

Nov. 4, 2021

Name: Adli Balbissi, Ph.D.
Rank: Professor
Department: Civil Engineering
Nationality: Jordanian



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Education

Degree	Field	Institution	Year	GPA
Ph.D.	Civil Engineering (Transportation)	Texas A & M University, College Station, USA	1983	4.0 / 4.0
ME	Civil Engineering (Airport planning & design)	University of California, Berkeley, USA	1981	3.77 / 4.0
MSC	Civil Engineering (Highway & traffic engineering)	Birmingham University, Birmingham, UK	1977	honors
BSC	Civil Engineering	Baghdad University, Baghdad, Iraq	1974	6 th in class of 177

- *Date of Original Appointment:* Aug. 31, 1983
- *Dates of Last Advancement in Rank (professor):* June 7, 2004

Administrative Affiliation:

9/1993 – present: Professor, Civil Engineering Department, University of Jordan, Amman, Jordan.

8/2015 – 6/2016: visiting Professor, Civil Engineering Department, University of Tabuk, Tabuk, KSA.

9/2005 – 9/2012: Dean of Arab Council for the Training of Students of Arab Universities (ACTSAU), Arab Universities Union, Amman, Jordan.

9/1997 – 9/2000: Head of Transportation Division, Jordan University, Amman, Jordan

& 9/2009 – 9/2010

9/1998 – 9/2009: Member of Board of Trustees of Applied Science University, Amman, Jordan.

8/2008 – 8/2009: Visiting professor, Civil Engineering Department, American University of Sharjah, UAE.

3/2004 – 3/2008: Head of Campus Planning Committee, Jordan University, Amman, Jordan.

9/2001 – 9/2004: Assistant Dean of Scientific Research, Jordan University, Amman, Jordan.

9/1983 – 9/1993: Associate and Assistant Professor, Civil Engineering Department, University of Yarmouk and University of Science and Technology, Irbid, Jordan.

Teaching

- *Teaching Areas:*
 - Traffic Engineering and Planning
 - Highway safety and Accident Analysis
 - Transportation and Urban Planning
 - Airport Planning and Operation's Optimization
 - Economical Study of Transportation Investments
 - Pavement Design, Characterization, and Materials

- *List of Courses taught:*

Graduate Courses:

- Transportation Planning
- Traffic theory and control
- Urban Transportation Planning
- Urban Planning
- Transportation Economics
- Highway Traffic Safety
- Demand Analysis
- Airport Planning and Design
- Advanced Pavement Design
- Highway Materials and uses
- Highway Maintenance
- Methods of Highway Construction
- Research Syllabus in Transportation
- Analytical Techniques in Transportation

Undergraduate Courses:

- Traffic Engineering
- Transportation Engineering & planning
- Highway & Airport Planning
- Pavement Design
- Highway Geometric Design
- Engineering Graduation Project
- Surveying
- Route Surveying
- Engineering Economy
- Statistics
- Asphalt Laboratory
- Route Surveying Laboratory

Research

- *Research Areas:*
 - Economic Evaluation of Transport Investments
 - Traffic Engineering and Transportation Planning
 - Airport Operations' Optimization
 - Highway Safety and Accident Analysis
 - Pavement Materials, Design and Characterization

- *Number of published and accepted Papers:39.*

List of publications:

1. **Al-Balbissi, A.H.** "Road Safety during Construction and Maintenance". Proceedings, The Third Symposium for the Society for the Prevention of Road Accidents. Irbid, Jordan. November 1983. (Published in Arabic).
2. **Al-Balbissi, A.H.** "Road Accidents in Developing Countries: Jordan Case Study". The Second International Symposium on Transportation Safety. The International Institute for Safety in Transportation. Athens, Greece. June 16-21, 1985. pp. 16.
3. **Al-Balbissi, A.H.** "Effect of Human Element in Road Accidents in Jordan". Proceedings, ITE 55th Annual Meeting. Institute of Transportation Engineers. New Orleans, USA Aug. 18-22, 1985, pp. 34-35.
4. **Al-Balbissi, A.H.;** et. al. "Engineering Measures to Improve Road Safety". Proceedings, The Fifth Symposium for the Society for the Prevention of Road accidents. Amman, Jordan. May 1986. (Published in Arabic).
5. Bindra, S.; and **Al-Balbissi, A.H.** "Experience from Design and Evaluation of Flexible Road Construction Practices In some Developing Countries". Proceedings, Second International Conference on Bearing Capacity of Roads and Airfields. The Transport and Road Research Laboratory (TRRL). Plymouth, England. Sept. 16-18, 1986. pp. 433-442.
6. **Al-Balbissi, A.H.** "Analysis of Fracture Properties of Sulphlex". Twelfth International Congress for Statistics and Scientific Computations. University of Ain Shams, Cairo, Egypt. March 1987.
7. **Al-Balbissi, A.H.** "Feasibility of Rigid Pavements in Jordan". Proceedings, Symposium on Quality and Performance of Cement and Concrete Produced in the Arab World. Building Research Center and the Arab Union of Cement and Building Materials. Baghdad, Iraq. Nov. 2-5, 1987. pp. 78-85.

8. Khedaywi, T.S.; **Balbissi, A.H.** and Abu Sheikh, A.I. "An Analysis of Automobile Accidents in Jordan". ITE Journal, Institute of Transportation Engineers, Washington, D. C., USA, Vol. 57, No. 12, Dec. 1987, pp. 46-48.
9. **Al-Balbissi, A.H.** "Fracture characterization of Pavement Mixtures". Engineering Mechanics 7th Conference. American Society of Civil Engineers and Virginia Polytechnic Institute and State University. Blacksburg, Virginia, USA May 22-25, 1988. pp. 174.
10. **Al-Balbissi, A.H.** "Transportation Management in City Planning". Proceedings, Symposium of Greater Amman Municipality in Collaboration with Arab Towns Organization and Ministry of Planning. Amman, Jordan. November 1988.
11. **Al-Balbissi, A.H.** "Advantages of Railway Transportation". Yarmouk University Magazine, Yarmouk University, Irbid, Jordan, 24th Issue, 1988, pp. 32-35. (Published in Arabic).
12. **Al-Balbissi, A.H.** "Problems and Effects of Overloading on Jordanian Roads". ITE Journal, Institute of Transportation Engineers, Washington, D. C., USA, Vol. 58, No. 2, Feb. 1988, pp. 25-28.
13. **Al-Balbissi, A.H.** "Recycling-State-of-The-Art". Proceedings, the Symposium on Rutting of Road Surfaces and Recycling of Asphalt Pavements. Jordan Roads Society. Amman, Jordan. December 1988.
14. **Al-Balbissi, A.H.** "Use of Combination Stabilizers". Proceedings, the First Regional Conference in Civil Engineering. University of Bahrain and UNESCO. Manama, Bahrain. March 11- 13, 1989. pp. VI-1 to VI-14.
15. **Al-Balbissi, A.H.** And Tarawneh, M. "Safety Belt Effectiveness in Jordan". Fifth World Conference on Transport Research. World Conference on Transport Research Society and Japan Association for planning and Transportation Studies. Yokohama, Japan, July 10-14, 1989.
16. Basma, A. and **Al-Balbissi, A.H.** "Probabilistic Design of Flexible and Rigid Pavements Using AASHTO Equations". Transportation Research Records, Transportation Research Board, National Research Council, Washington, D. C., USA, No. 1227, 1989, pp. 34-43.
17. Skinner, H.B.; **Al-Balbissi, A.H.**; et. al. "Suggested Graduate Curricula for Future Transportation Engineers". ITE Journal, Institute of Transportation Engineers, Washington, D. C., USA, Vol. 60, No. 3, March 1990, pp. 23-25.
18. Al-Suleiman, T.; and **Al-Balbissi, A.H.** "Effect of Vehicle Factor and Related Variables on Road Accidents". Proceedings, the Symposium on Accident Violations and Their

Relationship to Traffic Accidents. Jordan Society for the Prevention of Road Accidents. Amman, Jordan. March 1990.

19. **Al-Balbissi, A. H.** "Effect of Aggregate Properties on Concrete Durability". Fifteenth Conference on Our World in Concrete and Structures. Singapore, Aug 23-24, 1990.
20. **Al-Balbissi, A.H.** and Little, D.N. "Effect of Fracture Healing on Laboratory to Field Shift Factor". Transportation Research Records, Transportation Research Board, National Research Council, Washington, D. C., USA, No. 1286, 1990, pp. 173-183.
21. **Balbissi, Adli H.** "Role of Road User and Roadway Geometric in Road Accidents in Jordan". Transportation Research Records, Transportation Research Board, National Research Council, Washington, D. C., USA, No. 1270, 1990, pp. 42-45.
22. **Al-Balbissi, A. H.;** Aboul-Ela, M. T. and Sammour, S.N. "Relationship between Child Pedestrian Accidents and City Planning: The Case of Zarqa, Jordan". Transportation Research Records, Transportation Research Board, National Research Council, Washington, D. C., USA, No. 1281, 1990, pp. 112-116.
23. Obeidat, T.; **Al-Balbissi, A.H.** and Shihab, A. "Reasons of Road Accidents in Irbid City". Tareek Al-Salamah Magazine, Jordan Society for the Prevention of Road Accidents, Amman, Jordan, 20th Issue, 1990, pp. 26-28. (Published in Arabic).
24. **Al-Balbissi, A. H.** "Economics of Pavement Conditions, Axle Load, and Vehicle Operating Costs". ITE Journal, Institute of Transportation Engineers, Washington, D. C., USA, Vol. 61, No. 5, May 1991, pp. 22-24.
25. **Al-Balbissi, A. H.;** Little, D. N.; Gregory, C. and Richey, B. "Modulus Properties of Plasticized Sulfur Mixtures". Transportation Research Records, Transportation Research Board, National Research Council, Washington, D. C., USA, No. 1323, 1991, pp. 85-93.
26. **Al-Balbissi, A.H.** as a member in the ITE Technical Council Committee 5P - 5A. "Capacities of Triple Left - Turn Lanes". ITE Publication Number IR - 077, 250/GP/0495, Washington, DC. April 1995.
27. Tarawneh, T. M.; Tarawneh, M. S.; and **Al-Balbissi, A. H.** "Drivers Compliance with Stop and Yield Signs in Jordan". Journal of Traffic Medicine, International Traffic Medicine Association, Warren, Minnesota, USA, Volume 28 Number 3-4, 2000, pp. 17-22.
28. **Al-Balbissi, A. H.;** Tarawneh, M. S.; Tarawneh, T. M. "Effect of Street Lighting and Speed Limit Interaction on Road Accidents: Investigations from Jordan". Journal of Traffic Medicine, International Traffic Medicine Association, Warren, Minnesota, USA, Volume 28 Number 3-4, 2000, pp. 47-51.

29. **Al-Balbissi, A. H.** "Unique Accident Trend of Rental Cars". Journal of Transportation Engineering, ASCE, Reston, Virginia, USA, Vol. 127 No. 2, Mar./Apr. 2001, pp.175-177.
30. Tarawneh, M. S.; **Al-Balbissi, A. H.**; and Tarawneh, T. M.; "The Effectiveness on Seat Belt Use in Jordan of a Public Education Campaign". Journal of Traffic Medicine, International Traffic Medicine Association, Warren, Minnesota, USA, Volume 29 Number 3-4, 2001, pp. 30-36.
31. **Al-Balbissi, A. H.** "Role of Gender in Road Accidents". Journal of Traffic Injury Prevention, Taylor & Francis, Philadelphia, Pennsylvania, USA, Volume 4, Number 1, 2003, pp.64-73.
32. **Al-Balbissi, A. H.** "Identification of Youth Human Losses Caused by Road Traffic Accidents in Jordan". Dirasat Journal, Jordan University, Amman, Jordan, Volume 31, Number 1, April 2004, pp.35-43.
33. Tbakhi, A. M.; and **Al-Balbissi, A. H.**; "Influence of Using LCD Screen on Passenger Cars Accident Rates". 3rd Jordan International Transportation Conference, Amman, Jordan, March 2007.
34. Ramadan, K. Z.; and **Al-Balbissi, A. H.**; "Utilization of Lightweight Tetrapod Aggregate Produced from High Calcium Fly Ash in Civil Engineering Applications". Jordan Journal of Civil Engineering, Jordan University of Science and Technology, Jordan, Volume 1, Number 2, April 2007, pp.194-201.
35. Sari', R.; **Al-Balbissi, A. H.**; and Nawal Al-Louzy;" Resistance of Asphalt Mixtures to Temperature Variations Using Slag". Damascus University Journal for Engineering Sciences, Damascus, Syria, Sept. 2012.
36. Naser, M.; **Al-Balbissi, A. H.**; Faris, H.; and Khazaleh, M.;"Developing and Calibrating Single-Regime Traffic Flow Models for Urban Multi-lane Roads". Life Science Journal, Marsland Press, New York, Vol. 11-2014, Nov. 2014.
37. Mohammad Nour I. Al-Marafi, and **Balbissi, A. H.**; "Analysis of Fatal Traffic Accidents in Amman City, Jordan"; International Journal of Civil & Environmental Engineering IJCEE-IJENS Vol: 16 No: 03; June 2016.
38. **Balbissi, A.**; Qblawi, M.; Al-Masri, H.; and Al-Najar, M.; "Impact of Vehicle Overloading on Pavement Service Life"; 8th Jordan International Civil Engineering Conferenc on Smart Civil Engineering; Amman-Jordan, March 2020.
39. M. Alzoubaidi; **A. Al Balbissi**; A. Farid; and A. Al-Mansour; "Connected Vehicle Technology Versus Conventional Traffic Congestion Mitigation Measures: An Operational Economic Analysis". Accepted in Transportation Research Board Annual Meeting, National Research Council, Washington, D. C., USA, Paper No. TRBAM-21-00662, Jan. 2021.

- ***Current On going Research and papers under review:***
 - Investigation of the Effect of Flexible Pavement Roughness on Accident Rates on Amman-Al Qatrana Road
 - Application of Artificial Neural Networks for the Prediction of Traffic Accidents on Arterial Roads in Amman
 - Evaluation of Accident Changes in Jordan
 - Investigation of the Effect of Using Staggered Working Hours on Traffic Congestion in Amman
 - Evaluation of Traffic Noise Pollution in Zarqa City
 - Evaluation of Flexible Pavement Condition Index and Maintenance Cost in Aqaba City
 - Evaluation of the Effect of Materials Type on asphalt mixtures in Jordan
 - Development of a Model to Predict Number of Enplanements in Queen Alia International Airport in Amman Using Artificial Neural Network System
 - Development of Trip Generation Models and Rates for:
 - Hospitals
 - Health Centers
 - Mosques
 - Gas Stations
 - Sport Clubs
 - Government Passport Departments

Committees and Services

Councils:

- Public transit planning committee for Greater Amman Municipality.
- The Higher committee for the accreditation of foreign universities for the Ministry of Higher Education & Research
- Board of Trustees in Applied Science University, Amman, Jordan.
- Research committee in Jordan petroleum refining company

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- Representative of the College of Engineering in the University Council (Jordan University of Science and Technology, Irbid, Jordan).
- Representative of the Civil Engineering Department in the College of Engineering Council (Jordan University of Science and Technology)

International Committees:

- ITE (Institute of Transportation Engineers) Technical Council Committee No. 2-33 for the evaluation of graduate studies programs in Transportation.
- ITE (Institute of Transportation Engineers) Technical Council Committee No. 5P-5A for the capacity of triple left turns lanes.

National Committees:

- Committee for the evaluation of Civil Engineering curriculum in Jordan Universities.
- Committee for setting the standard specifications of bituminous mixtures for the Ministry of Industry and Commerce in Jordan.
- Administrative committee of Jordan Road Society.

University Committees:

- Jordan university master planning committee (Head of)
- Traffic committee (Head of)
- Projects follow up committee
- University evaluation committee

Faculty of Engineering Committees:

- Students advising and guidance committee (Head of)
- Student violations investigation committee.
- Evaluation of students transferred course work and curriculum committee.
- Scientific research committee.
- Graduate studies committee.

Civil Engineering Department Committees:

- American University of Sharjah civil engineering ABET accreditation committee
- Jordan University civil engineering accreditation committee
- Graduate studies and scientific research committee
- Evaluation of students transferred course work and curriculum committee

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- Brochure committee
- Selection of new staff members committee
- Courses and Graduation committee (Head of)
- Projects committee (Head of)
- Students affairs committee
- Committee for the distribution of senior students among department specialties.
- Staff promotion committee

Other related experiences

Journal Reviewer:

Acted as reviewer for the following journals:

Dirasat , Jordan University, Amman, Jordan

Mu'tah Journal for Research and Studies, Natural and Applied Sciences Series, Mu'tah University, Al - Karak, Jordan

Research Journal of Yarmouk University, Applied Sciences and Engineering Series, Yarmouk University, Irbid, Jordan

Special Activities:

July 1986-Aug. 1986:

Research, Associate, Texas A&M University, Highway Materials Division.

June 1987-Sept. 1987:

Research Associate, University of California, Berkeley.

December 1990:

Referee for the "Second International Symposium on Approaches to the Middle East Transportation Requirements", Istanbul, Turkey.

July 8-22, 1995:

Member of the European Community Med-Campus program for training in Urban Traffic Management Processes under the auspices of The Nottingham Trent University and University College Dublin, England and Ireland respectively.

Oct.15-17, 1995:

Member in the meetings held for the European Community Med-Campus program for training in Urban Traffic Management Processes under the auspices of The Nottingham Trent University in Cairo University, Egypt.

September 1997:

Participant in the preparation of civil engineering syllabus for Balqa Applied University, Salt, Jordan.

Dec. 1997- Jan. 1998:

Supervisor of highway materials research for professional engineers in The Ministry of Public Works and Housing, Amman, Jordan.

Professional Society Memberships

- Member of institute of Transportation Engineers (ITE), USA.
- Member of American Society of Civil Engineers (ASCE), USA.
- Member of Jordan Engineers Association, Jordan.
- Member of Jordan Roads Society.
- Member of the Jordan society for the Prevention of Road Accidents.

Honors and Awards

- Awarded the "Outstanding University Teaching Prize" in the College of Engineering, Yarmouk University.
- Received the Fulbright scholarship for research.
- Received Certificate of Outstanding Service on ITE Committee "Suggested Graduate curricula for Future Transportation Engineers".
- Received Certificate of outstanding service on ITE Committee "Capacities of Triple Left - Turn Lanes".

Other

Skills:

- Economic analysis
- Statistical analysis
- Optimization and Operation Research Techniques

Graduate Studies:

- Supervision of two Ph. D. dissertations.
- Supervision of 75 Master theses.
- Participation in 78 examination committees of Master theses at various universities.

(detailed lists of the above are available)

Professional Consultations:

Provided professional consultation, at both the local and international levels in several projects:

- Wadi Haddada Tunnel Traffic Study, Jordan
- Aqaba Coastal Road: 26 km highway by passing the coastal area in Aqaba Jordan.
- King Hussein access road and sheikh Hussein access road studies, Palestine and Jordan.
- Light road system Zarqa, Jordan
- Luanda Airport Project, Angola
- Soyo Airport, Angola
- Sonair Airport Angola
- Doha international Airport, Qatar
- Public Transportation Services Needs in Jordan
- Project manager of Jeddah /Al Hamrah Transportation Masterplan project
- Wadi Haddadeh Highway Feasibility Study.
- Aqaba intersections Study.

Languages Mastered Fluently:

Arabic and English