**COLLEGE OF POSTGRADUATE STUDIES**

**NNAMDI AZIKIWE UNIVERSITY**

**AWKA**

**PROFILING OF POSTGRADUATE SUPERVISORS**

**List of Potential Supervisors (According to Faculty & Department)**

1. **FACULTY OF ENGINEERING**
2. **Department of Mechanical Engineering**

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| **S/N** | **Potential Supervisor** | **Rank** | **Research Expertise and Interests** | **Programme Approved to Supervise** | **Ten Key Publications** **in Specialty Area(s)** | **E-mail****(UNIZIK only)** |
| 1. | Christian Emeka Okafor | Senior Lecturer  | * Finite Element Stress Analysis, Theory and Applications
* Composites Design and Manufacturing
* Advanced Materials/Products Design, Synthesis, Processing and Optimization
* Machine learning strategies for materials and product design
 | PGD& Masters | * **Okafor, C. E.,** Okafor, E. J, and Ikebudu K. O. (2021). Evaluation of machine learning methods in predicting optimum tensile strength of microwave post-cured composite tailored for weight-sensitive applications. *Engineering Science and Technology, an International Journal.* *Elsevier*. <https://doi.org/10.1016/j.jestch.2021.04.004>.
* **Okafor, C. E.,** Onovo, A. C., Imoisili, P. E, Kulkarni K. M., and Ihueze C. C (2021). Optimal route to robust hybridization of banana-coir fiber particulate in polymer matrix for automotive applications. *Materialia 16, 101098, Elsevier*. DOI: [10.1016/j.mtla.2021.101098](http://dx.doi.org/10.1016/j.mtla.2021.101098)
* IhuezeC. C, **Okafor, C. E.,**, Obuka S. N., AbdulrahmanJ.and Onwurah U. O. (2021). Integrity and cost evaluation of natural fibers/HDPE composite tailored for piping applications. *Journal of Thermoplastic Composite Materials*. *Sage*. *XX(X),* 1–27. DOI: 10.1177/08927057211010878
* **Okafor, C. E.,** Okonkwo U. C, and Okokpujie I, P. (2021). Trends in reinforced composite design for ionizing radiation shielding applications: A review. *Journal of Materials Science*, 56(20), 11631-11655, *Springer*. https://doi.org/10.1007/s10853-021-06037-3
* **Okafor, C. E**., and Ihueze C. C. (2021). The graft of ANN-FEM technique in macro-mechanics of multi-oriented natural fiber/polyester laminates. *Mechanics of Advanced Composite Structures.*  8 (2021) 51-68. doi: 10.22075/macs.2021.20579.1263
* **Okafor, C. E**., Onovo A. C. and Ihueze C. C. (2020). Predictive energy requirement models in bio-fiber comminution process. *SN Applied Sciences.* *Springer*. 2,2047. DOI: 10.1007/s42452-020-03781-0.
* **Okafor, C. E**., Oghenemaero, O. O., Chukwuebuka, M., & Isaac, O. O. (2020). Adaptive Design of a Universal Automotive Ball Joint Separating Device. *Transportation Engineering*, *Elsevier*. 2, 100010. DOI: 10.1016/j.treng.2020.100010
* **Okafor, C. E.,** & Ihueze, C. C. (2020). Strength analysis and variation of elastic properties in plantain fiber/polyester composites for structural applications*,* in Tri-Dung Ngo (Ed.), *Composite and Nanocomposite Materials - From Knowledge to Industrial Applications* (pp. 1-23). London, *IntechOpen*, DOI: 10.5772/intechopen.90890.
* **Okafor, C. E.,** & Metu, C. S. (2019). Theoretical fatigue response of plantain fiber based composites in structural applications. In Zingoni A (Ed.), *Advances in Engineering Materials, Structures and Systems: Innovations, Mechanics and Applications* (pp. 638-643). London: *Taylor & Francis Group*. DOI: 10.1201/9780429426506-112.
* Christopher C. Ihueze, **Christian E. Okafor**, Chris I. Okoye (2015). Natural Fibers Composites Design and Characterization for Limit Stress Prediction in Multiaxial Stress State. *Journal of King Saud University - Engineering Sciences*, *Elsevier*. 27, 193–206. http://dx.doi.org/10.1016/j.jksues.2013.08.002.
 | ce.okafor@unizik.edu.n |
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