

**PUBLICATIONS**

**Dr Stephen Emery**

<b>PAPERS PUBLISHED IN CONFERENCE PROCEEDINGS (INTERNATIONALLY REFEREED)</b>	<b>I</b>
<b>PAPERS PUBLISHED IN CONFERENCE PROCEEDINGS (NATIONALLY REFEREED)</b>	<b>III</b>
<b>THESES AND ACADEMIC RESEARCH REPORTS</b>	<b>V</b>
<b>BOOKS AND CHAPTERS IN BOOKS, MONOGRAPHS, AND REFEREED OCCASIONAL PAPERS.</b>	<b>VII</b>

**Papers published in Conference Proceedings (internationally refereed)**

EMERY, S, COCKS, G and KEELEY, R (2007) Selection and Use of Locally Available Pavement Materials for Low Volume Roads in Western Australia. 9th International Conf. Low Volume Roads, Austin

HORAK, E and EMERY, S J (2006) Determining the Effect of Super Fine Tillite Filler in an Asphalt Layer. 3rd International Road Federation/South African Road Federation Conf. 11-13 Sept 2006, Durban.

EMERY S.J., O'CONNELL J. and WHITE L. (2004) Monitoring Bitumen Quality from Refinery to Pavement. 8th Conf. Asphalt Pavements Southern Africa, Sun City, South Africa

HORAK E., EMERY, S.J, AMOD, S., WEIDEMANN, J and JOUBERT, I (2004) Transformation of a Provincial Routine Road Maintenance Unit In South Africa. 8th Conf. Asphalt Pavements Southern Africa, Sun City, South Africa

LIEUW KIE SONG, M and EMERY S.J. (2001) Preliminary Development of Slag As A Stabilised Material For Labour Intensive Construction Of Roads. WORK 2001 Conference, Johannesburg, South Africa

EMERY S.J. and CORET, S.C.A (2001) Current Practice For The Construction of Hot Asphalt Surfacing By Hand WORK 2001 Conference, Johannesburg, South Africa

EMERY, S J and O'CONNELL, J (1999) Development of a High Performance SBS Modified Binder for Production. 7th Conf. Asphalt Pavements Southern Africa, Cape Town

EMERY, S J and O'CONNELL, J (1999) Computer-Based Expert System for Troubleshooting Emulsion Manufacture. 7th Conf. Asphalt Pavements Southern Africa, Cape Town

EMERY, S J, VAN ZYL, G and ESSMAN, J (1999) Management Of Resurfacing And Routine Surfacing Maintenance In Small Communities. 7th Conf. Asphalt Pavements Southern Africa, Cape Town

WALSTRAND, J L, O'CONNELL, J and EMERY, S J (1999) Reverse Engineering a Bleeding Seal in the Laboratory. 7th Conf. Asphalt Pavements Southern Africa, Cape Town

EMERY S J, HORAK E, OLIVIER P, RHODE A, VAN WIJK A J (1999) Re-engineering the delivery of laboratory services in the asphalt road sector. 7th Conf. Asphalt Pavements Southern Africa, Cape Town

EMERY, S.J. and O'CONNELL, J. (1997) Development and application of road bituminous emulsions in Southern Africa. 2nd World Conference on Emulsions, Bordeaux.

EMERY, S.J., CRONJE, P.G. and NYASULU, G. (1995) Development of emerging contractors through franchising. Joint IRF/SARF Conference, Midrand.

WOLFF, H., EMERY, S.J, VAN ZYL, G.D and PAIGE-GREEN, P. (1995) A design catalogue for low volume roads developed for South African conditions. 6th Int. Conf. on Low Volume Roads, Minneapolis.

EMERY, S.J, ALLI, N. and VELDMAN, B.H.W. (1994) Labour based construction of bitumen surfacings by small contractors. 6th Conf. Asphalt Pavements Southern Africa, Cape Town

ALLI, N. and EMERY, S.J (1994) Community participation in development projects. 6th Conf. Asphalt Pavements Southern Africa, Cape Town

EMERY, S.J and HENDRICKS, P. (1994) State of asphalt tertiary education in southern Africa. 6th Conf. Asphalt Pavements Southern Africa, Cape Town

EMERY, S.J, and ZACHARIAS, M.P. (1994) Temperature susceptibility of South African bitumens. 6th Conf. Asphalt Pavements Southern Africa, Cape Town

ZACHARIAS, M.P. and EMERY, S.J (1994) Application of the Brookfield Viscometer test method in South African road grade bitumen specification. 6th Conf. Asphalt Pavements Southern Africa, Cape Town

EMERY, S.J, VAN ZYL, G.D. and VOS, R.M. (1994) Bituminous surfacings for low volume roads in developing areas. 6th Conf. Asphalt Pavements Southern Africa, Cape Town

EMERY, S.J. AND CAPLEHORN, M. W. (1993) Use of surface treatments on runways for RPT jet aircraft. Conf. Airport Pavement Innovations, Am. Soc. Civil Eng., Vicksburg

EMERY, S.J, AND VOS, R. (1993) Bituminous surfacings for low volume urban roads in developing areas. XII World Int. Road Federation Meeting, Madrid

EMERY, S.J. and PETERSEN, T. (1987) Accelerated load testing for Derby airport runway. Institution of Engineers Aviation Symposium, Canberra

EMERY, S.J. (1984) Prediction of pavement moisture content in southern Africa. Eight Reg. Conf. Africa Soil Mech. Fndn. Engng., Harare, vol 1, pp239-251

#### **Papers published in Conference Proceedings (nationally refereed)**

EMERY, S and MIHALJEVIC, I (in press) Accelerated Load Testing of Asphalt Mix Designs for Heavy Duty Pavements in Hot Climates. 23rd ARRB conference, 2008, Adelaide

EMERY, S (in press) Seals for Heavy Duty Airport Pavements. 1<sup>st</sup> Sprayed Seal Conference, 2008, Adelaide

OLARU, D and EMERY, S (2007) Simulation and GA-optimisation for modelling the operation of airport passenger terminals. 29th Conference of Australian Institutes of Transport Research, Adelaide

HORAK, E and EMERY, S J (2006) Falling Weight Deflectometer Bowl Parameters as Analysis Tool for Pavement Structural Evaluations. 22nd ARRB Conference, 29 Oct-2 Nov 2006, Canberra

EMERY, S J (2006) Pavements and Overlays for Airports – Final Report. 25th Australia Airports Association Convention, Cairns

EMERY, S J (2005) Bituminous Surfacing for Pavements on Australian Airports. 24th Australia Airports Association Convention, Hobart

EMERY, S J (2005) Asphalt on Australian Airports. Australia Asphalt Paving Association Pavement Industry Conference, Surfers Paradise, Queensland

JONES, D, and EMERY, S.J. (2003). The development of a research protocol and fit-for-purpose certification for road additives. 21st ARRB and 11th REAAA

conference, May 2003, Cairns

EMERY, S.J., MASTERSON, S, AND CAPLEHORN, M.W. (2003) Sand-clay pindan material in pavements as a structural layer. 21st ARRB and 11th REAAA conference, May 2003, Cairns

LIEUW KIE SONG, M., EMERY, S.J. and BENN, M. (2001) Alkali Activation of Milled Slag and its Implications for the use of Un-Milled Slag as a Road Stabiliser. Session 2A, Annual Transportation Convention, Pretoria.

HORAK, E, EMERY, S.J and AGAIENZ, A. (2001) Key Performance Indicators (KPIs) for road infrastructure asset management by a roads agency in a large local authority. Session 2A, Annual Transportation Convention, Pretoria

EMERY S.J (2000) Implications of Long Term Road Maintenance Contracts for the Asphalt Industry. 1<sup>st</sup> Conf. World of Asphalt Pavements, Sydney.

EMERY S.J (2000) Improved Construction Practices: Pavement Performance Evaluation as an Input to Stochastic Asset Management. 1<sup>st</sup> Conf. World of Asphalt Pavements, Sydney.

HORAK, E and EMERY S.J (2000) Implementation Of Partnering In Road Construction. 1<sup>st</sup> Conf. World of Asphalt Pavements, Sydney.

WEINMANN, N and EMERY, S.J. (1997) Engineering the properties of spray bitumens for labour enhanced construction. South African Transport Conference, Johannesburg.

EMERY S.J (1996) Large Aggregate Mixes In Bases. Institute of Quarrying 27th AGM Conference, Durban.

EMERY S.J (1995) South African Asphalt Initiatives. Keynote Address, 10th Industry Conf., Aust. Asphalt Paving Assoc., Adelaide.

EMERY S.J (1995) Large Aggregate Mixes for Bases and Granular Emulsion Stabilised Mixtures., 10th Industry Conf., Aust. Asphalt Paving Assoc., Adelaide.

EMERY S.J and VOS, R.M (1994) Practical implementation of a technology transfer system for asphalt practitioners. 9th Int Conf., Aust. Asphalt Paving Assoc., Brisbane.

EMERY, S.J and PRATT, P.M (1993) Geotextile reinforced bituminous surfacing for developing areas. Session 2B, Ann. Transp. Con., Pretoria

EMERY, S.J (1993) Weatherproof roads: a pavement class between gravel and paved roads. Session 2B, Ann. Transp. Con., Pretoria

JONES, D, EMERY, S.J and VAN ZYL, G.D. (1993) An integrated environmental procedure for roads. Session 1A, Ann. Transp. Con., Pretoria

WOLFF, H., VAN ZYL, G.D, PAIGE-GREEN, P. and EMERY, S.J. (1993) The development of a structural design catalogue for low volume roads. Session 4C, Ann. Transp. Con., Pretoria

EMERY, S.J, VAN ZYL, G.D., VAN HUYSSSTEEN, S. and SAMPSON, L. (1992) Performance limits for bituminous surfacings on low volume roads. Annual Transportation Conference 1992, Pretoria.

EMERY, S.J, VOS, R. and VAN HUYSSSTEEN, S. (1992) Economic justification for surfacing existing and new roads. Annual Transportation Conference 1992, Pretoria.

EMERY, S.J, VAN HUYSSSTEEN, S. and SAMPSON, L. (1992) Recommendations on the suitability and use of appropriate surfacings for temporary deviations. Ann. Transp. Conf., Pretoria.

PAIGE-GREEN, P, JONES, D, and EMERY, S.J. (1991) Roads and environment - compromise or conflict. South African Conf. Environmental Management, Cape Town.

EMERY, S.J. and PETERSEN, T. (1987) Accelerated load testing for Derby airport runway. Institution of Engineers Aviation Symposium, Canberra

EMERY, S.J., St JACK, K. and BONE, G.R. (1987) Management of aerodromes under local ownership. Institution of Engineers Conference on Local Government Engineering, Perth

EMERY, S.J. (1987) Unsoaked CBR design to reduce the cost of roads. Annual Transportation Conference 1987, Pretoria

EMERY, S.J. (1986) A new minimum width for the design of shoulders of sealed roads. Annual Transportation Conference, Pretoria

SAMPSON, L.R., EMERY, S.J. and ROSE, D. (1985) An investigation into premature pavement distress in the Cape Province. Annual Transportation Conference 1985, Pretoria

### **Theses and academic research reports**

EMERY, S.J. (2007) Heavy duty and industrial pavements. Lecture notes in rigid and flexible pavements, empirical and mechanistic design, airports, mines, ports, and container terminals. Unit CPE656. Centre for Pavement Engineering Education, Melbourne.

EMERY, S.J. (1990) Case study on the theory, practice and implementation of a business plan. MBA thesis, Graduate School of Business, Univ. Western Australia.

EMERY, S.J. (1985) Prediction of moisture content for use in pavement design. PhD thesis, University of Witwatersrand, Johannesburg.

EMERY, S.J. (1985) A new map of Thornthwaite's moisture index. NITRR Report TS/29/85, CSIR, Pretoria

SHACKLETON, M.C. and EMERY, S.J. (1985) Investigation of CBR versus moisture content relationships for untreated materials. NITRR Report TS/4/85, CSIR, Pretoria

EMERY, S.J. and BASSON, J.E.B. (1984) Draft standard dynamic cone penetrometer. NITRR Report TS/15/84, CSIR, Pretoria

EMERY, S.J. (1983) Diurnal and seasonal measurements of suction, resistance, deflection, radius of curvature, temperature at Jwaneng, Botswana. NITRR Report TS/33/83, CSIR, Pretoria

EMERY, S.J. (1983) The investigation of moisture in roads in Natal and the Cape Province. NITRR Report RS/1/83, vols 1-6, CSIR, Pretoria

EMERY, S.J. (1982) An investigation into the installation, reliability and accuracy of psychometric equipment. NITRR Report TS/12/82, CSIR, Pretoria

EMERY, S.J. (1982) The effect of infiltration and surface drainage on the pavement moisture regime. NITRR Report TS/29/82, CSIR, Pretoria

## **Journals**

FULTON , N, WESTCOTT, M AND EMERY, S (in press) An engineering evaluation of the mid-air collision risk in airspace through population-based measures. Transportation Research

FULTON , N, WESTCOTT, M AND EMERY, S (in press) An engineering evaluation of the mid-air collision risk in airspace Part II: an analysis of traffic patterns. Transportation Research

PHILLIPS, S.D., MCCUTCHEON R.T., EMERY S.J., LITTLE, R. AND KWESIGA M.R. (1995) Technical analysis of the employment creation potential of a National Public Works Programme. Journal of the South African Institution of Civil Engineers, Vol 37, No. 3, 3rd quarter 1995, pp18-24.

WITTSTOCK, G.H., EMERY, S.J. and SAVAGE, J. (1984) Towards the standardisation of geotextile test methods and parameters in South Africa. Civil Engineering Contractor, October, Johannesburg

**Books and chapters in books, monographs, and refereed occasional papers.**

EMERY, S.J. (2003) Design and Construction of Hot Mixed Asphalt Surfacing for Labour Based Construction. Chapter 13 in: EMPLOYMENT & HIGH STANDARD INFRASTRUCTURE. Work Centre. University of Witwatersrand, Johannesburg.

EMERY, S.J. and VAN ZYL, G.D. (1993) Guidelines for upgrading of low volume roads. South African Roads Board, Chapters 2, 4, 5, 9, 10, 11, and 12. Report PR 92/466/002, Pretoria

EMERY, S.J., PAIGE-GREEN, P., SAMPSON, L.R. and VAN ZYL, G.D. (1993) Towards appropriate standards for rural roads: discussion document. Chapters 2, 5, 6, 7, 8. South African Roads Board, Report PR 92/466/001, Pretoria

ALLI, N., EMERY, S.J. MCCUTCHEON, R.T., and VELDMAN, B. (1993) Methods and procedures: labour enhanced construction for bituminous surfacings. South African Bitumen and Tar Association Manual 12, SABITA, Cape Town

EMERY, S.J. and VELDMAN, B. (1993) Labour enhanced construction for bituminous surfacings. South African Bitumen and Tar Association Manual 11, SABITA, Cape Town

EMERY, S.J., VAN HUYSSTEEN, S., and VAN ZYL, G. (1992) Appropriate standards for bituminous surfacings. South African Bitumen and Tar Association Manual 10, SABITA, Cape Town

EMERY, S.J., GROENEWALD, M., and VAN HUYSSTEEN, S. (1991) Bituminous surfacings for temporary deviations. South African Bitumen and Tar Association Manual 9, SABITA, Cape Town

EMERY, S.J., VAN HUYSSTEEN, S., and VAN ZYL, G. SURF Economic warrants for surfacing roads. (1991) South African Bitumen and Tar Association Manual 7, SABITA, Cape Town