahmed M. Ashteyat, Izz Aldin, and Enad Mahmoud (2016) " Numerical Study of Contact Stresses Under Foundations Resting on Cohesionless Soil: Effects of Foundation Rigidity and Applied Stress Level " KSCE Journal of Civil Engineering 21(4) DOI: 10.1007/s12205-016-1770.

- *Ahmed M. Ashteyat and Muhanad Ismaiek,* (2018) Predicting residual compressive strength of self-compacted concrete under various temperatures and relative humidity conditions by artificial neural networks, Computers and Concrete, 21(1):47-54.

- Ahmed M. Ashteyat, Rami H. Haddad, Yasmen Obaidat, (2018), Case study on production of self compacting concrete using white cement by pass dust, Case Studies in Construction Materials, Vol. 9, https://doi.org/10.1016/j.ccm.2018.e00190

- Rami Haddad, Ahmed Ashteyat,(2018) Producing Geopolymer Composites Using Oil Shale Ash , Structural Concrete, https://doi.org/10.1002/suco.201800007

- Abdulla Al Shro, Ahmed M. Ashteyat, Ahmed Alawneh, Bashar Bani Khalid, (2018), The Use of Oil Shale Fly Ash to Improve the Properties of Irbid Soil, World Journal of Engineering, https://doi.org/10.1108/WJE-10-2017-0325.

- Yasmin Murad, Ahmed Ashteyat, Rozan Hunifat "Predictive model to the bond strength of FRP-to-concrete under direct pullout using gene expression programming" 2019, Journal of Civil Engineering and Management, Doi.10.3846/jcem.2019.10798.

- Ahmed M. Ashteyat,Yousef S. Al Rjoub,Yasmin Murad &Samaher Asaad"Mechanical and durability behaviour of roller-compacted concrete containing white cement by pass dust and polypropylene fibre" August 2019,European Journal of Environmental and Civil Engineering,DOI: 10.1080/19648189.2019.1652694.

- Yousef S. Al Rjoub, Ahmed Ashteyat, Yasmeen Obaidat, Saleh Bani-Youniss' Shear strengthening of RC beams using near-surface mounted carbon fibre-reinforced polymers" February 2019, Australian Journal of Structural Engineering, DOI: 10.1080/13287982.2019.1565617.

- Ahmed Ashteyat, Yousef S. Al Rjoub, Ala Obaidat, Huthaifah Dagamseh" Strengthening and repair of one-way and two-way self-compacted concrete slabs using near-surface-mounted carbon-fiber-reinforced polymers" April 2019, Advances in Structural Engineering, DOI: 10.1177/1369433219843649.

- Yasmeen Obaidat, Ahmed Ashteyat, Al Obaidat" Performance of RC beam strengthened with NSM-CFRP strip under pure torsion: Experimental and Numerical study" International Journal of Civil Engineering, Nov.2019.

- Ahmad ASHTEYAT, Yasmeen T. OBAIDAT, Yasmin MURAD "Compressive Strength Prediction of Lightweight Short Columns at Elevated Temperature using Gene Expression Programing and Artificial Neural Network: Journal of Civil Engineering and Management, Nov.2019.

- Yasmin Murad, Wasel Al- Bdoor, Ahmed Ashteyat" Seismic Retrofitting of Severely Damaged Connections made with Recycled Concrete using CFRP sheets" Frontiers of Structural and Civil Engineering, Nov.2019.

- Yasmeen Obaidat, Ahmed Ashteyat, Al Obaidat , A new technique for repairing reinforced concrete columns, Journal of Building Engineering, 2020.

- Al Obaidat , Ahmed Ashteyat, Asel Al Botoush, Behavior of heat damaged circular reinforced concrete columns repaired using Carbon Fiber Reinforced Polymer rope, Journal of Building Engineering,2020.

- Ahmed Ashteyat, Rami Haddad, Yasmeen Obaidat, Repair of heat-damaged SCC cantilever beams using SNSM CFRP strips, Structures, 2020.
  Areej Abedalqader, Nasim Shatarat, Ahmed Ashteyat, and Hasan Katkhuda Influence of Temperature on Mechanical Properties of Recycled Asphalt Pavement Aggregate and Recycled Coarse Aggregate Concrete, Construction and Building Materials, 2020.

Conference Publication

- *Ahmed Ashteyat, Yasmeen Obaidat "***Strengthening and Repair of Heat Damaged Self Compacted Cantilever Beam Using SNSM-CFRP" The Transportation Research Board (TRB) 98th Annual Meeting Jan. 13–17, 2019, Washington, D.C, USA.**

- *Ahmed M. Ashteyat "**Modeling Residual Modulus of Elasticity of Self-Compacted Concrete Using Artificial Neural Networks"*** ICCCE 2015 : International Conference on Civil and Construction Engineering, Venice, Italy during April, 13-14, 2015

- *Mohammad M. Yamin, Ahmed M. Ashteyat, Izz Aldin, and Enad Mahmoud " **Effect Of Foundation Rigidity On Contact Pressure Distribution" Transportation Research Board 92nd Annual Meeting, January 13-17, 2013, Washington D.c USA.***

- *Ahmed M. Ashteyat, Izz Aldin, and Enad Mahmoud " **Design of Geogrid Reinforced Earth Walls: Transition of Limits And Critical Surfaces" Transportation Research Board 92nd Annual Meeting, January 13-17, 2013, Washington D.c USA***

- *Khaled Z. Ramadan, Ahmed M. Ashteyat and Muhanad Ismaiek , (2012) "**Properties of Asphalt Mixtures Prepared by Crump Rubber Modified Bitumen**" Third International Conference on Construction In Developing Countries (**ICCIDC–III)** "Advancing and Integrating Construction Education, Research & Practice" July 4-6,2012 Bangkok, Thailand.*

- ***Ahmed M. Ashteyat** and H. Haddad, R "**Using Jordanian Oil Shale Ash in Production of Self-Compacting Concrete"** Third International Conference on Construction In Developing Countries (**ICCIDC–III)** "Advancing and Integrating Construction Education, Research & Practice" July 4-6,2012 Bangkok, Thailand.*

- *H. Haddad, R. Z. Al-Rousan, B. Kh. Al-Sediri, A. M. Ashteyat, "**Repair of Shear-Deficient and Sulfate-Damaged concrete Beams Using Composite Materials" 9th International Congress on Advances in Civil Engineering**, Sept. 27-30, 2010, Turkey*

- R. Y. Liang, K. AL-Akhras, S. Rabab'ah, A. Ashteyat, and A. Varri "**Evaluation of Drainable Base Materials under Asphalt Pavement"** GeoShanghai International Conference in Shanghai, China.

PhD SUPERVISING

- Punching Strengthening and Repairing in Normal And High Strength Reinforced Concrete Flat Slabs Damaged By Heat Using Nsm-Cfrp Strips And Ropes, Al Hazmi Ibrahim, University Of Akron, Ohio, USA.

MASTERS THESIS SUPERVISING

- The Effect of Cover Size and the Near Surface Mounted Fiber Reinforced Polymers Stirrups Inclination and Length on the Behavior of Reinforced Concrete Beams, Saleh Y. Bani-Youniss, August, 2016

- Strengthening of Self-Compacted Concrete Slabs Using Near Surface Mounted (NSM) Fiber Reinforced Polymers (FRP) Technique, By Huthaifah Dagamseh, , Nov.2016

- The Effect of Length And Inclination Of Near Surface Mounted (NSM) Carbon Fiber Reinforced Polymer (CFRP) Strips and the Spacing Between Them on the Shear Strengthening of Reinforced Concrete Beams. By Mohamed Al zoubi , 2017

- Mechanical Properties and Durability of Roller Compacted Concrete Containing Oil Shale Ash As Partial Replacement of Cement, By Amani Al Smadi, July, 2017.

- The Effect of Using White Cement Bypass Dust And Fibers On Mechanical And Durability Behavior Of Roller Compacted Concrete , By Samaher Al Assad, Aug. 2017

- Flexural Behavior of Heat Damaged Reinforced Concrete Beams Repaired Using Externally Bonded Hybrid Fiber Reinforced Polymers, by Khalid Al shboul, April 2018.

- Strengthening of RC Beams for Torsion Using Near Surface Mounted Fiber Reinforced Polymer Strips, Hammad Al Shamari, May, 2018.

- Behavior of damaged rectangular reinforced concrete columns repaired with unidirectional carbon fiber cord, Suhaib Al-Faris (2018)

- Ultimate bond strength assessment of recycled asphalt pavement aggregate and recycled concrete aggregate, Rawan Al trawneh (2018)
- Shear behavior of reinforced concrete beam with recycled asphalt pavement (RAP) aggregate and recycled reinforced concrete aggregate (RAC) at high temperature Enas Al rajhi (2019)
- Effect of temperature on mechanical properties of Reclaimed Asphalt Pavement Concrete (RAP) and Recycled Aggregate Concrete (RCA). Arij Altarwneh (2019)
- Strengthening and repairing of circular reinforced concrete columns damaged by pre loading using near surface mounted (NSM) carbon fiber reinforced polymers (CFRP) (rope) technique. Daneh Al trawneh (2019)
- Strengthening and repairing of circular reinforced concrete columns damaged by heat using near surface mounted (NSM) carbon fiber reinforced polymers (CFRP) (rope) technique. Aseel Al Botosh (2019)
- Assessing the Effect of Recycled Asphalt Pavement and Recycled Aggregate Concrete on Roller Compacted Concrete with Silica Fume . Baenh Al tawabeh (2019)
- Flexural capacity of reinforced concrete beams using side near surface mounted (SNSM) carbon fiber reinforced polymers (CFRP) (strip and rope) technique Oday Al qaisi (2019)

THESIS COMMITTEE SERVING

- Repair of Heat-damaged One-way Reinforced Concrete Slabs Using Fibrous Composite Materials by **Nadmi AL-Mekhlafy** (December 2008).
- Repair of sulfate damaged reinforced concrete beams using advanced composite materials by **Moh'd Tahat**, (August 2009).
- Repair of shear-deficient reinforced concrete beams damaged by sulfate using composite materials by **Bashar Kh. AL-Sedyiri** (August, 2009).
- Repair of Shear-Deficient Light - Weight Aggregate Concrete Beams Damaged by Thermal Shock Using Advanced Composite Materials by **Ali Alsadi** (2011)
- Thermal performance of self-compacting concrete:Effect of relativ humidity **by Ruba Odeh** (2012).

- Non-destructive evaluation of fire damage in self compacting concrete by **Hala Amawi** (2012).

- Effect of sulfates on bond behavior between carbon fiber reinforced polymer sheets and concrete by **Khawla Al-Sa'di** (2012).

- Potential of Producing Structural Geopolymer Concrete Using Jordanian Natural Pozzolan (JNP) by **Odey Alshbuol** (August, 2015).

- Effect of coarse aggregate size upon bond behavior between concrete and carbon fiber reinforced polymeric sheets by Ammar Al-Maabreh (2018).

- Repair of Corroded Self-Compacted Concrete Columns Loaded Eccentrically Using Near Surface Mounted and Externally Bonded Carbon Fiber Reinforced Polymer, Mohammad Mashraqi, August 2018

- Effect of Corrosion on Bond Behavior Between Self-Compacted Concrete and Near Surface Mounted Fiber Reinforced Polymer, Osama Othman, May 2018

- Effect of Eucalyptus Leaves as Green Inhibitor on the Corrosion of Steel Reinforcemen, Yousef Mashaqbeh, August 2016.

- Corrosion of Reinforcing Steel in Polymer Modified Concrete, Ala'a Abel-Halim ,July 2016

- Corrosion of Reinforcing Steel in Self-Compacted Concrete, Rawan Guneimat August 2016

- Repair of Corroded Two-Way Slabs Using Carbon Fiber Reinforced Polymer" January, Basma Shurman 2019

- Prediction of bond strength between fiber reinforced polymer composite and concrete using artificial neural networks, by madeleine, Jan, 2019

REFERENCES

- Prof. Abdullah I. Hussein Malkawi- Professor, president, Jordan University of Science and Technology, Irbid 22110. E-mail: mhusein@just.edu.jo.

- Prof. Rami Haddad, Professor, Head Department of Civil Engineering, Jordan University of Science and Technology, Irbid 22110. E-mail: rhaddad@just.edu.jo.

- Dr. Khaled Z. Ramadan, Head Dept. of Civil Engineering, Applied Science University, Amman, Jordan. E-mail: ramadan@asu.edu.jo

- Prof. Robert Liang- Professor: Civil Engineering Department, University of Akron, 431 Auburn Science and Engineering Building, Akron, Oh 44325-3905.
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