
CURRICULUM VITAE: Engr. Dr. Charles U. Orji
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Tel: +234(0)7033807770; +234(0)808518890



A. PERSONAL DATA:

- | | | |
|--------------|--------------------------|---|
| i. | Name (Surname Last): | CHARLES UGOCHUKWU ORJI |
| ii. | Date of Birth: | 12 th , January 1974. |
| iii. | Place of Birth: | Port Harcourt |
| iv. | State and LGA of Origin: | Rivers State, Ogba/Egbema/Ndoni LGA |
| v. | Nationality: | Nigeria |
| vi. | Marital status: | Married |
| vii. | Address: | Plot 131, Eagle Island Port
Harcourt, Rivers State, Nigeria. |
| viii. | Contact Address: | Department of Marine Engineering, Faculty of
Engineering, Rivers State University, Port
Harcourt. |
| ix. | Employer/Present Status: | Rivers State University, SENIOR LECTURER,
Marine Engineering. |

B. SKILLS

- Effective English oral and written communication ability.
- Sound Analytical and Numerical skills.
- Organizing, directing and Leadership skills.
- Dependable team player with high ethical standard and integrity
- High Computer proficiency with good Numerical analysis background.

C. ACADEMIC QUALIFICATIONS:

- **Doctor of Philosophy, Ph.D.**, Marine Technology (Offshore Engineering & Naval Architecture) – July 2019; Newcastle University, United Kingdom.

Title of Thesis- *Motion Response Analysis of FPSO in Multidirectional Seas: The*

West African Offshore Region

- **Master of Science, M.Sc.** (Mechanical Engineering) – October 2005; University of Northumbria, United Kingdom. [Distinction, *CHANDRA PONNUSAMY AWARD* for Excellent Academic Performance for the Overall Best Academic Performance]

Title of Dissertation- *Localised Technique for the Investigation of Pitting Corrosion on Stainless Steel and Aluminium in Aqueous Solution*

- **Bachelor of Technology, B. Tech.**, (Marine Engineering) – February 1998, Rivers State University of Science & Technology, Port Harcourt. [Second Class Upper Division, *NNAMDI OZOBIA PRIZE* for the Best Graduating Student, Marine Engineering Department, 1998]

Title of Thesis- *Torsional Vibration Analysis of a Single Screw Diesel Direct Drive Propulsion System of an Ocean Going Vessel (Computer Aided)*

- **Senior School Certificate (SSCE)**, September 1991. By the West African Examination Council. [Excellent; Overall Best Student in Enitonna High School, Borikiri, Port Harcourt; SSCE, 1991]
- **Junior Secondary School Certificate (JSSCE)**, September 1988 by the Ministry of Education, Rivers State [Excellent; Overall Best Student in Enitonna High School, Borikiri, Port Harcourt, 1988]

D. MEMBERSHIP OF RELEVANT PROFESSIONAL BODY(IES):

- Registered Engineer, Council for the Regulation of Engineering in Nigeria (COREN), R. 16776
- Corporate Member, Nigerian Society of Engineers (NSE), R.19805
- Associate Member, Royal Institute of Naval Architects (RINA) No. 00360059 - Member Technical Committee, NSE PH Branch, Feb. 2010 - Assistant Secretary, NSE, Omoku branch 2012.

E. TEACHING AND PROFESSIONAL EXPERIENCE:

- | | | |
|-------------|--|--|
| i. | July 2000-October 2005

Position | Department of Marine Engineering
Rivers State University of Science and
Technology,
GRADUATE ASSISTANT |
| ii. | October 2005-June 2010

Position | Department of Marine Engineering
Rivers State University of Science and
Technology,
ASSISTANT LECTURER |
| iii. | June 2010-October 2013

Position | Department of Marine Engineering
Rivers State University of Science and
Technology,
LECTURER II |

- | | | |
|-------|---|--|
| iv. | 2010-2013

Position | Department of Marine Engineering
Maritime Academy of Nigeria (MAN), Oron,
Akwa Ibom State,
Adjunct LECTURER |
| v. | October 2013-October 2020

Position | Department of Marine Engineering,
Rivers State University of Science and
Technology,
LECTURER I |
| vi. | October 2018-date

Position | Centre of Excellence, Marine and Offshore
Engineering, RSU, PH.
LECTURER |
| vii. | October 2020-date

Position | Department of Marine Engineering
Rivers State University of Science and
Technology,
SENIOR LECTURER |
| viii. | February 1998-July 2000

Position | Ham Dredging Nigeria Limited, Abuloma, Port
Harcourt, Rivers State,
MARINE ENGINEER ASSISTANT (MEA) |
| ix. | 2018/2019 and 2019/2020
Academic session
Position | Federal College of Fisheries and Marine
Technology, Victoria Island, Lagos, Nigeria.
EXTERNAL EXAMINER, National Diploma
(ND) Marine Engineering. |

F. COURSES TAUGHT AT THE UNIVERSITY/INSTITUTION ENGAGED

i. Teaching of Undergraduate Courses:

“Applied Mechanics”, “Heat transfer and Heat Exchangers”, “Ship Propulsion”, “Air Condition and Refrigeration”, “Ship Power Plant”, “Ship Automation”. Etc

ii. Teaching of Post Graduate Courses:

“Dynamics of Offshore Structure”, “Design of Offshore Structure”, “Marine Structural Mechanics”, “Experimental Methods in Marine & Offshore Engineering”, “Floating Offshore Structures”, etc.

iii. Supervision of undergraduate final year project.

- iv. Supervision and Co-supervision of Post-Graduate (PGD, M. Tech, and PhD projects).
- v. Support supervision and assessment of undergraduate and post graduate students under my PhD supervisors at Newcastle University (2014-2018)

G. UNIVERSITY ADMINISTRATION:

- i. Director, Centre of Excellence in Marine/Offshore Engineering, RUS,PH (Nov.1 -date)
- ii. Ag. Head of Department (Feb. 2021-Nov 2021).
- iii. Post Graduate Coordinator, Centre of Excellence, Marine/Offshore Engineering, RSU, PH. (2019-date).
- iv. Exams and records officer, Marine Engineering Department (2006-2013)
- v. Member, Exams board, Faculty of Engineering (2006-2013)
- vi. Member (Secretary), Faculty sub-committee on sexual harassment investigation (2012)
- vii. Member, Engineering Conference Committee, 2020
- viii. Chairman, Publicity Sub-Committee, Engineering Conference Committee, 2020.
- ix. Academic Adviser to Year 4 Students of the Marine Engineering Department 2019-2021.

H. COMPUTER PROFICIENCY:

High and appreciable knowledge in computer appreciation, Micro-soft Disk Operating System, Micro-soft windows, Micro-soft words, excel, QBasic programming, MATLAB, etc.

Good adaptability to computer packages for Engineering analysis. Have done modelling on programs such as **FLUENT/GAMBIT** (CFD analysis), **SOLIDWORKS**, **COSMOS EXPRESS** (Mechanical & Thermal analysis), **ABAQUS**, **ELFEN** (Finite element analysis for materials modelling). **SESAM DnV** software for hydrodynamic simulation of floating and fixed Offshore structures. **ORCAFLEX** software for risers and mooring systems. Proficient in MATLAB.

I. COMMUNITY SERVICES:

- i. Regular conscientization of students to adhere to University policies in all their day to day activities within and outside the University.
- ii. Participation in election duties (INEC); Returning Officer: Andoni-Opobo Federal constituency-2011, Returning Officer: Abonema constituency II R/S

house of assembly. LGA Collation officer: Sagbama-Ekeremor Federal constituency. Ward collation officer, etc.

- iii. Guest Lecturer, on the welcoming of the Pioneer students, Federal Polytechnique of Oil and Gas, Ekowe, Bayelsa State, Topic: "Safety Tips on our Water Ways" 2012.

J. PUBLICATIONS IN REFEREED JOURNALS

1. Orji, U. Charles, Dokubo, K. Daniel, Ibitoru F. Dick (2021), 'Operational Station Horizontal Plane Motion Maneuvering of FPSO in Shallow and Deep Water,' *American Journal of Engineering Research (AJER)* 2021 *American Journal of Engineering Research (AJER)*, e-ISSN:2320-0847 p-ISSN:2320-0936 Volume-10, Issue-6, pp-108-122 www.ajer.org.
2. Apresai, E. P., Ibiba, D.E., Orji, C.U. (2020), 'Wave Effects on Varying Wave Motion Directions and Water Depth on the Hydrodynamic Force on Submerged Pipeline', *International Journal of Advances in Engineering and Management (IJAEM)* Volume 2, Issue 9, pp: 552-560 www.ijaem.net, ISSN: 2395-5252.
3. Victor Bassey, Charles U. Orji (2020), 'Analysis of Mooring Lines for Typical floating, Production storage and offloading (FPSO) system', *International Journal of Advances in Engineering and Management (IJAEM)* Volume 2, Issue 9, pp: 419-429 www.ijaem.net ,ISSN: 2395-5252
4. John I. Douglas, Engr. Dr. Orji Charles, Engr. I.F. Dick (2020) , 'Complementary Roll Motion Control of a Moored FPSO in Deepwater West African', , *American Journal of Engineering Research (AJER)*, e-ISSN: 2320-0847 p-ISSN : 2320-0936 Volume-9, Issue-9, pp-26-35 www.ajer.org
5. Nitonye S, Adumene S, Sigalo BM, Orji CU, Kpegele Le-ol A. (2020), 'Dynamic failure analysis of renewable energy systems in the remote offshore environments.' *Qual Reliab Eng Int.* 2020;1–15. <https://doi.org/10.1002/qre.280>.
6. Kale, L. F., Akandu E., Orji C., Chuku J. A., Ogbonnaya,(2021), 'E Static and Fatigue Analysis for Deep-Water Oilfield Steel Catenary Riser System', '*International Research Journal of Modernization in Engineering Technology and Science* Volume:03/Issue:03/March-202, e-ISSN: 2582-5208, Impact Factor- 5.354 www.irjmets.com.
7. Mac-Pepple Blessing James, Azubuike John Chuku, Charles Ugochukwu Orji (2021), 'Hull Form Optimisation for Improved Hydrodynamic Performance', *International Research Journal of Engineering and Technology (IRJET)*, e-ISSN: 2395-0056 Volume: 08 Issue: 09 | Sept 2021 www.irjet.net p-ISSN: 2395-0072.
8. Alozie Charles Edward, Engr. Dr Orji Charles (2020), 'Comparative study of Ship Response in Long and Short crested seas in Offshore West Africa', *American Journal*

9. Chinedu Nwaigwe & Charles Orji (2019), 'Second-Order Non-Oscillatory Scheme for Simulating a Pressure-Driven Flow', *The Journal of the Nigeria Association of Mathematical Physics*, Vol 52, no. 1.,pp 53-58.
10. Chinwuba Victor Ossia & Charles Ugochukwu Orji (2016). 'Investigating Pitting Corrosion of Stainless Steel and Aluminum Using Scanning Vibrating Electrode Technique and Electrochemical Noise Measurement', *International Journal of Mechanical engineering and applications* Vol. 4(2), pp 71-80. Doi:10.11648/j.ijmea.20160402.16.
11. Ukpaka P.C., Orji C.U. & Nwofor T.C., (2012), 'Studying of Proportional Integral Reset Control on Flow Characteristics on Orifice Fluid System', *International Journal of Current Research*, ISSN;0975-833X, September 2011, Vol. 3, issue 10 pp082-088. Available online: <http://www.journalcra.com>
12. Eluozor, S.N., Orji C.U. & Okonkwo B.U., (2011), 'Experimental Investigation to Determine the Corrosion Rate of Mild Steel in Ntawogba Creek in Port Harcourt Rivers State, Nigeria', *International Journal of Pharma World Research*, ISSN;0976-111X, Mar-Jun 2011, Vol.2, issue 2, pp 092-098. Available online: <http://www.ijpwr.com>
13. Ukpaka P.C., Eluozor, S.N & Orji C.U., (2011), 'Impact of Road Construction Dust on Plantain Vegetable in Port Harcourt', *International Journal of Current Research*, ISSN;0975-833X, September 2011, Vol.3, issue 10 pp092-098. Available online: <http://www.journalcra.com>
14. Ukpaka P.C., Orji C., Orji A.G.,(2014), 'The influence of Chemical and Biochemical Oxygen Demands on the Kinetics of Crude Oil Degradation in Salt Water', *Sky Journal of Biochemistry Research*, vol 3(1), pp001-013.
15. Ukpaka P.C., Orji C, (2014), 'Studying the Model that Predict and Monitor Constant Area Variable Pressure Drop in Orifice Plate', *AMSE JOURNALS –2014Series: Modelling B*; Vol. 83; N° 1; pp 36-49.
16. Ogbonnaya E.A., Ugwu H.U., Thiophillus-Johnson K. & Orji C.U.,(2010) 'Computerized Condition Monitoring of a Diesel Engine through Air Inlet Filter Analysis', *Journal of Engineering and applied Sciences (Medwell Journals)* ISSN:1816-949X, Available online: www.medwelljournals.com.
17. Ogbonnaya E.A., Ugwu H.U., Thiophillus-Johnson K., & Orji C.U.,(2010), 'Component Model-Based Condition Monitoring of a Gas Turbine', *ARPJN, Journal of Engineering and Applied Sciences* ISSN:1816-6608X, Vol 5, no.3, Available online: www.arpnjournals.com/jaes/volume_03_2010.htm
18. Thiophillus-Johnson K., Ogbonnaya E.A., Ugwu H.U., & Orji C.U.,(2010), 'Maintenance Optimization of Marine Heat Exchangers subject to Fouling', *Journal of Emerging trend in Engineering and Applied Sciences (JETEAS)*

1(2): 161-168, Scholar link research institute journals ISSN:1816-6608X, Vol 5, no.3,
Available online: www.jeteas.scholarlinkresearch.org

19. Igwe E.A., Orji C.U. and Dennis B. (2008), 'Modifying Density and Voids Properties of Bitumen Concrete using Rubber Latex', *Inter-Word Journal of Science and Technology, Nigeria*, Vol. 7 no, 3 pp 20-29, Available online: <http://www.rdurson.com>
20. Igwe E.A., Okparanma R., Dennis B., Orji C.U., (2008). 'Modifying the Voids Properties of Trafficked Pavement using Rubber Latex', *Journal of food, Agriculture and Environment (JFAE)*, Vol. 6(1)

K. REFERRED PUBLISHED CONFERENCE PAPERS

1. Ogonnaya E.A., Thiophillus-Johnson K., Orji C.U & Ugwu H.U., (2011), 'The Way Forward to Effective Marine Transport System in Nigeria,' *Paper presented in NSE AGM/Conf. and Published in the NSE Conference Proceedings (Canaan 2011)* Tinapa Report, Calabar, Cross Rivers State, 5-9 dec.2011.
2. Ogonnaya E.A., Thiophillus-Johnson K., & Orji C.U, (2011), 'Reducing the Impact of Emission on Environment from Gas Turbine Exhaust', *Paper presented at NSE AGM and International Conference (Abuja, 2010)*, held at International Conference Center Abuja 6th -10th Dec 2010.
3. Ogonnaya E.A., Thiophillus-Johnson K., Orji C.U, & Ugwu H.U., (2011), 'ICT as Engineering Strategy for Confronting Global Economic Meltdown', *Paper presented at NSE AGM/Conf. Heartland, Owerri (2011)* and published in the Nigeria Journal of Engineering of NSE.
4. Ogonnaya E.A., Ugwu H.U., Thiophillus-Johnson K., Forseman P.B & Orji C.U., (2012), 'Optimizing Gas Turbine Bearing Vibration Using 2-D D'Alembert's Equation', Published in *Proceeding of ASME Turbo Expo 2012: Shaping the future of turbine*, Bella Centre , Copenhagen, Denmark Paper # GT 2012 68213.
5. Orji C.U., (MSc Thesis, 2005) Investigating Pitting Corrosion of Stainless Steel and Aluminum Using Scanning Vibrating Electrode Technique and Electrochemical Noise Measurement, Abstract, no.9 *Presented at the 46th Corrosion Science Symposia, Manchester*, England UK, 13th -15th September, 2005.
6. Orji C.U. & Michael Woodward (2015), 'Roll Motion Analysis of FPSO from Free Decay Data in Calm Sea. Presented at the *12th International Marine Design Conference (IMDC), Tokyo*, 11th-14th May, 2015. Published in the Proceeding of 12th IMDC, VOL.3 pp313-324.
7. Nicholas Smith, Orji C.U., David G.T., Michael D.W, (2015), 'Validation of a nonlinear damping model for ship roll motion used for marine simulation', Presented at the *International Conference on Ship Manoeuvrability and Maritime Simulation (MARSIM)*, Newcastle University, United Kingdom, 8th -11th September 2015.

L. TECHNICAL/TECHNOLOGICAL REPORTS, PUBLISHED REPORTS AND MONOGRAPHS:

1. Ogbonnaya E.A., Thiophillus-Johnson K., Orji C.U, Ugwu H.U., & Woji J.N., (2011), 'Harnessing Mineral Resources for Sustainable Industrialization during Economic Meltdown', *The Nigeria Engineer, Official Magazine of NSE 001*, September 2010) pp037-041.

M. NAME AND DETAILS OF REFEREES:

1. Prof. Christopher O. Ahiakwo
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2. Dr. Ibiba E. Douglas
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3. Dr Yongchang Pu
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