

**GIDEON P.A.G. VAN ZIJL (DEng, PhD, PrEng)**  
*Professor of Structural Engineering*



**BIOGRAPHICAL INFORMATION**

Nationality: The Netherlands  
Permanent residence: South Africa  
Languages: Afrikaans (home), English, Dutch

**EDUCATION**

BEng (1986, Civil Engineering, Cum laude), Stellenbosch University  
MEng (1990, Civil Engineering, Cum laude), Stellenbosch University  
PhD (2000, Civil Engineering) – Delft University of Technology, Netherlands  
DEng (2016), Stellenbosch University

**PROFESSIONAL APPOINTMENTS**

2001 – Present Professor of Structural Engineering, Stellenbosch University, South Africa  
2010 – 2015 Head Department of Civil Engineering, Stellenbosch University  
2001 – 2005, 2009, 2017- Head Division for Structural Engineering, Stellenbosch University  
2001 – 2004, 2006 – 2009 Postgraduate Program Coordinator, Civil Engineering, Stellenbosch University  
1999 – 2009 Research Fellow, Faculty of Architecture, Delft University of Technology  
1995 – 1999 Assistant Researcher, Faculty of Civil Engineering and Geosciences, Delft University of Technology, The Netherlands  
1992 – 1995 Lecturer, Civil Engineering Department, Stellenbosch University, South Africa  
1989 – 1992 Structural Engineer/Project manager, Bureau for Mechanical Engineering, Stellenbosch University, South Africa  
1987 – 1989 Researcher, Institute for Structural Engineering, Civil Engineering Department, Stellenbosch University, South Africa

**PROFESSIONAL AFFILIATIONS**

Fellow: South African Academy of Engineering (FSAAE)  
Member: South African Institute of Civil Engineers (MSAICE, nr 202102)  
Member: Concrete Society of Southern Africa (MCSSA, nr V124)  
Engineering Council of South Africa – professional registration (PrEng 1993)

**PROFESSIONAL AND SCIENTIFIC SERVICE**

Vice-President, International Association of SHCC  
RILEM Educational Activities Committee (EAC) member 2015-2017, 2017-2020  
Member of FRAMCOS Board of Advisors (2013-2016) – Fracture Mechanics of Concrete and Concrete Structures  
Chairman of RILEM Technical Committee 240-FDS: Framework for Durability of Strain-hardening Cement-based composites (SHCC)  
Advisory Board 2015, Department of Civil Engineering, UCT  
Editorial Committees of Journals Materials and Structures, and Concrete/Beton  
Referee for Research Funding bodies in Israel, Singapore, RSA, and Switzerland  
Reviewer for 23 International and National Journals  
External examiner: PhD-candidates at 10 National and International Universities  
Member of Scientific / International Committees of 30+ International Conferences  
Member of RILEM TC 208-HFC, Co-chair sub-committee on Durability  
Member of SABS working group for revision of the Structural Concrete Code

**VISITING PROFESSOR**

2010, March Delft University of Technology, The Netherlands, Professor JG Rots  
2010, April Technical University Dresden, Dresden, Germany, Professor V Mechtcherine  
2010, June Gifu University, Gifu, Japan, Professor K Rokugo  
2016, April Nanyang Technological University, Singapore, Professors Min Jen TANG, Chee Kay CHUA  
2016, Aug-Sept Delft University of Technology, The Netherlands, Professor JG Rots

## RESEARCH INTERESTS

3D printing of concrete  
Structural Mechanics; Computational Mechanics  
Durability of construction materials and structures  
Computational modeling: constitutive models for cement-based materials,  
including concrete, fibre-reinforced concrete, SHCC, masonry  
Sustainability of the built environment

## PUBLICATIONS

Author of 230+ books, papers and technical reports  
Citation h-index 12 (Scopus), 13 (RG), 17 (GS)

## STUDENT SUPERVISION

Completed: 28 Masters, 10 Doctoral, 1 Post-Doc  
Current: 6 Masters, 6 PhD

## RESEARCH GRANTS Total ZAR 25 since 2001

The Concrete Institute: 2014-2016, 2017-2019  
Oppenheimer Memorial Trust awards for Sabbatical 2016, 2010  
NRF Incentive funding for rated researchers 2010-2017, Durability of SHCC 2008-2010,  
TDMSES 2007  
NRF Research Grants: SIM 2005-2017, ACM 2012– 2014, ACM-S 2009-2011, SAPERCS 2006-  
2008, APERCS 2003-2005,  
Various South African Industry partners 2001-2013  
Volkswagen Foundation (Germany) 2003-2005, Extension 2006  
Institute of Structural Engineering, Stellenbosch University

## HONORS & AWARDS

Lecturer of the year 2013, Engineering Faculty, Stellenbosch University  
THRIP/DTI award 2011: Runner up: Human Resource Quality and Quantity of students  
Rector's award for General Performance (2012, 2013, 2014, 2015), Stellenbosch University  
Rector's award for Research (2010), Stellenbosch University  
Upcoming Researcher of the year (2006), Engineering Faculty, Stellenbosch University  
H.L. Reitz medal for best postgraduate student in Civil Engineering, Stellenbosch University, 1990.  
Several merit bursaries for undergraduate and graduate studies (1983-1987).  
Harry Crossley award for PhD-studies, 1995  
Top Final year Civil Engineering student, 1986  
Academic Colours of Stellenbosch University, 1986.  
Best paper and best student paper awards at 5 occasions in 2001, 2013, 2015, 2016

## COURSES TAUGHT

Strength of Materials 144 (2001, 2004); 143 (2005)  
Strength of Materials 214 (2001 - 2004)  
Strength of Materials 224 (2017)  
Strength of Materials 244/254 (2002 - 2005)  
Construction Materials 244/254 (2001-2008))  
Structural Design: Reinforced Concrete Design 314 (1992 - 1995)  
Theory of Structures 324: Introduction to Continuum Mechanics (2007-2009)  
Theory of Structures 354: Finite Element Method (2005-2015)  
Advanced Mechanics of Materials and Modelling (AMMM) (2010-)  
Cement-based Materials (2017)