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#### Research Fields:

1. Asphalt pavement Materials
2. Pavement Analysis and Pavement design
3. Pavement Maintenance and Management
4. Airport Pavement Evaluation and Design

## I. PERSONAL INFORMATION

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## II. EDUCATIONAL RECORDS

<u>Degree</u>	<u>Institution</u>	<u>Field</u>	<u>Date</u>
<b>Bachelor of Engineering</b>	University of Naples, Italy	Civil Engineering, Transportation	1982
<b>PhD</b>	University of Birmingham, UK	Transportation and Highway Engineering	1988

## III. ACADEMIC EXPERIENCES

- Professor: Tarbiat Modares University, Tehran, Iran (1989-Present)
- Visiting Professor:
  - 1) Oregon State University, USA, 1996-1997
  - 2) University of Manitoba, Canada, 2003-2004

#### **IV. MEMBERSHIP OF SCIENTIFIC ORGANIZATIONS**

- Association of Asphalt Paving Technologists (AAPT)
- Institute of Asphalt Technology (IAT)
- Road Engineering Association of Asia and Australia (REAAA)
- Institution of Highways and Transportation (IHT)
- Permanent International Association of Road Congresses (PIARC)
- Middle East Society of Asphalt Technologists (MESAT)

#### **V. RESEARCH INTERESTS**

- 1) Highway and Airport Pavement Analysis and Design
- 2) Pavement Materials Testing and Evaluation
- 3) Application of Innovative Materials in Pavements
- 4) Road Maintenance, Rehabilitation and Management

#### **VI. JOURNAL PAPERS**

1. Kavussi A and Lees G, "An accelerated weathering technique to assess the hardening of bitumen and filler-bitumen mixes", Journal of the Institute of Asphalt Technology, No. 42, 1990, UK, pp 22-29
2. Kavussi A and Hicks R G, "Properties of bituminous mixtures containing different fillers", Journal of the Association of Asphalt Paving Technologists, Vol. 66, 1997, USA, pp 153-186
3. Kavussi A and Sandiani S., "Categorization of the bitumens produced in Iran into performance grade SHRP classification", Journal of Faculty of Engineering, University of Tehran, Vol. 35, No.3, November 2001
4. Sadradini M R, Kavussi A and Yousefi A A, "Improving bitumen properties by polymeric materials", Iranian Journal of Polymer Science and Technology, Vol. 15, No. 2, 2002, pp 103-120
5. Kavussi A and Afrashteh E, " Evaluation of open graded mixes containing emulsified bitumen", International Journal of Engineering Science, Vol. 13, No.2, Iran University of Science and Technology, 2002
6. Shalaby A, Liske T and Kavussi A, "Comparing back-calculated and laboratory resilient moduli of bituminous paving mixtures", Canadian Journal of Civil Engineering, Vol. 31, 2002, pp 988-996
7. Kavussi A and Shalaby A, "Analysis of back calculated and laboratory resilient moduli of flexible pavements, International Journal of Pavement Engineering, IJP, 2003
8. Shalaby A, Law T and Kavussi A, "Evaluation of well graded and fine graded asphalt mixes using the indirect tensile test", International Journal of Pavements, Vol. 3, No. 1-2, January 2004, pp 14-25

9. Kavussi A and S H Zamani, "Structural evaluation of Tehran-Qom Freeway using a falling weight deflectometer, *Modares Technical and Engineering Journal*, Vol. 1, 2004
10. Kavussi A and Babazadeh A, "The influence of pavement layers behaviour on thickness design using Kenlayer program", *The International Journal of Pavement Engineering & Asphalt Technology, PEAT*, Vol. 9, Issue 2, ISSN 1464-8164, December 2008, pp 36-49
11. Kavussi A and Abdi A, "Evaluation of Stripping in asphalt using abrasion test", *Modares Civil Engineering Journal*, Vol. 10, No. 2, 2010
12. Kavussi A. and Rafie K, "Evaluation of PFWD as potential quality control tool of pavement layers", *Journal of Civil Engineering and Management*, Vol. 16, No. 1, 2010, pp 123-129
13. Kavussi A and Modarres A, "Laboratory fatigue models for recycled mixes with bitumen emulsion and cement", *Construction and Building Materials*, Vol. 24, No. 10, 2010, pp 1920-1927
14. Kavussi A and Modarres A, "A model for resilient modulus determination of recycled mixes with bitumen emulsion and cement from ITS testing results", *Construction and Building Materials*, Vol. 24, No. 11, 2010, pp 2252-2259
15. Kavussi A, Rafiei K and Yasrobi S, "Evaluation of PFWD as potential quality control tool of pavement layers", *Journal of Civil Engineering and Management*, Vol. 16, No. 1, 2010, pp 123-129
16. Kavussi A and Zahedi T A, "Study of the abrasion resistance of water-borne traffic paints by abrasion test machine, in wet conditions", *Journal of Transportation Engineering*, Vol 2, No. 15, 2010
17. Kavussi A and Rafiei K, "Evaluation of PFWD parameters on stiffness modulus of unbound pavement layers", *Journal of Civil and Surveying Engineering*, Vol. 44, No. 4, 2011, pp 537-545
18. Kavussi A, Moghadas Negad F and Modarres A, "Laboratory fatigue models for recycled mixes with pozzolanic cement and bitumen emulsion", *Journal of Civil Engineering and Management*, Vol. 17, No. 1, 2011, pp 98-107
19. Kavussi A and Hashemian L, "Properties of WMA-Foam mixes based on major mechanical tests", *Journal of Civil Engineering and Management*, Vol. 17, No. 2, 2011, pp 207-216
20. Modarres A, Nejad F M, Kavussi A, Hassani A and Shabanzadeh E, "A parametric study on the laboratory fatigue characteristics of recycled mixes", *Construction and Building Materials*, Vol. 25, No. 4, 2011, pp 2085-2093
21. Dibaj S M and Kavussi A, "An optimized mix design method for emulsified bituminous mixtures", *Journal of Transportation Engineering*, Vol. 4, No. 113, 2012, pp 23-34
22. Kavussi A and Hashemian L, "Laboratory evaluation of moisture damage and rutting potential of WMA foam mixes", *International Journal of Pavement Engineering*, Vol. 13, No. 5, 2012, pp 415-423

23. Kavussi A and Tanzadeh R, "Application of slow curing bitumen as a rejuvenating agent in aged bituminous mixes", *Advanced Materials Research*, Vol. 587, November 2012, pp 62-66
24. Rafiei K, Kavussi A and Yasrobi S, "Construction quality control of unbound layers based on stiffness modulus criteria", *Journal of Civil Engineering and Management*, Vol. 18, No. 1, 2012, pp 5-13
25. Khadivar A and Kavussi A, "Rheological characteristics of SBR and NR Polymer Modified Bitumen Emulsions at average pavement Temperatures", *Journal of Construction and Building Materials*, Vol. 47, 2013, pp 1099–1105
26. Hashemian L, Kavussi A and Abdolmaali H H, "Application of foam bitumen in cold recycling and hydrated lime in airport pavement strengthening", *Case Studies in Construction Materials*, Vol. 1, 2014 pp 164-171
27. Kavussi A and Bakhtiari J, "Application of different testing methods for evaluating effects of hydrated lime on bituminous mixes", *Procedia Engineering*, Vol. 77, 2014, pp 148-154
28. Kavussi A and Barghabani P, "The influence of nano materials on moisture resistance of asphalt mixes", *Study of Civil Engineering and Architecture (SCEA)*, Volume 3, Science and Engineering Publishing Company, 2014
29. Kavussi A and Qazizadeh M J, "Fatigue characterization of asphalt mixes containing electric arc furnace (EAF) steel slag subjected to long term aging", *Construction and Building Materials*, No. 72, 2014, pp 158-166
30. Kavussi A, Qorbani M, Khodaei A and Haghshenas H F, "Moisture susceptibility of warm mix asphalt: a statistical analysis of the laboratory testing results", *Construction and Building Materials*, No. 52, 2014, pp 511-517
31. Kavussi A and Barghabani P, "Investigating Fatigue Behavior of Nanoclay and Nano Hydrated Lime Modified Bitumen Using LAS Test", *Journal of Materials in Civil Engineering*, Vol. 28, No.3, 2015, 04015136
32. Kavussi A, Jalili Qazizadeh M and Hassani A, "Fatigue behavior analysis of asphalt mixes containing electric arc furnace (EAF) steel slag", *Journal of Rehabilitation in Civil Engineering*, Vol. 3, No. 1, 2015, pp 74-86
33. Kavussi A, Mohammadzadeh M A and Ziaee S A, "Experimental evaluation of asphalt mixtures containing basic oxygen furnace (BOF) and Electric Arc Furnace (EAF) slags", *Journal of Transportation Infrastructure Engineering (JTIE)*, Vol. 1, No. 3, 2015, pp 15-31
34. Nazirizad M, Kavussi A and Abdi A, "Evaluation of the effects of anti-stripping agents on the performance of asphalt mixtures", *Construction and Building Materials*, No. 84, 2015, pp 348-353
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36. Jalili Qazizadeh M, Kavussi A, Sheikhi O and Solatifar N, “Comparison of Full Depth Reclamation (FDR) and Reconstruction Alternatives for Rehabilitation of Flexible Pavements: A Case Study”, *Journal of Civil Engineering and Architecture Research*, Vol. 3, No. 2, 2016, pp 1286-1292
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49. Kavussi A, Hassani A, Kazemian F and Taghipoor M, “Laboratory evaluation of treated recycled concrete aggregate in asphalt mixtures”, *International Journal of Pavement Research and Technology*, No. 12, 2019, pp 26-32, <https://doi.org/10.1007/s42947-019-0004-5>
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52. Hafezzadeh R and Kavussi A, “Application of microsurfacing in repairing pavement surface rutting”, *Journal of Road Materials and Pavement Design*, 2019, <https://doi.org/10.1080/14680629.2019.1663243>
53. Kavussi A, Azarnia M, Ayar P and Pedram M, “The fatigue behavior of polymeric sulfur modified asphalt mixtures subjected to freeze-thaw conditioning”, *Journal of Thermoplastic Composite Materials*, Vol. 35, Issue 4, 2019, pp 467–486, DOI: 10.1177/0892705719889985
54. Dibae M M and Kavussi, “Determination of Asphalt Binder VECD Parameters Using an Accelerated Testing Procedure“, *Civil Engineering Infrastructures Journal*, 52(2): pp 335–348, December 2019, Print ISSN: 2322-2093; Online ISSN: 2423-6691 DOI: 10.22059/cej.2019.273386.1540
55. Razavi S H and Kavussi A, “The role of nanomaterials in reducing moisture damage of asphalt mixes”, *Construction and Building Materials*, Vol. 239, Paper N0. 117827, 2020
56. Kavussi A, Karimi M M and Dehaghi E A, “Effect of moisture and freeze-thaw damage on microwave healing of asphalt mixes”, *Construction and Building Materials*, Vol. 254, Paper No. 119268, 2020
57. Ali Foroutan Mirhosseini, Amid Tahami, Inge Hoff, Samer Dessouky, Amir Kavussi, Luis Fuentes, and Lubinda F. Walubita, “Performance Characterization of Warm-Mix Asphalt Containing High Reclaimed-Asphalt Pavement with Bio-Oil Rejuvenator”, *Journal of Materials in Civil Engineering*, September 2020, DOI:10.1061/(ASCE)MT.1943-5533.0003481
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60. Solatifar N, Kavussi A and Abbasghorbani M, “Dynamic Modulus Predictive Models for In-Service Asphalt Layers in Hot Climate Areas”, Journal of Materials in Civil Engineering, Vol. 33, Issue 2, February 2021
61. Kavussi A and Motevalizadeh S M, “Fracture and mechanical properties of water-based foam warm mix asphalt containing reclaimed asphalt pavement”, Construction and Building Materials, Vol. 269, 121332, 2021, <https://doi.org/10.1016/j.conbuildmat.2020.121332>
62. Kavussi, A., Motevalizadeh, S.M. “Fracture Failure Evaluation of Foam WMA Mixes Containing RAP by Applying Weibull Probability Distribution Function”, International Journal of Pavement Research and Technology, 2021. <https://doi.org/10.1007/s42947-021-00088-0>
63. Motevalizadeh S M, Kavussi A, Tsantilis L, Dalmazzo D, Santagata E, “Investigating the influence of fine RAP on bituminous mixtures at the mastic scale: viscoelastic analyses and micromechanical modelling”, International Journal of Pavement Engineering, 1-11, 2021
64. Negarchi M and Kavussi A, “Application of Pull-off Test for Evaluating Bond Strength Properties of Modified Bitumen Emulsions”, Amirkabir Journal of Civil Engineering, Vol 54, No. 2, 2022, pp 129-132, DOI: 10.22060/ceej.2021.19010.7028
65. Kavussi A and Motevalizadeh S M, “Exploring the role of extreme thermal conditions and freeze-thaw cycling on crack growth resistance of WMA mixes: an analytical and statistical analysis, International Journal of Pavement Engineering, 2022, <https://doi.org/10.1080/10298436.2021.201871>
66. Motevalizadeh S M, Kavussi A and Mollenhauer K, “Predicting the fracture mechanics responses of recycled asphalt mixes using machine learning-based algorithms: Application of CART algorithm and neural networks”, Engineering Fracture Mechanics. 2022, <https://doi.org/10.1016/j.engfracmech.2022.108791>
67. Sadeghi E, Nikudel M R, Khomehchiyan M and Kavussi A, “A comprehensive view on the compilation of an engineering geological map of carbonate rocks: a case study in the Central Alborz Zone, Iran”, Quarterly Journal of Engineering Geology and Hydrogeology, Vol. 55, qjgeh2021-062, 2022, pp 1-19, <https://doi.org/10.1144/qjgeh2021-062>

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## VII. PAPERS PRESENTED IN MAJOR CONGRESSES AND SEMINARS

1. Kavussi A and Lees G (1989), “An accelerated weathering technique to assess the hardening of bitumen and filler-bitumen mixes”, *Proceedings, Durability and Performance of Bituminous Highway Materials*, Hatfield Polytechnic, 3-4 April, Hatfield, UK.
2. Kavussi A and Less G (1989), “The development and automation of Fraass brittle test”, *Proceedings, 4th Eurobitume Symposium*, 4-6 Oct., Madrid, Spain.
3. Kavussi A (1990), “Physical characteristics of fillers used in bituminous mixtures and the temperature susceptibility of filler-bitumen mixtures”, *Proceedings, 3rd Iranian Congress of civil Engineering*, Vol. 4, 14-18 May, Shiraz, Iran, pp 525-545.
4. Kavussi A (1991), “The mixing compatibility of some rubber additives with bitumen to be used in bituminous mixes”, *2nd International Conference on Rubbers*, 3-8 Nov., Tehran, Iran.
5. Kavussi A and Less G (1992), “Physical characteristics of fillers used in bituminous mixtures and the temperature susceptibility of filler-bitumen mixes”, *Proceedings, 7th Conference of Road Engineering Association of Asia and Australasia*, 22-26 June, Singapore, pp 447-485.
6. Kavussi A (1993), “An investigation into the application of bituminous layers in rail road pavements”, *Proceedings, International Railway Seminar*, 12-14 April, Tehran, Iran, pp 636-651.
7. Kavussi A (1993), “The role of fillers on flexural properties of bituminous mixes at low temperatures”, *Proceedings, East-West European Road Conference*, Vol.1, 22-24 Sept., Warsaw, Poland, pp 195-199.
8. Kavussi A and Rafii H (1993), “Evaluation of bitumen emulsion mixes by Marshall testing and the role of fillers”, *Proceedings, 1st World Congress on Emulsions*, Vol. 3, Paper 4 -12-61, 19-22 Oct., Paris, France.
9. Havaei Torshizi M H, Bazasan M and Kavussi A (1994), “Winter road maintenance operations in Iran”, *Proceedings, Technical Report, 9th PIARC International Winter Road Congress*, Vol. 1, 21-25 March, Seefeld, Austria, pp 281-289.
10. Kavussi A (1994), “An investigation into road surface defects in various climatological areas of Iran”, *Proceedings, 9th AAPA International Asphalt Conference*, 13-17 November, Surfers Paradise, Queensland, Australia.



11. Kavussi A (1995), "Climatological zoning of Iran for pavement design purposes", 8th Conference of Road Engineering Association of Asia and Australasia, 17-21 April, Taipei, Taiwan, R.O.C.
12. Havaei Torshizi M H, Saeidi Kia A and Kavussi A (1995), "Pavement rehabilitation in Iran and the use of locally produced textiles to strengthen them", Proceedings, PIARC XXth World Road Congress, Vol. 20-24.E, Question IV, New Techniques for Pavement Strengthening and Maintenance, National Report, 3-9 Sept., Montreal, Canada.
13. Kavussi A (1996), "Hot in place recycling of 29R runway of Mehrabad airport in Iran." Proceedings, 1st Euro Asphalt & Eurobitume Congress, Vol. 1, Paper E&E3. 041, 7-10 May, Strasbourg, France.
14. Kavussi A and Hicks R G (1997), "The role of fillers on the low temperature properties of bituminous mixes", 76th Annual Meeting of TRB, January 12-16, Washington D.C., USA
15. Kavussi A (2000), "Hot in place recycling as an environmental friendly approach for road roughness improvement", Proceedings, 24th International Baltic Road Conference, 21-23 August, Riga, Latvia.
16. Kavussi A (2000), "Strengthening a heavily trafficked road, using foam bitumen technique", Proceedings, 10th Road Engineering Association of Asia and Australasia Conference, 4-9 September, Tokyo, Japan
17. Kavussi A and Atabaki M A (2001), "Road construction in Qeshm Island in Persian Gulf by using locally available materials", Proceedings, 1st International Symposium on Subgrade Stabilization and in Situ Pavement Recycling using Cement, 1-4 October, Salamanca, Spain, pp 471-477
18. Kavussi A and Atabaki M A (2001), "Subgrade stabilization with lime and base strengthening with cement-foam bitumen, a case study in Assalouyeh airport in Iran", Proceedings, 1st International Symposium on Subgrade Stabilization and in Situ Pavement Recycling using Cement, 1-4 October, Salamanca, Spain, pp 479-492
19. Kavussi A (2001), "The wearing resistance of road aggregates and their impacts on the environment", XIth National S.I.I.V. (Societa Italiana Infrastrutture Viarie) Conference, 28-30 November, Verona, Italy
20. Kavussi A and Hashemian L (2002), "Soil stabilization with lime in Pars Airport", Proceedings, 1st Conference on Soil Stabilization Techniques, Amir Kabir University, 4-5 March, Tehran, Iran
21. Kavussi A and Hashemian L (2004), "Foam-bitumen as an alternative mix for bituminous surfacing", Proceedings, 5th Symposium on Pavement Surface Characteristics of Roads and Airports, 6-10 June, Toronto, Canada
22. Kavussi A (2004), "The Effect of Lime & Cement in Foam Bitumen Mixes", International RILEM Conference on the Use of Recycled Materials in Building and Structures: RILEM Publications SARL (Editors: Vázquez E, Hendriks CF and Janssen G), pp 76-83, DOI: 10.1617/2912143756.009

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25. Kavussi A (2005), "Road construction in Iran", International Seminar: System and Process Optimization as a Challenge for Engineers, 25-29 September, Tehran University
26. Kavussi A and Dibaj S M, (2007), "Cold in place recycling mix design: a case study in Tehran- Khavaran Highway", The 6th International Conference on Sustainable Aggregates, Asphalt Technology and Pavement Engineering, 21-21 February, Liverpool, UK
27. Kavussi A and Dibaj S M, (2007), "Evaluation of asphalt concrete mix containing different amounts of fillers", The 6th International Conference on Sustainable Aggregates, Asphalt Technology and Pavement Engineering, 21-21 February Liverpool, UK
28. Kavussi A and Babazadeh A (2008), "The application of Kenlayer computer program to study the visco-elastic behaviour of pavement layers", The 7th International Conference on Sustainable Aggregates, Asphalt Technology and Pavement Engineering, 20-21 February, Liverpool, UK
29. Kavussi A and Dibaj S M, (2008), "The role of lime and cement in cold in place recycling of flexible pavements", The 7th International Conference on Sustainable Aggregates, Asphalt Technology and Pavement Engineering, 20-21 February, Liverpool, UK
30. Kavussi A and Hashemian H (2008), "Cold in place recycling using lime in Shahroud-Sabsevar Highway in Iran", Transport Research Arena Europe, 21-24 April, Ljubljana, Slovenia
31. Kavussi A and Hashemian H (2008), "Runway construction using lime stabilization in subgrade and foam-cement strengthening of base materials in Ardebil, Iran" Proceedings, 10th International Conference on Application of Advanced Technologies in Transportation, 27-30 May, Athens, Greece
32. Kavussi A and Mohsenzadegan H (2008), "Adverse effects of a penetration grade bitumen used as tack coating binder in Tehran\_Qom Freeway geotextile reinforced overlay", 1st International Bitumen Conference, 18-19 October, Tehran, Iran
33. Kavussi A and Rafie K (2008), "The application of PFWD in determining resilient modulus of pavement layers", 4th Conference on Asphalt Mixes, Ministry of Roads and Transportation, 11-12 November, Tehran, Iran
34. Kavussi A and Rafiei (2009), "A quality control method of pavement layers based on data obtained from PFWD", Sixth Int. Conf. on Maintenance and Rehabilitation of...

35. Kavussi A and Sohrabi E (2009), "Characterization of parameters affecting deformation resistance of bituminous mixes", 8th International Conference on Sustainable Aggregates, Asphalt Technology and Pavement Engineering, 18-19 February, Liverpool, UK
36. Kavussi A and Nekouee A S (2010), "Investigation of Use of Surface Treatments in Iran Roads", 9th International Conference on Sustainable Aggregates, Asphalt Technology and Pavement Engineering, 17-18 February, Liverpool, UK
37. Kavussi, A, Soudagari J and Mollahosseini Sabbagh H (2010)., "An intelligent drainage system to prevent pavement damage in low laying land – A case study in Vavan Bypass near Tehran, 3rd International Symposium on Infrastructure Engineering in Developing Countries (IEDC-2010), 1-3 July, Karachi, Pakistan
38. Kavussi A, Ahadi M R, Jahanian H P and Nekouee A S (2010), "Economic evaluation of thin HMA overlay, compared with surface treatments in Iran, 1st MESAT Technical Conference, In coordination with the American University of Beirut, 5-8 July, Beirut, Lebanon
39. Mollahosseini Sabbagh H, Kavussi A and Orugzadeh N (2011)., "Properties of recycled glass bituminous mixes from wastes in Tehran", 5th International Conference: Bituminous Mixtures and Pavements, 1-3 June, Thessaloniki, Greece
40. Kavussi A, Hashemian L. and Sattarpour S (2011)., "The effects of anti-stripping agents in reducing moisture susceptibility of foam-warm mixes", 5th International Conference: Bituminous Mixtures and Pavements, 1-3 June, Thessaloniki, Greece
41. Kavussi A, Sanij Khani H and Nekuei A S (2012), "The optimum aggregates skeleton to resist rutting in Stone Mastic Asphalt Mixes", LJMU 11th International Conference on Sustainable Construction Materials and Technology in Asphalt Pavement Engineering and Highway Maintenance, 15-16 February, Liverpool, UK
42. Kavussi A (2012), "Laboratory investigation of stiffness of hot mix asphalt containing reclaimed asphalt materials", 5th International Congress, SIIV MMXII, 29-31 October Rome, Italy
43. Sabbagh Mollahosseini H, Hayati P and Kavussi A (2012), "Evaluation of hydrated lime effects on asphalt mixture durability against moisture: a case study in Iran", Paper A5EE-437, 5th Eurasphalt & Eurobitume Congress, 13-15th June, Istanbul, Turkey
44. Tabarestani A Z, Kavussi A and Soha M D (2012), "A study of the role of aggregate properties on wearing resistance of traffic paints", 91st Annual Meeting of Transportation Research Board, Washington DC, USA
45. Kavussi A, Jalili Qazizade M, Sheikhi O and Solatifar N (2013), "A Study of Full Depth Reclamation (FDR) Using Foam Bitumen in Mashhad–Shandiz Highway in Iran", 2nd MESAT Conference, American University of Sharjah, 5-7 February, Sharjah, UAE
46. Kavussi A, Qorbani M, Khodaei A and Haghshenas H F (2013), "Quantification of parameters affecting moisture resistance of warm mix asphalt using response surface methodology", IJPC-International Journal of Pavements Conference, Sao Paulo, Brazil

47. Ale Mohammadi M, Aghasoltan A and Kavussi A (2014), "An optimum grading model to improve the rut resistance of stone mastic asphalt", 93rd Annual Meeting, Transportation Research Board, Washington DC, USA
48. Hashemian L and Kavussi A (2014), "Moisture susceptibility and rutting potential of warm mix asphalt produced using foaming nozzle technology", Transportation Research Arena, 5th Conference, Paris, France
49. Kavussi A and Barghabani P (2014), "The Influence of Nano Materials on Moisture Resistance of Asphalt Mixes", IMS/7 Conference on Advances in Engineering Materials IMS – College of Engineering American University of Sharjah, UAE, March 18-20
50. Kavussi A and Azarnia M (2015), "Controlling Stiffening Effects of Sulfur in Asphalt Mixes using Polymers and CRM binders", 3rd MESAT Conference, American University of Dubai, 6-8 April, Dubai, UAE
51. Kavussi A, Solatifar N, and Jalili Qazizade M (2017), "Determination of In-Situ Asphalt Dynamic Modulus Master Curves in Hot Climate Areas", LJMU 16th Annual International Conference on Asphalt Pavement Engineering and Infrastructures, 22-23 February, Liverpool, UK
52. Kavussi A., Jahantighi M. and Bakhtiari J (2018), "Investigation of the Effects of Additives on Moisture Susceptibility of Asphalt Mixes Containing Sulfur-Polymer, LJMU Annual International Conference on: Asphalt, Pavement Engineering and Infrastructure, 22-23 February, Liverpool, UK
53. Darash R, Kavussi A and Bideshki M R (2018), "Road traffic noise as affected by tire traffic and the role of pavement surfacing in reducing that", 2nd International Congress on World Contemporary in Civil Engineering, Architecture and Urban Development, 4-6 March, Dubai, UAE
54. Solatifar N., Abbasghorbani M and Kavussi A (2018), "Development of dynamic modulus master curves of asphalt layers for the three MEPDG levels", 11th International Congress on Civil Engineering, University of Tehran, 8-10 May, Tehran, Iran
55. Solatifar N., Kavussi A and Abbasghorbani M (2018), "Development of dynamic modulus master curves of asphalt layers using FWD data", 11th International Congress on Civil Engineering, University of Tehran, 8-10 May, Tehran, Iran
56. Kavussi A and Mir Azizi Z (2020), "Determination of mechanical properties of combi-layer, a porous asphalt filled with cement slurry", 2020 Highways and Airport Pavement Engineering, Asphalt Technology, and Infrastructure International Conference, LJMU, 11-12 March, Liverpool, UK
57. Kavussi A, Kazemian F and Bayzidi M (2020), "Properties of hot mix asphalt containing treated recycled concrete aggregates using SCB and ITS tests", Proceedings of the 9th International Conference on Maintenance and Rehabilitation of Pavements - Mairepav9, 1-3 July, Zurich, Switzerland
58. Kavussi A and Motevallizadeh S M (2020), "Application of Dynamic Creep Testing to Investigate Permanent Deformation Characteristics of Asphalt Mixes", Proceedings of

the 9th International Conference on Maintenance and Rehabilitation of Pavements - Mairepav9, 1-3 July, Zurich, Switzerland

59. Amani S, Kavussi A and Karimi M M (2021), "Application of Activated Carbon on Induction Heating-Induced Healing Characteristics of Aged mixes", RILEM International Symposium on Bituminous Materials, 14-16 December, Lyon, France
60. Kavussi A, Doosti M, Azarnia M, Javadian S and Mollenhauer K (2022), "Evaluation of Hot Mix Asphalt Containing Processed and Conventional Crumb Rubber", Proceedings, Rubberized Asphalt-Asphalt Rubber Conference, 26-29 June 2022, Malaga, Spain, pp 267-280

### **VIII. PROFESSIONAL EXPERIENCES**

1. Supervising Engineer, Iranian International Engineering Co. (IRITEC), Iran (1981-1985)
2. Professor, Highway Eng. Group, Department of Civil Eng., Tarbiat Modares University (from 1988 till present)
3. Part time consultant to Wirtgen GmbH-Wirtgen Qeshm

### **IX. TITLES OF RESEARCH PROJECTS COMPLETED**

1. Climatological zoning of Iran for pavement design purposes (1990)
2. A maintenance guide for paved roads (1992)
3. Pavement design methods for low volume roads (1993)
4. Pavement rehabilitation in rural roads (1995)
5. Asphalt surfacing mixes for low volume roads (1998)
6. Characterization of bitumens produced in Iran for SHRP specification (2000)
7. Methods for restoring surfaces damaged by utility cuts (2002)
8. Pavement deterioration analysis in Iran (2004)
9. Framework for pavement management system of the main roads in Iran (2005)
10. Specification draft for surface treatments suitable for road conditions in Iran (2006)
11. An investigation into early deterioration of bituminous pavements in Iran, 2007
12. Evaluation of the geotextile reinforced pavements in Tehran province (2008)
13. Moisture resistance of asphalt mixes containing aggregates from Tehran provinces (2008)
14. Mixing design of large stone asphalt mixes (2009)
15. Mixture design of asphalt mixes containing large size aggregates, 2011
16. A Proposed QC/QA method for quality control of asphalt pavements (2012)
17. Role of hydrated lime in improving stripping resistance of siliceous aggregates, 2013
18. Application of foam asphalt in designing WMA mixes (2013)
19. Mixing design of sulfur-polymer mixes to be used in Yazd Province (2014)

20. Application of sulfur-polymer and CRM into asphalt mixes (2015)
21. Road pavement stabilization in Sistan-Baluchestan Province using locally available materials (2017)
22. A proposed Quality Assurance Plan for Arak-Khoram Abad Highway (2018)
23. Soil stabilization in Sistan and Baluchestan Province with the purpose of reducing pavements thicknesses (2020)

#### **X. POSTGRADUATE THESIS SUPERVISED**

1. Eighty MSc Students Dissertations and Final Projects
2. Eight Phd Thesis

#### **XI. BOOKS WRITTEN**

1. Advanced pavement design methods, 1st Edition, Published by International University of Iran, Ghazvin, Iran (1993)
2. Road engineering and design, Published by Azad University, Tehran, Iran (1999)
3. Advanced pavement design methods, 2nd Edition, Published by International University of Iran, Ghazvin, Iran (2006)

#### **XII. COURSES TAUGHT**

1. Pavement Materials
2. Pavement Analysis and Design
3. Asphalt Testing Laboratory
4. Pavement Maintenance and Management
5. Airport Pavement Engineering

#### **XIII. AWARDS**

1. Argent Award for the best paper published in year 1990, Journal of the Institute of Asphalt Technology, UK
2. Distinguished researcher in academic years 2005-2006 and 2007-2008, 2015-2016, 2020-2021, Tarbiat Modares University