

CURRICULUM VITAE

Personal Data

Name: **Onwuka, Obialo Solomon** (Professor of Hydrogeology)

Place of Birth: Amaokwe - Amaba, Isuikwuato, Abia State

Date of Birth: 9th January, 1964

Nationality: Nigerian

State: Abia

Local Government Area: Isuikwuato

Permanent Home Address: Amaokwe - Amaba, Isuikwuato, Abia State

Contact Address: Department of Geology

University of Nigeria,

Nsukka

Phone No.: 08062171464; 08074107900

E-mail Addresses: solomon.onwuka@unn.edu.ng; solomon.onwuka@gmail.com

Marital Status: Married (with four children)

Educational Qualifications:

Ph.D (Hydrogeology), University of Nigeria, Nsukka, 2014

M.Sc. (Hydrogeology), University of Nigeria, Nsukka, 1998

B.Sc. (Hons) Geology, Second Class Lower Division, University of Nigeria, 1990

G.C.E. (O/L), Secondary Technical School, Ovim-Isuikwuato, 1982

Professional Work Experience:

*University of Nigeria, Nsukka (**Lecturer**, 2004-Date)

Courses Taught: Hydrogeology, Environmental Geology, Aerogeology, Physical Geology, Mineral Resources, PG courses in Hydrogeology and Environmental Geology (e.g., Groundwater Management and Evaluation, Contaminant Hydrogeology, Hydro/Environmental Geochemistry, Regional Hydrogeology, Mathematical Modelling, and Water Data Interpretation)

*Centre for Environmental Management and Control (CEMAC), University of Nigeria, Enugu Campus (**Research Fellow**, 2006-2008; **Senior Lecturer**, 2020-Date)

*Geoprojects Ltd, Kano (**Senior Hydrogeologist**, 1999-2001)

*Hydroline Company Ltd, Asaba (**Hydrogeologist**, 1992-1994)

*Water Surveys (Nig.) Ltd, Kaduna (**Rig Inspector**, 1992)

*Federal University of Technology, Yola (**Graduate Assistant (Undefined)**, 1990-1991)
National Youths Service Corp (NYSC) member

Publications: 42 (including one chapter in a book)

Professional Memberships:

*Council of Mining Engineers and Geoscientists (COMEG)

*Nigerian Mining and Geosciences Society (NMGS)

*Nigerian Association of Hydrogeologists (NAH)

Special Appointments/Services

*Acting Head of Department (2017/2018 & 2018/2019) – Department of Geology, UNN

*Sabbatical Appointment (2015/2016) – Nasarawa State University, Keffi (NSUK)

*Member – Committee of Consultative Experts on National Groundwater Assessment Strategic Plan (2021-)

Hobbies:

Watching Sports on Television, Trekking

References:

*Emeritus Prof. K. Mosto Onuoha (FAS, FNMGS, FNAPE)

Department of Geology
University of Nigeria, Nsukka
08037793601

*Prof. A.W. Mode (FNAPE)

Department of Geology
University of Nigeria, Nsukka
08038070489

*Prof. J.C. Agunwamba

Department of Civil Engineering
University of Nigeria, Nsukka
08035644561

ONWUKA, O. SOLOMON (PUBLICATIONS)

1. Ekwe, A. C., Azuoko, G., Omonona, O. V., **Onwuka, O. S.** and Onwuka, J., 2021. Hydrogeophysical Investigation of Fractured Shale Aquifers in Ikwo and Environs, South-Eastern Nigeria. *In* Ali Al-Maktoumi, Osman Abdalla, Anvar Kacimov, Slim Zekri, Mingjie Chen, Talal Al-Hosni and Kaveh Madani (Eds), *Water Resources in Arid Lands: Management and Sustainability (Advances in Science, Technology & Innovation)*, Springer, pages 363 – 372.
2. Enigwe, M. T., **Onwuka, O. S.** and Egbueri, J. C., 2021. Geochemical Distribution, Statistical and Health Risk Assessment of Toxic Elements in Groundwater from a Typical Mining District in Nigeria. *Environmental Forensics*, 14p. <https://doi.org/10.1080.15275922.2021.1907822>.
3. **Onwuka, O.S.**, Ezugwu, C. K. and Okpe, K. C., 2021. Groundwater Source Evaluation and Quality Checks for Drinking and Irrigation Uses in Eha-Amufu and Environs, Eastern Nigeria. *Environmental Forensics*, 18p. <https://doi.org/10.1080/15275922.2021.1884625>.
4. Egbueri, J. C., Ezugwu, C. K., Unigwe, C. O., **Onwuka, O. S.**, Onyemesili, O. C. and Mgbenu, C. N., 2020. Multidimensional Analysis of the Contamination Status, Corrosivity and Hydrogeochemistry of Groundwater from Parts of the Anambra Basin, Nigeria. *Analytical Letters*, 32p. <https://doi.org/10.1080/00032719.2020.1843049>.
5. Ogbonnaya, I., Ugwuoke, I. J., **Onwuka, S.** and Ozioko, O., 2020. GIS-based Gully Erosion Susceptibility Modeling Adapting Bivariate Statistical Method and AHP Approach in Gombe Town and Environs, Northeast Nigeria. *Geoenvironmental Disasters*, volume 7, number 32, 16p. <https://doi.org/10.1186/s40677-020-00166-8>.
6. Ogbueri, J. C., Ameh, P. D., Ezugwu, C. K. and **Onwuka, O.S.**, 2020. Evaluating the Environmental risk and Suitability of Hand-dug Wells for Drinking Purposes: A Rural Case Study from Nigeria. *International Journal of Environmental Analytical Chemistry*, 22p. DOI:10.1080/03067319.2020.1800000.
7. Ozioko, O. H., **Onwuka, S. O.** and Ezugwu, C. K., 2020. Micropaleontological Analysis of Rocks of Mbakwah and Environs, Gboko, Southeast Nigeria. *Global Journal of Science Frontier Research: H Environmental & Earth Science*, volume 20, issue 4, version 1.0, pages 53 – 66. DOI: 10.17406/GJSFR.
8. **Onwuka, O. S.**, Ekwe, A. C., Omonona, V.O. and Alkali, Y. N., 2020. An Appraisal of the Hanging Well Problem within Kano Town, North-western Nigeria. *FUAI Journal of Science and Technology*, volume 4, number 1, 8p.
9. Goki, N. G., **Onwuka, S. A.**, Oleka, A. B., Iyakwari, S., Tanko, I. Y., Kana, A. A., Umbugadu, A. A. and Usman, H. O., 2020. Preliminary Geological Evidence for Multiple Tremors in Kwoi, Central Nigeria. *Geoenvironmental Disasters*, volume 7, issue 22, 10p. <https://doi.org/10.1186/s40677-020-00156-w>.
10. Akaerue, E.I. and **Onwuka, O.S.**, 2019 (Special Edition). *EARTH-VAS 2 Model Parameters: An Answer to Complex Aquifer Vulnerability Studies*. *International Journal of Natural and Applied Sciences (IJNAS)*, volume 12, pages 29 – 38.
11. Igwe, O., Ifediegwu, S. I., and **Onwuka, O. S.**, 2020. Determining the occurrence of potential groundwater zones using integrated hydro-geomorphic parameters, GIS and remote sensing in

Enugu State, Southeastern Nigeria. Sustainable Water Resources Management, volume 6, number 39, 14p. <https://doi.org/10.1007/s40899-020-00397-5>.

12. Ezugwu, C. K., **Onwuka, O. S.**, Egbueri, J. C., Unigwe, C. O. and Ayojoto, D. A., 2019. Multi-criteria approach to water quality and health risk assessment in a rural agricultural province, southeast Nigeria. HydroResearch, volume 2, pages 40 – 48. <https://doi.org/10.1016/j.hydres2019.11.005>
13. **Onwuka, O. S.**, Umar, N. D., Omonona, O. V. and Idris, I. G., 2019. Heavy metals and rare earth elements distribution in the brine field of Awe, Keana and Giza, central Benue Trough, Nigeria. Journal of African Earth Sciences 157 (2019) 103514, 13p. <https://doi.org/10.1016/j.jafrearsci.2019.103514>. (S:1.633)
14. **Onwuka, S. O.** and Ezugwu, C. K., 2019. Multivariate statistical assessment and spatial distribution of groundwater contamination in Neke and its environs, south-east Nigeria. International Journal of Physical Sciences, volume 14 (8), pp. 62 – 80. DOI: 10.5897/IJPS2019.4798. Article Number: EE4b30460936. ISSN:1992 – 1950. <http://www.academicjournals.org/IJPS>.
15. **Onwuka, O. S.**, Echezona, E. P. and Ezugwu, C. K., 2018. Hydrogeology of Uburu and Environs, Southern Eastern Nigeria. Communication in Physical Sciences, volume 3, number 1, pages 67 – 75.
16. Ekwe, A. C., Opara, A. I. and **Onwuka, O. S.**, 2018. Geoelectrical study of corrosivity and competence of soils within Uburu and Okposi areas of Ebonyi State, Southeastern Nigeria. Anti-Corrosion Methods and Materials, 10p. doi.org/10.1108/ACMM-05-2018-1936. Permanent link to this document: <https://doi.org/10.1108/ACMM-05-2018-1936>. (S:073)
17. **Onwuka, O. S.**, Ezugwu, C. K. and Ifediegwu, S. I., 2018. Assessment of the impact of onsite sanitary sewage system and agricultural wastes on groundwater quality in Ikem and its environs, south-eastern Nigeria. Geology, Ecology, and Landscapes, 18p. <https://doi.org/10.1080/24749508.2018.1493635>.
18. **Onwuka, O. S.**, Igwe, O., Ifediegwu, S.I. and Uwom, C. S., 2018. An assessment of the effectiveness of drilling waste treatment process in X-gas field, Niger Delta, Nigeria. Geology, Ecology, and Landscapes, 16p. <https://doi.org/10.1080/24749508.2018.1473751>
19. **Onwuka, O. S.**, Onuoha, K. M. and Omonona, O. V., 2018. Assessment of soil contamination at the central sewage treatment plant, University of Nigeria, Nsukka. Geosciences Journal, vol. 22, no. 1, pp.131 – 144. <https://dx.doi.org/10.1007/s12303-017-0023-7>. (S:1.49)
20. **Onwuka, O. S.** and Omonona, O. V., 2017. Hydrogeochemical characteristics of coastal aquifers from Port Harcourt, Southern Nigeria. Environmental Earth Sciences, vol.76: 609, 16p. DOI 10.1007/s12665-017-6933-x. (S:1.871)
21. Ukpai, S. N., Okogbue, C. O. and **Onwuka, O. S.**, 2017. Analysis of hydrogeochemical facies in groundwater of Upper part of Cross River Basin, Southeastern Nigeria. Journal of African Earth Sciences, vol.131, pp.145 – 155. <https://doi.org/10.1016/j.jafrearsci.2017.04.007>. (S:1.633)

22. Anyiam, O. A., Moghalu, O.A. and **Onwuka, O.S.**, 2017. Petrography and depositional environments of the sandstones in areas around Abuul, in Ushongo, southern Benue Trough, Nigeria. *Global Journal of Geological Sciences*, vol.15, pp.13 – 23.
23. Akpah, F. A., **Onwuka, O. S.**, and Oha, I. A., 2017. Hydrogeochemical investigation and characterization of shallow groundwater within Ankpa Town, North Central Nigeria. *International Journal of Physical Sciences*, vol. 12, number 5, pp.60 – 73. DOI: 10.5897/IJPS2016.4595.
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26. Amah, J. I., Okoye, E. I. and **Onwuka, O. S.**, 2016a. Statistical Modeling of the hydrostratigraphy and hydraulics of the Cretaceous aquifers in Nsukka, North of the Anambra Basin, Southeast Nigeria. *Advances in Applied Science Research*, vol. 7, no. 4, pp.32 – 41.
27. Amah, J. I., Okoye, E. I. and **Onwuka, O. S.**, 2016b. The use of Mathematical Models in the Analysis of Flow in a Regional Water Table aquifer in Nsukka Area, Southeast Nigeria. *Journal of Natural Sciences Research*, vol. 6, no. 10, 10p.
28. Igwe, O., Omonona, V., **Onwuka, S.** and Nnebedum, O., 2014. Evaluation of the impact of asbestos wastes on soils in Emene-Enugu, Southeastern Nigeria. *Environmental Monitoring and Assessment*, DOI: 10.1007/s10661-014-3987-z. (S: 1.959)
29. Omeje, M., Husin, W., Ibrahim, N., Oha, I.A., **Onwuka, O.S.** and Sabri, S., 2014. Integrated geoelectrical and structural studies for groundwater investigation in parts of Abuja, North Central Nigeria. *Near Surface Geophysics*, vol. 12, no.4 pp. 515-521. doi:10.3997/1873-0604.2014007 (S: 1.061)
30. Omonona, O.V., **Onwuka, O.S.** and Okogbue, C.O., 2014. Characterization of groundwater quality in three settlement areas of Enugu metropolis, southeastern Nigeria, using multivariate analysis. *Environmental Monitoring and Assessment*, vol. 186, pp. 651-664. DOI 10.1007/s10661-013-3405-y (S: 1.959)
31. **Onwuka, O.S.**, Ekwe, A.C. and Adimonye, O.J., 2013. Geoelectrical and hydrogeological assessment of the groundwater potentials of Ehandiagu, Enugu State, southeastern Nigeria. *Jordan Journal of Earth and Environmental Sciences*, vol.5, no. 2, pp.63 – 71.
32. Ayuba, R., Omonona, V.O. and **Onwuka, O.S.**, 2013. Assessment of groundwater quality of Lokoja basement area, North-central Nigeria. *Journal of the Geological Society of India*, vol. 82, pp. 413-420. DOI: [10.1007/s12594-013-0168-6](https://doi.org/10.1007/s12594-013-0168-6) (S: 0.994)

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34. **Onwuka, O.S.**, Omonona, O.V. and Anika, O.C., 2013. Hydrochemical characteristics and quality assessment of regolith aquifers in Enugu metropolis, Southeastern Nigeria. *Environmental Earth Sciences*, vol. 70, pp. 1135-1141. DOI 10.1007/s12665-012-2200-3 (S: 1.871)
35. **Onwuka, O.S.**, Eze, C.S. and Ekwe, A.C., 2010. Application of chemometric technique in the assessment of groundwater quality in Udi and its Environs, Southeastern Nigeria. *Jordan Journal of Earth and Environmental Sciences*, vol.3, no.2, pp. 89-104.
36. Mode, A. W., Onokwai, N.G., **Onwuka, O.S.**, Ekwe, A.C. and Oha, I.A., 2010. Integrating geographic information system (GIS) and hydrochemistry for heavy metal pollution studies: the case of Ubeji and Omadino areas of Delta State, Southern Nigeria. *Journal of Geology and Mining Research*, vol.2, no.7, pp. 183-196.
37. Ekwe, A.C., Nnodu, I.N., Ugwumba, K.I. and **Onwuka, O.S.**, 2010. Estimation of aquifer hydraulic characteristics of low permeability formation from geosounding data: a case study of Oduma Town, Enugu State. *Online Journal of Earth Sciences*, vol.4, no. 1, pp.19-26.
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41. Obiora, D.N. and **Onwuka, O.S.**, 2005. Groundwater exploration in Ikorodu, Lagos-Nigeria: a surface geophysical contribution. *Pacific Journal of Science and Technology*, vol.6, no.1, pp. 86-93.
42. **Onwuka, O.S.**, Uma, K.O. and Ezeigbo, H.I., 2004. Potability of shallow groundwater in Enugu Town, Southeastern Nigeria. *Global Journal of Environmental Sciences*, vol.3, nos. 1&2, pp. 33-39.