

# Dr Stephen Emery

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## Specialist Engineering Consultant

### Qualifications

B.Eng(Hons)(Uni. NSW) MBA(Uni. WA) PhD(Rand) FIEAust  
CPEng FSAICE PrEng FAICD FSAT MAAPT MISAP MAGS

### Contact details

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### Personal Profile

1. Specialist consultant with wide ranging engineering, technical and commercial expertise earned during the course of 39 years in the fields of road and airport engineering, and engineering management.
2. Key areas of expertise include roads, pavements, materials, bitumen, asphalt, airports, diagnostic engineering and research, multi-faceted and multi-disciplinary projects, commercial practice, and engineering education.
3. Technical Expert in disputes covering roads, airports, pavements, materials, road engineering, airport engineering, design, project financial analysis, transport economics, and safety.

### Projects in Last Five Years

4. Asphalt overlay construction, quality control, geometric and structural design; tender documentation for runway, taxiway and apron. Broome, Australia. Team leader, 2012-2014.
5. Technical Expert in bitumen manufacturing and supply arbitration for \$US450 million. Thailand and London, UK. 2013-2014.
6. Technical Expert in freeway design and performance arbitration for R350 million. South Africa. 2013-2014.
7. Investigation into asphalt pavement blistering. Forrestfield, Australia. 2013.
8. Investigation into asphalt rutting, stripping and moisture damage. Midland, Australia. 2012-2013
9. Pavement evaluation and rating for runway, taxiway and apron for aircraft and heavy helicopter operations. Lombadina, Australia. 2012.
10. Developed airport capability brochure marketing heavy helicopter facility. Broome, Australia. 2012.

11. Passenger forecasting using time series and econometric modelling for period 2012-2035. Broome, Australia. 2012.
12. Pavement evaluation and design for taxiway and apron for heavy helicopter operations. Broome, Australia. 2012.
13. Passenger survey analysis and reporting; 1000-1500 person survey. Broome, Australia. 2012 and continuing bi-annually.
14. Team leader for aerodrome design at Magburaka, Sierra Leone, Africa including layout, airside configuration, runway design, terminal layout design, landside, access road, runway lighting, fire service, tower location, services. 2011.
15. Upgrade design for airport at São Tome, São Tome & Príncipe, Africa, including masterplan, airside configuration, runway extension design, terminal layout design, landside, fire service, tower location, services. 2010. Specialist.
16. Operating company business plan for airport at Sao Tome, Africa, 2010.
17. Investigation into runway surfacing at George Airport, South Africa following aircraft overrun accident. Technical Expert in Arbitration. 2010-2014.
18. Airport terminal layout design, Broome, Australia. 2010.
19. Technical Expert for ACN/PCN and airport compatibility analysis at 14 European airports, and airport operational assistance, for European airline, 2009-2013.
20. Implemented complete pavement management system into major road network for Perth Metropolitan North (TNC 8). Collected road condition data. Modelled road maintenance and rehabilitation needs for extended period, and prepared Operational Road Plan with all maintenance and rehabilitation works. Budget and level cashflow. Senior team member. 2003-2010.
21. Technical Expert for contract dispute on pavement and surfacing performance, design and construct 30km freeway project, Western Australia. Technical Expert in Mediation. 2008 to 2010.
22. Technical Expert for contract dispute on surfacing performance, construct only 14km dual highway project, Western Australia. 2007-2011.
23. Specialist investigation into concrete pavements at Macau. Pavement investigation and analysis, pavement design, traffic forecasting, RESA analysis, and masterplanning elements. Team leader. 2007 to 2010.
24. Specialist investigation into materials and pavements at Walvis Bay International Airport, Namibia for A380 upgrade. Pavement designs for flexible runway and new concrete apron, audit ICAO compliance, limit salt damage, accelerated testing of materials, long term maintenance planning, traffic forecasting. Senior team member. 2007 to 2010.
25. Airport ownership and management at Broome International Airport. Strategy, airport development, infrastructure expansion, environmental and noise planning, land-use planning, geometric and structural design, construction management. Senior team member. Ongoing since 1991.

26. Geometric and structural design of runway rehabilitation for Boeing 747 at Waterkloof Airforce Base, Pretoria. Senior team member. 2007-2010.
27. Teaching post-graduate courses in pavements. Developed new unit for Latrobe/Deakin University CPEE postgraduate course on Heavy Duty and Industrial Pavements in 2007, and wrote the textbook; Unit chair from 2007 and ongoing through 2014. Unit chair for Latrobe/Deakin University CPEE postgraduate course on Pavement Management Systems from 2005 and ongoing through 2014.

## Earlier Detailed Experience

*Kubu Consultancy Pty Ltd*

*Pretoria*

*Kubu Australia Pty Ltd*

*Perth*

*Director*

*1998 to present*

My experience in the previous five years is detailed above. My prior experience is detailed below.

## Materials, bitumen, asphalt and pavements

28. Investigation into staining of new asphalt pavements at New Doha International Airport. Construction audit, audit of contractor and laboratory, production results audit. Team leader. 2009.
29. Technical Expert in roads and materials for surfacing claim; Pinjarra, Western Australia. Technical Expert; Court Case Landtec Projects Corporation Pty Ltd v Spiers Earthworks Pty Ltd [WADC 74, 20 May 2012] 2007 to 2009.
30. Technical Expert on asphalt and bitumen problems at port/industrial terminal, Western Australia. Technical Expert in Arbitration. 2009.
31. Developed and presented 5-day Airport Engineering course for ICAO in South East Asia. Content included pavements, materials, design, and maintenance. Philippines, 2009.
32. Technical Expert in investigation of failure of heavy duty asphalt pavements at a container terminal in Townsville. Technical Expert in Arbitration. 2006
33. Technical Expert for PMBs and asphalt for \$35 million airport surfacing problems in Dubai, including asphalt on what will be the world's largest airport at Jebel-Ali, involving field and laboratory studies, accelerated pavement testing, auditing, airport pavement design, and development of PMBs. 2006 to 2007.
34. Runway resurfacing. Materials sourcing, design, quality control, tendering, construction supervision, quality control and establishment of onsite bitumen laboratory. 2005 to 2008. Team leader. Western Australia.
35. Leader of a multi-disciplinary research team into bituminous surfacings and polymer modified bitumens for Australian Airports Association, including investigation of

- stripping, groove closure, performance issues, modified binder manufacture and specification, development of new airport binders. 2004 to 2007.
36. Technical Expert in bitumen surfacing and materials for \$0.8 million airport surfacing claim; Gingin, Western Australia. Technical Expert in Arbitration. 2005 to 2009.
  37. Technical Expert in bitumen surfacings and materials for \$0.65 million road surfacing claim; Mt Magnet to Sandstone, Western Australia. Technical Expert in Arbitration. 2004.
  38. Technical Expert in analysing PMB bitumen, multigrade bitumen and asphalt production, performance and quality control on airports. Various projects and airports for Australian Airports Association. 2005 to 2007.
  39. Technical Expert in development of bitumen refining, bitumen specification and shipping specification, quality control, and transport economics for a bitumen company. Commercially confidential. 2004 to 2006.
  40. Design and documentation for rehabilitation and re-alignment of 33 kms of rural highway N2-14, Keiskamma to Green River, South Africa. Team member. 2004 to 2006.
  41. Design and documentation for rehabilitation of 72 lane-kms of major urban freeway N12 Tom Jones to Daveyton, South Africa. Team member. 2004 to 2007.
  42. Forecasting, traffic mix and structural design of 3 rapid exit taxiways at Johannesburg International Airport. Senior team member. 2004.
  43. Specialist in R61 freeway pavement failure investigation for major construction claim in South Africa, involving advanced asphalt and materials testing. Senior team member. Technical Expert in Arbitration. 2003-4.
  44. Technical Expert for dispute in pavement performance in Western Australia involving prediction of pavement performance and probabilistic modelling. 2002-2003.
  45. Technical Expert in surfacings, pavements and materials for \$1.7 million construction and road performance claim in Ripon Hills, Western Australia. Technical Expert in Arbitration. 2002-2007.
  46. N4 Freeway rehabilitation (128 lane kms) near Pretoria, South Africa, including design and supervision of material and pavement investigation, design of pavement rehabilitation, introducing ISO 9000 quality system, toll-road economic analysis, and construction supervision. Senior team member. 2000 to 2004.
  47. Specialist consultant for various material problems including bitumen stiffness, alkali-silica reaction, dust control, foamed bitumen stabilisation, insitu cement stabilisation, and excessive stone water absorption. 1999-2003.

## Technology

48. Detailed masterplan for existing Boeing 737/767 airport. Forecasting, airport layout, airside configuration, terminal layout design, landside, non-aeronautical uses, services. 2007 to 2008.

49. AHP Expert Choice decision support modelling for aircraft choice. Team member. 2008.
50. Technical Expert in aviation safety case for single engined RPT operation, Western Australia, 2008; aviation safety case for CAGRO night operations, Broome, Western Australia, 2007; aviation safety case for gas plume rise near airport, Northern Territory, 2009.
51. Forecasting, traffic mix, geometric and structural design, construction advice of runway for Boeing 747/A340-600 at Bloemfontein Airport. Senior team member. 2006 to 2009.
52. Leader of multi-disciplinary research team into extensive design airspace study including AS 3931 and AS 4360, analysis of accident databases, public survey of attitudes and statistical analysis. Team leader. 2003-2004.
53. Started soils laboratory, installed quality system, and gained NATA accreditation (14582) in 2001. Registered NATA auditor (16927) 2002 and continuing.
54. Design audit of ICAO Code 4D runway and taxiway reconstruction. Including FWD testing, materials location, pavement design using FAA and elastic layer analysis, pavement rating. Perth, Western Australia. Team leader. 2002.
55. Developed the business and operational plans for various airline operations. Commercially confidential. Team leader. 2000-2002.
56. Senior member of team in project to investigate improved productivity, potential for small business units and the commercialisation of the (South African) Gauteng Provincial Roads Department road maintenance activities (500 staff). Introduction of performance related specifications including skid resistance, riding quality and surfacing integrity. 2001-2003.
57. Masterplanning new Boeing 767 airport, and pavement design. Located new airport sites. Located materials, and led research in use of local materials. Environmental planning for new airport at Broome including forecasting, risk and noise assessment. Senior team member. 1999-2001.
58. Major tender assessment for Main Roads Western Australia involving complex tender assessment techniques for a new form of long term (10 year) road maintenance operating contract. Performed in accordance with ISO 9000 quality system, risk management and performance based specification including skid resistance, riding quality and surfacing integrity. Team member. 1999.
59. Surfaced road network assessment for Johannesburg, prioritisation of works requiring interface with PMS and maintenance management system. 1998.

## Academic

60. Advanced research into airline economics and air travel forecasting at University of Western Australia, including demand and supply factors, aircraft operating costs, yield management, and tourism demand. 2002 to 2008.

61. Unit chair for Latrobe CPEE postgraduate course on Flexible Pavement Construction for 2004-2007.
62. Lectured on airports, airline economics, forecasting and revenue management at Murdoch University, Perth in 2003-4.
63. Ran South African workshops on ultra-thin asphalt layers and frictional road surfacing courses to broaden knowledge, disseminate best practice from around the world and fit ultra-thin asphalts to the new asphalt design guide and other thin surfacings in 2002.
64. Developed and managed engineer level extended course on asphalt surfacings for Botswana Roads Department in 1999.
65. Serving on various committees, including Steering Committee and Chairman of the Marketing Committee for CAPSA'99 conference, Technical Committee World of Asphalt Pavements conference 2000, National Council of the Society for Asphalt Technology (SAT), and the Flexible Pavements Committee of the Permanent International Association of Road Congresses (PIARC), as well as various national and specification committees for bitumen, geotextiles, natural materials.

*University of Witwatersrand  
Honorary Professor, Dept. Civil Engineering*

*Johannesburg  
1998 to 2014*

66. Created and implemented an undergraduate course in roads and development engineering covering contractual relationships between parties, contract documents, tendering procedures, construction planning and control, human resource allocation, and introduction to the design of municipal services and roads over the full life cycle (from planning through to operation and maintenance), carried out within a development context. 1994-2000.
67. Developed and delivered undergraduate course in roads and development engineering by distance education, 2001 to 2004.
68. Supervise research of doctoral and masters students in the fields of technology management, chemical stabilizers in road construction, dust suppressants, skid resistance, bitumen viscosity, labour based construction of asphalt, and blast furnace slag. 1998 and ongoing.
69. Represented University in steering an advanced commercial bitumen and road performance laboratory including pavement surveillance, riding quality, deflectometer, skid resistance, asphalt, bitumen, and seals, 1998 to 2000.

*Colas Southern Africa Pty Ltd  
Group Technical Director*

*Johannesburg  
1994 to 1998*

70. Managed the technology resource for 3 modified bitumen plants, 7 emulsion factories and 15 asphalt plants, including R&D, centralised emulsion formulations

and assistance. Led a team that developed and/or re-engineered commercial production of SBR modified bitumens, SBS modified bitumens, and crumb rubber-bitumen blends.

71. Main Board of Colas Southern Africa Pty Ltd, as a Murray & Roberts appointed director. Attended subsidiary board meetings. Represented Colas on the board of Bitutek, a partly owned commercial laboratory in Durban.
72. Developed effective business strategies and technical solutions to maintain revenues and profits in a rapidly changing marketplace, including Build-Operate-Transfer and long term operating contracts. Leader in developing Murray & Roberts strategies in the roads field, in the development of Small, Medium and Micro Enterprises (SMMEs) and in black empowerment.
73. Developed South Africa's first Performance based road surfacing specification including skid resistance, riding quality, cracking, and pot-holing.
74. Technical Expert for Danish Government in investigation of organic chemical production operations in Ghana.
75. Conceptualised and implemented re-engineering of Group technical function and laboratories, focused on commercial partnerships with 11 consultant engineering companies and 2 universities.
76. Implemented and managed marketing strategy including internet, multimedia, advertising, public relations, and publications.

*University of Stellenbosch*

*Professor, SABITA Chair of Asphalt Pavement Engineering*

*Stellenbosch, South Africa*

*1993 to 1994*

77. Created and implement postgraduate and undergraduate courses in roads, materials and pavement engineering.
78. Conceptualised and implemented intensive course on pavement management systems (PMS), covering integrated road management, building blocks of a PMS, pavement condition surveys, visual pavement assessment, mechanical surveillance and skid resistance, identification of needs and maintenance alternatives, deterioration modelling and project prioritisation, economic analysis and optimisation, and preparation of a multi-year programme with alternative strategies to fit varying budgets.
79. Involved in the National Public Works Programme Working Group, with strong involvement in the Technical Working Group.
80. Provided academic support to Technikons and to professional development training.
81. Mentor and advise cross-cultural postgraduate students.
82. Supervise research projects, including bitumen penetration/viscosity modelling.



*Wallace, Emery and Associates Pty Ltd*  
*Managing Director*

*Perth and Pretoria*  
*1986 to 1992*

83. Director for a specialist engineering consulting firm involved in airports, mining, and roads in Australia and South Africa.
84. Led major research team investigating performance of bitumen surfaced low traffic roads. Rewrote national design standards for rural roads including geometric design, materials, pavement design, roadside furniture, safety aspects, drainage, construction, maintenance, rehabilitation, socio-economic and environmental aspects. Personally received SABITA research award in 1991.
85. Design and documentation for airport runway upgrade, new terminal, and communications at Christmas Island. Developed wind standards for Island using innovative analysis techniques. Controlled project schedule. Involved in management of claims, financial reconciliation, and contract disputes.
86. Initiated, investigated, designed and constructed runway extension and upgrade to Boeing 767 standard at Broome.
87. Senior member on ADB project on road safety in Malawi. Responsible for road engineering, black spot rectification, and accident data and analysis.
88. Other projects involving all aspects of airport operation and development including new airport sites. Other engineering projects including design, investigation, rehabilitation, training, and pavement failure analysis.

*National Institute for Transport and Road Research, CSIR*  
*Senior Research Engineer*

*Pretoria*  
*1981 to 1985*

89. Team leader of research project to investigate interaction between moisture, materials and pavement performance. Extensive involvement with field and laboratory testing. Extensive use of statistics. PhD was based on this research.
90. Leader of moisture investigation project and pavement failure analysis in Malawi.

*Department of Transport (Aviation)*  
*Engineer*

*Australia*  
*1975 to 1981*

91. Engineer in National Government Department responsible for airports.
92. Assistant Airport Engineer, Sydney Airport 1975-76. Assistant Engineer Rural Aerodromes, NSW 1976-1977. Airport Maintenance Programme Engineer, Head Office 1978. Divisional Engineer, Western Australia South 1979-81 responsible for 10 airports.
93. Led team that developed masterplan for Jandakot Airport. Technical Expert in land planning appeal tribunal for aircraft noise at Jandakot Airport in Perth.



94. Projects included site control of new multi-story carpark at Sydney Airport, runway friction testing Sydney and Canberra, resurfacing of airport runways at Perth and Adelaide, new terminal at Geraldton, numerous pavement investigations.
95. Administration of national airport maintenance funds for 279 airports.

## **Academic and Professional Credentials**

### **Academic**

University of Witwatersrand, Johannesburg, South Africa. PhD (Civil Engineering), 1985.  
University of Western Australia, Perth, Australia. MBA, 1990  
University of New South Wales, Sydney, Australia. Bachelor Civil Engineering (1st cl. Hons), 1975

### **Professional qualifications**

Chartered Professional Engineer (Australia) (National Professional Engineer Register) - CPEng  
Fellow Institution of Engineers Australia - FIEAust  
Professional Engineer (South Africa) - PrEng  
Fellow South African Institution Civil Engineers - FSAICE  
Member Association of Asphalt Paving Technologists, USA - MAAPT  
Member Australian Geomechanics Society - MAGS  
Fellow Society Asphalt Technologists, South Africa - FSAT  
Fellow Institute Company Directors, Australia – FAICD  
Member of International Society of Asphalt Pavements - ISAP  
NATA – National Association Testing Authorities, Australia. Assessor #16927. Chemical: Bitumen. Construction Materials: Soils, aggregates, asphalt.

### **Post-graduate courses**

Concrete Pavement Design and Construction (2013), 2 day course run by Centre for Pavement Engineering Education, Perth.  
Introduction to Petroleum Refinery Processing and Bitumen Upgrading (2012), 3 day course run by Petroleum Institute for Continuing Education (PEICE), Calgary.  
Risk and Liability Management (2011), 2 day course run by Engineers Australia, Perth.  
Sources of Geotechnical risk (2009) 1 day course held by Australian Geomechanics Society, Perth.  
FAARFIELD pavement design and PMS (2008) 1 day course held by FAA, Singapore.  
Expert Determination (2006) 2 day course held by Institute of Arbitrators and Mediators, Australia.  
Expert Witness (2006) 1 day course held by Institution of Engineers, Australia.

Demand analysis for airports/airlines (2004) 3 day course held by University of Westminster, London.

Decision Choice modelling (2002) 3 day course held by University of Sydney.

Advanced bitumen technology (1998). 4 day course held by University of Stellenbosch.

Airport Planning (1997) 5 day course held by University Texas at Austin and University of Stellenbosch.

Bitumen/emulsion technology (1995) 4 day course Colas Southern Africa.

## Publications

### Papers published in Conference Proceedings

HORAK, E., EMERY, S. and MAINA, JW. (in press) Review of the FWD benchmark analysis on roads and runways. 11th Conf. Asphalt Pavements for Southern Africa, Sun City, South Africa, Aug, 2015.

EMERY S, HEFER, A and HORAK E. (in press) Roughness of Runways and Significance of Appropriate Specifications and Measurement. 11th Conf. Asphalt Pavements for Southern Africa, Sun City, South Africa, Aug, 2015.

HORAK E, EMERY S and WALKER B. Rut potential determination of marginal asphalt with low traffic volumes on a regional airport in Southern Africa. 11th Conf. Asphalt Pavements for Southern Africa, Sun City, South Africa, Aug, 2015.

HEFER A, HORAK E. and EMERY S, (in press) Review of experience with Ultra-Thin Friction Course Performance on Airport Runways. 11th Conf. Asphalt Pavements for Southern Africa, Sun City, South Africa, Aug, 2015.

HORAK, E., HEFER, A., MAINA, J. AND EMERY, S. (2014) Structural number determined with the falling weight deflectometer and used as benchmark methodology. International Conference on Civil Engineering, Energy and Environment CEEE. Hong Kong, 13-14 Dec., 2014.

HORAK, E, EMERY S AND VENTER, K (2014) Practical Guideline for Trench Reinstatements in the Road Reserve. Southern African Transport Conference. 7-11 July, Pretoria, South Africa.

EMERY S, NORHEIM, A, and MIHALJEVIC, I (2011) Slippery asphalt runways after rejuvenation. Airfield Pavements Seminar, XXIVth World Road Congress, Mexico City, 28-29 Sept

HORAK E, EMERY S and MIHALJEVIC, I (2011) Balancing asphalt rut resistance with durability and safety requirements on runway rehabilitations. Airfield Pavements Seminar, XXIVth World Road Congress, Mexico City, 28-29 Sept.

HORAK E, EMERY S and WALKER H (2011) Novel measures to attenuate aggressive salt migration and crystallization on a Namibian airport runway project. 10th Conf. Asphalt Pavements for Southern Africa, Drakensberg, South Africa.

HORAK E, OLIVIER P, EMERY S and PRETORIUS P (2011) Early identification of durability and stripping issues in asphalt bases and surfacings. 10th Conf. Asphalt Pavements for Southern Africa, Drakensberg, South Africa.

OLIVIER, P., EMERY, S., HORAK, E. AND PRETORIUS, P. (2010) Holistic pavement management - experiences with performance based pavement management in Australia and South Africa. 4th SARF/IRF Regional Conference for Africa, Cape Town, South Africa, 11-14 October.

HORAK E, EMERY S AND MORTON, B (2010) Roughening up a wet pavement surface! 4th SARF/IRF Regional Conference for Africa. Somerset West, South Africa. 11–13 Oct

FULTON, N, WESTCOTT, M AND EMERY, S. (2009). Simulating radio communication complexity in regional airspace design. 18th World IMACS/MODSIM Congress, Cairns, Australia. 13-17 July 2009

HORAK, E., MAINA, JW., EMERY, SJ. AND WALKER, B (2009) Mechanistic modelling of potential interlayer slip at base sub-base level. Eight International Conference on the Bearing Capacity of Roads, railways, and Airfields, June 29 to July 2, 2009, University of Illinois, Urbana Champaign, IL.

HORAK, E., MAINA, JW. AND EMERY, S. (2009) A case study: quantification and modelling of asphalt overlay delamination on an airport pavement. Eight International Conference on the Bearing Capacity of Roads, Railways, and Airfields, June 29 to July 2, 2009, University of Illinois, Urbana Champaign, IL.

HORAK, E AND EMERY, S (2009) Evaluation of airport pavements with FWD deflection bowl parameter benchmarking methodology. CROW 2nd European Airport Pavement Workshop, 13-14 May 2009, Amsterdam, Netherlands.

EMERY, S (2009) Risk analysis study on the need for a runway surface friction layer. CROW 2nd European Airport Pavement Workshop, 13-14 May 2009, Amsterdam, Netherlands.

EMERY, S AND MIHALJEVIC, I (2008) Accelerated Load Testing of Asphalt Mix Designs for Heavy Duty Pavements in Hot Climates. 23rd ARRB Conference, Adelaide, Australia. 29 July-1 Aug, 2008

EMERY, S (2008) Seals for Heavy Duty Airport Pavements. 1st International Sprayed Sealing Conference. Adelaide, Australia. 27-28 July 2008

HORAK, E AND EMERY, S (2008) Using Falling Weight Deflectometer Readings to Conduct Structural Benchmarking of Airport Pavement Structures. Innovative Pavement Management Systems Summit 2008, 8-9 Oct, Singapore.

HORAK, E AND EMERY, S (2008) Making the Connection Between Low Budgets and Pavement Maintenance Needs for Small Regional Airports In Southern Africa. Innovative Pavement Management Systems Summit 2008, 8-9 Oct, Singapore.

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, Australia.

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, TX.

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, South Africa.

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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, Australia.

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

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

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

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

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, Australia.

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, Australia.

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, South Africa.

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, 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 surfacings by hand. WORK 2001 Conference, Johannesburg, South Africa.

EMERY S.J (2000) Implications of long term road maintenance contracts for the asphalt industry. 1st Conf. World of Asphalt Pavements, Sydney, Australia.

EMERY S.J (2000) Improved construction practices: pavement performance evaluation as an input to stochastic asset management. 1st Conf. World of Asphalt Pavements, Sydney, Australia.

HORAK, E and EMERY S.J (2000) implementation of partnering in road construction. 1st Conf. World of Asphalt Pavements, Sydney, Australia.

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, South Africa.

EMERY, S J and O'CONNELL, J (1999) Computer-Based Expert system for troubleshooting emulsion manufacture. 7th Conf. Asphalt Pavements Southern Africa, Cape Town, South Africa.

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, South Africa.

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, South Africa.

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, South Africa.

EMERY, S.J. and O'CONNELL, J. (1997) Bitumen emulsion uses in road works in southern Africa. 2nd World Conference on Emulsions, Bordeaux, France.

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

EMERY S.J (1996) Large aggregate mixes in bases. Institute of Quarrying 27th AGM Conference, Durban, South Africa.

EMERY S.J (1995) South African asphalt initiatives. Keynote Address, 10th Industry Conf., Aust. Asphalt Pavement Assoc., Adelaide, Australia.

EMERY S.J (1995) Large aggregate mixes for bases and granular emulsion stabilised mixtures., 10th Industry Conf., Aust. Asphalt Pavement Assoc., Adelaide, Australia.

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

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, MN.

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, South Africa.

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

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

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

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, South Africa.

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, South Africa.

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

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

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