



# University of Johannesburg

PO BOX 524  
AUCKLAND PARK  
2006  
Tel: +27 (0)11 559-4555



## Academic Transcript

It is hereby certified that **SELAKE IVY RAMAROE** is/was enrolled at this university for the Qualification(s) as set out below. The programme of study followed, assessment results and credits obtained are detailed below and an overall summary appears at the end.

**Student Name:** SELAKE IVY RAMAROE

**Date of Birth:** 06-DEC-1995

**Student Number:** 201406516

**Student ID:** 9512061070087

**Note:** South African Universities functioned under two National Qualification Frameworks, an eight-level framework (promulgated in 2000) and a ten-level framework (promulgated in 2008). Please note the University of Johannesburg (UJ) implemented the ten-level framework from 2012. UJ qualifications completed prior to 2012 follow the eight-level framework. For additional information on the NQF regulatory history, click on "[https://www.uj.ac.za/wp-content/uploads/2021/09/nqf-regulatory-history\\_verification-2022-web-info.pdf](https://www.uj.ac.za/wp-content/uploads/2021/09/nqf-regulatory-history_verification-2022-web-info.pdf)"

**Approved Qualification:** N DIP: ENGINEERING: CHEMICAL

**Qualification:** N DIP ENGINEERING CHEMICAL

**Qualification Type:** National Diploma **Level:** National Diploma, National Higher Diploma

| Year | Module Code | Module Description                      | NQF Credit | Half Year Mark | Final Mark | Result Description      |
|------|-------------|---|------------|----------------|------------|-------------------------|
| 2014 | CET1AC1     | CHEMISTRY 1 (THEORY)                    |            |                | 47         | SUPP EXAM GRANTED       |
| 2014 | CET1AC1     | CHEMISTRY 1 (THEORY)                    | 7          |                | 50         | PASSED SUPPL EXAM       |
| 2014 | CET1AC2     | CHEMISTRY 1 (PRACTICAL)                 | 3          |                | 56         | PASSED                  |
| 2014 | CET1BCE     | CHEMICAL PRACTICAL 2                    | 83         |                | 62         | PASSED                  |
| 2014 | CET1BO1     | ORGANIC CHEMISTRY                       | 15         |                | 64         | PASSED                  |
| 2014 | CET1BP1     | PHYSICAL CHEMISTRY                      | 15         |                | 57         | PASSED                  |
| 2014 | CSAA131     | ENGLISH: COMMUNICATION STUDIES 1A       | 16         |                | 54         | PASSED                  |
| 2014 | EIR1111     | COMPUTER SKILLS 1                       | 15         |                | 51         | PASSED                  |
| 2014 | MAT1AW1     | ENGINEERING MATHEMATICS 1               | 10         |                | 56         | PASSED                  |
| 2014 | PHY1ABP     | PHYSICS 1 PRACTICAL                     | 8          |                | 81         | PASSED WITH DISTINCTION |
| 2014 | PHY1ABT     | PHYSICS 1 THEORY                        |            |                | 40         | FAILED                  |
| 2014 | PHY1BCP     | ENGINEERING PHYSICS 2 (PRACTICAL)       |            |                |            | CANCEL 30-JUN-2014      |
| 2014 | PHY1BCT     | ENGINEERING PHYSICS 2 (THEORY)          |            |                |            | CANCEL 30-JUN-2014      |
| 2014 | WAR2111     | CHEMICAL ENGINEERING TECHNOLOGY 2       | 12         |                | 64         | PASSED                  |
| 2014 | WPD2111     | CHEMICAL PROCESS INDUSTRIES 2           | 12         |                | 63         | PASSED                  |
| 2014 | WTA1131     | DRAWING: CHEMICAL ENGINEERING 1         | 12         |                | 55         | PASSED                  |
| 2015 | ACPA321     | CHEMICAL PLANT 3A                       | 12         |                | 65         | PASSED                  |
| 2015 | ACPB321     | CHEMICAL PLANT 3B                       | 12         |                | 77         | PASSED WITH DISTINCTION |
| 2015 | ACT3111     | THERMODYNAMICS : APPLIED 3              | 12         |                | 62         | PASSED                  |
| 2015 | BIMA131     | MANAGEMENT SKILLS 1A                    | 8          |                | 71         | PASSED                  |
| 2015 | BIMB131     | MANAGEMENT SKILLS 1B                    | 8          |                | 62         | PASSED                  |
| 2015 | CIT3111     | THERMODYNAMICS : CHEMICAL ENGINEERING 3 | 12         |                | 50         | PASSED                  |
| 2015 | CMTA321     | CHEMICAL ENGINEERING TECHNOLOGY 3A      | 12         |                | 72         | PASSED                  |
| 2015 | CMTB321     | CHEMICAL ENGINEERING TECHNOLOGY 3B      | 12         |                | 71         | PASSED                  |
| 2015 | CPD3111     | CHEMICAL PROCESS DESIGN : PRINCIPLES 3  | 12         |                | 73         | PASSED                  |
| 2015 | CSAB131     | ENGLISH: COMMUNICATION STUDIES 1B       | 16         |                | 64         | PASSED                  |
| 2015 | ICP3111     | PROCESS CONTROL 3                       | 12         |                | 72         | PASSED                  |
| 2015 | MAT2AE2     | ENGINEERING MATHEMATICS 2               | 24         |                | 62         | PASSED                  |
| 2015 | PHY1ABT     | PHYSICS 1 THEORY                        |            |                |            | CANCEL 03-FEB-2015      |
| 2015 | PHY1BCP     | ENGINEERING PHYSICS 2 (PRACTICAL)       |            |                |            | CANCEL 03-FEB-2015      |
| 2015 | PHY1BCT     | ENGINEERING PHYSICS 2 (THEORY)          |            |                |            | CANCEL 03-FEB-2015      |
| 2015 | STA1ZCE     | STATISTICS 2B                           | 12         |                | 74         | PASSED                  |
| 2016 | EL30811     | CHEMICAL ENGINEERING PRACTICE 1         |            |                |            | CONTINUE (EXPERIENTIAL) |
| 2016 | EL30822     | CHEMICAL ENGINEERING PRACTICE 2         |            |                |            | CONTINUE (EXPERIENTIAL) |
| 2016 | PHY1ABT     | PHYSICS 1 THEORY                        | 16         |                | 75         | PASSED WITH DISTINCTION |
| 2016 | PHY1BCP     | ENGINEERING PHYSICS 2 (PRACTICAL)       | 8          |                | 83         | PASSED WITH DISTINCTION |
| 2016 | PHY1BCT     | ENGINEERING PHYSICS 2 (THEORY)          | 16         |                | 67         | PASSED                  |
| 2017 | EL30811     | CHEMICAL ENGINEERING PRACTICE 1         | 12         |                |            | REQUIREMENTS FULFILLED  |
| 2017 | EL30822     | CHEMICAL ENGINEERING PRACTICE 2         | 12         |                |            | REQUIREMENTS FULFILLED  |



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### Overall Summary

OBTAINED QUALIFICATION\*\* N DIP ENGINEERING CHEMICAL\*\* Decision Date 27-MAR-2018  
Graduation Date 05-JUN-2018 Certificate Number N49184

Cumulative NQF Credits = 436

Approved Qualification: B TECH: ENGINEERING: CHEMICAL

Qualification: B TECH: ENGINEERING: CHEMICAL

Qualification Type: Baccalaureus Technologiae Degree Level: Honours, Professional Degrees and Postgraduate Diplomas

| Year | Module Code | Module Description                          | NQF Credit | Half Year Mark | Final Mark | Result Description      |
|------|-------------|---|------------|----------------|------------|-------------------------|
| 2019 | CPDA411     | CHEM PROC DESIGN 4A -EQUIPMENT DESIGN       | 12         |                | 75         | PASSED WITH DISTINCTION |
| 2019 | CPDB411     | CHEM PROCESS DESIGN 4B - PLANT DESIGN       | 12         |                | 82         | PASSED WITH DISTINCTION |
| 2019 | ICP411      | PROCESS CONTROL 4                           | 12         |                | 66         | PASSED                  |
| 2019 | MAT1AE3     | MATHEMATICS:CHEMICAL ENGINEERING 3          | 24         |                | 80         | PASSED WITH DISTINCTION |
| 2019 | PCE411      | PROJECT: CHEMICAL ENGINEERING 4             | 12         |                | 70         | PASSED                  |
| 2019 | PCI411      | PRODUCTION ENGINEERING: CHEMICAL INDUSTRY 4 | 12         |                | 72         | PASSED                  |
| 2019 | WARA432     | CHEM ENG TECH 4A - FLUID FLOW               | 12         |                | 65         | PASSED                  |
| 2019 | WARB432     | CHEM ENG TECH 4B - UNIT OPERATIONS          | 12         |                | 50         | PASSED                  |
| 2019 | WARC432     | CHEM ENG TECH 4C HEAT MASS TRANSFER         | 12         |                | 84         | PASSED WITH DISTINCTION |
| 2019 | WER411      | REACTOR TECHNOLOGY 4                        | 12         |                | 56         | PASSED                  |

Awards Allocated: Artificial Intelligence in the 4IR (SLP)

Awards Allocated: AFRICAN INSIGHTS-15 CRED NQF5

### Overall Summary

OBTAINED QUALIFICATION\*\* B TECH: ENGINEERING: CHEMICAL\*\* Decision Date 05-DEC-2019  
Graduation Date 12-MAY-2020 Certificate Number N75156

Cumulative NQF Credits = 132

Approved Qualification: Master of Sustainable Energy

Qualification: Master of Sustainable Energy (CW) **Cancelled:** 14-FEB-2023

Qualification Type: Masters Degree (Professional) Level: NQF Level 9: Master's Degree

Title of Dissertation/Thesis: Analysis of hybrid neural network models for forecasting renewable energy in South Africa

| Year | Module Code | Module Description                           | NQF Credit | Half Year Mark | Final Mark | Result Description |
|------|-------------|--|------------|----------------|------------|--------------------|
| 2022 | EAD8X01     | ENERGY AND DEVELOPMENT                       | 30         |                | 56         | PASSED             |
| 2022 | M2SE019     | MINOR DISSERTATION: SUSTAINABLE ENERGY (SCI) |            |                |            | PROCEED: NO CREDIT |
| 2022 | M2SE029     | MINOR DISSERTATION: SUSTAINABLE ENERGY (SCI) |            |                |            | PROCEED: NO CREDIT |
| 2022 | M6MGB19     | ENERGY EFFICIENCY AND GREEN BUILDINGS        | 30         |                | 65         | PASSED             |
| 2022 | M6MSM19     | SUSTAINABLE ENERGY SYTEMS MODELING           |            |                | 26         | FAILED             |
| 2022 | M6SED19     | MINOR DISSERTATION: SUSTAINABLE ENERGY (ENG) |            |                |            | PROCEED: NO CREDIT |
| 2022 | M6SED29     | MINOR DISSERTATION: SUSTAINABLE ENERGY (ENG) |            |                |            | PROCEED: NO CREDIT |
| 2022 | M6SET19     | SUSTAINABLE ENERGY TECHNOLOGIES              | 30         |                | 67         | PASSED             |
| 2023 | M6MSM19     | SUSTAINABLE ENERGY SYTEMS MODELING           |            |                |            | CANCEL 14-FEB-2023 |
| 2023 | M6SED19     | MINOR DISSERTATION: SUSTAINABLE ENERGY (ENG) |            |                |            | CANCEL 14-FEB-2023 |
| 2023 | M6SED29     | MINOR DISSERTATION: SUSTAINABLE ENERGY (ENG) |            |                |            | CANCEL 14-FEB-2023 |



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### Overall Summary

MAY CONTINUE STUDIES

Cumulative NQF Credits = 90

Approved Qualification: Master of Philosophy

Qualification: MPhil in Mechanical Engineering (RD)

Qualification Type: Masters Degree Level: NQF Level 9: Master's Degree

Title of Dissertation/Thesis: 1. Analysis of hybrid neural network models for forecasting renewable energy in South

| Year | Module Code | Module Description                   | NQF Credit | Half Year Mark | Final Mark | Result Description      |
|------|-------------|--------------------------------------|------------|----------------|------------|-------------------------|
| 2023 | M6M0109     | DISSERTATION: MECHANICAL ENGINEERING |            |                |            | PROCEED: NO CREDIT      |
| 2023 | M6M0209     | DISSERTATION: MECHANICAL ENGINEERING |            |                |            | PROCEED: NO CREDIT      |
| 2024 | M6M0209     | DISSERTATION: MECHANICAL ENGINEERING | 180        |                | 79         | PASSED WITH DISTINCTION |

### Overall Summary

QUALIFICATION WITH DISTINCTION\*\* MPhil in Mechanical Engineering (RD)\*\* Decision Date 17-MAY-2024

Cumulative NQF Credits = 180

IT IS HEREBY CONFIRMED THAT THE STUDENT EXHIBITED GOOD CONDUCT FOR THE DURATION OF HER/HIS STUDIES. PLEASE CLICK ON <https://www.uj.ac.za/wp-content/uploads/2021/06/7-grade-conversion-guidelines.pdf> FOR A GRADE CONVERSION SCALE/GUIDELINE.

THIS CERTIFICATE IS ISSUED WITHOUT CHANGE OR DELETION OF ANY NATURE.

B Jansen van Vuuren (Prof)

Registrar

10-JUL-2024