

# TO MAGNIFICO RETTORE OF UNIVERSITA' DEGLI STUDI DI MILANO

I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type A post-doc fellowship

# Dr ABOSEDE ABUBAKRE CURRICULUM VITAE

# PERSONAL INFORMATION

| Surname       | ABUBAKRE       |
|---------------|----------------|
| Name          | ABOSEDE        |
| Date of birth | [05, 02, 1982] |

# PRESENT OCCUPATION

| TRECENT COCCITATION             |   |
|---------------------------------|---|
| Appointment                     | Structure   |
| POSTDOCTORAL<br>RESEARCH FELLOW | Department of Science and Innovation – National Research Funds Centre of Exceller for Integrated Mineral and Energy Research Analysis (DSI-NRF CIMERA)  |
|                                 | <ul> <li>Magnetostratigraphy and assessment of core and wireline logs, facies analys and sequence stratigraphy of AngloGold Ashanti exploration drill core from th Witwatersrand Basin.</li> <li>Presentation of results to industry and local/international technical conferences.</li> <li>Preparation of manuscripts for publication in peer-reviewed journals.</li> </ul> |

## **EDUCATION AND TRAINING**

| EDUCATION AND TRAINING            |                        |                                   |                                   |  |
|-----------------------------------|------------------------|-----------------------------------|-----------------------------------|--|
| Degree                            | Course of studies      | University                        | year of achievement of the degree |  |
| Degree                            | BSc GEOLOGY            | OLABISI<br>ONABANJO<br>UNIVERSITY | 2006                              |  |
| Specialization                    | BSc HONOURS<br>GEOLOGY | UNIVERSITY OF FORT HARE           | 2009                              |  |
| Master MSc GEOLOGY                |                        | UNIVERSITY OF STELLENBOSCH        | 2012                              |  |
| PhD GEOLOGY                       |                        | UNIVERSITY OF JOHANNESBURG        | 2021                              |  |
| Degree of medical specialization  |                        |                                   |                                   |  |
| Degree of European specialization |                        |                                   |                                   |  |
| Other                             |                        |                                   |                                   |  |



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## REGISTRATION IN PROFESSIONAL ASSOCIATIONS

| Date registration | of | Association                                      | City         |
|-------------------|----|--|--------------|
| 01/02/2018        |    | INTERNATIONAL ASSOCIATION OF SEDIMENTOLOGY (IAS) | BELGIUM      |
| 02/02/2008        |    | THE GEOLOGICAL SOCIETY OF SOUTH AFRICA (GSSA)    | SOUTH AFRICA |
| 02/04/2020        |    | THE SOCIETY FOR SEDIMENTARY GEOLOGY (SEPM)       | USA          |
| 05/06/2020        |    | THE GEOLOGICAL SOCIETY OF AMERICA (GSA)          | USA          |
| 02/02/2009        |    | THE SOCIETY OF PETROLEUM ENGINEERS (SPE)         | USA          |
| 01/06/2009        |    | THE SOCIETY OF EXPLORATION GEOPHYSICISTS (SEG)   | USA          |

#### **FOREIGN LANGUAGES**

| Languages | level of knowledge |
|-----------|--------------------|
| ENGLISH   | FLUENT             |

#### AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

| Year       | Description of award   |
|------------|--|
| 2021- 2022 | South African Department of Science and Innovation (DSI) and National Research Foundation (NRF) Postdoctoral grant (R291, 000)               |
| 2019       | International Association of Sedimentology (IAS) travels grant to present a talk at the 34th meeting in Rome from 10th - 13th September 2019 |
| 2018       | DSI-NRF-CIMERA travel grant (R120, 000) for a lab visit to Caltech   |
| 2017-2020  | DSI-NRF CIMERA Doctorate research grant (R630, 000)  |
| 2009-2011  | University of Stellenbosch MSc Research bursary  |
| 2008       | University of Fort Hare Govan Mbeki Research tuition fee waiver and Honours bursary  |

# TRAINING OR RESEARCH ACTIVITY

I have training and research experience in the application of paleomagnetic and rock magnetic techniques in sedimentary rocks. I have expertise in integrating sequence stratigraphy, core and wireline log, magnetostratigraphy, and rock magnetism of mudstones and shale lithologies in sedimentary basins.

#### My achievements include:

- Development of basin-scale subsidence, sedimentation and burial history of the SW Karoo Basin.
- Development of a magnetostratigraphic framework for organic matter rich Permian-aged mixed siliciclastic and carbonate rocks of the southern Karoo Basin.
- Regional correlation of the Karoo Basin based on identical system tracts and magnetic stratigraphy.
- Integration of magnetic stratigraphy with U-Pb SHRIMP and CA-TIMS ages of volcanic ash layers to improve the Permian geomagnetic polarity timescale.
- Quantification for the potential for waste heat recovery and reuse from manufacturing industries



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## PROJECT ACTIVITY

| Year      | Project   |
|-----------|---|
| 2021-2022 | Magnetostratigraphy and assessment of core and wireline logs, facies analysis, and sequence stratigraphy of AngloGold Ashanti exploration drill core from the Witwatersrand Basin.                                |
| 2017-2021 | Sedimentology and magnetostratigraphy of Permian rocks of the southern Karoo Basin based on the integration of core and wireline logs, facies analysis, sequence stratigraphy, rock magnetism and paleomagnetism. |
| 2009-2011 | Basin-fill, subsidence analysis, sedimentation history and basin evolution of the Tanqua depocentre, southwest Karoo Basin of South Africa.   |
| 2008-2009 | Hydrogeological mapping of Alice area, Eastern Cape Province, South Africa  |

#### **PATENTS**

| Patent |  |  |  |
|--------|--|--|--|
|        |  |  |  |
|        |  |  |  |

#### **CONGRESSES AND SEMINARS**

| Date              | Title   | Place   |
|-------------------|---|---|
| September<br>2021 | A summary of findings of the DSI-NRF CIMERA KARIN scientific drilling project with emphasis on magnetic stratigraphy and chronostratigraphic correlation of the Permian Ecca Group rocks of the southern Karoo Basin. | Karoo deep drilling program 3000m drilling milestone integration workshop, South Africa                 |
| March 2019        | Paleomagnetic and rock magnetic results of KZF-1 drill cores: magnetostratigraphic correlation of the Permian rocks of the SW Karoo Basin.  | Paleoproterozoic Mineralization (PPM) Colloquium, March 2019, University of Johannesburg, South Africa. |

## **PUBLICATIONS**

Books

Basin fill of the Permian Tanqua Karoo, South Africa. Lambert Academic Publishing, 2012

## Articles in journals

De Kock, M.O. and <u>Abubakre, A.O.</u> (2022). Permian magnetostratigraphy and end of the Kiaman Reverse Polarity Superchron from the southeast Karoo Basin, South Africa. Journal of Earth and Space Science Open Archive. doi:10.1002/essoar.10510861.1 Submitted and under consideration at Journal of Geophysical Research: Solid Earth.

<u>Abubakre, A.O.</u> and De Kock, M.O. (2021). Magnetostratigraphic age constraints of the Early Permian Ecca Group Rocks. *Gondwana Research*, 90, 220-240. <a href="https://doi.org/10.1016/j.gr.2020.11.009">https://doi.org/10.1016/j.gr.2020.11.009</a>



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Alao, A.O. and Mikés, D. (2011). Subsidence analysis of the Permian Tanqua depocentre, SW Karoo Basin, South Africa. South African Journal of Geology, 114 (3-4), 325–334. <a href="https://doi.org/10.2113/gssajg.114.3-4.325">https://doi.org/10.2113/gssajg.114.3-4.325</a>

**Abubakre, A.O.**, De Kock, M.O. and Omosanya, K.L.O. A new sequence stratigraphic model for the rocks of southeastern Karoo Basin, South Africa. In review *in Journal of Sedimentary Research*.

<u>Abubakre, A.O.</u>, De Kock, M.O. and Omosanya, K.L.O. Facies architecture, conceptual depositional model and sequence stratigraphic framework for the lower Ecca Group, south-western main Karoo Basin, South Africa. *Prepared for submission in the South African Journal of Geology*.

## Congress proceedings

<u>Abubakre, A.O.</u> and De Kock, M.O. (2019). Magnetostratigraphic constraints of the Early Permian successions of the Ecca Group, southern Karoo Basin, South Africa. 34th Meeting of the International Association of Sedimentologists (IAS), Rome 10 –13th September 2019, Session 11. E -1937.

<u>Abubakre, A.O.</u> and De Kock, M.O. (2019). Magnetostratigraphy of the Early Permian and late Carboniferous rocks of the southern Karoo Basin, South Africa. *Conference: GSA 2019 Annual Meeting in Phoenix, Arizona, USA*. https://doi.org/10.1130/abs/2019AM-333887

| OTHER INFORMATION |  |
|-------------------|--|
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Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

Place and date: <u>JOHANNESBURG</u>, <u>05/05/2022</u>

