# Phiwe Patrick Mbongwa

#### BSC ELECTRICAL ENGINEERING

688 Winterton Khethani Township Kwazulu Natal

□ (+72) 72-3301-121 | **>** phiwep.mbongwa@gmail.com | **□** phiwe-mbongwa-a976b0168

### Summary\_

Energetic Electrical engineer Graduate. Seeking to use proven design process and electrical engineering skills to solve challenging engineering problems, making the most of available tools. Technical experience in road traffic signals remote monitoring systems (RMS) and software development obtained during university vacation holidays. A C++ and Java software developer with strong love of eclipse IDE in a customized development environment.

#### Personal Details

Date of birth : 28 July, 1992Identity number : 9207285845089

Gender : Male
Race : Black
Home language : IsiZulu
Nationality : South African
Criminal record : None
Health status : Good
Merital status : Single

Hobbies : Reading and Coding

#### **Education**

#### Wits(University of the Witwatersrand)

BSc Electrical Engineering

Johannesburg, South Africa

December, 2018

#### **Ntathakusa Secondary School**

METRIC CERTIFICATE

Winterton, KZN, South Africa

December. 2011

## Remarkable Project

#### **Electrical Engineering Student**

Wits , Johannesburg

Jan. 2016 - Oct. 2018

- An investigation project of the power quality issues imposed by a distribution generator installed on the rooftop of the lab: Measurement results were taken using power quality meters and a Matlab/Simscape model was developed to aid in investigation of power quality parameters.
- Design of a PV Power System: A design project where weather data and house load requirements were used to design a standalone PV system. Calculations were performed in Matlab and simulations in using Simulink.
- Super capacitor based phone battery charging system: An electronics project that involves designing buck and boost converters using mosfets, super capacitor and other components.
- Gyruss acarde game: Designing and implementing the game using c++ language and SFML library
- Relational data table Using parallel programming in python, MPI and map reduce to relate big data tables.

#### **Peer Educator and School President**

Ntathakusa Secondary School

Jan. 2010 - Oct. 2011

- Designed the first school library and participated in its implemention.
- Organized school events, social programs and community awareness.

## Work Experience

### **Johannesburg Roads Agency**

Johannesburg

Nov. 2017 - Feb 2018

TECHNICAL ASSISTANT

- Installation and maintainance of Remote monitoring Systems of Roads Traffic signals
- Fault logging of road Traffic Signals

#### **Ayanda Poutry Products**

Winterton, KZN, South Africa

Cashier and Sales Person

Jan. 2015 - Jan. 2016

• Selling Poultry products from the farm to small businesses and managing finances of the company

• Marketing products to local supermarket

Psybergate Johannesburg

INTERN JAVA SOFTWARE DEVELOPERT

Jan. 2019 - Present

• Volunteering in a Software Graduate Program to improve my Java software development skills

References\_

**Eric Pako**Johannesburg Roads Agency

Position: Technical DirectorContact Number: 011 491 5786

Chris Naidoo Psybergate

Position: Technical DirectorContact Number: 082 809 5899

Lungile Mthethwa Ayanda Pooutry Product

Position: Technical ManagerContact Number: 061 483 5459

Raazia Moosa Wits CLTD

Position: SupervisorContact Number: 011 717 1442



Faculty of Engineering and the Built Environment Private Bag 3 Wits, 2050

Fax: 011 7177009 Tel: 011 7177007

Reference: Charlotte Mosimane E-mail: charlotte.mosimane@wits.ac.za

30 January 2019 Person No: 606352

Mr. Phiwe Patrick Mbongwa Khethani Location One Room Section House No: 688 Winterton 3340 KwaZulu-Natal South Africa

606352@students.wits.ac.za

Dear Mr. Mbongwa

UNIVERSITY OF THE WITWATERSRAND
FACULTY OF ENGINEERING
AND THE BUILT ENVIRONMENT

3 1 -01- 2019

JOHANNESBURG

# <u>COMPLETED ALL REQUIREMENTS FOR QUALIFICATION - Bachelor of Science in Engineering (Electrical)</u>

We confirm that on **29 January 2019** all the requirements have been met for the award of the degree of Bachelor of Science in Engineering (Electrical).

Graduation takes place on **28/29 March 2019**. Further information concerning the date, time and venue of the graduation ceremony will be forwarded to you in due course from the Graduation Office. In the interim, you can visit the graduation office website <a href="http://www.wits.ac.za/students/graduations">http://www.wits.ac.za/students/graduations</a> for more information.

Congratulations on your achievement!

DSIMCIA

Yours\_sincerely

Mrs. Charlotte Mosimane

**Faculty Officer** 

Faculty of Engineering and the Built Environment

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TRUE COPY OF THE OHIGHNAL DOCUMENT AND THAT THERE IS NO INDICATION THAT ALTERATIONS HAVE BEEN MADE THERETO BY AN UNALTHORISED PERSON. SIGNATURE OFFICE



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  POSADRES in hierigie sakke
- 2. Indien u van adres verander het of indien ovsonder huidige adres, by, straatnaam en of normer, pas van moet die vorm KENMISSE WING WAY ABRESVE HANDE in die sakkle agterundte ademiteitsdotument is, gebruik wit verandering aan te nield en moet dit ingedien word by pla aan die naaste streek-distrikkantoer van die DEPARTE, BRINELANDSE SAKE

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- REGISTERED RESIDENTIAL AND POSTAL ADDRESS IN

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  2. If you have changed pour address or if particulars of your present address, and name of street ansors present address for postal name of the register of the particular occurrent exist as used to report the change and it must be handed in a or poster to the pearest regional district office of the DEPARTIMENT OF MOME APPAIRS.

VANJSURNAME

MBONGWA

VOORNAME/FORENAMES

GEBOORTEDISTRIK OF LAND!

SOUTH AFRICA

SEBOORNEDA PLANI DETE OF BURTH



DATUM UITGEREIK DATE ISSUED

2009-08-07



REPUBLIC OF SOUTH AFRICA

# **National Senior Certificate**

Awarded to

7014 -09-14



7200386-3

Phiwe Patrick Mbongwa

JNP Mbates

Identity number 9207285845089

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Subject	%	level
IsiZulu Home Language	83	7
English First Additional Language	73	6
Mathematics	77	6
Life Orientation	85	7
Agricultural Science	69	5
Life Sciences	73	6
Physical Sciences	76	6
*************	***	*

This candidate is awarded the National Senior Certificate and has met the minimum requirements for admission to bachelor's degree, diploma or higher certificate study as gazetted for admission to higher education, subject to the admission requirements of the higher education institution concerned.

With effect from December 2011

M. S. LAKOMETS

Chief Executive Officer

This certificate is issued without alterations or erasure of any kind





Council for Quality Assurance in General and Further Education and Training South Africa