


CURRICULUM VITAE: PF VAN DER SPUY

Name	:	PIERRE FRANCOIS VAN DER SPUY	
Date of Birth	:	20 January 1986	
Identity Number	:	██████████	
Marital Status	:	Single	
Nationality	:	South African	
Current Position	:	Structural Engineer – Bridges, Renewable Energy, Marine Lecturer – Stellenbosch University	

MEMBERSHIP IN PROFESSIONAL SOCIETIES:

- Registered with ECSA as Professional Engineer (PrEng 20160199).
- Registered with SANRAL as a bridge inspector.
- Member of the South African Institution of Civil Engineers.
- Member of the Concrete Society of South Africa

EMPLOYMENT RECORD:

01/2009 to 04/2015	:	Aurecon
05/2015 to 04/2016	:	BVi Consulting Engineers
05/2016 to current	:	Aurecon
01/2017 to current	:	Stellenbosch University (Lecturer and PhD candidate)

KEY QUALIFICATIONS:

Mr Van der Spuy specialises in bridge analysis and design, including finite element modelling of various different types of bridges. The types of bridges include incrementally launched bridges, precast segmental balanced cantilever bridges, prestressed box girder bridges, prestressed voided slab bridges, prestressed precast beam and slab bridges and normal reinforced concrete bridges.

He also has experience in analysis and design of coastal structures and renewable energy structures. Renewable energy structures mainly consist of wind turbine foundations. Coastal structures include jetties, sheetpile harbour walls and mooring dolphins.

EDUCATION:

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|--------------|---|-------------------------------|----------------------------|
| • 01/12/2014 | : | MEng (Structural Engineering) | University of Cape Town |
| • 01/12/2008 | : | BEng (Civil) Cum Laude | University of Stellenbosch |
| • 01/12/2004 | : | National Senior Certificate | DF Malan High |

AWARDS:

- Engineering Council of South Africa's medal for the best student over 4 years in engineering at Stellenbosch University for the period 2005 – 2008 (86.8% over 4 years).
 - Best second year student in Civil Engineering (2006)
 - Best third year student in Civil Engineering (2007)
 - Best second year student in Civil Engineering Informatics (2006)
 - Best third year student in Civil Engineering Informatics (2007)
 - Best third year student in Concrete Design (2007)
 - Best fourth year student in Transportation Engineering (2008)
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- SAICE Young Engineer of the Year 2017

TEACHING EXPERIENCE

Advanced Design 446 (Structures) in 2017 – Stellenbosch University
Project 458 (Civil Engineering) in 2017 – Stellenbosch University

COURSE LECTURES:

- Design of wind turbine support structures – Seminar presented by Stellenbosch University – September 2014
- Construction and Foundations on Wind Turbine Sites – South African Renewable Energy Technology Centre Symposium – November 2017

CONFERENCE LECTURES:

- Wind Turbine Foundation Design: Case Studies from the South African REIPPPP – African Utility Week 2014 - CTICC

VOLUNTARY WORK:

Reviewer for ECSA PrEng applications since 2016.

EXPERIENCE RECORD:

05/2016 to Ongoing **Structural Engineer responsible for:
Detail design of wind turbine foundations for the Golden Valley Wind Energy Facility in the Eastern Cape, South Africa**

The project entailed the conceptual and detail design of foundations for 48 2.5MW Goldwind wind turbines near Cookhouse in the Eastern Cape.

05/2016 to Ongoing **Structural Engineer responsible for:
Detail design of a precast segmental balanced cantilever prestressed concrete arch bridge in Sydney, Australia**

The project entails the detail design of a three span precast segmental balanced cantilever concrete bridge. The bridge forms part of the Westconnex project which is a major upgrade of Sydney's transport infrastructure.

01/2016 to 04/2016 **Structural Engineer responsible for:
Conceptual design of a 400m incrementally launched bridge near Pietermaritzburg, South Africa**

The project entails the conceptual design of two parallel 400m long incrementally launched bridges. The design entailed investigating various deck and span arrangements to determine the most economical and aesthetically pleasing solution. The project forms part of the greater upgrading of the N3 between Durban and Pietermaritzburg where major realignments necessitate new bridges.

06/2015 to 04/2016 **Structural Engineer responsible for:
Rehabilitation of tidal bridges in the Richards Bay harbour in South Africa**

The project entailed the rehabilitation of seven prestressed concrete tidal bridges in the Richards Bay harbour. The bridges were approximately thirty years old and many of the bearing plinths had failed. These decks were jacked and new plinths and bearings were installed. Spalling and insufficient cover was also present and was repaired.

05/2015 to Ongoing **Structural Engineer responsible for:
Detail design of a precast beam and slab bridge widening over the Orange river on the N12 near Hopetown, South Africa**

The project entails the detail design of a twelve span precast beam and slab bridge to widen the existing bridge over the Orange river. Part of the appointment was also to rehabilitate the existing bridge which was 60 years old and in poor condition. The appointment also included preparation of all construction documentation. The project is currently under construction.

08/2015 to Ongoing **Structural Engineer responsible for:
Detail design of bridge and culvert widenings on the N10 near Groblershoop, South Africa**

The project entails the detail design and preparation of drawings for five bridge widenings and five culvert widenings for SANRAL.

03/2014 to Ongoing **Structural Engineer responsible for:
Conceptual and detail design of a 90m reinforced concrete arch bridge in Klawer, South Africa**

The project entails the repair of an existing reinforced concrete arch bridge as well as the design of a new 90m span reinforced concrete arch bridge over the Olifants river in South Africa. The bridge is currently under construction.

**08/2011
to 08/2012** **Structural Engineer responsible for:
Conceptual and detail design of a prestressed voided slab bridge for
Emirates Road, United Arab Emirates**

The project entailed the design of a new highway between Dubai and Abu Dhabi comprising four new interchanges.

**01/2010
to 12/2010** **Structural Engineer responsible for:
Conceptual and detail design of two prestressed concrete box girder
bridges for the Umm Lafina Link in Abu Dhabi**

The project entailed the design of two prestressed box girder bridges for a new island development.

**08/2011
to 08/2012** **Assistant Inspector responsible for:
Inspection of bridges for Abu Dhabi Bridge Management System**

The project entailed inspection of all transport structures in Abu Dhabi to set up a Bridge Management System (BMS).

**08/2011
to 08/2012** **Assistant Inspector responsible for:
Inspection of bridges for Dubai Bridge Maintenance and Management
System**

The project entailed inspection of all transport structures in Dubai to set up a Bridge Management and Maintenance System (BMMS).

**08/2009
to 12/2012** **Structural Engineer responsible for:
Conceptual and detail design of a 220m incrementally launched bridge and
a precast beam and slab bridge in Pietermaritzburg, South Africa**

The project entailed the upgrade of the Greytown interchange. Two existing bridges were demolished and reconstructed, two new bridges were built and one existing bridge was widened.

**09/2010
to 07/2011** **Structural Engineer responsible for:
Assessment of existing bridges for a new coal project transporting coal
from Malawi to the coast of Mozambique**

The project entailed a new coal mine in Malawi with coal needing to be transported to the coast of Mozambique for export. All structures along the railway line needed to be assessed and strengthened. Some structures needed to be replaced entirely.

01/2011 **Structural Engineer responsible for:**

to 10/2012 Conceptual and detail design of a new interchange, a two cell box culvert and a pedestrian bridge near Viedgesville, South Africa

The project entailed the design of a new interchange bridge on the N2 as well as a twin cell portal structure and a pedestrian bridge over the N2.

**01/2013 Structural Engineer responsible for:
to 10/2013 Foundation design and site supervision at Klipheuwel Windfarm in the Western Cape province of South Africa**

The project entailed the conceptual and detail design of foundations for nine 3MW wind turbines near Caledon in the Western Cape. The appointment also included permanent site supervision.

**10/2013 Structural Engineer responsible for:
to ongoing Foundation design and site supervision at Grassridge Windfarm near Port Elizabeth in the Eastern Cape province of South Africa**

The project entailed the conceptual and detail design of foundations for twenty 3MW wind turbines near Port Elizabeth in the Eastern Cape.

**01/2013 Structural Engineer responsible for:
to 11/2013 Structural capacity evaluation for a jetty in Port Nolloth, Northern Cape**

The project entailed the structural capacity verification and remedial works proposal of a damaged jetty in the harbour at Port Nolloth in the Northern Cape.

**09/2012 Structural Engineer responsible for:
to 11/2012 Design verifications for Emirates Road bridges**

The project entails the design verification of two bridges forming part of the Emirates road project. The one bridge is a 130 m prestressed voided slab bridge and the other a 204 m long prestressed box girder bridge.

**09/2012 Structural Engineer responsible for:
to 11/2012 Feasibility design for addition of mooring dolphin at PE harbour, South Africa**

Investigation of different options to determine optimum mooring arrangements for vessels to minimise costs of additional infrastructure.

**09/2012 Structural Engineer responsible for:
to 12/2012 Feasibility design for the extension of the existing dry bulk terminal jetty in Richards Bay harbour, South Africa**

Study to determine the feasibility of extending the existing 320m manganese jetty by an additional 320m to accommodate larger vessels.

**10/2012 Structural Engineer responsible for:
to 11/2012 Conceptual design of wind turbine foundations for West Coast 1 Windfarm in the Western Cape province of South Africa**

The project entailed a feasibility study for the construction of 47 new wind turbines to generate renewable energy in the Western Cape.

08/2012 to 10/2012 **Structural Engineer responsible for:
Conceptual design of wind turbine foundations for Tsitsikamma Windfarm in the Eastern Cape province of South Africa**

The project entailed a feasibility study for the construction of 31 new wind turbines to generate renewable energy in the Eastern Cape.

06/2012 to 12/2012 **Structural Engineer responsible for:
Conceptual and detail design of wind turbine foundations for Dassiesklip Windfarm near Caledon, South Africa**

The project entailed the construction of new wind turbine foundations to generate renewable energy in the Western Cape.

10/2009 **Structural Engineer responsible for:
Seismic modelling of structure using ETABS and raft foundation modelling using Prokon for Icon House in Accra, Ghana.**

The project involved the seismic design of a 10 storey high building in Accra which is classified as an area subjected to strong seismic actions.

01/2009 to 01/2010 **Structural Engineer responsible for:
Conceptual and detail design of Saadiyat Beach Resort Abu Dhabi**

The project entailed the design of a multi storey beach resort in Abu Dhabi, UAE.

COUNTRIES OF WORK EXPERIENCE:

South Africa, Australia, Ghana, Nigeria, Abu Dhabi, Dubai, Namibia, Mozambique, Angola.

LANGUAGES:

	Reading	Writing	Speaking
English	Excellent	Excellent	Fluent
Afrikaans	Excellent	Excellent	Fluent

COMPUTER PROFICIENCY

Familiar with standard Microsoft packages, AutoCAD, Prokon, ETABS, SAFE, Revit, RM Bridge, CSI Bridge, SeismoStruct, Autodesk Structural Bridge Design, Sofistik, MIDAS and LUSAS. Proficient in Java programming.



Signature of Staff Member

6 July 2017

Date

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