

## SECTION A: GENERAL INFORMATION:

- a. Name: Dr. (Mrs.) Mabel O. Ehigiator **Tel: 08033819640**
- b. Date and place of birth: 6th of May, 1973 in Benin City
- c. Marital Status: Married; four children: 19years, 16years, 13years and six months  
**email: [mehigiator@biu.edu.ng](mailto:mehigiator@biu.edu.ng)**
- d. Nationality: Nigerian
- e. Permanent home address: No 1 Sunny Osagiede Street off Benin Auchi, Uroora, Benin City.
- f. Current postal address: No. 140 second East circular road Benin City.
- g. Present Position and Salary: Professor of Physics (Geophysics)
- h. Department of Physical Sciences, Benson Idahosa University, GRA. Benin City

## SECTION B QUALIFICATIONS

### 1a. ACADEMIC QUALIFICATIONS

- 2011 Ph. D: Physics (Geophysics): Ambrose Alli University Ekpoma
- 2004 M.Sc. Exploration Geophysics University of Benin
- 1998 P.G.D. Petroleum Engineering University of Benin
- 1995 B.Sc. Pure and Applied Physics University of Benin

### 2. TEACHING AND PROFESSIONAL EXPERIENCE

#### a **Employment / Professional Experience before Benson Idahosa University**

- 1995 – 1996 National youth service Corp: NNPC - NAPIMS
- 1998-2000 Assistant Petroleum Engineer, Pan Ocean Oil Corporation

#### b **Period of fulltime teaching at Benson Idahosa University**

- 2004 Assistant Lecturer
- 2007 Lecturer II
- 2009 Lecturer I
- 2011 Senior Lecturer
- 2014 Associate Professor

2018 Professor

c. **Courses taught**

PHY 111, PHY112, PHY113, PHY121, PHY211, PHY212, PHY214, PHY222, PHY223, PHY226, PHY227, PHY311, PHY314, PHY315, PHY317, PHY 321, PHY322, PHY324, PHY333, PHY411, PHY412, PHY414, PHY415, PHY417, PHY444,PHY427, PHY400 etc.

d. **Post Graduate students' supervision**

3. CONFERENCES ATTENDED WITH DATES

- a. Organisation of women in science, Benson Idahosa University 16<sup>th</sup> – 17<sup>th</sup> April , 2019
- a. International Conference of Federation of Internationale de Geophysique (FIG) Turkey, 5<sup>th</sup> - 13<sup>th</sup> of May, 2018
- b. National Young Academy conference (NYA), UNILAG, Lagos June, 2016
- c. Prediction of Dam Deformation using Kalman Filter Technique. Paper Presented at Federation International Geodesy (FIG) Kuala Lumpur Malaysia 16<sup>th</sup> – 21<sup>st</sup> June, 2014.
- d. Kinematic Analysis of Structural Deformation Using Kalman Filter Technique. Paper presented at Federation International Geodesy (FIG) Abuja Nigeria 6<sup>th</sup> – 10<sup>th</sup> May, 2013.
- e “Characterization of reservoir using petrophysical parameters and core data a case study of Abura field Niger delta of Nigeria” (Paper Presented at Geo –Siberia 2010, VI International Exhibition and scientific conference, Novosibirsk Russia Federation)
- f Modelling of oil water contact by method of material balance” (Paper Presented at Geo –Siberia 2010, VI International Exhibition and scientific conference, Novosibirsk Russia Federation)

4. PUBLICATIONS

a. **Materials already published**

1\*\* **Ehigiator M.O.**, Ogbonna G.O and Ehigiator Irughe, R. (2018). Harnessing the Potential benefits from waste deposit sites in Benin Metropolis. The Journal of the Nigerian institution of production Engineers (TECHNICAL TRANSACTIONS) 22: 151 – 160 (NATIONAL)

2\*\* **Ehigiator M.O.**, Oladosu O. S. and Izilien E. (2018). Determination of soil specific gravity and particle size at Igue-Iheya community in Benin City. The Journal of the Nigerian institution of production Engineers (TECHNICAL TRANSACTIONS) 22: 182 – 192 (NATIONAL)

- 3\*\* Ehigiator, M.O.** and Ehigiator – Irughe R. (2018). Formulation and implementation of mathematical models suitable for deformation analysis of structures. *The Nigerian Journal of Technology*, 37 (2): 294 – 301 (NATIONAL)
- 4\*\*Ehigiator, M. O.** (2018). Hydrogeophysical survey of groundwater development at Okada, Ovia South West Local Government. Area, Edo state. *Nigerian Journal of Environmental Sciences and Technology*. 2(1):39-45 (NATIONAL)
- 5\*\*Ehigiator, M. O.** (2018). Hydrogeophysical survey of groundwater development in Okha community (along Sapele road), Ikpoba Okha Local Government. Area, Edo state. *The Nigerian Journal of Technology*, 37 (2): 294 – 301 (NATIONAL)
- 6\*\*Ehigiator, M.O.** and Oladosu S.O. (2018). Determination of conversion between Lagos datum and Niger Delta mean lower low water datum and their horizontal and vertical accuracy Standards using GNSS observations. *Nigerian journal of environmental sciences and Technology*, 2(1):56-68
- 7\*\* Ehigiator, M.O.** and Chigbata N.C. (2017). Geophysical well correlation and well Analysis of Ogo field: A case study in Niger Delta Basin of Nigeria. Paper published at the *Nigerian Journal of Technology*.36 (3):729– 733 (NATIONAL)
- 8\*\* Ehigiator, M.O.,** Oladosu S.O. and Ehigiator – Irughe R. (2017). Determination of volume and direction of flow of Kainji reservoir using Hydro-Geomatics techniques. *The Nigerian Journal of Technology*. 36, (4): 1010 – 1015(NATIONAL)
- 9\*\*Ehigiator, M.O.** Oladosu S.O and Ehigiator – Irughe, R. (2017). Application of least squares estimation techniques in 2D conformal coordinates transformation from local to national system. *The Nigerian Journal of Environmental Sciences and Technology*, 1 (2): 273 – 286. (NATIONAL)
- 10\*\*Ehigiator, M.O.,** Oladosu, S.O and Ehigiator – Irughe, R. (2017). Densification of (GNSS) control points for cadastral and mapping purposes. *The Nigerian Journal of Environmental Sciences and Technology*, 1 (2):287 – 298(NATIONAL)
- 11\*\*Ehigiator, M. O.** and Irughe – Ehigiator R. (2016). Geospatial analysis of deformable Structure under continuous loading. *Journal of Environmental Design Uyo*, 11 (1): 20-29 (NATIONAL)
- 12\*\*Ehigiator, M. O.** and Olayinka A.S. (2015). Core analysis data in well log correlation. A case study of Ologbo field. *Nigerian Journal of Physics*. 26 (1): 49 – 54 (NATIONAL)
- 13\*\*Ehigiator, M. O.** and Olayinka A.S. (2015). Wireline log data: A variable tool for formation evaluation in the Niger Delta. *Nigerian Journal of Physics*. 26 (1) 76 – 80. (NATIONAL).
- 14 .Ehigiator – Irughe, R., Eboigbe M. and **Ehigiator M.O.** (2013). The application of remote sensing technique to verify changes in landscape due to exploration activities. *Journal of Environment and Earth Science*, 3(8):18-23 (INTERNATIONAL)

15. Ehigiator – Irughe, R. and **Ehigiator, M.O.** (2013). Utilization of Kalman Filter in deformation prediction of above surface storage tank. *Journal of Advances in Physics Theories and Applications*, 21:18-23 (INTERNATIONAL).
- 16 R. Ehigiator – Irughe, R. and **Ehigiator, M.O.** and Ilogho, T.U. (2013). Development of methodology for determining earth work volume using combined static and kinematic GPS observations. *International Journal of Modern Engineering Research*, 3(4): 2287-2295(INTERNATIONAL)
- 17 Ehigiator – Irughe, R. Nzodinma, V.N. and **Ehigiator, M.O.** (2012). An evaluation of precise point positioning (PPP) in Nigeria using ZVS3003 geodetic control as a case study” *Research Journal of Engineering and Applied Sciences* 1 (2):134 - 141. (INTERNATIONAL).
- 18 Ehigiator – Irughe, R. and **Ehigiator M.O.**, (2012). Iterative refinement of linear – angular intersection” *Research Journal of Engineering and Applied Sciences*, 1 (6): 377 - 382. (INTERNATIONAL)
- 19 Ehigiator – Irughe, R. and **Ehigiator M. O.** (2012). Design and methods of Geoinformatics analyses of engineering structure according to loading. *Journal of Information Engineering and Applications*. 2(1)1:24 - 34. (INTERNATIONAL)
- 20 Ehigiator – Irughe, and **Ehigiator M.O.** (2012). 3D geospatial modelling of accident Scene using laser scanner data. *Journal of Civil and Environmental Research*, 2(10):39 – 47. (INTERNATIONAL)
- 21 Ehigiator – Irughe, R. and **Ehigiator M.O.** (2012). Structural health monitoring of crude oil reservoir at the Forcados terminal, Nigeria. *Journal of Mechanical and Civil Engineering*, (4)5:34 – 40. (INTERNATIONAL)
- 22 Zarzoura,F., Ehigiator – Irughe R. and **Ehigiator M.O.** (2012). An evaluation of GNSS code and phase solutions. *Journal of Advances in Physics Theories and Applications*, 11:42 – 50 (INTERNATIONAL)
- 23 Vladimir Sereдович, Ehigiator – Irughe, R., **Ehigiator M. O.** Orhiakhi H. (2012). Deformation prediction using exponential polynomial functions. *Geodetic Journal of Geo Siberia*, 4 (2): 148-154 (INTERNATIONAL).
- 24 Ehigiator – Irughe, and **Ehigiator M.O.** (2011). 3D Modelling of quarry Site using GPS observations *Journal of Emerging Trends in Engineering and Applied Sciences* 2 (3): 419-428 (INTERNATIONAL)
- 25 Alile M.O. and **Ehigiator M.O.** (2011). Determination of aquifer layer by the application of electrical method of exploration at Ubiaja in Edo Central of Nigeria. 6 (2):493 – 498 (INTERNATIONAL).
- 26 Ehigiator – Irughe, R., **Ehigiator M.O.** and. Uzoekwe S. A (2011). Establishment of geodetic control in Jebba Dam using CSRS – PPP processing software. *Journal of Emerging Trends in Engineering and Applied Sciences*, 2 (5): 763-769 (INTERNATIONAL)

- 27 Ehigiator – Irughe, R. and **Ehigiator M. O.** (2011). Development of methods for determining the lateral surface of tank. Nigeria Association of Mathematical Physics. 18:165-174 (NATIONAL)
- 28 **Ehigiator M.O** and Ehigiator – Irughe, R. (2011). Hydrocarbon investigation using Petrophysical parameters and core analysis (a case study of Umoro field). Nigeria Association of Mathematical Physics. 18:175 -180. (NATIONAL).
- 29 Ehigiator – Irughe, R. and **Ehigiator M. O.** (2011). Verification of positional accuracy of ZVS3003 geodetic control using CSSPS – PPP Model. Nigeria Association of Mathematical Physics 19 :499-512) (NATIONAL)
- 30 Ehigiator – Irughe, R. Ehiorobo, J.O., **Ehigiator M.O.** and Bashir A.A.(2011). Determining the subsidence of oil tank walls from geodetic levelling. Advances in Materials and systems Technologies, Switzerland. 367: 467 – 474. (INTERNATIONAL)
- 31 Ehigiator – Irughe, R., Bashir A.A., Ehiorobo J.O. and **Ehigiator M.O.** (2011). Determination of the ovality of crude oil storage tanks using least squares. Advanced Material Research .367: 475 – 483. (INTERNATIONAL)
- 32 Ehigiator – Irughe, R. Bashir A.A. and **Ehigiator M. O.** (2010). Structural deformation analysis of cylindrical oil storage tank using geodetic observations. (Paper Presented at Geo –Siberia 2010, VI International Exhibition and scientific conference, Novosibirsk Russia Federation). 1:38 – 43(INTERNATIONAL)
- 33 **Ehigiator M. O.** (2010) and Ehigiator – Irughe, R. Modelling of oil water contact by method of material balance (Paper Presented at Geo –Siberia 2010, VI International Exhibition and scientific conference, Novosibirsk Russia Federation). 2: 65 -70 (INTERNATIONAL)
- 34 **Ehigiator M.O** and Ehigiator – Irughe, R. (2010). Characterization of reservoir using petrophysical parameters and core data a case study of Abura field of the Niger Delta basin of Nigeria (Paper Presented at Geo –Siberia 2010, VI International Exhibition and scientific conference, Novosibirsk Russia Federation). 2 : 71 – 75 (INTERNATIONAL)
- 35 Ehigiator – Irughe, R., Ehiorobo J.O. and **Ehigiator M. O.** (2010). Methods of verticality measurement of crude oil storage tanks. International Journal of pure and applied sciences, 3(4): 92 – 96. (INTERNATIONAL)
- 36 Ehigiator – Irughe, R. and **Ehigiator M. O.** (2010). Estimation of the centre coordinates and radius of Forcados oil tank from total Station data using least square analysis. International Journal of pure and applied sciences. 3(5):133 – 141 (INTERNATIONAL)
- 37 Ehigiator – Irughe, Ehiorobo J.O. and **Ehigiator M.O.** (2010). Distortion of oil and gas infrastructure from Geomatics support view. Journal of Emerging Trends in Engineering and Applied Sciences, (1): 14-23 (INTERNATIONAL)
- 38 Ehigiator – Irughe, Ehiorobo J.O. and **Ehigiator M.O.** (2010). Geospatial settlement monitoring of above oil storage tank. Journal of Emerging Trends in Engineering and Applied Sciences, 1:48-51 (INTERNATIONAL)

- 39 **Ehigiator M.O** and Ehigiator – Irughe, R. (2009). Formation evaluation of Abura field using geophysical well logs. International Journal of Pure and Applied sciences.) 1 (1): 53 – 55(INTERNATIONAL)
- 40 **Ehigiator M.O** and Ehigiator – Irughe, R. (2009). The use of material balanced equation to determine the oil Water contact of reservoir A and B in the Niger Delta basin of Nigeria. Nigeria Association of Mathematical Physics.15:213-222(NATIONAL).
- 41 Alile M.O. and **Ehigiator M.O**. (2008). Underground water exploration using electrical resistivity method in Edo State Nigeria. Asian Journal of Earth Sciences 1 (1): 38 – 42 (INTERNATIONAL)
- 42 **Ehigiator M. O**. Alile M. O. and (2006). Open hole formation evaluation of log interpretation of reservoir. Journal of Knowledge Review, 13 (1): 6 – 13. (LOCAL)
- 43 **Ehigiator M. O** and Alile M. O (2005). Net evaluation of crude oil production in the Niger Delta Basin of Nigeria. BIU Journal of Social and Management Sciences) 3 (1); 207 – 218 (LOCAL)

#### **4b.Papers accepted but not yet published**

44\*\***Ehigiator M. O**. (2018). Hydrogeophysical survey of groundwater development at Erua Nokhua (near Ehor), Orhionmwon Local Government. University of Benin Journal of science and Technology, (In press)

45\*\***Ehigiator M.O**. and Oladosu S.O (2018). Deployment of global navigation of satellites system real time kinetics methodology for rapid 3D data collection in parts of Asaba metropolis for mapping erosion prone areas. University of Benin Journal of science and Technology, (In press).

5a. **External Externership:** Nil

b. **Membership of learned societies**

National Association of Petroleum Explorationists (NAPE) 1998

Society of Petroleum Engineers (SPE) 2001

Federated Internationale de Geophysique (FIG) 2006

Nigerian Mining Geosciences (NMGS) 2013

Institute Of Physics (IOP) 2012

Nigeria Association of Geodesy 2017

c. **LETTER OF COMMENDATION**

- i. From the President of Benson Idahosa University for being on duty and attending morning devotion while almost half of members of staff were absent 2005
  - ii. From the Vice Chancellor, Benson Idahosa University in accordance with directive from the Chairman of the accreditation Panel that visited when Physics, Microbiology and Biochemistry were projected for accreditation for outstanding performance as Head of Department in Benson Idahosa University and other universities visited 2015
  - iii. From the Head of Department of Basic Sciences, Dr. S.A. Uzoekwe for my outstanding performance as Head of unit of Physics 2011
- d **Any other relevant information:** Not Applicable

### **SECTION C: ADEMINISTRATIVE EXPERIENCE**

- I. Unit Head of Physics: 2007 to 2013
- II. Ag. Head of Department of Basic Sciences 2013 to 2016
- III Ag. Dean of Faculty of Basic and Applied Sciences 2016 to 2017
- iv. Course Adviser, 2004 to 2012
- v. Senate Representative school of Post Graduate studies 2019 till date
- vi. Dean of Students' Affairs 2020 till date

#### **2. Service to university:**

- v. Vice Chancellor's representative to Faculty of Agriculture 2013 to 2017
- vi. Vice Chancellor's representative to Faculty of Engineering 2016 to 2017
- vii. Member of senate. 2013 till date
- viii. Member of Board of Directors, school of Basic studies 2005 to 2007
- ix. Chairman, Public Lecture Committee, Faculty of Basic and Applied Sciences  
20012 to 2016

- x. Chairman, Seminar Committee, Department of Basic Sciences 2006 to 2009
- xi. Secretary, Postgraduate Committee, Department of Basic Sciences 2015 to 2016
- xii. Chairman Investigation Committee of faulty Generator 2015
- xiii. Member University Ceremonial committee 2012 to 2015

### 3. Service to relevant public bodies

Running a Non-Governmental Organization (I Care Home for the Needy) to meet the material needs of orphans, widows and poor school children, situated at Eyaen Community in Uhumwode L.G.A

### 4. REFEREES

- |                            |   |
|----------------------------|---|
| Prof. J.O. Ehiorobo        | Former Deputy Vice Chancellor, University of Benin<br>Jacehi@uniben.edu         |
| Prof. F.O.J. Oboh          | Department of Biological Sciences Benson Idahosa University<br>foboh@biu.edu.ng |
| prof. R. Ehigiator -Irughe | Head of Department of Geomatics, UNIBEN<br>raphaelehigiator@uniben.edu.ng       |

Prof. (Mrs) M.O. Ehigiator