

Curriculum Vitae

FREDERICK HUGO

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Fred Hugo took up the Chair in Civil Engineering at Stellenbosch University in 1978. Since 1995 he is emeritus professor. He continued to serve as the Director of the *Institute for Transport Technology (ITT)* until December 2010. In 2011 and 2012 he continued as the deputy-Director.

In January 2013 he was appointed as a Research Fellow in the Division of Construction Engineering and Management in the Department of Civil Engineering. This appointment is renewable annually for a period of three years.

He worked in African states, Europe, Israel, the United States, Canada and China as contractor, consultant, academic and researcher during his career of fifty-five years. He initially worked on construction in Switzerland and South Africa. In 1965 he was co-founder of a consulting engineering firm. This expanded to become the BKS Group now AECOM.

He is still active as researcher and as consultant internationally. For the past two and a half decades he has worked extensively in the field of accelerated pavement testing (APT) and is a leading authority in the field. Evidence of his activity as researcher is apparent from the following overview of his output during the past twenty years:

- As author or co-author he published 21 papers in peer reviewed journals and 34 papers in peer reviewed technical national/international conferences. These cover many aspects of his extensive fields of experience.
- He presented the keynote address at the international APT conference in 2004 and was the rapporteur of the 1999 APT conference
- In 2004 he was the lead consultant for the compilation of the second International Synthesis 325 of APT research for the National Science Foundation in the USA.
- During the past five years he was co-author of one international peer reviewed papers in publications of the ICE and lead co-author of four peer reviewed papers in international conferences. He also prepared a synthesis of MMLS3 tests for publication in an Electronic Circular of TRB

Fred Hugo has received many awards for outstanding achievements. Apart from a PhD from the University of Texas at Austin he has a DEng from Stellenbosch University. He is an Honorary Fellow and a Past President of SAICE (1993), and an Honorary Fellow of the South African Academy of Engineering (SAAE). In 2005 he received a Gold Medal for his scientific achievements from the Afrikaans SA Academy of Science and Arts (*Akademie vir Wetenskap & Kuns*) He is also life member of the Association of Asphalt Paving Technologists (AAPT) and a member of the American Society of Civil Engineers (ASCE). He is a registered professional engineer in South Africa and Texas in the United States.

Fred Hugo is co-owner of MLS Test Systems Pty Ltd that has supplied APT equipment in the USA, Europe, China and Korea apart from South Africa. The MLS users are affiliated as the *MLS Users Group* globally linking more than twenty nodes. Research programmes, data and findings are collected in Stellenbosch in a database. He serves as the coordinator and reporter to the AFD40 APT committee of the TRB in Washington DC.

Fred Hugo has been responsible for the *Construction Management Programme (CMP)*, since 1987. In 1994 he received the SAICE President's Award for Meritorious Service to the construction industry for his leadership role in the CMP. He was also the founder of the TRAC Physical Science and related Mathematics programme for school learners in South Africa and still serves a Director.

A. HUGO Bibliography the last five years

1. Strasheim, and Hugo, F , 2013, CMP and CPD of managers in the construction industry, *approved for publication* Proceedings of the Institution of Civil Engineers, Management, Procurement and Law, Volume 166 Issue MP0
2. Hugo, F, 2012 , *MMLS3 – A Tool for Evaluating Asphalt Mix Rutting and Moisture Damage and Other Aspects of Pavement Engineering* A paper prepared for inclusion in an Electronic Circular of a technical committee of the TRB, Washington DC
3. Hugo, F., Zefeng, T., Arraigada, M., Kim, Y.R., Shu-ming, Li., 2012, *International Case Studies in Support of Successful Applications of APT in Pavement Engineering* Paper published by and presented at the APT 2012 Conference in Sacramento, CA, Sept.
4. Hugo Frederick, Ian Bowker, Jaco Liebenberg Dennis Rossmann, 2011. *Evaluation of Performance of Asphalt Paving Mixes under Harsh Conditions using the MMLS3*, Proc. CAPSA, Aug.
5. Hugo, F, De Vos, ER, Tayob, H, Kannemeyer, L, Partl, M, 2008, *Innovative Applications of the MLS10 for Developing Pavement Design Systems*, Third International Conference on APT in Madrid
6. DPG1 (2008) – *Method for evaluation of permanent deformation and susceptibility to moisture damage of bituminous road paving mixtures using the Model Mobile Load Simulator (MMLS3)*. Best Practice document developed under the auspices of the Road Pavement Forum (RPF) and approved for use and free distribution at the bi-annual meeting held in Pretoria, South Africa Nov. [Online] www.sabita.co.za/papers.html
7. Pretorius, F.J., Jenkins, K.J, Hugo, F., Vietze, D., 2008, *Innovative Asphalt Mix Design and Construction: Case Studies on Cape Town International Airport and Kromboom Parkway*. 23rd ARRB Australian Roads Research Board Conference, Australia

B. Current Research programme:

Hugo's research will be focused on his primary field of interest namely Accelerated Pavement Testing. This will be done in collaboration with Prof Wynand Steyn of UP and several other international collaborators in China and the US. He will also be working on projects in association with Prof Jan Wium, his host in the department.