

CURRICULUM VITAE

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Year of Birth 1971
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Qualifications

- **Ph.D.** in Civil Engineering 2004- Texas A&M University (TAMU)/College Station – Texas-USA.
- **M.Sc.** in Civil Engineering (Transportation) 1998- Jordan University of Science and Technology (JUST)/ Jordan.
- **B.Sc.** in Civil Engineering (Materials and Transportation) 1994- Jordan University of Science and Technology (JUST)/ Jordan.

Experiences

- 9/2017 – up to now) Associate Professor in Civil Engineering Department at The Hashemite University / Jordan.
- (8/2014 – 8/2017) Associate Professor in Civil Engineering Department, Faculty of Engineering & Applied Sciences, ALHOSN University, UAE
- (8/2014 – 2/2016) Associate Professor and chairman of civil engineering department, Faculty of Engineering & Applied Sciences, ALHOSN University, UAE
- (9/2013 – 8/2014) Associate Professor and Chairman of Civil Engineering Department at University of Tabuk/ KSA
- (3/2012 – 9/2013) Associate Professor in Civil Engineering Department at The Hashemite University / Jordan.

- (9/2011 – 9/2013) Chairman of Civil Engineering Department at The Hashemite University/ Jordan.
- (9/2010 – 2/2011) chairman of Civil Engineering Department at The Hashemite University/ Jordan.
- (6/2008 –9/2009) Chairman of Civil Engineering Department at The Hashemite University/ Jordan.
- (1/2005 – 3/2012) Assistant Professor in Civil Engineering Department at The Hashemite University / Jordan.
- (1/2003 – 12/2004) Part time Research Assistant at Texas Transportation Institute (TTI)/ USA on a funded project for National Cooperative Highway Research Program (NCHRP). The projects are NCHRP 4-30 and 4-30A (Test methods for characterizing aggregate shape, texture, and angularity).
- (1/2002 – 12/2002) Part time Technical Assistant in the Department of Civil Engineering at Washington State University.
- (10/98 - 12/2000) Worked as a site engineer with DAR ALHANDASAH company in Saudi Arabia supervising the construction of: Pillgrims Accommodations in Mina; Storm Water Drainage project in Mina; and ALMADINAH- ALQASIM Expressway Construction project (150 km long, more than \$200 million cost) for this project worked as material engineer.
- (3/98- 9/98) Worked as site engineer in structural construction project in AL RAMTHA /JORDAN the project was constructing a public clinic building.
- (9/95 - 1/98) As a graduate student seeking for master degree, worked as a part time Teacher Assistant in Civil Engineering Department at Jordan University of Science and Technology (JUST). Helping in several under graduate courses such as: Highway Traffic Lab.; Transportation Engineering; Survey; and Survey Lab.
- (4/94 - 9/95) Worked as site engineer with Jordanian Consulting Engineer Company (ALMUSTASHAR/SALZGITTER Consulting Engineers). Supervising the construction of (IRBID- NORTH SHUNAH) Highway sec. II, part A (8 km long, \$12 million cost).

Languages

- Arabic (Native)
- English (Excellent)

Courses Taught

Visual Communication (Manual), Engineering Drawing (Manual), Construction Materials, Construction Materials Lab, Highway Engineering, Highway Engineering Lab, Surveying, Surveying Lab, Special Topics (Road Maintenance), Transportation Engineering, Traffic Safety (University Free Elective course), Construction Planning, Highway Design and Construction, Transportation Engineering Systems, Properties of construction Materials, Pavement Management Systems, Graduation projects I & II (Capstone)

Research Work

Published Work:

With more than 800 Citations (based on Google Scholars.

<https://scholar.google.com/citations?user=58fLgasAAAAJ&hl=en>)

Accepted and Published Refereed Journal & conference Publications

Aslam A. Al-Omari, Mohammad A. Khasawneh, **Taleb M. Al-Rousan**, & Saja F. Al-Theeb. (2021) "Static creep of modified superpave asphalt concrete mixtures using crumb tire rubber, microcrystalline synthetic wax, and nano-silica". International Journal Of Pavement Engineering, Vol. 22, NO. 6, 794–805. <https://doi.org/10.1080/10298436.2019.1646913>.

Randa O. Mujalli, Laura Garach, Griselda López, and **Taleb Al-Rousan**, (2019). "Evaluation of Injury Severity for Pedestrian-Vehicle Crashes Using Extracted Rules". Journal of Transportation Engineering, Part A: Systems, Volume 145, Issue 7, 04019028-1-13. <https://doi.org/10.1061/JTEPBS.0000244>. [*# of citations = 2*]

Umar, A. A., Zawawi, N. A., Abdul-Aziz, A.-R., & **Al-Rousan, T. M.** (2016). "Regulating PPP projects in the Energy Sector: An exploratory survey of skills required", *International Journal of Thermal & Environmental Engineering* Volume 11, No. 2, pp 105-110. <http://iasks.org/wp-content/uploads/pdf/IJTEE-1102004.pdf>

Al-Rousan, T., Al-Hattamleh, O., and Al Dwiri, R. (2011). "Effect of Inherent Anisotropy on Shear Strength Following Crushing of Natural Aqaba Subgrade Sand ", *Jordan Journal of Civil Engineering*. Vol. 5 No. 3, pp 431-445. <https://jjce.just.edu.jo/issues/paper.php?p=2167.pdf> [*# of citations = 9*]

Al-Rousan, T., Asi, I., and Abu Baker, A. "Roughness Evaluation Of Jordan Highway Network". The 24th ARRB Conference Proceedings, Oct. 12-15 (2010), Melbourne, Australia. <https://trid.trb.org/view/1096875> <https://eis.hu.edu.jo/Deanshipfiles/conf10471325.pdf> [*# of citations = 5*]

Al Qablan, H., Dwairi, H., Shatarat, N., **Al-Rousan, T.**, and Al Qablan, T. (2010). " Stability Analysis of Composite Pannels with Stiffeners and Circular Cutouts". *Jordan Journal of Civil Engineering*, Vol.4 No. 2, pp 119-131. <https://jjce.just.edu.jo/issues/paper.php?p=114.pdf> [*# of citations = 8*]

Al-Hattamleh, O., Al-Shalabi, F., Al Qablan, H., and **Al-Rousan, T.** (2010). "Effect of Grain Crushing and Bedding Plane Inclination on Aqaba Sand behavior". *Bulletin of Engineering Geology and the Environment*, Vol. 69, No 1, pp.41-49.

<https://link.springer.com/article/10.1007/s10064-009-0238-6> [# of citations = 8]

Al Dwiri, R., Al-Hattamleh, O., Al-Shalabi, F., and **Al-Rousan, T.** (2009). "Effect of Grain Crushing and Bedding Plane Inclination on Ras en-Naqap Natural Sand behavior", *Electronic Journal of Geotechnical Engineering (EJGE)*, Vol. 14 bundle L.

(<http://www.ejge.com/2009/Ppr0996/Ppr0996.pdf>).

<https://eis.hu.edu.jo/deanshipfiles/pub105353080.pdf> [# of citations = 3]

Al-Rousan, T., Asi, I., Al-Hattamleh, O., and Al-Qablan, H. (2008). "Performance of Asphalt Mixes Containing RAP", *Jordan Journal of Civil Engineering*. Vol. 2, No. 3, pp. 218-227. <https://jjce.just.edu.jo/issues/paper.php?p=53.pdf> [# of citations = 28]

Masad, E., **Al-Rousan, T.**, Bathina, M., McGahan, J., and Spiegelman, C. (2007). "Analysis of Aggregate Shape Characteristics and its Relationship to Hot Mix Asphalt Performance," *Road Materials and Pavement Design*. Vol. 8, No. 2, pp. 317-350.

<https://doi.org/10.1080/14680629.2007.9690077>. [# of citations = 24]

Al-Rousan, T., Masad, E., Tutumluer, E., and Pan, T. (2007). "Evaluation of Image Analysis Techniques for Quantifying Aggregate Shape Characteristics," *Journal of Construction and Building Materials*, vol. 21, Issue 5, pp. 978 – 990.

<https://doi.org/10.1016/j.conbuildmat.2006.03.005> [# of citations =221]

Al-Rousan, T., Masad, E., Myers, L., and Spiegelman, C. (2005). "A New Methodology for Shape Classification of Aggregates," *In Transportation Research Record 1913, Journal of the Transportation Research Board*, pp. 11-23. <https://doi.org/10.1177/0361198105191300102>. [# of citations = 66]

Masad, E., Saadeh, S., **Al-Rousan, T.**, Garboczi, E., Little, D. (2005). "Computations Of Particle Surface Characteristics Using Optical and X-Ray CT Images," *Journal of Computational Materials Science*, Vol. 34, No. 4, pp. 406-424.

<https://doi.org/10.1016/j.commatsci.2005.01.010> [# of citations = 134]

Hamed, M., **Al-Rousan, T.** (1998) "The Impact of Perceived Risk On Urban Commuters Route Choice", *Road and Transportation Research*, Vol.7, No. 4.

<https://search.proquest.com/docview/215248731?pq-origsite=gscholar&fromopenview=true> [# of citations = 9]

Presentations at National or International Meetings & Conferences

Umar, A. A., Zawawi, N. A., Abdul-Aziz, A.-R., & **Al-Rousan, T. M.** (2015). Regulating PPP projects in the Energy Sector: An exploratory survey of skills required. *The Fourth International Conference on Energy, Water and Environmental Sciences*. Ras Al Khaimah, United Arab Emirates: American University of Ras Al Khaima.

Al-Rousan, T., Asi, I., and Abu Baker, A. "Roughness Evaluation Of Jordan Highway Network". The 24th ARRB Conference, Oct. 12-15 (2010), Melbourne, Australia. [**# of citations = 5**]

Al-Rousan, T., and Asi, I. "Utilization of Reclaimed Asphalt Pavement (RAP) In Jordan Roadways". The First Syrian International Road Conference, Nov. 12-14 (2006), Damascus, Syria.

Al-Rousan, T., and Masad, E. (2005). "Characterization of Aggregate Shape Properties Using a Computer Automated System," *The First Middle East International Conference on Advances in Civil, Mechanical, and Materials Engineering*, May 10-13, Amman, Jordan

Technical Reports:

Al-Rousan, T. (2014). *Studying The Factors Affecting Realization levels of Traffic Signs In Urban Areas*. Research Report submitted to Hashemite University/ Jordan.

Masad, E., **Al-Rousan, T.**, Button, J., Little, D., Tutumluer, E. (2007). *Appendixes to NCHRP Report 555: Test Methods for Characterizing Aggregate Shape, Texture, and Angularity*. National Cooperative Highway Research Program. National Research Council, Washington, D.C. <http://www.trb.org/Publications/Blurbs/158469.aspx> [**# of citations = 23**]

Masad, E., Little, D., Tashman, L., Saadeh, S., **Al-Rousan, T.**, Sukhwani, R. (2003). *Evaluation of Aggregate Characteristics Affecting HMA Concrete Performance. Final Report of ICAR 203 Project*, The Aggregate Foundation of Technology, Research, and Education, VA., 204 pp. <https://repositories.lib.utexas.edu/bitstream/handle/2152/35367/203-1.pdf?sequence=2&isAllowed=y> [**# of citations = 47**]

Masad, E., **Al-Rousan, T.**, Button, J., Little, D., Tutumluer, E.(2005). *Test methods for characterizing aggregate shape, texture, and angularity. National Cooperative Highway Research Program. Interim Report of NCHRB 4-30*. Transportation Research Board, National Research Council, Washington, D.C. [**# of citations = 5**]

Published Dissertation and Thesis

Al-Rousan, T. *Characterization of Aggregate Shape Properties Using A Computer Automated System*. Ph.D. Dissertation, Texas A&M University, College Station, 2004.

<https://oaktrust.library.tamu.edu/bitstream/handle/1969.1/1485/etd-tamu-2004C-ENGR-AL.pdf?sequence=1&isAllowed=y> [# of citations = 118]

Al-Rousan, T. *Analysis of Urban Trips with Perceived Risk in Amman*. Master Thesis. Jordan University of science and Technology, Irbid, Jordan, 1998.

Interests

Research interests are Traffic safety studies; Pavement materials, design, maintenance, and performance; Imaging techniques in evaluating aggregate shape; Pavement sustainability; Recycled materials in pavements; laboratory and field destructive and non-destructive testing of pavement and construction materials. Roadway condition evaluation and management.

Services

National Committees:

- Technical Committee Head for accreditation of a local community college in Amman (2019).
- Member in the Technical Committee for accreditation 2010-2013.
- Member in the Technical Committee for the Jordan Code of Highways, 2007-2013.
- Member in a committee for Studying and resolving the accident problems in the Azraq- Azzaraqa highway, 2005.
- Member in the Middle East Society of Asphalt Technology (MESAT) 2009
- Member in the Jordan road Association since 2005
- Member in Jordanian engineers Association since 1994

University Services:

- Committee head for investigating and studying HU students' public transportation problems (2009).
- Representative member for the department of civil engineering in the faculty of engineering council (2017-2018 & 2007-2008)

- Three times member in the election committee of student council in the university.
- Member in several internal committees in the civil engineering department.
- Committee member for ABET accreditation preparation during the years (2013-2018) in 3 different Universities (HU, Alhosn, and UT)
- Committee member for preparation of laboratory equipment's for Highway engineering lab., building materials lab, and surveying lab (2013 - 2017) in 3 different Universities (HU, Alhosn, and UT)

Graduate Student Advising:

1. Co-advisor with Dr. Aslam A. Al-Omari for master thesis prepared by Saja Faris Al-Theeb (2018). Thesis title: " Static Creep of Modified Asphalt Mixtures Using Crumb Tire Rubber (CTR), Micro crystalline Synthetic Wax (MSW), and Nano-Silica". Jordan University of Science & Technology.

Member in Graduate Committees:

1. Master Thesis: Shrooq Al-Omoosh (2020). Thesis title: " Analysis of Traffic Crashes Using Data Mining techniques". Jordan University of Science & Technology.
2. Master Thesis: Shaymaa Shawkat Al-Bishtawi (2019). Thesis title: " Critical Capacity Analysis of One Lane Roundabouts in Jordan". Jordan University of Science & Technology.
3. Master Thesis: Bayan Ibrahim Al-Khreisat (2019). Thesis title: " Investigating The Potential of Using Dry Batteries Waste Powder (DBWP) As A Modifier for Asphalt Binders". Jordan University of Science & Technology.
4. Master Thesis: Abdullah Mohammad Azzam (2019). "Probablistic Approach to Predict Pavement Skid Resistance based on Paving Materials Properties ". Jordan University of Science & Technology.
5. Master Thesis: Doha Faris Al-Theeb (2019). Thesis title: " Dynamic Creep of Modified Asphalt Mixtures Using Crumb Tire Rubber (CTR), Micro crystalline Synthetic Wax (MSW), and Nano-Silica". Jordan University of Science & Technology.
6. Master Thesis: Taher Khalid Harahsheh (2018). "Experimental and Statistical Evaluation of Asphalt Binders Produced in Jordan Treated with Different Rejuvenatures ". Jordan University of Science & Technology.
7. Master Thesis: Mohammad Ahmad Odetallah (2018). "Assessing Speed Of Passenger cars At Urban Channelized Right-Turn Roadways Of Signalized Intersections". Jordan University of Science & Technology.

8. Master Thesis: Mohammad Alsheyab (2018). "Evaluating the Effect of Nominal Maximum Aggregate Size and Aggregate Gradation on Surface Frictional Properties of Superpave Laboratory Compacted HMA Specimens". Jordan University of Science & Technology.
9. Master thesis: Odeh Abu Odeh (2011). "Evaluation of Soil Collapsibility Due to Presence of Salt Using Ultrasound Technique". The Hashemite University.
10. Master thesis: Mai Haddad (2010). "Studying of Vehicle-Pedestrian crashes in Irbid City". Jordan University of Science & Technology.
11. Master thesis: Anas Nairoukh (2010). "Non-Destructive Evaluation of Jordan Highways". The Hashemite University.
12. Master thesis: Ahmad Mirwais Najib (2010). "Performance-based Comparison between Basalt Asphalt Mixtures and Limestone Asphalt Mixtures". Jordan University of Science & Technology.
13. Master thesis: Rudaina Al-Momani (2010). "Management and Evaluation of the Tourism Regions In Jordan Using Geographical Information System (GIS). A Case Study: Ajlun Governorate". The Hashemite University.
14. Master thesis: Etaf Al-Edamat (2010). "Analysis of fatal Traffic Accidents in Irbid City". Jordan University of Science & Technology.
15. Master thesis: Nawal Badran (2010). "Estimating Corrosion and Corrosion Propagation of Steel Used In Concrete Structures Using A Nondestructive Technique ". The Hashemite University.
16. Master thesis: Mahmoud Jaradat (2009). "Uses of Al-Halabat Bazalt Aggregate In the Concrete Mixes ". The Hashemite University.
17. Master thesis: Motaz Refayeh (2009). " Utilizing Superpave Dynamic Shear Rheometer to Investigate Asphalt Mastics Behavior through Micromechanics in Jordan ". Jordan University of Science & Technology.

Consulting

- Evaluated two research reports for funded project by the Higher Council of Science & Technology. The research projects involve Concrete durability and highway safety studies.
- Reviewed articles for some local and international journals and conferences. Jordan Journal of mechanical Engineering (JJME), International Journal of Pavement Engineering, Transport Policy, Journal of engineering research, . Transportation Infrastructure Geotechnology, Natural Hazards (NHAZ), Rock Mechanics and Rock Engineering (RMRE), Technological Forecasting & Social Change,

International Journal of Environmental Research, and Jordan Journal of Civil Engineering.

Awards

- Full Scholarship from the Hashemite University/ Jordan to pursue Ph.D. in USA (2001-2003).
- Part time Research Assistant Scholarship from the Texas Transportation Institute (TTI) / College Station – TX (2003-2004).
- Part time Technical Assistant Scholarship from Washington State University/ Pullman- WA (2002).
- Part time Teaching Assistant scholarship from Jordan University of Science & technology / Jordan (1995 -1997).
- Full scholarship from the “Royal deed” to the sons the armed forces workers to study Bachelor degree in civil engineering at Jordan University of science & technology (1989 – 1994).