

SAIEG presents a two-day seminar on

CONSTRUCTION MATERIALS

Venue: Salt Rock Hotel, 59 Basil Hulett Dr, Salt Rock, Dolphin Coast, KwaZulu-Natal

Date: Thursday 5 and Friday 6 March 2020



SAIEG

South African Institute for Engineering
and Environmental Geologists

PRESENTER SUMMARY

Dr Phil Paige-Green



Phil graduated with a BSc (Hons) and MSc from the University of Natal and a PhD from the University of Pretoria, 1989, all in Engineering Geology. He worked at the Council for Scientific and Industrial Research (CSIR) in Pretoria South Africa (and for 2 years in Muscat, Sultanate of Oman), for 37 years in 27 countries. Mainly involved in research and implementation of materials aspects related to roads, road construction and transportation geotechnics. He retired in 2013 and is now a specialist consultant in geomaterials and roads with Paige-Green Consulting (Pty) Ltd and Extraordinary Professor in the faculty of Civil Engineering at the Tshwane University of Technology.

He has authored or co-authored more than 160 refereed papers, 360 contract, research and unpublished internal reports, four Technical Recommendations or Methods for Highways (TRH and TMH) and authored or contributed to various books, syntheses, manuals, guidelines and Standard Specifications.

He regularly lectures at various Universities and technical courses, reviews papers for national and international conferences and journals and supervises/examines post-graduate theses. He is co-editor of the Bulletin of Engineering Geology and the Environment and on the editorial board of Ground Improvement. He is a registered Professional Natural Scientist, member of various professional societies and a Fellow of the SAIEG and SAICE and Life Fellow of the Geological Society of South Africa (GSSA).



Dr Souleymane Diop



Souleymane is Chief Scientist (Engineering Geologist) at the Council for Geoscience (CGS), South Africa. He has more than 18 years of combined experience in research and management in geology, geotechnical engineering, geohazards, environmental hydrology and risk assessment. He conducts various engineering-geological and geotechnical research and investigations including construction materials studies.

Souleymane holds a BSc (Honours) degree in Engineering Geology from the University of Dakar in Senegal. He also holds an MSc (2004) and a PhD (2007) degrees from the University of Tsukuba in Japan.

He was the leader of the World Centre of Excellence on Landslide Risk Reduction; member of Working Group on Shale Gas & Hydraulic Fracturing; and Board member of the International Consortium on Landslide.

Souleymane is currently the co-leader of the WP5 (geohazards) of the PanAfGeo Programme, an unprecedented pan-African training programme funded by the European Commission's Directorate General for Development and Cooperation (EC DG DEVCO) Souleymane has an extensive international experience and speaks fluently English, French and Japanese. He has also published a number of peer reviewed journal papers and international conference papers.

Ms Bronwen Griffiths



Bronwen has operated across a range of sectors within the environmental field, dominantly permitting and related processes, functioning as a project manager, and provision of ecological specialist knowledge. She is a trained ecologist and a registered Professional Natural Scientist (PrSciNat): Environmental Science. Bronwen was most recently a senior environmental consultant (6.5 years) with Royal HaskoningDHV, a multi-national engineering consultancy. This was preceded by a year as chief environmental scientist at AECOM, and, over a decade of running her own small-scale environmental consultancy with highlights of Environmental Manager for City of Joburg (CoJ), and a few months as Acting Assistant Director at the Gauteng Department of Agriculture & Rural Development (GDARD). Her career began at GDARD as an environmental officer. Bronwen has dealt with a range of environmental projects: from feasibility, EIAs, environmental management post-authorisation, and, cross-linked to all aspects of spatial planning. She functions as environmental assessment practitioner and project manager. Bronwen has authored / co-authored various guideline documents (Dept. of Environmental Affairs, GDARD, CoJ, KZN Dept. of Transport).



Dr Roderick Rankine



Roderick Rankine is a registered professional engineer (Reg. No. 20000 276) and concrete technologist specialising in the field of construction materials and the science of building. His company, Rod Rankine Engineering Solutions cc conducts condition assessments of structures (including concrete industrial groundslabs and hardstandings), forensic investigations on failures, assists in the development of construction specifications and solutions to construction problems and provides training to personnel who will be responsible for executing important work.

Rod has three degrees from Wits University, a PhD and MSc in Engineering and a BSc Building Science. He also holds an Advanced Concrete Technology diploma awarded by Imperial College, University of London. Rod is a member of the South African Institution of Civil Engineering, the UK Concrete Society, the Hot Dip Galvanizers Association and a certified inspector of products that have been hot dip galvanized in accordance with standards such as SANS 121 (ISO 1461). He is also a Certified Level II Infrared Thermographer registered with the ITC in Stockholm. Rod is one of a panel of experts for Agrément South Africa, a division of CSIR, where he is regularly called upon to evaluate innovative construction designs, new building materials and new building systems. In the late 1980's, he undertook a technical investigation on behalf of Middleberg Steel and Alloys – now Columbus to develop a corrosion resisting reinforcing steel made of 3CR12 to reinforce concrete. In the 1990's, he worked for R.J. Southey aboard the oilrig Actinia during the final stage of the Mosgas Project before starting Rankine Engineering and later joining Wits University as a lecturer. From 1998 to 2006, he was employed by the Cement and Concrete Institute. He has been responsible for several design innovations and patents including the Retro-dowel™ system for remedial fitment of plate dowels into the edges of concrete industrial groundslabs.

He is an author and co-author of more than 40 papers published in accredited journals of science and engineering, international conference proceedings and books.

Dr Emile Horak



Emile studied at the University of Pretoria, Stellenbosch, Cape Town, UNISA and University of California, Berkeley. Emile started his career in research and technology transfer at the CSIR spending 14 years ending up as Programme Manager of Pavement Engineering. He was City Engineer: Roads and Works of Johannesburg City Council and ended a five-year stint there as Head of Service Delivery of the then: Greater Johannesburg Transitional Metropolitan Council. A short stint with Murray and Roberts involving development of Toll Road concepts was followed with more than ten years in Education and Training as Head of Department of Civil Engineering of the University of Pretoria. His consultant involvement preceded his association with University of Pretoria as specialist in materials and pavement design before getting involved in consultancy in airports and roads on a variety of large projects of which the Urgent Upgrade of the Mthatha Airport for the

Nelson Mandela funeral is a high point in this professional life. Emile is a A-rated researcher with SANRAL's research initiative based a body of research publications.



Prof Louis van Rooy



Louis van Rooy has been teaching engineering geology at the University of Pretoria since 1985. His PhD research focused on the use of basalt in civil engineering construction with emphasis on the first phases of the Lesotho Highlands Water Project. Other research interests include mechanical properties of soils on dolomite, performance of recent sandy deposits in road construction, soil and rock slope stability and influence of discontinuity characteristics on unsaturated fracture flow. He supervised more than 30 masters and doctoral students and received the 2019 Karl and Ruth Terzaghi Outstanding Mentor Award from the AEG.

Dr Robert Leyland



An engineering and environmental geologist, Robert Leyland, has worked in both consulting and research environments for 13 years. During this time he gained field experience by performing mapping, geotechnical, geological and hydrogeological investigations and project management as a project leader. His fields of experience include investigations for large commercial developments, geological pavement material investigations, coastal infrastructure developments, pipeline and shallow foundation investigations and aquifer exploration and vulnerability mapping.

Dr GV Price



GV Price is an engineering geologist with over 40 years' experience with a proven record of successful management of complex and challenging geotechnical projects, providing consulting and advisory services and the management of specialised teams in the successful delivery of geotechnical projects. GV's widespread expertise is underpinned by management and leadership roles as a former Director of Jeffares and Green, Managing Director of Terratest cc (KZN) and Terreco Geotechnical cc (Eastern Cape); Manager of Worley Parsons Durban; Director; MSJ Geotechnical Consulting Services (Pty) Ltd and now semi-retired since 2017. GV received both his MSc and PhD in Engineering Geology from the University of Pretoria, the latter researching engineering geological rock mass characterisation for tunnelling. He has worked in most fields of engineering geology and geotechnical engineering but has a special penchant for rock slope stabilisation, tunnelling and dams. GV's work has taken him to most countries in Africa and he has worked as far afield as Ireland; Afghanistan and Papua New Guinea.

