**ACADEMIC  
CURRICULUM VITAE**

**1. Name - Surname:** Ikenna Desmond Uwanuakwa

**2. Title: Asst.Prof.Dr**

**3. Educational Background:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Degree** | **Department/Program** | **University** | **Year** |
| Bachelor’s | Architecture | Federal Polytechnic Nekede-Nigeria | 2007 |
| Bachelor’s | Civil Engineering | Michael Okpara University of Agriculture-Nigeria | 2014 |
| Master’s | Civil Engineering | Near East University | 2016 |
| PhD | Civil Engineering | Near East University | 2021 |

**4. Master’s / PhD Thesis**

**4.1.Master’s Thesis Title and Thesis Advisor(s):** Investigations on the Prediction of Concrete Carbonation Depth by Artificial Neural Networks / Assoc. Prof. Dr. Pinar Akpinar

**4.2.PhD Thesis /Medical Specialty Thesis Title and Advisor(s):** Investigation on the performance of polymer modified asphalt binder / Assoc. Prof. Dr. Shaban Ismael ALBRKA

**5. Academic Titles:**

Date of Assistant Professorship: 24/03/2022

Date of Associate Proferssorship:

Date of Professorship:

**6. Supervised Master’s and PhD Theses:**

**6.1.** Master’s Theses

1. Effect Of Covıd-19 On The Vehıcle Accıdent Severıty: A Case Study New York Cıty (2023)
2. Effects Of Activation Function On The Performance Of Multi-Classifier Of Concrete Defects (2023)
3. Effect of Covid-19 on vehicle-cyclist collision (2023)

**6.2.** PhD Theses

**7. Publications**

**7.1. Articles Published in International Peer-Reviewed Journals (SCI,SSCI, AHCI, ESCI, Scopus)**

1. Umba, L. N., Amir, I. Y., Gelete, G., Gökçekuş, H., & **Uwanuakwa**, I. (2023). Artificial hummingbird algorithm-optimized boosted tree for improved rainfall-runoff modelling. *Journal of Hydroinformatics*, jh2023187. **SCIE Q2**
2. Mohd Ghazali, M. F. H., Mohd Hasan, M. R., Abu Seman, A., Salleh, A. H., Mukhtar, N., Osman, H., & **Uwanuakwa**, I. D. (2023). The effect of corrosion on the capability of asphalt mortar to induce healing via microwave heating system. Construction and Building Materials, 407, 133495. https://doi.org/10.1016/J.CONBUILDMAT.2023.133495 **SCIE Q1**
3. **Uwanuakwa**, I. D., Adamu, M., Ali‬, S. I. A., Akpinar, P., Hasan, M. R. M., Shariff, K. A., Umar, I. K., & Haruna, S. I. (2023). Effect of polymer molecular weight on the rheology of SBS polymer-modified asphalt binder. Innovative Infrastructure Solutions, 8(3). – **ESCI  Q3**
4. **Uwanuakwa**, I.D., Busari, A., Ali, S.I.A., Hasan, M.R.M., Sani, A., Abba, S.I. (2022). Comparing machine learning models with Witczak NCHRP 1-40D model for hot-mix asphalt dynamic modulus prediction. Arabian Journal for Science and Engineering*. –* **SCIE Q2**
5. **Uwanuakwa**, I. D. (2021). Deep learning modelling and generalisation of carbonation depth in fly ash blended concrete. Arabian Journal for Science and Engineering, - **SCIE Q2**
6. **Uwanuakwa**, I. D., Ali, S. I. A., Hasan, M. R. M., Akpinar, P., Sani, A., & Shariff, K. A. (2020). Artificial Intelligence Prediction of Rutting and Fatigue Parameters in Modified Asphalt Binders. Applied Sciences 2020, Vol. 10, Page 7764, 10(21), 7764. - **SCIE Q2**
7. Akpinar, P., & **Uwanuakwa**, I. D. (2020). Investigation of the parameters influencing progress of concrete carbonation depth by using artificial neural networks. Materiales de Construcción, 70(337), 209 - **SCIE Q3**
8. **Uwanuakwa**, I. D., Idoko, J. B., Mbadike, E., Reşatoğlu, R., & Alaneme, G. (2022). Application of deep learning in structural health management of concrete structures. **(SCOPUS)** – **ESCI  Q4**
9. Sani, A., Hasan, M. R. M., Shariff, K. A., Mukhtar, N., Akhtar, M.N., **Uwanuakwa**, I.D., Dai,Q., Wong, T.L.X. (2023). Analytical Study of Silane-based and Wax-based additives on the Interfacial Bonding Characteristics between Natural Rubber Modified Binder and Different Aggregate Types. *Journal of Road Engineering*. **(SCOPUS)**
10. Akpinar, Pinar, & **Uwanuakwa**, I. D. (2016). Intelligent prediction of concrete carbonation depth using neural networks. *Bulletin of the Transilvania University of Braşov. Series III: athematics•Informatics• Physics*, *9*(2), 99–108. **(SCOPUS)**
11. **Uwanuakwa**, I. D., Isienyi, U. G., Bush Idoko, J., & Ismael Albrka, S. (2020). Traffic Warning System for Wildlife Road Crossing Accidents Using Artificial Intelligence. In International Conference on Transportation and Development 2020: Transportation Safety - Selected Papers from the International Conference on Transportation and Development 2020 (pp. 194–203). American Society of Civil Engineers (ASCE). **(SCOPUS)**
12. **Uwanuakwa**, I. D., & Akpinar, P. (2019). Investigations on the influence of variations in hidden neurons and training data percentage on the efficiency of concrete carbonation depth prediction with ANN. In *Advances in Intelligent Systems and Computing* (Vol. 1095 AISC, pp. 958–965). Springer**(SCOPUS)**

**7.2**. **Articles Published in Other International Peer-Reviewed Journals**

1. K Onyelowe, K Onwa, I **Uwanuakwa** (2018) Predicting the behaviour of stabilized lateritic soils treated with green crude oil (GCO) by analysis of variance approaches*. International Journal of Mining and Geo-Engineering 52 (1), 37-42*

**7.3. Papers Presented at International Scientific Confererences and Published in Conference Proceedings**

**7.4. National/international Books or Book Chapters**

**7.5. Articles Published in National Peer-Reviewed Journals**

**8. Art and Design Activities**

**9. Projects**

**10. Administrative Responsibilities**

**11. Memberships in Scientific and Professional Organizations**

RILEM TC MCP WG2

**12. Awards**

**13. Undergraduate and Graduate Courses Taught in the Last Two Years**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Academic Year** | **Semester** | **Course Name** | **Weekly Hours** | | **Number of Students** |
| **Theoretical** | **Practical** |
| **2021 - 2022** | **Fall** | Material Science |  |  | 28 |
| **Fall** | Statics |  |  | 25 |
| **Fall** | Engineering Hydrology |  |  | 26 |
| **Fall** | Graduation Project |  |  | 13 |
| **Fall** | Chemical Processes |  |  | 3 |
| **Spring** | Materials of Construction |  |  | 18 |
| **Spring** | Hydromechanics |  |  | 41 |
| **Spring** | Engineering Hydrology |  |  | 34 |
| **Spring** | Technical Drawing |  |  | 25 |
| **Spring** | Dynamics |  |  | 72 |
|  |  |  |  |  |
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| **2022 - 2023** | **Fall** | Hydromechanics |  |  | 34 |
| **Fall** | Chemical Processes |  |  | 3 |
| **Fall** | Statics |  |  | 24 |
| **Fall** | Material Science |  |  | 38 |
| **Fall** | Foundation Engineering |  |  | 35 |
| **Spring** | Computer Application in Civil Engineering |  |  |  |
| **Spring** | Foundation Engineering |  |  |  |
| **Spring** | Technical Drawing |  |  |  |
| **Spring** | Materials of Construction |  |  |  |
| **Spring** | Cementitious Materials |  |  |  |
| **Spring** | Advanced Computer Application in Civil Engineering |  |  |  |