

# CURRICULUM VITAE ALGURNON VAN ROOYEN

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## PERSONAL

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Full name : Algurnon Steve  
Surname : van Rooyen  
Date of Birth : 13 November 1988  
Nationality : SA citizen  
Languages : English, Afrikaans

## EDUCATION

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2011 - 2013	<b>Stellenbosch University</b> <i>Master of Science in Engineering (Civil Engineering)</i> <i>Dissertation: Structural lightweight aerated concrete</i>	<b>Stellenbosch</b>
2007 - 2010	<b>Stellenbosch University</b> <i>Bachelor of Engineering (Civil Engineering)</i>	<b>Stellenbosch</b>

## PROFESSIONAL EXPERIENCE

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2016 -	<b>Lecturer in the Department of Civil Engineering</b> <i>Strength of Materials 224</i>	<b>Stellenbosch</b>
2015	Professional career development	<b>Stellenbosch</b>
2013 - 2015	<b>Junior lecturer in the Department of Civil Engineering</b> <i>Strength of Materials 224</i>	<b>Stellenbosch</b>
2012	<b>Teachers Assistant</b> <i>Theory of Structures 354, Strength of Materials 224</i>	<b>Stellenbosch</b>
2011	<b>Student Assistant</b> <i>Theory of Structures 354, Strength of Materials 143</i> <i>Applied Maths B142 (mentor), Engineering Maths 115 (Mentor)</i>	<b>Stellenbosch</b>
2010	<b>Student Assistant</b> <i>Strength of Materials 143</i>	<b>Stellenbosch</b>
2009	<b>Student Assistant</b> <i>Engineering Informatics 224</i>	<b>Stellenbosch</b>
2008	<b>Student Assistant</b> <i>Strength of Materials 143</i>	<b>Stellenbosch</b>

## RESEARCH INTEREST

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My research is focused on structural lightweight foamed concrete (LWFC). The goal of the research is to use LWFC as an energy efficient construction material. Durability aspects of LWFC, fracture mechanics, Fiber reinforced concrete, Geopolymers and alkali activated slag concrete (alternative concretes) are also an interest of mine.

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### PUBLICATIONS

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1. **AS van Rooyen**, GPAG van Zijl, and EP Kearsley. (2013). Non Autoclaved Lightweight Aerated Concrete. Proceedings International Conference on Advances in Cement and Concrete Technology in Africa, 401-408.
2. JP de Villiers, GPAG van Zijl, and **AS van Rooyen**. (2016). Fracture of Lightweight Foamed Concrete in Evaluation of Bond Behaviour of Steel Reinforcement Embedded in LWFC. 9<sup>th</sup> International Conference on Fracture Mechanics of Concrete and Concrete Structures, 289-297
3. JO Lerch, **AS van Rooyen**, and WP Boshoff. (2016). The Influence of Mixing on The Single-Fibre Performance of Macro Synthetic Fibre Reinforced Concrete. (2016). 9<sup>th</sup> RILEM International Symposium on Fiber Reinforced Concrete – BEFIB 2016. 61-71.
4. TPA Dunn, **AS van Rooyen** and GPAG van Zijl (2017a). Paper ID 338 Durability and Bond of Reinforced Lightweight Foamed Concrete. Proceedings *fib* Symposium, 12-14 June 2017, Maastricht, The Netherlands. DOI 978-3-319-59471-2\_250, © 2017, pp. 2185-2193.
5. TPA Dunn, **AS van Rooyen**, and GPAG van Zijl. (2017b). Reinforced lightweight foamed concrete for seismically resistant low-rise residential buildings. Paper ID 101, 71<sup>st</sup> RILEM week and ICACMS, 3-8 September 2017, Chennai, India, Volume 3, pp. 269-278
6. MM Mubatapasango, GPAG van Zijl and **AS van Rooyen**. (2017). Effect of surface protection on carbonation induced corrosion in reinforced foamed concrete. Paper ID 114, 71<sup>st</sup> RILEM week and ICACMS, 3-8 September 2017, Chennai, India, Volume 4, pp. 179-188
7. **AS van Rooyen** and GPAG van Zijl. (2017). Chloride profiling of integral and non-integral surface treated foamed concrete. Paper ID 120, 71<sup>st</sup> RILEM week and ICACMS, 3-8 September 2017, Chennai, India, Volume 4, pp. 11-16
8. GPAG van Zijl, SR Bezuidenhout and **AS van Rooyen**. (2017). Chloride induced corrosion of cracked cement-based composites. SHCC-04. 18-20 September 2017, Dresden, Germany. pp. 643-650
9. JP de Villiers, GPAG van Zijl and **AS van Rooyen**. (2017). Bond of steel reinforcement in lightweight foamed concrete (LWFC). Structural Concrete, international journal of *fib*, June 2017, 18(3): 496-506.
10. AR Zvinokona, **AS van Rooyen** and GPAG van Zijl. (2017). Chloride induced corrosion in structural light weight foam concrete. The 9<sup>th</sup> International Symposium on Cement and Concrete (ISCC 2017). 1-3 November 2017, Wuhan, China

### GRADUATE SUPERVISION

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Student Supervision: MEng co-promotor

1. **JP de Villiers**. Bond Behaviour of Deformed Steel Reinforcement in Lightweight concrete (December 2015, co-promotor Prof. GPAG van Zijl) **cum-laude**
2. **JO Lerch**. Investigation into the Effect of Fibre Geometry on the Performance of Macro Synthetic Fibre Reinforced Concrete. (March 2016, co-promotor Prof. WP Boshoff) **cum-laude**.
3. TPA Dunn. Lightweight reinforced concrete building systems for sustainable residential infrastructure. (December 2017, co-promotor Prof GPAG van Zijl)

Student Supervision: MEng.

1. MS Mubatapasango. Carbonation Induced Corrosion of the Primary Reinforcement in Surface Treated Structural Lightweight Foamed Concrete. (2015- Dec 2017).
2. AR Zvinokona. Chloride –induced carbonation of lightweight foamed concrete. (2016- Mar 2018)