

# ANDREW DAWSON

## PUBLICATIONS

- 1 Bradley, D. & Dawson, A.R., "Computer aided design of transmission lines", *Proc. Universities Power Engineering Conf.*, 1978.
- 2 Cox, D.W. & Dawson, A.R., "The use of small scale trial compactions for earthwork design", in *Site Investigation Practice: Assessing BS5930*, Proc. 20th Reg. Meeting of Eng. Group Geol. Soc., Vol. 1, 1984, pp 109-119 (republished in one volume: "*Site Investigation Practice Assessing BS5930*", Geol. Soc., London, 1986).
- 3 Cox, D.W., Dawson, A.R. & Hall, J.W.H., "Techniques for site investigation using trial pits", *ibid*, 1984, pp 120-131.
- 4 Dawson, A.R., Contributions to discussion, *ibid*, 2, 1984, p30 and p150.
- 5 Dawson, A.R., "Water movements in road pavements", *Proc. 2nd Symp. on Unbound Aggregates in Roads* (UNBAR2), Dept. of Civil Eng., Univ. of Nottingham, 1985, pp 7-12.
- 6 Dawson, A.R., "Ground anchorages - case histories", *Proc. Inst. Civil Engrs.*, Pt.1, Vol. 78, Dec. 1985, pp 1500-1503.
- 7 Dawson, A.R., Contribution to discussion, "*Failures in Earthworks*", Thomas Telford, London, 1985, pp 393-394.
- 8 Dawson, A.R., "*Pavement foundations*", Lecture H in *Bituminous Pavements: Materials, Design and Evaluation*, Dept. of Civil Eng., Univ. of Nottingham, 1986.
- 9 Dawson, A.R., "The role of geotextiles in controlling sub-base contamination", *Proc. 3rd Int. Conf. Geotextiles*, Vienna, II, 1986, pp 593-598.
- 10 Brown, S.F., Dawson, A.R. & Barksdale, R.D., "Innovations for pavement foundations", Inst. Of High. and Transp., *National Workshop on Design and Construction of Pavement Foundations*, Leamington Spa, March 1987, pp 121-141.
- 11 Dawson, A.R., Jones, R.H., Lee, R.G., O'Reilly, M.P., Selig, E.T., Tam, W-S. & Thom, N.H., Prediction to "*Stanstead Abbots trial embankment prediction symposium*", King's College, London, 1987.
- 12 Dawson, A.R., "Ground anchorages: an introduction", *Proc. Inst. Civil Engrs.*, Pt.1, Vol. 82, June 1987, pp 587-589.
- 13 Brown, S.F. & Dawson, A.R., "The effects of groundwater on pavement foundations", *Proc. IX European Conf. Soil Mech. and Found. Eng.*, 2, 1987, pp 657-660.
- 14 Dawson, A.R., Contribution to discussion, *Proc. IX European Conf. Soil Mech. and Found. Eng.*, *ibid*, 1988, Vol. 3.
- 15 Dawson, A.R., "*Introduction to soils and granular materials*", Lecture G in *Bituminous Pavements: Materials Design and Evaluation*, Dept. of Civil Eng., Univ. of Nottingham, 1988.
- 16 Dawson, A.R., "*Pavement Foundations*", Lecture H, *ibid*, 1988.
- 17 Dawson, A.R. & Lee, R.G., "Full scale foundation trials on grid-reinforced clay", *Geosynthetics for Soil Improvement*, Ed. Holtz R, ASCE *Geotechnical Special Publication* No. 18, 1988, pp 127-

- 147.
- 18 Dawson, A.R., Brown, S.F. & Barksdale, R.D., "Pavement foundation developments", *Jnl. of Inst. of Highways and Transportation*, **36** (3), March 1989, pp 27-34.
  - 19 Dawson, A.R. & Gomes Correia, A., "The effects of stress and pore water pressure states on the resilient properties of granular materials", *12th Int. Conf. Soil Mechanics & Foundation Eng.*, Balkema, 1989, pp 701-705.
  - 20 Jones, R.H. & Dawson, A.R. (editors), "*Unbound Aggregates in Roads*", 1989, Butterworths.
  - 21 Dawson, A.R., "General report: The specification of granular materials for unbound pavement layers", in *Unbound Aggregates in Roads*, eds Jones, R.H. & Dawson, A.R., Butterworths, 1989, pp 17-26.
  - 22 Dawson, A.R., "The degradation of Furnace Bottom Ash under compaction", *ibid*, 1989, pp 169-179.
  - 23 Dawson, A.R. & Jones, R.H., "Conclusion and recommendations for the use of unbound aggregates in roads", *ibid*, 1989, pp 413-415.
  - 24 Jones, R.H. & Dawson, A.R., "Introduction", *ibid*, 1989, pp 1-2.
  - 25 Dawson, A.R. & Thom, N.H., "Field tests on pavement materials", in *Field Testing in Engineering Geology*, ed. Bell, F.G., Culshaw, M.G., Cripps, J.C. & Coffey, J.R., *Eng. Geol. Sp. Publ. No 6*, Geol Soc, London, 1990, pp 137-143.
  - 26 Lee, R.G., Dawson, A.R. & Jones, R.H., "Use of instrumentation in determining full-scale trial foundation performance". *Geotechnical Instrumentation in Practice*, Thomas Telford, 1990, pp 209-225.
  - 27 Dawson, A.R. & Little, P.H., "Reinforced haul-roads:- trials at Bothkennar, Scotland", *Proc. 4th Int. Conf. on Geotextiles Geomembranes and Related Products*, Balkema, **1**, 1990, p 250.
  - 28 Jones, R.H., Lee, R.G. & Dawson, A.R., "Full-scale trials of grid reinforced soil foundations on alluvium", in *Quarternary Engineering Geology, Eng. Geol.. Sp. Publ. No. 7*, eds. Forster, A, Culshaw, M.G., Cripps, S.C., Little, J.A. & Moon, C.F., Geol. Soc., London, 1991, pp 643-649.
  - 29 Jones, R.H., Dawson, A.R. & Lee, R.G., "Reinforced soil foundations for buildings", *Performance of Reinforced Soil Structures*, Thomas Telford, 1991, pp 477-8.
  - 30 Bell, H., Dawson, A.R., Baker, C.J. & Wright, C.J., "The question of tree stability", in *Research for Practical Arboriculture 1991*, ed Hodge, S.J., Forestry Commission, *Bulletin No 97*, HMSO, London, 1991, pp 94-100.
  - 31 Dawson, A.R. & Bullen, F., "Furnace Bottom Ash - its engineering properties and its use as a sub-base", *Proc. Inst. Civil Engineers*, **90**, Oct 1991, pp 993-1009.
  - 32 Brown, S.F. & Dawson, A.R., "Two-stage approach to asphalt pavement design", *Proc. 7th Int. Conf. on Asphalt Pavements*, Nottingham, June 1992, **1**, pp 16-34.
  - 33 Dawson, A.R. & Brunton, J.M., "*SDMWIN*" computer program for pavement design, Univ. of Nottingham, Dept. of Civil Eng., 1992.
  - 34 Dawson, A.R. & Gomes Correia, A., "The effects of subgrade clay condition on the structural behaviour of road pavements", in *Flexible Pavements*, ed. Gomes Correia, A., Balkema, Rotterdam, 1996, pp 113-120.
  - 35 Dawson, A.R., Paute, J.L. & Thom, N.H., "Mechanical characteristics of unbound granular materials as a function of condition", *ibid*, 1996, pp 35-45.
  - 36 Dawson, A.R. & Plaistow, L.C., "Parametric study of flexible pavements", *ibid*, 1996, pp229-228.
  - 37 Galjaard, P.J., Paute, J.L., Dawson, A.R. & Gillett, S.D., "Comparison and performance of

- repeated load triaxial test equipment for unbound granular material", *Proc. Euroflex*, LNEC, Lisbon, Portugal, 1993, pp 1/1-1/26.
- 38 Paute, J.L., Dawson, A.R. & Galjaard, P.J., "Recommendations for repeated load triaxial test equipment and procedure for unbound granular materials", in *Flexible Pavements*, ed. Gomes Correia, A., Balkema, Rotterdam, 1996, pp 23-34.
- 39 Thom, N.H. & Dawson, A.R., "The permanent deformation of a granular material modelled using hollow cylinder testing", *ibid*, 1996, pp 65-80.
- 40 Dawson, A.R. & Nunes, M.C.M., "Some British experience of the behaviour of furnace bottom ash and slate waste for pavement foundations", in *Proc. Fed. Highways Admin. Conf. Discarded Materials and By Products for Construction of Highway Facilities*, Denver, U.S.A., 1993, pp 4-1 – 4-13.
- 41 Karaşahin, M., Dawson, A.R. & Holden, J.T., "The Applicability of Resilient Constitutive Models of Granular Materials for Unbound Base Layers", *Jnl. Transportation Research Board* **1406**, 1994, pp 98-107.
- 42 Kamal, M.A., Dawson, A.R., Farouki, O.T., Hughes, D.A.B. & Sha'at, A.A., "Field and Laboratory evaluation of the mechanical behaviour of unbound granular materials in pavements", *Jnl. Transportation Research Board* **1406**, 1994, pp 88-97.
- 43 Dawson, A.R., "Prediction of in-situ mechanical properties of unbound aggregates - is it possible?", Paper presented to 2nd Annual meeting, Center for Aggregates Research, Texas A&M University, 1994.
- 44 Karaşahin, M. & Dawson, A.R., "Resilient characteristics of cohesionless soil", *Proc. 13th Int. Conf. Soil Mechanics & Foundation Engineering*, New Delhi, India, Balkema, **4**, 1994, pp 1827-1830.
- 45 Dawson, A.R. & Thom, N.H., "PAFODE" computer program for pavement foundation design, Univ. of Nottingham, Dept. of Civil Eng., 1994.
- 46 Dawson, A.R., "Comparing unbound aggregate mixes - Is well-graded always the best choice?", *Aggregate Views*, **2** (3), 1994, pp 6-7.
- 47 Roodbaraky, H.J., Baker, C.J., Dawson, A.R. & Wright, C.J., "Experimental observations of the aerodynamic characteristics of urban trees", *Jnl. of Wind Eng. & Industrial Aerodynamics*, **52**, 1994, pp 171-184.
- 48 Dawson, A.R., Little, P.H. & Brown, S.F., "Rutting behaviour in geosynthetic-reinforced unsurfaced pavements", *Proc. 5th Int. Conf Geotextiles, Geomembranes & Related Products*, Singapore, **1**, 1994, pp 143-146.
- 49 Dawson, A.R., Gomes Correia, A., Jouve, P., Paute, J-L. & Galjaard, P.J., "Modelling resilient and permanent deflections in granular and soil pavement layers", *Proc. 4th Int. Conf. Bearing Capacity of Roads & Airfields*, Minneapolis, Vol. 2, 1994, pp 847-861.
- 50 Dastich, I. & Dawson, A.R., "Techniques for assessing the non-linear response of unbound granular layered structures", *ASTM Geotechnical Testing Journal*, **18** (1), March, 1995, pp 50-57.
- 51 Dawson, A.R., Elliott, R.C., Rowe, G.M. & Williams, J., "An assessment of the suitability of some industrial by-products for use in UK pavement bases", *Jnl. Transportation Research Board* no **1486**, pp 114-123, 1995.
- 52 Dawson, A.R., "The unbound granular base", Keynote paper, Center for Aggregates Research, 3rd Annual Symposium, Austin, Texas, March 1995.
- 53 Dawson, A.R. & Jones, R.H. (Eds.), "Unbound aggregates in roads", *Proc. UNBAR4*, Dept. Civil

- Eng'ng, Univ. Nottingham, 1995, 365 pp
- 54 Plaistow, L. & Dawson, A.R., "Non-linear aggregate behaviour in flexible pavements", in *Unbound Aggregates in Roads*, Eds. Dawson, A.R. & Jones, R.H., Dept. Civil Eng'ng, Univ. Nottingham, 1995
- 55 Lekarp, F., Richardson, I.M. & Dawson, A.R., "Influences on permanent deformation behaviour of unbound granular materials", *Jnl. Transportation Research Board*, No. **1547**, pp. 68-75, 1996.
- 56 Nunes, M.C.M., Bridges, M.G. & Dawson, A.R., "Assessment of secondary materials for pavement construction : technical and environmental aspects", *Waste Management*, Vol. 16, Nos 1-3, 1996, pp. 87-96.
- 57 Dawson, A.R., "European developments in testing methods to improve performance of aggregates", Center for Aggregates Research, *4th Annual Symposium*, Atlanta, April 1996, 15pp.
- 58 Dawson, A.R. & Little, P.H., "The measurement of stress and strain in an unsurfaced haul road at a soft clay site in Scotland", *Jnl. Transportation Research Board*, No. **1596**, pp 15-22, 1997.
- 59 Nunes, M.C.M. & Dawson, A.R., "Behaviour of some pavement foundation materials under repeated loading", *Jnl. Transportation Research Board*, No. **1577**, pp 1-9, 1997.
- 60 Dawson, A.R., "Rutting in unsurfaced roads - materials and structure interaction effects", *Proc. Symposium on Thinly Surfaced Pavements*, Univ. New Brunswick, Fredericton, Canada, pp. 101-108, 1997.
- 61 Lekarp, F. & Dawson, A.R., "Analysis of permanent deformation behaviour of unbound granular materials", *ibid*, 1997, pp. 91-99.
- 62 Hill A.R., Dawson, A.R. & Nunes, M.C.M., "Assessing the impact of treated wastes and by-products in pavement foundations", *Proc. 6th Annual East Midlands Advisory Group on the Environment Conf.*, July 1997.
- 63 Hill A.R., Dawson, A.R. & Nunes, M.C.M., "Benefits and difficulties of using foundry sands and other secondary materials in road construction", *Proc. Foundry Products Conf.*, November 1997.
- 64 Lekarp, F. & Dawson, A.R., "Modelling permanent deformation behaviour of unbound granular materials", *Construction and Building Materials*, **12** (1), 1998, pp 9-18.
- 65 Dawson, A.R. & Gillett, S.D., "Assessment of on-sample instrumentation for repeated load triaxial tests", *Jnl. Transportation Research Board*, No. **1614**, 1998, pp 52-60.
- 66 Heelis, M.E., Dawson, A.R., Chapman, D.N., Krylov, V.V. & Collop, A.C., "Predictions of vertical track displacements caused by the passage of high speed trains over soft soils", *Proc. 10th Int. Scientific Conf., "Communications on the edge of the millenium"*, Univ. Žilina, Žilina, Slovakia, September, 1998.
- 67 Sharpe, P., Collop, A.C. & Dawson, A.R., "Applying engineering principles to optimise permanent way performance", in *Infrastructure Issues*, Inst. Mech. Eng'ng. Seminar Publication 1998-23, Prof. Eng'ng. Publ'ns. Ltd., 1998, pp 29-38.
- 68 Johnston, A.G., Dawson, A.R., Moon, J.R. & Brown, G.J., "Preliminary investigation into the reclamation and re-use of aggregates and binders from concrete waste", *Proceedings of the 20th Canadian Waste Management Conference*, 21-24 September 1998, Hamilton, Ontario.
- 69 Dawson, A.R. & Hill A.R., "Prediction and implication of water régimes in granular bases and sub-bases", *Proc. Int. Symp. On Subdrainage in Roadway Pavements and Subgrades*, Granada,

- Spain, 1998, pp 121-128.
- 70 Fleming, P., Rogers, C.D.F., Frost, M.W. & Dawson, A.R., "Subgrade equilibrium water content and resilient modulus for UK clays", *Proc. Int. Symp. On Subdrainage in Roadway Pavements and Subgrades*, Granada, Spain, 1998, pp359-366.
- 71 Dawson, A.R., Numrich, R. & Lekarp, F., "Rutting in granular pavement layers", *Kolloquium Prüfung und Bewertung von Konstruktionsschichten im Straßenbau*, 21 & 22 July, Dresden, Germany, Technische Universität Dresden, Fakultät Bauingenieurwesen, Heft 8, 1998, pp 415-428.
- 72 Johnston, A.G., Dawson, A.R. & Brown, G.J., "Recycled concrete aggregate: an alternative concept", *Use of Recycled Concrete Aggregate*, ed. Dhir, R.K., Henderson, N.A. & Limbachiya, M.C., Thomas Telford, 1998, pp 31-44.
- 73 Heelis, M.E., Dawson, A.R., Chapman, D.N., Collop, A.C. & Krylov, V.V., "Resilient modulus of soft soil beneath high speed rail lines", *Jnl. Transportation Research Board*, No. 1689, 1999, pp 39-46.
- 74 Heelis, M.E., Collop, A.C., Dawson, A.R., Chapman, D.N. & Krylov, V.V., "Transient effects of high speed trains crossing soft soil", *Proc. 12th Eur. Conf. Soil Mech. & Geotech. Eng.*, 3, Balkema, Amsterdam, 1999, pp 1809-1814.
- 75 Dawson, A.R., "Implications of granular material characteristics on the response of different pavement constructions", in *"Unbound Granular Materials - Laboratory testing, in-situ testing and modelling"*, ed. Gomes Correia, A., (Proc. Symp. Modelling & Advanced Testing for Unbound Granular Materials), Balkema, 1999, pp 221-226.
- 76 Huhtala, M., Dawson, A.R. & Mundy, M., "Unbound granular materials for road pavements, COST-337 and COURAGE", *Proc. 2nd European Road Research Conf.*, Brussels, 7-9th June, 1999.
- 77 Heelis, M.E., Collop, A.C., Dawson, A.R., Chapman, D.N. & Krylov, V.V., "Predicting and measuring vertical track displacements on soft subgrades", *Proc. Int'l. Conf. Railway Eng.*, London, 25-26th May, 1999.
- 78 Hill, A.R. & Dawson, A.R., "Environmental assessment of alternative materials for road construction", *Underground*, Environmental Agency, April 1999, pp5-6.
- 79 Janoo, V., Irwin, L., Knuth, K., Dawson, A.R. & Eaton, R., "Use of inductive coils to measure dynamic and permanent pavement strains", *Proc. Accelerated Pavement Testing Conf.*, Reno, Nevada, USA, 1999.
- 80 Evans, J.C. & Dawson, A.R., "Slurry walls for control of contaminant migration - a comparison of UK and US practices", in *'Geo-Engineering for Underground Facilities'*, American Soc. Civil Eng'rs *Special Pub'l.* 90, June, 1999, pp 105-120.
- 81 Lekarp, F., Isacsson U & Dawson, A.R., "State of the Art. I: Resilient response of unbound aggregates", *American Soc. Civil Eng'rs J'n'l. Transp. Eng.*, 126 (1), Jan/Feb, 2000, pp 66-75.
- 82 Lekarp, F., Isacsson U & Dawson, A.R., "State of the Art. II: Permanent strain response of unbound aggregates", *American Soc. Civil Eng'rs J'n'l. Transp. Eng.*, 126 (1), Jan/Feb, 2000, pp 76-84.
- 83a Atkinson, V.M., Chaddock, B.C. & Dawson, A.R., "Enabling the use of secondary aggregates and binders in pavement foundations", *TRL Report 408*, Transport Research Laboratory, Crowthorne, UK, 1999, 31pp. ISSN 0968-4107.
- 84 York, D., Hill, A.R., Taylor, J.V., Dawson, A.R. & Hall, S., "Environmental Assessment of Road Construction Materials", *Britpave Seminar 'A greener way ahead'*, October 1999.

- 85 Dawson, A.R., Mundy, M.J. & Huhtala, M., "European research into granular material for pavement bases and sub-bases", *Jnl. Transportation Research Board* No. **1721**, 2000, pp 91-99.
- 86 Dawson, A.R., "Engineering the pavement base and sub-base", Proc. CSS Conference 'Value Engineering in Maintenance', November 1999, pp. 8-1 - 8-12.
- 87 Pamukcu, S., Dawson, A.R., Elton, D.J., Nicholson, P.G. & Sharma, S., "Soil and rock properties", Millenium Paper, Transportation Research Board, National Acadamies, 2000, Washington.
- 88 Krylov, V.V., Dawson, A.R., Heelis, M.E. & Collop, A.C., "Rail movement and ground waves caused by high-speed trains approaching track-soil critical velocities", Proc. Inst. Mech. Eng'rs, Part F, *Journal of Rail and Rapid Transit*, **214** (2), June, 2000, pp 107-116.
- 89 Hill, A.R. & Dawson, A.R., "Observations of leaching of low concentration contaminants from alternative aggregates in road construction", Proc. Waste Materials in Construction- *The Science and Engineering of Recycling for Environmental Protection*, 'WASCON 2000', 31 May-2 June, Harrogate, UK, Ed. Woolley, G.R., Goumans, J.J.J. & Wainwright, P.J., Elsevier Science Ltd., 2000, pp. 411-421.
- 90 Heelis, M.E., Collop, A.C., Dawson, A.R., Chapman, D.N., & Krylov, V.V., "The 'bow-wave' effect in soft subgrade beneath high speed rail lines", in "Performance Verification of Constructed Geotechnical Facilities", *Geotech. Eng. Special Publ'n.*, No. **94**, Am. Soc. Civil Eng'rs., Ed. AJ Lutenegeger & DJ DeGroot, 2000, pp 338-349.
- 91 Dawson, A.R., (editor) "Unbound Aggregates in Road Construction", Balkema, Rotterdam, 2000
- 92 Karaşahin, M. & Dawson, A.R., "Anisotropic characteristics of granular materials", in "Unbound Aggregates in Road Construction", ed. Dawson, A.R., Balkema, Rotterdam, 2000, pp 139-144.
- 93 Mundy, M. & Dawson, A.R., "COURAGE – Demonstrating Efficient Use of Unbound Granular Materials in Pavement Construction", *20th ARRB Conference*, March, ARRB Transport Research, Vermont South, Australia, 2001.
- 94 Werkmeister, S., Dawson, A.R. & Wellner, F., "Permanent deformation behavior of granular materials and the shakedown theory", *Jnl. Transportation Research Board* No. **1757**, pp 75-81, 2001.
- 95 Dawson, A.R., "Granular pavement materials ... Where are we ?", in 'Towards Performance-Based Specifications for Unbound Granular Materials', *Research Report ARR 348*, 2002, pp 4-21 (given as a Keynote Paper to 20th ARRB Conference in Melbourne, Australia), ARRB Transport Research, Vermont South, Australia.
- 96 Hill, A.R., Dawson, A.R. & Mundy, M., "Utilisation of aggregate materials in road construction and bulk fill", *J. Resources, Conservation & Recycling*, **32** (3-4), July, 2001, pp 305-320.
- 97 Dawson, A.R., "Engineering the Forestry Road Pavement", *Annual Symposium*, Forestry Eng. Group of Inst. Agric. Eng.n'rs., Penrith, October, 2001, 14pp.
- 98 Arnold, G.K., Dawson, A.R., Hughes, D.A.B., Werkmeister, S. & Robinson, D., "Serviceability Design of Granular Pavement Materials", *Proc. 6<sup>th</sup> Int. Conf. Bearing Capacity of Roads, Railways and Airfields*, Lisbon, Vol. 2, pp.957-966, Balkema, Rotterdam, 2002.
- 99 Ruiz Rubio, A.A., Dawson, A.R., & Macdonald, R.A., "Current and Future Research Topics for Europe Identified by the COST 337 Action", *Proc. 6<sup>th</sup> Int. Conf. Bearing Capacity of Roads, Railways and Airfields*, Lisbon, 2002, **2**, Balkema, Rotterdam, pp.1041.
- 100 Arnold, G., Dawson, A.R., Hughes, D.A.B., & Robinson, D., "The Application of Shakedown Approach to Granular pavement layers", *Proc. 9<sup>th</sup> Int. Conf. Asphalt Pavements*, Copenhagen,

- Vol. 1, paper 6-5, Danish Road Directorate, Copenhagen, 2002.
- 101 Cheung, L.W. & Dawson, A.R., "Effects of Particle and Mix Characteristics on the Performance of some Granular Materials", *Jnl. Transportation Research Board*, No. **1787**, pp. 90-98, 2002.
  - 102 Werkmeister, S., Dawson, A.R. & Wellner, F., "Permanent Deformation Behaviour of Granular Materials", *Int. Jnl. Road Materials and Pavement Design*, **6**, pp. 31-51, 2005.
  - 103 Evans, J.C., Dawson, A.R. & Opdyke, S.M. "Slurry Walls for Groundwater Control: A Comparison of UK and US Practice," Proc. of the 19th Central Pennsylvania Geotechnical Seminar: *Current Trends in Geotechnical Engineering*, Hershey, PA, May, 2002.
  - 104 Taylor, J.V., Dawson, A.R. & Hall, S., "Development of risk assessment methodology for use of alternative materials in road construction", Technical Note, ConSoil 2000, *Proc. 7th Int'l. FZK/TNO Conf. Contaminated Soil*, Leipzig, 2000, Vol. 2, Thomas Telford, London.
  - 105 Killer, D., Paxton, S. & Dawson A.R., "Engineering and legislative options for improved timber haulage in Scottish forests - an inclusive stakeholder approach", *Jnl. Transportation Research Board*, No. **1819**, (1), 2003, pp109-117.
  - 106 Arnold, G., Hughes, D.A.B., Dawson, A.R. & Robinson, D., "Design of granular pavements", *Jnl. Transportation Research Board*, **1819**, (2), pp194-200, 2003.
  - 107 Werkmeister, S., Dawson, A.R. & Wellner, F., "Design concept of unbound granular layers in pavement constructions", *Proc. 21st ARRB (Australian Road Research Board)/ 11th REAAA Conference in Cairns*, ARRB Transport Research, Vermont South, Australia, 2003.
  - 108 Dawson, A.R., Arnold, G. & Werkmeister, S., "Using a shakedown approach as a simple means of predicting rutting in unsealed and chip-sealed pavements", *Proc. 21st ARRB (Australian Road Research Board)/ 11th REAAA Conference in Cairns*, ARRB Transport Research, Vermont South, Australia, 2003.
  - 109 Werkmeister, S., Numrich, R., Dawson, A.R. & Wellner, F., "Design of granular pavement layers considering climatic conditions", *Jnl. Transportation Research Board*, No. **1837**, 2003, pp61-70.
  - 110 Werkmeister, S., Numrich, R., Dawson, A.R., & Wellner, F., "Deformation behaviour of granular materials under repeated dynamic load", *Environmental Geomechanics* (ed. Vulliet, L, Laloui, L & Schrefler, B), 2002, Presses Polytechniques et Universitaires Romandes, Monte Verità.
  - 111 Dawson, A.R., "Cumulative damage and its applicability to low volume road pavements", *Internationales Kolloquium Prüfung, Bewertung und Bemessung von Straßenbefestigungen*, Technische Universität Dresden, April 3-4, 2003.
  - 112 Sear, L.K.A., Weatherley, A.J. & Dawson, A.R., "The environmental impacts of using fly ash - the UK producers' perspective", *Proc. International Ash Symposium*, Kentucky, 2003, October.
  - 113 Dawson, A.R., Brown, S.F. & Little, P.H., "Accelerated load testing of unsealed and reinforced pavements", *2nd International Conference on Accelerated Pavement Testing*, Univ. Minnesota, Minneapolis, September 2004
  - 114 Dawson, A.R. (editor) "*Pavements Unbound*", A A Balkema, Leiden, 2004, 369pp.
  - 115 Arnold, G., Dawson, A.R., Hughes, D.A.B. & Robinson, D., "Deformation behaviour of granular pavements", in "*Pavements Unbound*", ed. Dawson, A.R., A A Balkema, Leiden, pp 169-77, 2004.
  - 116 Werkmeister, S., Dawson, A.R. & Wellner, F., "Pavement Design Model for Unbound Granular Materials" *Am. Soc. Civil Eng'rs, Jnl. Transp. Eng.*, **130** (5), 2004, Sept-Oct, pp 665-674.

- 117 Dawson, A.R., Kolisoja, P. & Vuorimies, N., "Permanent Deformation Behaviour of Low Volume Roads in the Northern Periphery Areas", *Proc. 7th Int. Conf. Bearing Capacity of Roads, Railways and Airfields*, Tapir Uttrykk, 2005.
- 118 Thom, N.H., Edwards, J.P. & Dawson A.R., "A Practical Test for Laboratory Characterisation of Pavement Foundation Materials", *Proc. 13th Annual Symposium*, Int'l Center for Aggregates Research, Austin, TX., 2005.
- 119 Dawson, A.R & Boothroyd, P.G., "Drainage in Reality - a Survey of Practicing Engineers in the UK", *Proc. WIP'05, Symp. Water in Pavements*, CEDEX, Madrid, 2005
- 120 Hooper, B., Edwards, J.P., & Dawson A.R. (uncredited), "Making the best of byways", Dept. for Env., Food & Rural Affairs, December, 2005, 88pp.
- 121 Isola, R. & Dawson, A.R. "Aggregate Packing And Coordination Number – A Statistical Approach", *Proc. 3rd Int'l SIIV Conf.*, Società Italiana Infrastrutture Viarie, Bari, 2005
- 122 Dawson, A.R., Berntsen, G., Kolisoja, P., Johansson, S., Saarenketo, T. & Munro, R., "Developing Appropriate Engineering Responses to Seasonal Effects for Pavements Serving Remote Communities", in *Cold Regions Engineering 2006: Current Practice in Cold Regions Engineering*, ed. Davies, M. & Zufelt, J.E., 2006, Am. Soc. Civil Eng'rs., Reston, Virginia, pp 14.1-14.8. ISBN 0-7844-0836-X
- 123 Dawson, A.R., Hill, A.R. & Boothroyd, P., "The Hydraulic and Geo-Environmental Behavior of the Sub-Pavement Environment", *Geotech. Special Publ'n.*, No, 154, Am. Soc. Civil Eng'rs., Ed. by Huang, B., Meier, R., Prozzi, J. & Tutumluer, E., 2006, pp 287-295. ISBN: 0-7844-0866-1.
- 124 Korkiala-Tanttu, L. & Dawson, A.R., "Relating Full-Scale Pavement Rutting to Laboratory Permanent Deformation Testing", *Int'l. Jnl. Pavement Eng.*, **8** (1), March 2007, pp 19-28.
- 125 Hooper, R.L., Edwards, J.P., Elliott, R.C. & Dawson, A.R., "Leaching from recycled and secondary aggregates – a review", WRAP Report, Waste and Resource Action Programme, Banbury, March, 2004, 37 pp.
- 126 Korkiala-Tanttu, L. & Dawson, A.R., "Effects of Side-Slope on Low-Volume Road Pavement Performance – A Full-Scale Assessment", *Canadian Geotech. Jnl.*, **45**, 2008, pp 853-866.
- 127 Kolisoja, P., Dawson, A.R. & Saarenketo, T., "Management of Permanent Deformations on the Low Volume Roads of the Northern Periphery Areas", in *8th Int'l Symp. Cold Region Development*, ISCORD 2007, 3pp.
- 128 Peploe, R.J. & Dawson, A.R., "Environmental Impact of Industrial By-products in Road Construction - a Literature", *Research Report 308*, Land Transport New Zealand, Wellington, 2006, 38pp. ISBN 0-478-28720-8, ISSN 1177-0600.
- 129 Hooper, R., Kagga, T., Brown, J., Edwards, P. & Dawson, A.R., "The use of post-consumer tyres in public rights of way construction", *Proc. Sustainable Materials & Wastes Technologies Conf.*, Univ. Coventry, 2007.
- 130 Dawson, A.R., Kolisoja, P., Vuorimies, N. & Saarenketo, T., Design of low-volume pavements against rutting – a simplified approach, *Transportation Research Record*, **1989** (1), pp. 165-172, 2007.
- 131 Dawson, A.R. & Baltzer, S.U., "State-of-practice in prevention of water-borne pollution from pavements", *Int. Jnl. Road Materials & Pavement Design*, **8** (4), 2007, pp 745-766.
- 132 Dawson, A.R., "Rut Accumulation in Low-Volume Pavements due to Mixed Traffic", *Jnl. Transportation Research Board*, No. **2068**, 2008, pp. 78-86.
- 133 Boothroyd, P., Dawson, A.R., Ma, J. & Hu, L., "2-Dimensional Numerical Simulation of Groundwater Contamination in the Highway Environment", *Int. Jnl. Pavement Eng'ng.*, Vol.



- 10., No. 4, 2009, pp. 265 - 276. DOI 10.1080/10298430802069475.
- 134 Brenčič, M., Dawson, A.R., François, A., Folkesson, L. & Leitão, T.E., "Strategies for mitigating road pollution of water bodies", *Proc. Transport Research Arena*, paper 11.1.4, 2008, Ljubljana.
- 135 Dawson, A.R., Schulz, S., Hess, R., Windsor, P. & Batchelor, A., "Treatment and recycling of soil and aggregates of trench excavations", *Proc. Dresdner Tief- und Straßenbaukolloquium: Prüfung, Bewertung und Dimensionierung von Straßen und Anlagen des städtischen Tiefbaus*, TU Dresden (3 - 4. April), 2008.
- 136 Ellis, E., Yu, H-S., McDowell, G., Dawson, A.R. & Thom, N. (eds.), "*Advances in Transportation Geotechnics*", CRC Press, 2008, 786pp. ISBN 978-0-415-47590-7.
- 137 Arnold, G., Arnold, D., Dawson, A.R., Hughes, D., Robinson, D., Werkmeister, S., Alabaster, D., Ellis, J. & Ashby, R., "Rut depth prediction of granular pavements using the repeated load triaxial apparatus and application in New Zealand specifications for granular materials", in "*Advances in Transportation Geotechnics*", ed. Ellis, E., Yu, H-S., McDowell, G., Dawson, A.R. & Thom, N, CRC Press, 2008, pp 66-71.
- 138 Brito, L.A.T. Dawson, A.R. & Tyrrell, R.W.W., "Pavement Trials at Ringour Quarry: Evaluating rutting in forest roads in Southern Scotland", in "*Advances in Transportation Geotechnics*", ed. Ellis, E., Yu, H-S., McDowell, G., Dawson, A.R. & Thom, N, CRC Press, 2008, pp. 81-87.
- 139 Dawson, A.R. (ed. & principal author), "*Water in Road Structures*", Springer, Dordrecht, 2008, 356pp + Appendices. ISBN 978-1-4020-8561-1. DOI 10.1007/978-1-4020-8562-8.
- 140 Dawson, A.R., "Who needs APT?", Closing keynote to *3rd Accelerated Pavement Testing Conference*, Madrid, 2008, 11pp.
- 141 Brito, L.A.T., Dawson, A.R. & Kolisoja, P.J., "Analytical Evaluation of Unbound Granular Layers in Regard to Permanent Deformation", *proc. 8th Int. Conf. Bearing Capacity of Roads, Railways and Airfields*, Urbana-Champaign, Illinois, 2010, 10pp.
- 142 Moghaddas Tafreshi, S.N. & Dawson, A.R. "Comparison of bearing capacity of a strip footing supported on sand reinforced with 3D and with planar geotextile", *Geotextiles & Geomembranes*, **28** (1), 2010, pp, 72-84.
- 143 Dawson, A.R., Khan, R., Collop, A.C. & Yang, L., "X-Ray CT to characterize UK asphalt mixtures in a wheel track test", *9th Int'l Conf. Sustainable Construction Materials & Technology in Asphalt, Pavement Eng'r'g & Highways Maintenance*, Liverpool John Moores Univ., 2010.
- 144 Carrera, A., Grenfell, J., Dawson, A.R. & Proctor, J., "On-site recycling of trench arisings for pavement reinstatement", *Proc. 2nd Conf. Sustainable Construction Materials & Technologies*, **3**, June 28-30, 2010, pp. 1365-74.
- 145 Moghaddas Tafreshi, S.N. & Dawson, A.R. "Behaviour of footings on reinforced sand subjected to repeated loading - comparing use of 3D and planar geotextile", *Geotextiles & Geomembranes*, **28** (5), 2010, pp. 434- 447. [rated in the top 25 papers in 2011]
- 146 Flintsch, G., Dawson, A.R. & Parry, T., "Agenda for sustainable pavements", FHWA Technical Paper, 2010.
- 147 Dawson, A.R., "*Making & keeping sustainable pavements*", Keynote paper to New Zealand Institute of Highway Technology, May 2010.
- 148 Keikha, P., Hall, M.R. & Dawson, A.R. "Concrete pavements as a source of heating and cooling", *Proc. 11th International Symposium on Concrete Roads*, Seville, 2010.
- 149 Moghaddas Tafreshi, S.N. & Dawson, A.R. "A comparison of static and cyclic loading responses of foundations on geocell-reinforced sand", *Geotextiles & Geomembranes*, **32** (6),

- June, 2012, pp 55-68.
- 150 Hall, M.R., Keikhaei Dehdezi, P., Dawson, A.R., Grenfell, J. & Isola, R., "Influence of the thermo-physical properties of pavement materials on the evolution of temperature depth profiles in different climatic regions", *Amer. Soc. Civil Eng'rs., J. Materials in Civil Eng.*, **24** (1), 2012, pp 32-47.
  - 151 Keikhaei Dehdezi, P., Hall, M.R. & Dawson, A.R. "Thermo-Physical Optimisation of Specialised Concrete Pavement Materials for Surface Heat Energy Collection and Shallow Heat Storage Applications", *J. Transportation Research*, **2240**, 2011, pp. 96-106.
  - 152 Tavakoli Mehrjardi, Gh., Moghaddas Tafreshi, S.N. & Dawson, A.R., "The Response of Pavement Resting on Rubber-soil mixture under cyclic loading", *14<sup>th</sup> Eur. Conf. Earthquake Eng.*, Ohrid, 2010
  - 153 Carrera, A., Dawson, A.R., Grenfell, J., Windsor, P. & Proctor, J., "Reusing trench excavation materials as on-site backfill", *Proceedings Institution of Civil Engineers, J. Waste & Recycling*, **165** (WR2), May, 2012 , pp 93-106.
  - 154 Dawson, A.R., "Unsealed Highway Construction", Chapter 40 in *ICE Manual of Highway design & Management*, ed. Walsh, I.D., ICE publishing, 2011, pp 395-406.
  - 155 Moghaddas Tafreshi, S.N., & Dawson, A.R. "Laboratory tests of footings supported on geotextile-reinforced sand under repeated loading", *Proc. 15<sup>th</sup> Eur. Conf. Soil Mech. & Geotechnical Eng'g., Geotechnics of Hard Soils – Weak Rocks*, Athens, Greece; ed. Anagnostopoulos, A., Pachakis, M. & Tsatsanifos, C, Millpress, Vol. 2, 2011, pp. 1019-1024
  - 156 Tavakoli Mehrjardi, Gh., Moghaddas Tafreshi, S.N., & Dawson, A.R., "Influence of Geocell reinforcement on damping properties of trench with pipe", *Proc. 15th Eur. Conf. Soil Mech. & Geotechnical Eng'g., Geotechnics of Hard Soils – Weak Rocks*, Athens, Greece; ed. Anagnostopoulos, A., Pachakis, M. & Tsatsanifos, C, Millpress, **2**, 2011, pp. 1073-1078.
  - 157 Tavakoli Mehrjardi, Gh., Moghaddas Tafreshi, S.N. & Dawson, A.R., "Buried pipes in rubber-soil backfilled trenches under cyclic loading", *ASCE Journal Geotechnical & Geoenvironmental Engineering.*, **138** (11), 2012, pp. 1346-1356. doi: [http://dx.doi.org/10.1061/\(ASCE\)GT.1943-5606.0000710](http://dx.doi.org/10.1061/(ASCE)GT.1943-5606.0000710).
  - 158 Moghaddas Tafreshi, S.N. & Dawson, A.R., "Laboratory Model Tests for a Strip Footing Supported on Geocell Reinforced Sand Bed", in *Ground Improvement and Geosynthetics* ed. Puppala, A.J., Huang, J., Han, J. & Hoyos, L.R/, (*Geotech. Special Publ'n*. 207), Proc. 2010 GeoShanghai International Conference, American Soc. Civil Eng'rs., 2010, pp. 46-54. DOI:10.1061/41108(381)46
  - 159 Moghaddas Tafreshi, S.N. & Dawson, A.R., "Reply to the discussions by Huang, C.C. on 'Comparison of bearing capacity of a strip footing on sand with geocell and with planar forms of geotextile reinforcement' [Geotextiles and Geomembranes 28(1), 2010, pp. 72–84], *Geotextiles and Geomembranes*, **29** (2), April, 2011, pp. 165-167.
  - 160 Tavakoli Mehrjardi, Gh., Moghaddas Tafreshi, S.N. & Dawson, A.R., 2011, "Geosynthetic reinforcement for the protection of buried pipes beneath pavements", *6<sup>th</sup> Int'l Conf. Seismology & Earthquake Eng'g.*, 2011, 7pp
  - 161 Dawson, A.R., 2012, "Recycled and Alternative Materials", Chapter 7 in *Modern Earth Buildings*, ed., Hall, M.R., Lindsay, R. & Krayenhoff, M., Woodhead Publishing, 2012.
  - 162 Blankson, M., Erdem, S., Dawson, A.R. & Thom, N.H., "Comparative Study on the Rheological and Durability Characteristics of Conventional and Glass-Enriched Self Compacting Concrete", *6<sup>th</sup> International Structural Engineering and Construction Conference (ISEC)*, Zurich,

- 2011, June.
- 163 Erdem S., Dawson, A.R. & Thom, N.H., "Microstructure-linked strength properties and Impact Response of Conventional and Recycled Concrete Reinforced with Steel and Synthetic Macro Fibres", *Construction and Building Materials*, **25** (10), 2011, October, pp. 4025-4036.
- 164 Keikhaei Dehdezi, P., Hall, M.R. & Dawson, A.R., "Enhancement of Soil Thermo-physical Properties using Microencapsulated Phase Change Materials for Ground Source Heat Pump Applications", *Applied Mechanics and Materials*, **110-116**, 2012, pp. 1191-1198.
- 165 Erdem S., Dawson, A.R. & Thom, N.H., "Impact load-induced microstructural damage and microstructure associated mechanical response of concrete made with different surface roughness and porosity aggregates", *Cement and Concrete Research*, **42** (2), 2011, pp. 291-305.
- 166 Erdem S., Dawson, A.R. & Thom, N.H., "Influence of the Micro- and Nanoscale Local Mechanical Properties of the Interfacial Transition Zone on Impact Behaviour of Concrete made with different aggregates", *Cement and Concrete Research*, **42** (2), 2012, pp.447-458.
- 167 Parry, T., Dawson, A.R., Byrne, M. & Isola, R., "Collecting transport information using smartphones", *Transportation Professional*, Dec, 2011, pp. 28-9.
- 168 Erdem S., Dawson, A.R. & Thom, N.H., "Micromechanical Structure-Property Relationships for the Damage Analysis of Impact Loaded Sustainable Concrete", *Am. Soc. Civil Eng'rs, J. Materials in Civil Eng.*, **25**(5), 2013, pp. 597-609
- 169 Tavakoli Mehrjardi, Gh., Moghaddas Tafreshi, S.N., & Dawson, A.R., "Combined use of geocell reinforcement and rubber-soil mixtures to improve performance of buried pipes", *Geotextiles & Geomembranes*, Vol. **34** (1), 2012, pp 116-130 .
- 170 Keikhaei Dehdezi, P., Dawson, A.R., Hall, M., Miao, F. & Casey, S., Asphalt Pavements as a Source of Heating, *2nd Int'l. Symp. Asphalt Pavements & Environment*, Oct 1st- 3rd - Fortaleza, Brazil, 2012.
- 171 Dawson, A.R., Keikhaei Dehdezi, P., Hall, M.R., Wang, J.. & Isola, R., "Enhancing Thermo-Physical Properties of Asphalt Materials for Thermal Applications", *Road Mat'ls & Pavement Design*, Vol. **13**(4), 2012, pp 784-803.
- 172 Keikhaei Dehdezi, P., Hall, M.R., Dawson, A.R. & Casey, S., "Thermal, mechanical, and microstructural analysis of concrete containing microencapsulated phase change materials", *Int'l. J. Pavement Engineering*, Vol. **14**(5), 2013, pp. 449-462.
- 173 Abdul Karim, R., Dawson, A.R. & Carrera, A, "Improvement of Foam Mix utilising Marginal Aggregates with Additives", *2nd Int'l. Symp. Asphalt Pavements & Environment*, Oct 1st- 3rd - Fortaleza, Brazil, 2012.
- 174 Keikhaei Dehdezi, P., Dawson, A.R. & Hall, M.R., "Pavements as a source of heating and cooling", *Transport Research Arena*, 2012, 23rd-26th April, Athens, Greece.
- 175 Byrne, M., Parry, Y., Isola, R. & Dawson, A.R., "Unsupervised identification of road defects from smartphone monitoring", *ASCE Journal of Infrastructure Systems*, accepted subject to corrections
- 175 Moghaddas Tafreshi, S.N., Khalaj, O. & Dawson, A.R., "Pilot-scale load tests of a combined multi-layered geocell and rubber-reinforced foundation", *Geosynthetics International*, **20**(3), June, 2013, pp. 143-161.
- 176 Tavakoli Mehrjardi, Gh., Moghaddas Tafreshi, S. N. & Dawson, A. R., "Pipe response in a geocell-reinforced trench and compaction considerations", *Geosynthetics International*, **20**(2), April, 2013, pp.105-118.
- 177 Qiao, Y., Flintsch, G., Dawson, A.R. & Parry, T., "Examining the effects of climatic factors on

- flexible pavement performance and service life", *Jnl. Transportation Research Board*, **2349**, 2013, pp. 101-7.
- 178 Byrne, M., Parry, T., Isola, R. & Dawson, A.R., "Identifying road defect information from smartphones", *Road & Transport Research*, ARRB, **21**(1), 2013, March.
- 179 Qiao, Y., Dawson, A.R., Parry, T. & Flintsch, G., 2013, "Quantifying the effect of climate change on the deterioration of a flexible pavement" *Proc. Bearing Capacity Roads & Railways Conf.*, **2**, June, pp. 555-564.
- 180 Mohammed, M., Dawson, A.R. & Thom, N.H., "Production, microstructure and hydration of sustainable self-compacting concrete with different types of filler", *Construction and Building Materials*, **49**, November, 2013, pp. 84-92.
- 181 Mohammed, M., Dawson, A.R. & Thom, N.H., "Carbonation of filler typed self-compacting concrete and its impact on the microstructure by utilization of 100% CO<sub>2</sub> accelerating techniques", *Construction and Building Materials*, **50**, January, 2014, pp. 508–516.
- 182 Brito, L.A.T. & Dawson, A.R., "Métodos de Dimensionamento para Pavimentos de Rodovias de Baixo Volume de Tráfego", *Proc. 13<sup>th</sup> Congresso de Pesquisa e Ensino em Transportes - Panorama Nacional da Pesquisa em Transportes*, 2007, Rio da Janeiro, Brasil.
- 183 Bizjak, K.F., Dawson, A.R., Hoff, I., Makkonen, L., Ylhäisi, J.S. & Carrera, A., "The Impact of Climate Change on the European Road Network", *Proc. Inst. Civil Eng'rs, Transport*, **167**(5), March, 2014, pp. 281 -95. DOI: 10.1680/tran.11.00072
- 184 Moghaddas Tafreshi, S.N., Khalaj, O. & Dawson, A.R., "Repeated loading of soil containing granulated rubber and multiple geocell layers ", *Geotextiles & Geomembranes*, **42**(1), February, 2014, pp. 25-38.
- 185 Moghaddas Tafreshi, S.N., Javadi, S. & Dawson, A.R., "Influence of geocell reinforcement on uplift response of belled piles", *Acta Geotechnica*, **9**(3), June, 2014, pp 513-528.
- 186 Abdul Karim, R. & Dawson, A.R., "Laboratory Experimentation of Bituminous Foam Mix under Humid Curing Condition", *Proc. Int'l Road Federation Conf.*, 2014.
- 187 Jalali, V., Grenfell, J. & Dawson, A., "Temperature Effects on Warm Mix Asphalt Performance", *12<sup>th</sup> Conf. on Asphalt Pavements*, ed. Kim, Y.R., Int. Soc. Asphalt Pavements, CRC Press, 2014, pp. 1221-1232.
- 188 Hilal, A.A., Thom, N.H., & Dawson, A.R., "The Use of Additives to Enhance Properties of Pre-Formed Foamed Concrete", *Int'l J. Eng. & Tech.*, **7**(4), August, 2015, pp 286-293.
- 189 Qiao, Y., Dawson, A.R., Huvstig, A. & Korkiala-Tanttu, L., "Calculating Rutting of some Thin Flexible Pavements from Repeated Load Triaxial Test Data", *Int'l. J. Pavement Engineering*, **16** (5-6), 2015, pp 467-476. DOI: 10.1080/10298436.2014.943127.
- 190 Mohammed, M., Dawson, A.R. & Thom, N.H., "Improvement of the service life of sustainable self-compacting concrete SCC by integrating high dosage of cement replacement", *Int'l J Structural Analysis & Design*, **2**(1), 2014, pp 41-48. DOI:10.15224/978-1-63248-054-5-48
- 191 Hilal, A., Thom, N. & Dawson, A., "On Entrained Pore Size Distribution of Foamed Concrete", *Construction & Building Materials*, **75**, January, 2015, pp. 227–233. doi:10.1016/j.conbuildmat.2014.09.117
- 192 Makkonen, L., Ylhäisi, J.S., Tornqvist, J., Dawson, A. & Räsänen, J., "Climate change projections for variables affecting road networks in Europe", *Transportation Planning & Technology*, **37** (8), 2014, pp. 678-94. . DOI: 10.1080/03081060.2014.959352.
- 193 Tavakoli Mehrjardi G., Moghaddas Tafreshi S.N., Dawson A., "Use of geocell reinforcement to improve performance of buried pipes", *10<sup>th</sup> Int'l. Conf. Geosynthetics*, 2014, Berlin, September

- 194 Moghaddas Tafreshi S.N., Khalaj O., Dawson A., Mašek B., “Static plate load tests on multi-layered geocell-reinforced bed”, *10<sup>th</sup> Int’l. Conf. Geosynthetics*, 2014, Berlin, September
- 195 Mohammed, M.K., Dawson, A.R. & Thom, N.H., “Macro/Micro-pore structure characteristics and the chloride penetration of self-compacting concrete incorporating different types of filler and mineral admixtures”, *Construction & Building Materials*, **72**, 2014, pp. 83-93.
- 196 Hilal, A.A., Thom, N.H. & Dawson, A.R., “Pore Structure and Permeation Characteristics of Foamed Concrete”, *J. Advanced Concrete Technology*, **12**, 2014, pp.535-544.
- 197 Chiarelli, A., Dawson, A.R. & García, A.H., “Generation of virtual asphalt mixture porosity for computational modelling”, *Powder Technology*, **275**, May 2015, pp. 351–360.
- 198 Chiarelli, A., Dawson, A.R. & García, A.H., “Analysis of the performance of an air-powered energy harvesting pavement”, *Transportation Research Record*, **2523**, 2015, pp.156-163.
- 199 Hilal, A.M., Thom, N.H. & Dawson, A.R., “On void structure and strength of foamed concrete made without/with additives”, *Construction & Building Materials*, **85**, June 2015, pp.157–164
- 200 Dawson, A., “Anticipating and Responding to Pavement Performance as Climate Changes”, Chapter 4 in Gopalakrishnan, K., Steyn, W.J & Harvey, J. (eds.), “*Climate Change, Energy, Sustainability and Pavements, Green Energy and Technology*”, 2014, Springer-Verlag, Berlin. DOI 10.1007/978-3-662-44719-2\_4
- 201 Dawson, A., Mallick, R., García Hernández, A. & Keikhaei Dehdezi, P., “Energy Harvesting from Pavements”, Chapter 18 in Gopalakrishnan, K., Steyn, W.J & Harvey, J. (eds.), “*Climate Change, Energy, Sustainability and Pavements, Green Energy and Technology*”, 2014, Springer-Verlag, Berlin. DOI 10.1007/978-3-662-44719-2\_18
- 202 Moghaddas Tafresh, S.N., Shaghghi, T., Dawson, A.R. & Tavakoli Mehrjardi, Gh., “A simplified analytical method for predicting load the settlement of circular footings on multi-layered geocell-reinforced non-cohesive soil”, *Geotextiles and Geomembranes*, **43** (4), August 2015, pp. 332–344 . DOI: 10.1016/j.geotextmem.2015.04.006
- 203 Dawson, A.R., “Materials used in road pavements”, Chapter 6 in Hughes, D.A.B. & O’Flaherty, C., “*Highways*” (5<sup>th</sup> Edn.), 2015, Thomas Telford, London, pp165-218. DOI 10.1680/h5e.59931.165
- 204 Buttress, A.J., Jones, D.A., Dodds, C., Dimitrakis, G., Campbell, C.J., Dawson, A. & Kingman, S.W., “Understanding the scabbling of concrete using microwave energy”, *Cement & Concrete Research*, **75**, 2015, pp. 75–90. DOI 10.1016/j.cemconres.2015.04.009
- 205 Chiarelli, A., Dawson, A.R. & García, A., “Generation of 3D soil/asphalt porosity patterns for numerical modelling”, in “*From Fundamentals to Applications in Geotechnics*”, 2015, Millpress, Amsterdam, pp. 1089 – 1096. DOI 10.3233/978-1-61499-603-3-1089
- 206 Chiarelli, A., Dawson, A.R. & García, A.H., “Parametric analysis of energy harvesting pavements operated by air convection”, *Applied Energy*, **154**, 2015, pp. 951–958.
- 207 Farhan, A.H., Dawson, A.R. & Thom, N.H., “Rubber modification of cement-stabilized aggregate: delivering more sustainable pavement mixes”, *9th Int’l Conf. Pavement Technology*, Dalian, China, August 2015.
- 208 Hassn. A., Chiarelli, A., Dawson, A. & García, A., “Water evaporation dynamics in moist asphalt samples with various air void contents”, *9th Int’l Conf. Pavement Technology*, Dalian, China, August 2015.
- 209 Sarkar, R. & Dawson, A.R., “Economic Assessment of use of Pond Ash in Pavements”, *Int’l.J. Pavement Engineering*, **18** (7), 2017, 578-594. See DOI = 10.1080/10298436.2015.1095915.
- 210 Hassn, A. Chiarelli, A. Dawson, A. García, Thermal properties of asphalt pavements under dry and wet conditions, *Materials and Design*, 2016, **91**, pp 432–439.

- 211 Chiarelli, A., García, A.H. & Dawson, A.R., "Stochastic generation of virtual air pores in granular materials", *Granular Matter*, **17**, 2015, pp.617–627. DOI 10.1007/s10035-015-0585-x
- 212 Farhan, A.H., Dawson, A.R., Thom, N.H., Adam, S. & Smith, M.J., "Flexural characteristics of rubberized cement-stabilized crushed aggregate for pavement structure", *Materials & Design*, **88**, 2015, pp. 897–905.
- 213 Qiao, Y., Dawson, A.R., Parry, T. & Flintsch, G., 2015, "Evaluating the effects of climate change on maintenance intervention strategies and Life-Cycle Costs", *Transportation Research*, **41**, December, pp. 492–503. doi:10.1016/j.trd.2015.09.019
- 214 Farhan, A.H., Dawson, A.R. & Thom, N.H., 2016, "Characterization of rubberized cement bound aggregate mixtures using indirect tensile testing and fractal analysis", *Construction & Building Materials*, **105** (1), pp 94-102.
- 215 Tavakoli Mehrjardi, Gh., Moghaddas Tafreshi, S. N. & Dawson, A. R., 2015, " Numerical analysis on buried pipes protected by combination of geocell reinforcement and rubber-soil mixture", *Int'l J. Civil Engineering, Transaction B: Geotechnical Engineering*, **13** (2), June, pp 91-104.
- 216 Khalaj, O., Moghaddas Tafreshi, S.N., Dawson, A.R. & Mašek, B., 2015, "Improvement of pavement foundation response with multi-layers of geocell reinforcement: Cyclic plate load test", *Geomechanics and Engineering*, **9** (3), pp. 373-395.
- 217 García A., Hassn, A., Chiarelli, A. & Dawson, A.R., 2015, Multivariable analysis of potential evaporation from moist asphalt mixture, *Construction and Building Materials*, **98**, pp. 80–88.
- 218 Farhan, A.H., Dawson, A.R. & Thom, N.H., 2016, "Effect of cementation level on performance of rubberized cement stabilized aggregates", *Materials & Design*, **97**, pp 98-107.
- 219 Hassn, A., Aboufoul, M., Wu, Y., Dawson, A. & García, A., 2015, "Effect of air voids content on the heat transfer properties of asphalt mixture", *Construction & Building Materials*, **115**, pp. 327-335.
- 220 Kamla, J., Parry, T. & Dawson, A., 2018, "Roundabout Accident Prediction Model: Application of Random Parameter Negative Binomial Approach to Roundabout Accidents", *Transportation Research Record*, J. of the Transportation Research Board, **2585**, pp. 11-19. DOI = 10.3141/2585-02.
- 221 Qiao, Y., Dawson, A.R. & Parry, A. "Immediate Effects of Some Corrective Maintenance Interventions on Flexible Pavements", *I. J. Pavement Engineering*, **19**(6), pp.502-508. DOI = 10.1080/10298436.2016.1176164
- 222 Tafreshi, S.N.M., Khalaj, O., Dawson, A.R. & Masek, B., 2015, "Repeated load response of soil reinforced by two layers of geocell", in: Drulsa, M., Marschalko, M., Yilmaz, I., Segallini, A., Ferrero, A.M. & Bednarik, M., eds., *Procedia Earth & Planetary Science*, **15**, Elsevier Science BV. pp. 99-104.
- 223 Moghaddas Tafreshi, N., Sharifi, P., Dawson, A.R., 2016, "Performance of circular footings on sand by use of multiple-geocell or -planar geotextile reinforcing layers", *Soils & Foundations*, **56** (6), pp. 984-997.
- 224 Chiarelli, A., Al-Mohammedawi, Dawson, A., García Hernández, A., 2017. "Construction and configuration of convection-powered asphalt solar collectors for the reduction of urban temperatures", *International Journal of Thermal Sciences*, **112**, pp.242-251
- 225 Moghaddas Tafreshi, S.N., Joz Darabi, N. & Dawson, A., 2016. "Experimental and numerical investigation of footing behaviour on multi-layered rubber-reinforced soil", *Eur. J. Environmental & Civil Engineering*, 24pp. DOI=10.1080/19648189.2016.1262288
- 226 Chiarelli, A., Dawson, A., García Hernández, A., 2017. "Pavement temperature mitigation by

- the means of geothermally and solar heated air”, *Geothermics*, **68**, July, pp.9–19
- 227 Kamla, J., Dawson, A.R. & Parry, T., 2017. “The Influence of Road Marking, Shape of Central Island, Truck Apron on Total and Truck Accidents at Roundabouts”, *Transport Infrastructure and Systems*, ed. Dell’Acqua, G, & Wegman, F., CRC Press/Balkema, pp.509-514.
- 228 Chiarelli, A., Dawson, A.R. & García, A.H., 2017. “Evaluation of the effects of air convection in energy-harvesting asphalt pavements”, *Sustainable Energy Technologies and Assessments*, **21**, June, pp.50-58
- 229 Awoyera, P, Dawson, A.R. & Thom, N.H., 2017. “Suitability of Mortars Produced using Laterite and Ceramic Wastes: Mechanical and Microscale Analysis”, *Construction & Building Materials*, **148**, pp.195–203
- 230 Schmall, P. & Dawson, A.R., 2017. “ Ground Freezing Experience on the East Side Access Northern Boulevard Crossing, New York”, *Ground Improvement*, Inst. Civil Eng’rs, **170**(3), pp. 159-172
- 231 Hilal, A.A., Dawson, A.R. & Thom, N.H., 2016. “Failure Mechanism of Foamed Concrete Made with/without Additives and Lightweight Aggregate”, *J. Advanced Concrete Technology*, **14**(9), pp. 511-520. <http://doi.org/10.3151/jact.14.511>
- 232 Mohammed, H., Thom, N.H. & Dawson, A.R., 2017. “Assessing the Bond Strength of Two layer Roller Compacted Concrete (RCC) for Pavements”, *World Conference on Pavement and Asset Management*, WCPAM2017, Milan, 10pp.
- 233 Yideti, T.F., Dawson, A.R. & Birgisson, B., 2017. “Implementation of shakedown and packing theories for unbound granular materials”, *Proc. 10<sup>th</sup> Bearing Capacity Roads, Railways & Airfields*, ed. Loizos, A., Al-Qadi, A.L. & Scarpas, A., June 28-30, Athens, Greece, CRC Press, 10 pp.
- 234 Moghaddas Tafreshi, S.N., Joz Darabi, N. & Dawson, A.R., 2018. “Cyclic loading response of footing on multilayered rubber-soil mixture”, *Geomechanics and Engineering*, **14** (2), February, pp.115-129. [IF 1.818]
- 235 Awoyera, P., Akinmusuru, J.O., Ndambuki, J.M., Thom N.H. & Dawson, A.R., 2018, “Microstructural characteristics, porosity and strength development in ceramic-laterized concrete”, *Cement & Concrete Composites*, **86**, February, pp.224-237. [IF 4.66]
- 236 Farhan, A., Dawson, A.R. & Thom, N.H., 2018, “Damage propagation rate and mechanical properties of fiber-reinforced and cement-bound granular materials used in pavement structure”, *Construction & Building Materials*, **172**, May, pp.112–124. [IF 3.485]
- 237 Farhan, A.H., Dawson, A.R. & Thom, N.H., 2020, “ Effect of rubber incorporation on the behaviour of pavement cemented mixtures under cyclic flexural loading: a preliminary study”, *Journal of Testing and Evaluation*, ASTM, **48**(4), July, pp. [IF 0.669] <https://doi.org/10.1520/JTE20170746>.
- 238 Kamla, J., Parry, T. & Dawson, A.R., 2019, "Analysing Truck Harsh Braking Incidents to Study Roundabout Accident Risk", *Accident Analysis & Prevention*, **122**, January, pp.365-377. [IF 2.584, SNIP 1.9]
- 239 Chiarelli, A., Dawson, A.R. & García, A.H., 2018, “Mitigation of asphalt pavement temperatures by means of natural air convection”, in *Functional Pavement Design: Proc 4th Chinese-European Workshop on Functional Pavement Design*, eds. Erkens, S., Liu, X., Anupam, K. & Tan, Y., CRC Press. pp 1269-1278
- 240 Farhan, A., Dawson, A.R. & Thom, N.H., 2018, “Recycled Hybrid Fiber-Reinforced & Cement-Stabilized Pavement Mixtures: Tensile properties and cracking characterization”, *Construction & Building Materials*, **179**, August, pp. 488–499.

- doi.org/10.1016/j.conbuildmat.2018.05.233 [IF 3.485]
- 241 Khan, M.W., Dawson, A.R. & Marshall, A.M., 2018, "A Dynamic Gradient Ratio Test Apparatus", *Geotextiles & Geomembranes*, **46** (6), December, pp.782-789. doi.org/10.1016/j.geotexmem.2018.07.003 [IF 2.366]
- 242 Moghaddas Tafreshi, S.N., Rahimi, M., Leshchinsky B. & Dawson, A.R., 2018, "Experimental and Numerical Investigation of Uplift Capacity of Plate Anchors in Geocell-Reinforced Soil", *Geotextiles & Geomembranes*, **46**(6), December, pp.801-816. [IF 2.366]
- 243 Alenezi, T., Norambuena-Contreras, J., Dawson, A. & García, A., 2019, "A novel type of cold mix pavement material made with calcium-alginate and aggregates", *J. Cleaner Production*, **212** (March), pp.37-45. DOI: 10.1016/j.jclepro.2018.11.297 [IF 5.651]
- 244 Moghaddas Tafreshi, S.N., Rahimi, M., Dawson, A.R. & Leshchinsky B., 2019, "Cyclic and Post-cycling Anchor Response in Geocell-Reinforced Sand", *Canadian Geotech. J.*, **56**(11): 1700-1718. doi.org/10.1139/cgj-2018-0559 [IF 2.565]
- 245 Ghotbi Siabil, S.M.A., Moghaddas Tafreshi, S.N., Dawson, A.R. & Parvizi Omran, M., 2019, "Behavior of expanded polystyrene (EPS) blocks under cyclic pavement foundation loading", *Geosynthetics International*, **26**(1), February, pp. 1-25. doi.org/10.1680/jgein.18.00033 [IF 2.406]
- 246 Qiao, Y., Dawson, A.R., Parry, T. & Flintsch, G., 2019, "Life cycle cost of flexible pavements and climate variability: case studies from Virginia", *Structure and Infrastructure Engineering*, **15**(12), pp: 1665-1679. doi.org/10.1080/15732479.2019.1642364 [IF 1.845]
- 247 Chiarelli A, Dawson AR, García A, 2016, "Computational packing of aggregates for the study of virtual asphalt samples", ISAP 2016 Symposium, *From Molecules to Innovative pavements*, Jackson Hole, Wyoming, USA.
- 248 Rahman, T., Dawson, A.R. & Thom, N.H., 2019, "Strategies for reduced cooling time of asphalt for airfield pavement overlay", 2019 *International Airfield and Highway Pavements Conference*, ASCE, Chicago, pp 251-265. doi.org/10.1061/9780784482476.026
- 249 Farhan, A.H., Dawson, A.R. & Thom, N.H., 2019, "Behaviour of rubberized cement-stabilized aggregate mixtures containing different stabilisation levels under static and dynamic flexural loading", *Road Materials and Pavement Design*, **21**(8), pp. 2282-2301 doi.org/10.1080/14680629.2019.1605924
- 250 Moghaddas Tafreshi, S.N., Darabi, N.J., Dawson, A.R. & Azizian, M., 2020, "Experimental evaluation of geocell and EPS geofoam as means of protecting pipes at the bottom of repeatedly loaded trenches", *International Journal of Geomechanics*, ASCE, **20**(4), April. doi.org/10.1061/(ASCE)GM.1943-5622.0001624
- 251 Ghotbi Siabil, S.M.A., Moghaddas Tafreshi, S.N. & Dawson, A.R., 2020, "Response of road pavements incorporating both geocells and expanded polystyrene (EPS) geofoam", *Geotextiles & Geomembranes*. **48**(1) February, pp. 1-23. doi.org/10.1016/j.geotexmem.2019.103499
- 252 Thom, N.H. & Dawson, A.R., 2019, "Sustainable Road Design: Promoting recycling and non-conventional materials", *Sustainability* (special issue on "Sustainable High Volume Road and Rail Transport in Low Income Countries"), *Sustainability*, **11**(21), 6106. doi.org/10.3390/su11216106
- 253 Qiao, Y., Dawson, A., Parry, T., Flintsch, G., Jacobs, J. & Daniel, J.S., 2020, "Flexible Pavements and Climate Change: A Comprehensive Review and Implications", *Sustainability* (special issue on "Sustainability in Pavement Design and Pavement Management"), **12**(3), 1057. doi.org/10.3390/su12031057
- 254 Rahman, T., Dawson, A. & Thom, N., 2020, "Warm Mix Asphalt (WMA) for Rapid Construction in Airfield Pavement", *Construction & Building Materials*, **246**, June.



- doi.org/10.1016/j.conbuildmat.2020.118411
- 255 Siino, G., Govan, C., Lo Presti, D. & Dawson, A.R., 2019, "Embankment Failure Mechanisms and MCDM Methods for Railway Geotechnical Asset Management", *Proc. Railway Engineering Conf.*, Paper 16, Edinburgh.
- 256 Roberto, S.M., Hernández, A.G. & Dawson, A., 2019, "Comparative study of voids in *minerals aggregates of virtual aggregate assembly using a game physics' engine*". Abstract 247, *Proc. InterPore 11th Annual Meeting*, May, Valencia, pp413-4
- 257 Farhan, A.H., Dawson, A.R. & Thom, N.H., 2020, "Compressive behaviour of rubberized cement-stabilized aggregate mixtures", *Construction & Building Materials*, **262**. doi.org/10.1016/j.conbuildmat.2020.120038
- 258 Moghaddas Tafreshi, S.N., Amin Ghotbi Siabil, S.M. & Dawson, A.R., 2020, "Expanded polystyrene geofoam", pp117-153 (Chapter 4) in "New Materials in Civil Engineering", eds. Samui, P., Kim, D., Iyer, N. & Chaudhary, S., Butterworth-Heinemann, 1104pp. ISBN: 9780128189610.
- 259 Mohammed, H., Thom. N.H. & Dawson, A.R., 2019, "Load transfer stiffness of two-layer roller compacted concrete for pavements", *J. Materials & Applications*, **8**(2), pp65-72.
- 260 Sardehaei, E.A, Tavakoli Mehrjardi, Gh. & Dawson, 2020, A "From full-scale investigations to analytical predictions into installation damage of nonwoven geotextiles", *Geomechanics and Engineering*, Techno Press, **17**(1), pp81-96.
- 261 A. García, S. Michot-Roberto, S. Dopazo-Hilario, A. Chiarelli, & A. Dawson, 2020, "Creation of realistic virtual aggregate avatars", *Powder Technology*, **378**(B), pp760-71. doi.org/10.1016/j.powtec.2020.10.036
- 262 Moghaddas Tafreshi, S.N., Parvizi Omran, M., Rahimi, M. & Dawson, A.R., 2021, "Experimental Investigation of the Behavior of Soil Reinforced with Waste Plastic Bottles under Cyclic Loads", *Transportation Geotechnics*, **26**(1). doi.org/10.1016/j.trgeo.2020.100455
- 263 Zakeri, R., Moghaddas Tafreshi, S.N., Dawson, A.R., & Baidya, D.K., 2021, "Influence of Rubber Sheet on Dynamic Response of Machine Foundations", *Construction & Building Materials*, **274**, paper 121788. doi.org/10.1016/j.conbuildmat.2020.121788
- 264 Rahman, T., Dawson, A.R., Thom, N.H., Ahmed, I. & Carvajal-Munoz, J.S., 2020, "Determining the Allowable Opening-to-Traffic Asphalt Temperature for Airport Pavements", *Int'l. J. Pavement Eng.*, doi.org/10.1080/10298436.2020.1855350
- 265 Ahmed, I., Thom, N.H., Zaidi, S.B.A., Carvajal-Munoz, J.S. & Dawson, A.R., 2020 "Application of a Novel Linear-Viscous Approach to Predict Permanent Deformation in Simulative Inverted Pavements", *Construction & Building Materials*, **267**, doi.org/10.1016/j.conbuildmat.2020.120681
- 266 García-Hernández, A., Wan, L., Dopazo-Hilario, S., Chiarelli, A. & Dawson, A.R., 2021, "Generation of virtual asphalt concrete in a physics engine", *Construction and Building Materials*, **286**, Paper 122972.
- 267 S. Michot-Roberto, A. García, S. Dopazo-Hilario, A. Chiarelli, & A. Dawson, 2021, "The Spherical Primitive and Perlin Noise Method to Recreate Realistic Aggregate Shapes", *Granular Matter*, **23**, Article 41, 11pp. doi.org/10.1007/s10035-021-01105-6
- 268 Moghaddas Tafreshi, S.N., Joz Darabi, N., Dawson, A.R., Azizian, M., 2020, "Combining EPS geofoam with geocell to reduce buried pipe loads and trench surface rutting", *Geotextiles and Geomembranes*, Elsevier, **48**(3), 400-418.
- 269 Moghaddas Tafreshi, S.N., Joz Darabi, N., Tavakoli Mehrjardi, GH., Dawson, A.R., 2019, "Experimental and numerical investigation of footing behaviour on multi-layered rubber-reinforced soil", *European Journal of Environmental and Civil Engineering*, **23**(1) pp. 29-52.

- 270 Campos Guereta, I., Dawson, A.R. & Thom, N.H., 2021, "An alternative continuous form of Arya and Paris model to predict the soil water retention curve of a soil", *Advances in Water Resources*, **154**, August, Paper 103968. doi.org/10.1016/j.advwatres.2021.103968
- 271 Moghaddas Tafreshi, S.N., Rafiezadeh Malekshah, A., Rahimi, M. & Dawson, A.R., 2022, "Bearing capacity improvement using soil-filled post-consumer PET bottles", *Geosynthetics International*, **29**(3), June, pp. 205-216. doi.org/10.1680/jgein.21.00031
- 272 Chu, X., Dawson, A.R. & Thom, N., 2021, "Prediction of resilient modulus with consistency index for fine-grained soils", *Transportation Geotechnics*, **31**, November, paper 100650. doi.org/10.1016/j.trgeo.2021.100650
- 273 Moghaddas Tafreshi, S.N., Zakeri, R., Dawson, A.R. & Hegde, A., 2022, "Compressive Wave Isolation of Lightweight Equipment Very Close to a Vibration Source Using a Rubber Sheet", *International Journal of Geomechanics*, **22**(1). doi.org/10.1061/(ASCE)GM.1943-5622.0002252
- 274 Campos Guereta, I., Dawson, A.R. & Thom, N.H., 2021, "A tool for estimating the water content of unsaturated railway track formation layers", in: Tutumluer E., Nazarian S., Al-Qadi I., Qamhia I.I. (eds), *Advances in Transportation Geotechnics IV. Lecture Notes in Civil Engineering*, **166**, pp 363-376, Springer. doi.org/10.1007/978-3-030-77238-3\_27.
- 275 Jalali, V., Apeageyi, A., Grenfell, J.R.A. & Dawson, A.R., 2022, "Effect of Warm Mix Asphalt Additives on Physio-chemical and Viscoelastic Properties of Bitumen", *SSRN*. (abstract at doi.org/10.2139/ssrn.3975291)
- 276 Khan, M.W., Dawson, A.R. & Marshall, A.M., 2021, "Filtration Performance of Non- Woven Geotextiles with Internally-stable and -unstable Soils under Dynamic Loading", *Geotextiles & Geomembranes*, **50**(2), April, pp.293-311. doi.org/10.1016/j.geotextmem.2021.11.007
- 277 Ullah, S., Tanyu, B & Dawson, A.R., 2022, "Reclaimed asphalt pavement (RAP) as an unbound base course material: A mechanistic design approach based on multi-stage repeated load triaxial tests", *Transportation Geotechnics*, **33**, March. doi.org/10.1016/j.trgeo.2022.100729
- 278 Moghaddas Tafreshi, S.N., Karami, N., Rahimi, M., Dawson, A.R., 2023, "Response of a model footing reinforced by novel three dimensional elements", *Int'l J. Physical Modelling in Geotech.*, **23**(2), pp. 92-111. doi.org/10.1680/jphmg.21.00055
- 279 Campos Guereta, I., Dawson, A.R. & Thom, N.H., 2022, "New expressions for waterflow in coarse road and rail track materials", *Proc. 11<sup>th</sup> Conf. Bearing Capacity of Roads, Railways & Airfields*.
- 280 Michot-Roberto, S., García-Hernández, A., Dopazo-Hilario, S. & Dawson, A.R., 2021, "Use of a physics toolbox to simulate aggregate packings", *Construction & Building Materials*, **311**, Paper 125254. doi.org/10.1016/j.conbuildmat.2021.125254
- 281 Rahman, T., Dawson, A.R., Thom, N.H., Sudibyo, T., Carvajal-Munoz, J.S., Suwanto, F. & Ahmed, I., 2022, "Spray water cooling of newly laid asphalt pavement for rapid opening to traffic", *Road Materials and Pavement Design*, **24**(4), pp. 1103-1129 . doi.org/10.1080/14680629.2022.2060127
- 282 Moghaddas Tafreshi, S.N., Kheiri, S., Azizian, M. & Dawson, A.R., 2024, "Geocell-reinforced bed under static and cyclic loads: soil density and grain size effects", *Geosynthetics Int'l.*, **31**(2), pp. 126-139. doi.org/10.1680/jgein.22.00259
- 283 Chu, X., Campos-Guereta, I., Dawson, A.R. & Thom, N.H., 2023, "Sustainable pavement drainage systems: subgrade moisture, subsurface drainage methods and drainage effectiveness", *Construction & Building Materials*, **364**, paper 129950. doi.org/10.1016/j.conbuildmat.2022.129950
- 284 Amiri, A., Moghaddas Tafreshi, S.N., Dawson, A.R. & Mohasseb, S., 2023, "Machine Foundation Response Subjected to Vertical Vibration: Experimental and Analytical Using Cone Model", *European J. Env. & Civil Eng.g.*, **27**(13), pp. 3920-3950.

- doi.org/10.1080/19648189.2023.2165164
- 285 Chu, X., Dawson, A.R., Zhang, J., Thom, N.H., Guo, C. & Qin, L., 2023, "Sensitivity analysis of pavement response to subgrade moisture variations", *J. Building Eng'g.*, **69**, June, paper 106285. doi.org/10.1016/j.jobbe.2023.106285
- 286 Amiri, A., Moghaddas Tafreshi, S.N. & Dawson, A.R., 2023, "Vibration Response of Machine Foundations Protected by Use of Adjacent Multi-layer Geocells", *Geotextiles & Geomembranes*, **51**(4), August, pp15-35. doi.org/10.1016/j.geotexmem.2023.03.001
- 287 Chu, X., Thom, N.H., Dawson, A.R., Qin, L. & Chen, H., 2023, "Drainage effects on shear behaviour and stiffness of subgrade soils and pavement drainage implications", *Construction & Building Materials*, **389**, July, paper 131697. doi.org/10.1016/j.conbuildmat.2023.131697
- 289 Qiao, Y., Zhang, S., Guo, Y., Wang, Y., Santos, J., Stoner, A., Dawson, A. & Ma, T., 2023, "Assessing the effects of unit cost uncertainty on flexible road pavement economics under the influence of climate change", *J. Cleaner Production*, **414**, paper 137597. doi.org/10.1016/j.jclepro.2023.137597
- 290 Qiao, Y., Zhang, S., Wang, Y., Dawson, A., Wake, C. & Ma, T., 2023, "Simulating floodwater movement in pavements for developing post-flooding time-depth-damage functions", *Construction & Building Materials*, **396**, Sept., paper 132408. doi.org/10.1016/j.conbuildmat.2023.132408
- 291 Moghaddas Tafreshi, S.N., Khanjani, A.A., Dawson, A.R. & Faramarzi, A., 2023, "Performance of recycled waste aggregate mixed with crushed glass over a weak subgrade", *Construction & Building Materials*, **402**, Oct., paper 133002. doi.org/10.1016/j.conbuildmat.2023.133002
- 292 Moghaddas Tafreshi, S.N., Sarabadani, A., Rahimi, M., Dawson, A.R., Faramarzi, A., 2023, "Geocell-reinforced bed anchored with additional vertical elements under repeated loading", *Transportation Geotechnics*, **42**, Sept., paper 101089. doi.org/10.1016/j.trgeo.2023.101089
- 293 Moghaddas Tafreshi, S.N., Amiri, A. & Dawson, A.R., 2023, "Sustainable Use of End-of-Life-Tires (ELTs) in a Vibration Isolation System", *Construction & Building Materials*, **405**, Nov., paper 133316. doi.org/10.1016/j.conbuildmat.2023.133316
- 294 Chu, X., Dawson, A.R., Thom, N.H., Chen, H. & Qin, L., 2024, "Permanent deformation characteristics of unsaturated subgrade soils under cyclic loading", *Case Studies in Construction Materials*, **20**, July, paper e03099. doi.org/10.1016/j.cscm.2024.e03099
- 295 Almawla, S.S., Mohammed, M.K., Al-Hadithi, A.K. & Dawson, A.R., 2024 "Evaluation and optimization of volume fraction and aspect ratio of Polyethylene Terephthalate (PET) fibers in self-compacting lightweight concrete", *J. Structural Integrity & Maintenance*, **9**(1). doi.org/10.1080/24705314.2024.2314823
- 296 Moghaddas Tafreshi, S.N., Zakeri, R. & Dawson, A.R., 2025, "Vibration response of closely spaced footings protected by use of rubber sheet: An in-situ investigation", *Geotextiles & Geomembranes*, **53**(1), February, pp. 1-20. doi.org/10.1016/j.geotexmem.2024.08.007
- 297 Mohammed, H., Hacham, Z., Thom, N.H. & Dawson, A.R., 2024, "Design of Two-Layer Roller Compacted Concrete with Joints by KENSLAB", *Transportation Research Record*. doi.org/10.1177/03611981241277821
- 298 Khan, M.W., Dawson, A.R., Marshall, A.M. & Chaudhry, R., 2024, "Measuring pore sizes of nonwoven geotextiles by X-ray CT images: a comparative evaluation", *Geosynthetics Int'l*, paper 24.00055 ahead of print, pp. 1-37. doi.org/10.1680/jgein.24.00055
- 299 Moghaddas Tafreshi, S.N., Noroozadeh, A., Zakeri, R. & Dawson, A.R., 2025, "Dynamic Response of Machine Foundations on Rubber-Sand Bags", *Geosynthetics Int'l*, paper 24.00108 ahead of print. doi.org/10.1680/jgein.24.00108
- 300 Moghaddas Tafreshi, S.N., Ahmadian, A.F. & Dawson, A.R., 2025, "Use of soilbags to protect flexible pipes against repeated load effects", *Geotextiles & Geomembranes*, **53**(4), August, pp.

823-846