Patrick Rimbault

Professional Structural Engineering Technologist

Bachelor of Engineering Technology Honours - Structural Engineering (UNISA)

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About

Patrick Rimbault is an ECSA registered professional structural engineering technologist currently working for structural, civil and facade engineering consultancy NJV Consulting. He is based in Cape Town, South Africa where he works on built environment projects locally and nationally.

As an engineer, Patrick uses his architectural and geometric knowledge to realize complex designs at many scales and in many project typologies. Finding engineering interesting at all scales, he is as comfortable working on small details on high-end residential projects as he is on industrial builds with large structural elements. Hee often combines his knowledge of structures with his good computer literacy and programming skill-set to unpack and define complex geometric forms. He has a deep interest in the built environment and the socio-economic impact it has on the people who use it as well as a concern for the sustainability and environmental impacts of his projects.

Skillset *

1 = Novice | 2 = Advanced Beginner | 3 = Competent | 4 = Proficient | 5 = Expert

Communication	3	Conceptual Design	2	Analysis / FEA	4	Management Skills	2
Steel Design	4	Concrete Design	4	Timber Design	2	Masonry Design	2
Glass Design	2	Aluminium Design	3	AutoCAD	3	Revit + Dynamo	3
Rhino + Grasshopper	4	Python Programming	2	Construction Docs	3	Commercial Awareness	3

Formal Education

2021 – 2022   Bachelor of Engineering Technology Honours – Structural Engineering (awaiting Autumn 2023 graduation)

   University of South Africa

2016 – 2018   Bachelor of Technology : Civil Engineering : Structural *Cum Laude*

   Durban University of Technology

2011 – 2014   National Diploma : Civil Engineering

   Durban University of Technology

1998 - 2009   Matriculation : Bachelor's Pass

   St. Henry's Marist Brothers' College, Durban

1992   born in Durban, South Africa

Employment

Since 2017   NJV Consulting (formerly Linda Ness & Associates)

   Structural Engineering Technologist

2013 – 2016   Bosch Projects

   Structural Engineering Technician

Professional Memberships

PrTech   Engineering Council of South Africa (ECSA)

Graduate   The Institution of Structural Engineers (IStructE)

Graduate   International Association for Shell and Spatial Structures (IASS)

Graduate   The Institute of Professional Engineering Technologists (IPET)

Awards & Certificates

2022   SAISC Steel Awards 2022 winning team for Babanango (Tubular and KZN Region categories)

      South African Institute of Steel Construction

2019   Certificate in Structural Behaviour

      The Institution of Structural Engineers

2018   Top Young Achiever Award

      The Southern African Institute of Steel Construction

Formal Research

2022   Long term prediction of the compressive and split tensile strengths behaviour of an improved pozzolan based concrete using artificial neural networks.

      Honours degree dissertation (Unpublished)

Selected Projects ('Since' indicates projects in progress)

Employed at NJV Consulting

Since 2021	**Joostenberg Warehouse Development**	Cape Town, South Africa	*Lead Design Engineer*
Since 2022	**Cape Town Station Cladding**	Cape Town, South Africa	*Facade Engineer*
Since 2022	**Aquatic Centre Structures**	Cape Town, South Africa	*Lead Design Engineer*
Since 2022	**Lanxess Groundwater Treatment Plant**	Durban, South Africa	*Design Engineer*
2022 – 2023	**Gateway Lift Shaft Glass Structure**	Umhlanga, South Africa	*Glass Facade Engineer*
2022	**Kent Residential Cladding**	Durban, South Africa	*Facade Engineer*
2022	**Ocean's Retail Cladding**	Umhlanga, South Africa	*Facade Engineer*
2022	**UCT Design School Cladding**	Cape Town, South Africa	*Facade Engineer*
2019 - 2021	**Mpact Warehouse Development**	Durban, South Africa	*Design Engineer*
2019 - 2022	**Babanango Tented Camp Lodge**	Babanango, South Africa	*Lead Design Engineer*
2020	**Hullett's Sugar Store Refurbishment**	Durban, South Africa	*Design Engineer*
2019	**Distell Facade**	Stellenbosch, South Africa	*Lead Design Engineer*
2019	**Dube Tradeport Warehouse Scheme**	Durban, South Africa	*Design Engineer*
2019	**House Weigand Folded Cor-Ten Roof**	Ballito, South Africa	*Design Engineer*
2019	**Ridge 8 Development**	Umhlanga, South Africa	*Foundation Design*
2017 – 2019	**DCC Mayville Arches Geometry**	Durban, South Africa	*Geometry Development*
2019	**DCC Mayville Facades**	Durban, South Africa	*Design Engineer*
2019	**Flight of Swallows Sculpture**	Douglas, Isle of Man	*Geometry Development*
2017 - 2019	**Sibaya Signature Gatehouse**	Umhlanga, South Africa	*Lead Design Engineer*

2017 - 2019	**Rivertown Beerhall Restoration**	Durban, South Africa	*Lead Design Engineer*
2018 - 2019	**GO! Durban BRT Structures**	Durban, South Africa	*Lead Design Engineer*
2018 - 2019	**Ridge 7 Development**	Umhlanga, South Africa	*Design Engineer*
2017 - 2018	**Coral Point Residential Development**	Umhlanga, South Africa	*Site Engineer*
2018	**Suncoast Casino Glass Roof**	Durban, South Africa	*Glass Facade Engineer*
2018	**Ocean Dunes Development Facades**	Umhlanga, South Africa	*Design Engineer*
2018	**Heineken Mozambique Brewery**	Maputo, Mozambique	*Design Engineer*

Employed at Bosch Projects

2016	**SAPPI Stanger Factory Upgrades**	Stanger, South Africa	*Lead Design Engineer*
2016	**McCord's Hospital Upgrades**	Durban, South Africa	*Lead Design Engineer*
2015 – 2016	**Transnet Port Control Tower Upgrades**	Richard's Bay, South Africa	*Resident Engineer*
2014 - 2015	**Sumitomo Tyre Factory Extensions**	Ladysmith, South Africa	*Design Engineer*
2014 – 2015	**SABT Harbour Bulk Handling Facilities**	Durban, South Africa	*Design Engineer*

* Skillset Level Explainers

Lester, S., 2005. Novice to expert: The Dreyfus model of skill acquisition. *Available from http://devmts.org.uk/dreyfus.pdf.*

	Novice	*Advanced Beginner*	*Competent*	*Proficient*	*Expert*
Knowledge	Has minimal or textbook knowledge without connecting it to practice	Has basic knowledge of key aspects of the practice	Has good working and background knowledge of area of practice	Depth of understanding of discipline and area of practice	Authoritative knowledge of discipline and deep tacit understanding across area of practice
Standard of Work	Unlikely to be satisfactory unless closely supervised	Straightforward tasks are likely to be done to an acceptable standard	Results can be achieved for open tasks, though may lack refinement	Fully acceptable standard achieved routinely, results are also achieved for open tasks	Excellence achieved with relative ease
Autonomy	Needs close supervisor or guidance	Is able to achieve some steps using own judgement, but needs supervision for the overall task	Is able to achieve most tasks using own judgement	Able to take full responsibility for own work (and that of others where applicable)	Able to take responsibility for going beyond existing standards and creating own interpretations
Coping with complexity	Has little or no idea of how to deal with complexity	Appreciates complex situations, but is only able to achieve partial resolution	Copes with complex situations through deliberate analysis and planning	Deals with complex situations holistically, confident decision-making	Holistic grasp of complex situations, moves between intuitive and analytical approaches with ease
Perception of context	Tends to look at actions in isolation	Sees actions as a series of steps	Sees actions at least partly in terms of longer-term goals	Sees the overall picture and how individual actions fit within it	Sees overall picture and alternative approaches, has vision of what may be possible