CURRICULUM VITAE

Dr. Osama Mohammed Elmardi Suleiman Khayal
Associate Professor

June 2021

NATIONALITY: SUDANESE
DATE OF BIRTH: 1966
PLACE OF BIRTH: ATBARA, RIVER NILE STATE, SUDAN
EMAIL ADDRESS: osamamm64@gmail.com or osamakhayal66@nilevalley.edu.sd
MOBILE PHONE NUMBER: 00249919305570
CURRENT JOB: ASSOCIATE PROFESSOR, MECHANICAL ENGINEERING DEPARTMENT, FACULTY OF ENGINEERING AND TECHNOLOGY, NILE VALLEY UNIVERSITY

EDUCATION

2008 - 2017	Nile Valley University (NVU), Ph.D. Major: Mechanics of Materials Advisor: Prof. Mahmoud Yassin Osman, Ph.D. Co – supervisor: Associate Prof. Tagelsir Hassan, Ph.D.
2000 - 2003	Nile Valley University (NVU), M.Sc. Major: Mechanics of Materials Advisor: Prof. Mahmoud Yassin Osman, Ph.D.
1995 - 1998	Sudan University of Science and Technology (SUST), College of Engineering, B.Sc.

Major: Mechanical Engineering

ACADEMIC EMPLOYMENT

October 2019 - Present	**Dean Faculty of Engineering and Technology, Atbara**
August 2017 - Present	**Visiting Associate Professor**, Kassala and Red Sea Universities
August 2010 - May 2016	**Graduate Research Assistant**, Nile Valley University (NVU) Faculty of Engineering and Technology project entitled: "Experimental Research Work on Water Current Turbines in Atbara."
January 2010 – January 2011	**Head mechanical engineering department, Faculty of Engineering and Technology, Atbara**
July 2009 - April 2015	**Graduate Teaching Assistant/Assistant Instructor**, NVU
August 1998 - December 2008	**Graduate Teaching Assistant**, Nile Valley University, NVU

HONORS AND AWARDS

2017	**Honors Distinction** Awarded for Dissertation entitled "Biaxial buckling of thin laminated composite plates."
2003	**Outstanding Research Award** Awarded by Nile Valley University, Office of Graduate Studies.
1998	**Outstanding Graduate Student** Awarded by Sudan University of Science and Technology, College of Engineering, Department of Mechanical Engineering.

PROFESSIONAL AFFILIATIONS AND SERVICES

Ad-hoc Reviewer and Editorial Board Member

Journal of Microscopy and Ultrastructure, Elsevier
International Journal of Engineering Research and Advanced Technology
Journal of Serbian Tribology Society
NED University Journal of Research
EUROPEAN JOURNAL OF MANAGEMENT AND SOCIAL SCIENCE (EJMSS)
JOURNAL OF Mechanical and Civil Engineering (GPH)
INTERNATIONAL JOURNAL OF APPLIED SCIENCE (GPH)

Global Journal of Engineering Sciences (GJES)
IJCSMC journal
Springer Book Series Editor of Advances in Materials Research and Technology,
Paper Title: Rotational Thermomechanical Response Model on a Reflection Photothermal Diffusion Waves for Semiconductor Electro-Magnetized Medium
International Journal of Advanced Engineering and Management (IJOAEM)

Professional Organization Member

Almohandes Forum
Rearchgate
Academia.edu
Mendeley
Figshare
Scholar, google.com

Committee Member

Mechanical engineering department member (1993-till now)
Nile Valley University Senate member (2010-2012)
Faculty of engineering and technology board member (2010-2012)
Faculty of engineering and technology board member (2019-till now)
Nile Valley University senate member (2019- till now)

PUBLICATIONS

PEER-REVIEWED JOURNAL ARTICLES

[1] Khalid Muhamadin Mohamed Ahmed Bukkur, M.I. Shukri & Osama Mohammed Elmardi Suleiman, (2018). A Review for Dynamic Scheduling in Manufacturing, Global Journal of Researches in Engineering: J General Engineering, Volume 18, Issue 5, Version 1.0, And Online ISSN: 2249-4596 & Print ISSN: 0975-5861, PP. 25 – 37.

[2] Osama Mohammed Elmardi Suleiman Khayal, September (2016). ANALYSIS OF COMPOSITE LAMINATED PLATES, International Journal of Advances in Scientific Research and Engineering (IJASRE), Vol. 02, Issue 08, ISSN: 2454-8006, www.ijasre.net, PP. 24 – 41.

[3] Osama Mohammed Elmardi Suleiman Khayal & Mahmoud Yassin Osman, July (2018). Atbara Water Current Turbine, International Journal of Engineering & Computer Science (IJECS), Vol. 1 No. 1, PP. 30 – 46.

[4] Osama Mohammed Elmardi Suleiman Khayal, Mahmoud Yassin Osman & Tagelsir Hassan, (2018). BIAXIAL BUCKLING OF THIN LAMINATED COMPOSITE PLATES, International Journal of Bridge Engineering (IJBE), Vol. 6, No. 3, PP. 19 – 44.

[5] Osama Mohammed Elmardi Suleiman, (2017). BIBLIOGRAPHY AND LITERATURE REVIEW ON BUCKLING OF LAMINATED PLATES, International Journal of Bridge Engineering (IJBE), Vol. 5, No. 1, PP. 1 – 9.

[6] Mahmoud Yassin Osman & Osama Mohammed Elmardi Suleiman, March (2017). Buckling Analysis of Thin Laminated Composite Plates using Finite Element Method, International Journal of Engineering Research and Advanced Technology (IJERAT), Volume. 03 Issue.3, ISSN: 2454 – 6135.

[7] Osama Mohammed Elmardi Suleiman Khayal, October (2016). Convergence and Accuracy of Dynamic Relaxation Technique in Determination of Central Deflection of Composite Rectangular Laminates, International Journal of Scientific Research Engineering & Technology (IJSRET), ISSN 2278 – 0882, Volume 5, Issue 10, PP. 502 – 509.

[8] Osama Mohammed Elmardi Suleiman, August (2016). Deflection and Stress Analysis of Fibrous Composite Laminates, International Journal of Advanced Research in Computer Science and Software Engineering, ISSN: 2277 128X, Volume 6, Issue 8, Available online at: www.ijarcsse.com, PP. 105 – 115.

[9] Osama Mohammed Elmardi Suleiman, April (2017). Deflection of Laminated Composite Plates Using Dynamic Relaxation Method, International Journal of Physical Sciences and Engineering, e-ISSN: 2550-6943, p-ISSN: 2550-6951, Vol. 1 No. 1, PP. 40 – 53.

[10] Murtada Elshiekh, Khalid Eltayeb & Osama Mohammed Elmardi Suleiman, (2018). Development of Quality Control System for Cement Manufacturing using Software Techniques, International Journal of Advanced Engineering and Management, ISSN 2456-8066, Vol. 3, No. 4, PP. 127–133.

[11] Osama Mohammed Elmardi Suleiman, Mahmoud Yassin Osman & Tagelsir Hassan, Received Date: March 27, (2019) Published Date: April 23, (2019). Effect of Boundary Conditions on Buckling Load for Laminated Composite Plates, Global Journal of Engineering Sciences, ISSN: 2641-2039, Volume 2-Issue 1, PP. 1 – 8.

[12] Osama Mohammed Elmardi Suleiman, Mahmoud Yassin Osman & Tagelsir Hassan, Received Date: March 27, (2019) Published Date: April 30, (2019). Effect of Lamination Scheme on Buckling Load for Laminated Composite Decks Plates, Global Journal of Engineering Sciences, ISSN: 2641-2039, Volume 2-Issue 2, PP. 1 – 9.

[13] Osama Mohammed Elmardi Suleiman, Mahmoud Yassin Osman & Tagelsir Hassan, (2019). Effect of Material Anisotropy on Buckling Load for Laminated Composite Decks Plates, International Journal of Engineering & Computer Science, 2(1), PP. 20 – 31.

[14] Osama Mohammed Elmardi Suleiman, Mahmoud Yassin Osman & Tagelsir Hassan, Published Online November 2018 in IJEAST http://www.ijeast.com (2018). EFFECT OF REVERSING LAMINATION SCHEME OF LAYERS ON BUCKLING LOAD FOR LAMINATED COMPOSITE DECKS PLATES, International Journal of Engineering Applied Sciences and Technology, Vol. 3, Issue 7, ISSN No. 2455 – 2143 , PP. 32– 40.

[15] Imad-Eldin Mahmoud Mahdi, Osama Mohammed Elmardi Suleiman & Ahmed F. Algarray, Oct. (2017). Effects of Boundary Conditions on Cross-Ply Laminated Composite Beams, International Journal of Engineering Research And Advanced Technology (IJERAT), and E-ISSN: 2454-6135, Vol.3 (10), PP. 52 – 59.

[16] Osama Mohammed Elmardi Suleiman, Ahmed F. A. lgarray&Imad-Eldin Mahmoud Mahdi, Oct. (2017). Free Vibration Analysis of Composite Laminated Beams, International Journal of Engineering Research And Advanced Technology (IJERAT), E-ISSN: 2454-6135, Vol.3 (10), PP. 9 – 25.

[17] Mahmoud Yassin Osman & Osama Mohammed Elmardi Suleiman, April (2017). Free Vibration of Laminated Plates, International Journal of Engineering Research And Advanced Technology (IJERAT), and ISSN: 2454-6135, Volume. 03, Issue.4, PP. 31 – 47.

[18] Mahmoud Yassin Osman & Osama Mohammed Elmardi Suleiman, February (2017). Free Vibration Analysis of Laminated Composite Beams using Finite Element Method, International Journal of Engineering Research and Advanced Technology (IJERAT), ISSN: 2454-6135, Volume 3, Issue.2, and PP. 5 – 22.

[19] Dr. Osama Mohammed Elmardi Suleiman Khayal, December (2018). FUNDAMENTALS OF HEAT EXCHANGERS, INTERNATIONAL JOURNAL OF RESEARCH IN COMPUTER APPLICATIONS AND ROBOTICS, ISSN 2320-7345, Vol.6, Issue 12, PP. 1 – 11.

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[21] Imad-Eldin Mahmoud Mahdi & Osama Mohammed Elmardi Suleiman, Sept. (2017). Influence of Fiber Orientation on the Natural Frequencies of Laminated Composite Beams, International Journal of Engineering Research and Advanced Technology (IJERAT), E-ISSN: 2454-6135, Vol.3 (9), PP. 31 – 43.
[22] Imad-Eldin Mahmoud Mahdi & Osama Mohammed Elmardi Suleiman Khayal, (2019). LAMINATION SCHEME AND BOUNDARY CONDITIONS EFFECTS ON THE FREE VIBRATION OF LAMINATED COMPOSITE BEAMS, International Journal of Bridge Engineering (IJBE), Vol. 7, No. 1, PP. 1 – 12.
[23] Mahmoud Yassin Osman & Osama Mohammed Elmardi Suleiman, March (2017). Large Deflection of Composite Beams, International Journal of Engineering Research and Advanced Technology (IJERAT), ISSN: 2454-6135, Volume. 03, Issue.3, PP. 26 – 39.
[24] Osama Mohammed Elmardi Suleiman Khayal, (2016). Linear Analysis of Composite Laminated Plates Using First Order Shear Deformable Theory, Engineering and Technology Journal, ISSN: 2456-3358, Vol. 1, Issue 2, PP. 75 – 86.
[25] Osama Mohammed Elmardi Suleiman, April (2017). Linear Deflection of Laminated Composite Plates using Dynamic Relaxation Method, International Journal of Physical Sciences and Engineering, Vol. 1, No. 1, PP. 54 – 67.
[26] Osama Mohammed Elmardi Suleiman Khayal, February (2017). Literature review on imperfection of composite laminated plates, Journal of Microscopy and Ultrastructure, Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license, 5, PP. 119 – 122.
[27] Osama Mohammed Elmardi Suleiman Khayal, Tagelsir Hassan, (2018). MATHEMATICAL MODELLING OF LAMINATED PLATES ON BUCKLING, International Journal of Bridge Engineering (IJBE), Vol. 6, No. 2, PP. 25 – 39.
[28] Osama Mohammed Elmardi Suleiman Khayal, (2017). MECHANICAL PROPERTIES OF COMPOSITE LAMINATED DECKS PLATES, International Journal of Bridge Engineering (IJBE), Vol. 1, No. 1, PP. 01 – 41.
[29] Osama Mohammed Elmardi Suleiman, Oct. (2016). Mechanical Properties of Composite Laminated Plates, International Journal of Advances in Scientific Research and Engineering (IJASRE), ISSN: 2454-8006, Vol. 02, Issue 09, PP. 14 – 24.
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[34] Midhat Victor Fahmi, Osama Mohammed Elmardi Suleiman, & Tarig Awadalla Hamid, January (2019). PERFORMANCE TEST OF DIESEL ENGINES USING ETHANOL-DIESEL FUELS BLENDS, INTERNATIONAL JOURNAL OF RESEARCH IN COMPUTER APPLICATIONS AND ROBOTICS, ISSN 2320-7345, Vol.7, Issue 1, PP. 11 – 19.
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APPLICATIONS AND ROBOTICS, ISSN 2320-7345, Vol.7, Issue 1, PP. 1 – 10.
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[39] Osama Mohammed Elmardi Suleiman Khayal, (2018). The Effect of using Excessive Oil – Gasoline Mixture on the Acceleration of Bajaj Rickshaw Vehicles, Global Journal of Researches in Engineering: J
General Engineering, Online ISSN: 2249-4596 & Print ISSN: 0975-5861, Volume 18, Issue 4, Version 1.0, and PP. 11 – 16.
[40] Imad-Eldin Mahmoud Mahdi & Osama Mohammed Elmardi Suleiman Khayal, (2018). THE EFFECTS OF END CONDITIONS OF CROSS-PLY LAMINATED COMPOSITE BEAMS ON THEIR NON-DIMENSIONALIZED NATURAL FREQUENCIES, International Journal of Bridge Engineering (IJBE), Vol. 6, No. 1, PP. 63 – 72.
[41] Osama Mohammed Elmardi Suleiman, October (2016). Theories of Composite Plates and Numerical Methods Used on Bending and Buckling of Laminated Plates, International Journal of Engineering Research And Advanced Technology (IJERAT), ISSN: 2454-6135, Volume. 02, Issue.10, PP. 1 – 12.
[42] Fatima Mohammed Hussein, Dr. Asia Abu elgasim Elhassan, Dr. Osama Mohammed Elmardi Suleiman, (2019). Urban Upgrading of Deteriorating Residential Environment, Case Study of Alteleih Residential Area, Atbara, Sudan, Journal of Scientific and Engineering Research, ISSN: 2394-2630 CODEN(USA): JSERBR, 6(4): PP. 175 – 179.
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Laminated Plates, International Journal of Advanced Engineering and Management, ISSN 2456-8066, Vol. 4, No. 2, PP. 25 – 32.
[44] Osama Mohammed Elmardi, September (2015). Validation of Dynamic Relaxation (DR) Method in Rectangular Laminates using Large Deflection Theory, International Journal of Advanced Research in Computer Science and Software Engineering, ISSN: 2277 128X, Available online at: www.ijarcsse.com, Volume 5, Issue 9, PP. 137 – 144.
[45] Osama Mohammed Elmardi Suleiman, Mahmoud Yassin Osman & Tagelsir Hassan, February (2018). Validation of Finite Element Method in the Analysis of Biaxial Buckling of Thin Laminated Plates, International Journal of Engineering Research and Advanced Technology (IJERAT), E-ISSN : 2454-6135, DOI: http://dx.doi.org/10.7324/IJERAT.2018.3188, Volume.4, Issue 2, PP. 29 – 42.
[46] Osama Mohammed Elmardi Suleiman, Mahmoud Yassin Osman & Tagelsir Hassan, (2019). Validity of Finite Element Method: Analysis of Laminated Composite Decks Plates Subjected to in Plane Loading, International Journal of Physics & Mathematics, 2(1), PP. 1-10.
[47] Osama Mohammed Elmardi, (2014). Verification of Dynamic Relaxation (DR) Method in Isotropic, Orthotropic and Laminated Plates using Small Deflection Theory, International Journal

of Advanced Science and Technology, http://dx.doi.org/10.14257/ijast.2014.72.04, Vol.72, PP. 37 – 48.
[48] M. Mardi Osama, January (2011). Verification of Dynamic Relaxation Method in the analysis of isotropic, orthotropic and laminated plates using large deflection theory, مجلة جامعة شندي, العدد العاشر, ISSN: 1858-571X, PP. 31 – 52.
[49] Osama Mohammed Elmardi Suleiman & Imad-Eldin Mahmoud Mahdi, (2018). VIBRATION OF LAMINATED COMPOSITE DECKS BEAMS, International Journal of Engineering Applied Sciences and Technology, ISSN No. 2455-2143, Published Online May 2018 in IJEAST (http://www.ijeast.com), Vol. 3, Issue 1, PP. 61 – 66.
[50] Naeim Farouk, Osama Elmardi, Hussien Alzeber, Ibrahim B. Mansir: Effects of electric power blackouts on steam turbine power plants -- Pal arch's Journal of Archaeology of Egypt/Egyptology 17(6). ISSN 1567-214x (2021).
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[52] Osama Mohammed Elmardi Suleiman Khayal, ERGONOMICS IN BRIDGE ENGINEERING, International Journal of Bridge Engineering (IJBE), Vol. 8, No. 3, (2020), pp. 27-58.
[53] Dr. Salaheldin Hassabelgabo Abdelrazig Ibrahim, Dr. Osama Mohammed Elmardi Suleiman Khayal, SOLAR ENERGY POTENTIAL AND ASSESSMENT OF CSP PLANT ACCOUNTING FOR SUSTAINABILITY IN SUDAN, International Journal of Engineering Applied Sciences and Technology, 2020 Vol. 5, Issue 7, ISSN No. 2455-2143, Pages 13-19.
[54] Dr. Osama Mohammed Elmardi Suleiman Khayal, PhD. Student Moataz Abdelgadir Ali Abdelgadir, and Dr. Salaheldin Hassabelgabo Abdelrazig Ibrahim, ANALYTICAL AND NUMERICAL STUDY OF HEAT TRANSFER IN FINS, International Research Journal of Engineering and Technology (IRJET) , Volume: 08 Issue: 01 | Jan 2021.
[55] Dr. Osama Mohammed Elmardi Suleiman Khayal, Eng. Salaheldin Hassabelgabo Abdelrazig Ibrahim, UTILIZATION OF BIOGAS IN AGRICULTURAL AND INDUSTRIAL PLANTS, International Research Journal of Engineering and Technology (IRJET), Volume: 07 Issue: 09 | Sep 2020.
[56] Osama Mohammed Elmardi Suleiman Khayal, A REVIEW STUDY OF TECHNICAL EDUCATION IN THE DEMOCRATIC REPUBLIC OF SUDAN, International Journal of Advanced Engineering and Management Vol. 5, No. 2, pp. 9-23, 2020.
[57] Dr. Osama Mohammed Elmardi Suleiman KHAYAL, RELATION BETWEEN HUMAN FACTORS AND ERGONOMICS, ACTA TECHNICA CORVINIENSIS – Bulletin of Engineering [e–ISSN: 2067–3809], TOME XIII [2020] | FASCICULE 2 [April – June].
[58] Osama Mohammed Elmardi Suleiman, Mahmoud Yassin Osman, and Tagelsir Hassan, EFFECT OF BOUNDARY CONDITIONS ON BUCKLING LOAD FOR LAMINATED COMPOSITE DECKS PLATES, The Iraqi Journal For Mechanical And Material Engineering, Vol.20, No2,June. 2020.
[59] Osama Mohammed Elmardi Suleiman Khayal, Review Study of Dynamic Relaxation Numerical Technique Used in Bending of Laminated Composite Plates, Current Trends in Civil & Structural Engineering, DOI: 10.33552/CTCSE.2020.06.000626, Received Date: May 30, 2020, Published Date: June 10, 2020.
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[61] Osama Mohammed Elmardi Suleiman, Mahmoud Yassin Osman, and Tagelsir Hassan, EFFECT OF LAMINATION SCHEME ON BUCKLING LOAD FOR LAMINATED COMPOSITE DECKS PLATES, International Journal of Bridge Engineering (IJBE), Vol. 8, No. 1, (2020), pp. 15-34.

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[66] Dr. Osama Mohammed Elmardi Suleiman, DYNAMIC RELAXATION COUPLED WITH FINITE DIFFERENCES IN LARGE DEFLECTION OF LAMINATED DECKS PLATES USING FIRST ORDER SHEAR DEFORMATION THEORY, International Journal of Bridge Engineering (IJBE), Vol. 7, No. 3, (2019), pp. 33-48.

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[72] Dr. Osama Mohammed Elmardi Suleiman Khayal, UTILIZATION OF DYNAMIC RELAXATION METHOD IN SOLVING ORDINARY AND PARTIAL DIFFERENTIAL EQUATIONS OF RECTANGULAR ENGINEERING STRUCTURES, GLOBAL PUBLICATION HOUSE| International Journal of Mechanical And Civil Engineering, Volume 02 || Issue 10 || Oct. 2019.

[73] Dr. Osama Mohammed Elmardi Suleiman Khayal, TECHNICAL AND ECONOMIC STUDY FOR IMPROVING ELECTRIC POWER GENERATION, GLOBAL PUBLICATION HOUSE| International Journal of Electronic & Electrical Engineering|, Volume 02 || Issue 10 || Oct. 2019.

ENGINEERING BOOKS IN ENGLISH LANGUAGE

Writes about seventy books in mechanical and civil engineering written in English language. Samples of them shown below:

1. Osama Mohammed Elmardi Suleiman Khayal, October (2017). Biaxial Buckling of Thin Laminated Composite Plates, LAP LAMBERT Academic Publishing, Member of Omni Scriptum Publishing Group, Germany, and ISBN: 978-613-8-23615-3.

2. Dr. Osama Mohammed Elmardi Suleiman Khayal, October (2017). Buckling of Thin Laminated Plates using Classical Laminated Plate Theory, www.ektab.com , Jordan.

3. Osama Mohammed Elmardi Suleiman, and Mahmoud Yassin Osman, September (2017). Deflection of Rectangular Laminated Composite Plates using Dynamic Relaxation Method, LAP LAMBERT Academic Publishing, Member of Omni Scriptum Publishing Group, Germany, ISBN: 978-3-330-33164-8.

4. Osama Mohammed Elmardi, (2016). Dynamic Relaxation Method, Anchor Academic Publishing, Hamburg, Germany, PDF-eBook-ISBN: 978-3-96067-584-6.

5. Osama Mohammed Elmardi Suleiman, (2015). Further Experimental Research Work on Water Current Turbines, LAP LAMBERT Academic Publishing, Member of Omni Scriptum Publishing Group, Germany, ISBN: 978-3-659-58160-1.

6. Osama Mohammed Elmardi Suleiman, November (2015). Introduction and Literature Review on Buckling of Composite Laminated Plates, LAP LAMBERT Academic Publishing, Member of Omni Scriptum Publishing Group, Germany, and ISBN: 978-3-659-86387-5.

7. Osama Mohammed Elmardi Suleiman Khayal, November (2017). Literature Review and Mathematical Modeling on Buckling of Laminated Composite Plates, LAP LAMBERT Academic Publishing, Member of Omni Scriptum Publishing Group, Germany, and ISBN: 978-620-2-08074-3.

8. Osama Mohammed Elmardi Suleiman, (2015). Nonlinear Analysis of Rectangular Laminated Plates, LAP LAMBERT Academic Publishing, Member of Omni Scriptum Publishing Group, Germany, and ISBN: 978-3-659-76787-6.

9. Osama Mohammed Elmardi Suleiman May (2018). Questions and Answers in Mechanical Engineering Part One, www.ektab.com , Jordan.

10. Osama Mohammed Elmardi Suleiman May (2018). Questions and Answers in Mechanical Engineering Part Two, www.ektab.com , Jordan.

11. Osama Mohammed Elmardi Suleiman May (2018). Self-Development in Mechanical and Manufacturing Engineering Questions and Answers, www.ektab.com , Jordan.

12. Osama Mohammed Elmardi Suleiman, April (2017). Solution of Problems in Heat Transfer Transient Conduction or Unsteady Conduction, LAP LAMBERT Academic Publishing, Member of Omni Scriptum Publishing Group, Germany, and ISBN: 978-3-659-66822-7.

13. Osama Mohammed Elmardi Suleiman, April (2017). Text Book on Dynamic Relaxation Method, LAP LAMBERT Academic Publishing, Member of Omni Scriptum Publishing Group, Germany, and ISBN: 978-3-659-94751-3.

14. Osama Mohammed Elmardi Suleiman, (2020). BIOGAS PLANTS TECHNOLOGY, LAP LAMBERT Academic Publishing, Member of Omni Scriptum Publishing Group, Germany, and ISBN: 978-620-2-67292-4.

15. Osama Mohammed Elmardi Suleiman, (2021). Engineering Psychology and Ergonomics, LAP LAMBERT Academic Publishing, Member of Omni Scriptum Publishing Group, Germany, and ISBN: 978-620-3-86394-9.

16. Osama Mohammed Elmardi Suleiman, (2020). Estimation of Solar Radiation and Performance of Flat Plate Collector, LAP LAMBERT Academic Publishing, Member of Omni Scriptum Publishing Group, Germany, and ISBN: 978-620-2-91912-8.

17. Osama Mohammed Elmardi Suleiman, (2020). Fundamentals of Economics in Engineering Projects, LAP LAMBERT Academic Publishing, Member of Omni Scriptum Publishing Group, Germany, and ISBN: 978-620-2-673982-3.

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19. Khalid Taha Elsayed Ali, and Osama Mohammed Elmardi Suleiman Khayal, (2020). LITERATURE REVIEW IN UTILIZING SOLAR ENERGY FOR THERMAL PURPOSES, LAP LAMBERT Academic Publishing, Member of Omni Scriptum Publishing Group, Germany, and ISBN: 978-620-2-66965-8.

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21. Khalid Taha Elsayed Ali, and Osama Mohammed Elmardi Suleiman Khayal, (2020). Renewable Energy, LAP LAMBERT Academic Publishing, Member of Omni Scriptum Publishing Group, Germany, and ISBN: 978-620-2-67500-0.

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29. Hussein Ahmed Hussein Alzeber, Naeim Farouk and Osama Mohammed Elmardi Suleiman Khayal, (2020). Effects of Electric Power Blackouts on Steam Turbines Power Plants, LAP LAMBERT Academic Publishing, Member of Omni Scriptum Publishing Group, Germany, and ISBN: 978-620-3-02567-5.

30. Tarig Awadalla Hamid Fitaha, and Osama Mohammed Elmardi Suleiman Khayal, (2020). Hybrid and Diesel Fuel, LAP LAMBERT Academic Publishing, Member of Omni Scriptum Publishing Group, Germany, and ISBN: 978-620-2-55567-8.

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32. Osama Mohammed Elmardi Suleiman Khayal, (2020). Solar Energy Applications, LAP LAMBERT Academic Publishing, Member of Omni Scriptum Publishing Group, Germany, and ISBN: 978-620-2-91917-3.

33. Osama Mohammed Elmardi Suleiman Khayal, (2020). Solid Mechanics, LAP LAMBERT Academic Publishing, Member of Omni Scriptum Publishing Group, Germany, and ISBN: 978-620-2-67920-6.

34. Osama Mohammed Elmardi Suleiman Khayal, (2020). The Grand Ethiopian Renaissance Dam, LAP LAMBERT Academic Publishing, Member of Omni Scriptum Publishing Group, Germany, and ISBN: 978-620-2-91916-6.

35. Mohammed Zakreia Abdelrahman, and Osama Mohammed Elmardi Suleiman Khayal, (2020). Application of Integration Maintenance System in Berber Cement Company, Noor Academic Publishing, Member of Omni Scriptum Publishing Group, Germany, and ISBN: 978-620-0-77846-8.

36. Osama Mohammed Elmardi Suleiman Khayal, (2020). Performance Tests on a Flat Plate Collector in Atbara Sudan, Noor Academic Publishing, Member of Omni Scriptum Publishing Group, Germany, and ISBN: 978-620-0-78132-1.

37. Osama Mohammed Elmardi Suleiman Khayal, (2020). Self-Development of Career in Mechanical and Manufacturing Engineering, Noor Academic Publishing, Member of Omni Scriptum Publishing Group, Germany, and ISBN: 978-620-0-77854-3.

38. Osama Mohammed Elmardi Suleiman Khayal, (2020). Sensors in Automobiles, Noor Academic Publishing, Member of Omni Scriptum Publishing Group, Germany, and ISBN: 978-620-0-78065-2.

39. Osama Mohammed Elmardi Suleiman Khayal, (2020). Tribology in Vehicles, Noor Academic Publishing, Member of Omni Scriptum Publishing Group, Germany, and ISBN: 978-620-0-77981-6.

40. Osama Mohammed Elmardi Suleiman Khayal, (2020). Tribology in Vehicles, Noor Academic Publishing, Member of Omni Scriptum Publishing Group, Germany, and ISBN: 978-620-0-77981-6.

41. Osama Mohammed Elmardi Suleiman Khayal, (2020). Vehicles Using Oil – Gasoline Mixture, Noor Academic Publishing, Member of Omni Scriptum Publishing Group, Germany, and ISBN: 978-620-0-77994-6.

ENGINEERING BOOKS IN ARABIC LANGUAGE

Writes about hundred books in mechanical and civil engineering written in Arabic language. Samples of them shown below:

1. بروفيسور/ محمود يس عثمان ودكتور/ أسامة محمد المرضي سليمان خيال، مارس 2019م. كتاب اهتزازات ميكانيكية (Mechanical Vibrations)، Noor Publishing ، Germany، ISBN: 978-613-9-43200-4.
2. دكتور/ أسامة محمد المرضي سليمان خيال، أكتوبر 2018 م. كتاب ديناميكا حرارية الجزء الأول، Noor Publishing، Germany، ISBN: 978-620-2-35617-6.
3. دكتور/ أسامة محمد المرضي سليمان خيال، يناير 2019م. كتاب ديناميكا حرارية الجزء الثاني، Noor Publishing ، Germany، ISBN: 978-613-9-43045-1.
4. دكتور/ أسامة محمد المرضي سليمان خيال، يناير 1993م. كتاب عمليات تصنيع (2)، www.ektab.com.
5. د. أسامة محمد المرضي سليمان خيَّال، يناير 2019 م. الاحتراق (Combustion) www.kutubinfo.com .
6. د. أسامة محمد المرضي سليمان خيَّال، مايو 2018 م. الإعجاز العلمي الهندسي في القرآن www.kutubinfo.com.
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10. دكتور/ أسامة محمد المرضي سليمان خيال، مارس 2017م. التوربينات محورية السريان، www.ektab.com.

11. دكتور/ أسامة محمد المرضي سليمان خيال، ديسمبر 2016م. التوربينة الدفعية أو توربينة عجلة بلتون، www.ektab.com.
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13. دكتور/ أسامة محمد المرضي سليمان خيال، مايو 2018م. أمثال وحكم، www.ektab.com.
14. دكتور/ أسامة محمد المرضي سليمان خيال، أغسطس 2018م. كتاب حلول مسائل في انتقال حرارة وكتلة الجزء الأول، www.ektab.com.
15. دكتور/ أسامة محمد المرضي سليمان خيال، 2019م. انتقال حرارة وكتلة، Noor Publishing Germany, ISBN: 978-613-9-42793-2.
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65. دكتور/ أسامة محمد المرضي سليمان خيال، 2021 م. التوربينات الدفعية، Noor Publishing ، Germany، ISBN: 978-620-2-79236-3
66. دكتور/ أسامة محمد المرضي سليمان خيال، 2021 م. التوربينات الغازية، Noor Publishing ، Germany، ISBN: 978-620-2-79241-7
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77. دكتور/ أسامة محمد المرضي سليمان خيال، 2021 م. كتاب عمليات تصنيع، Noor Publishing، Germany، ISBN: 978-620-0-77960-1
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TEACHING EXPERIENCE

INSTRUCTOR OF RECORD

Summer 2018	**Instrumentation and Control,** Nile Valley University
Winter 2018	**Mechanics of Materials,** Red Sea University
Summer 2017	**Heat and Mass Transfer,** Nile Valley University
Winter 2017	**Axial and Radial Flow Pumps,** Kassala University
Summer 2016	**Axial and Radial Flow Turbines,** Nile Valley University
Winter 2016	**Fluid Mechanics,** Blue Nile University
Summer 2015	**Thermodynamics,** Nile Valley University
Winter 2015	**Steam Power Plants,** Kordofan University
Summer 2014	**Gas Turbines,** Nile Valley University
Winter 2014	**Internal Combustion Engines,** SUST University
Summer 2013	**Applied Mechanics,** Nile Valley University
Winter 2013	**Dynamics,** Kassala University
Summer 2012	**Design of Mechanical Elements,** Nile Valley University
Winter 2012	**Design of Mechanical Systems,** Red Sea University
Summer 2011	**Engineering Drawing,** Nile Valley University
Winter 2011	**Machine Drawing,** Blue Nile University
Summer 2010	**Refrigeration,** Nile Valley University
Winter 2010	**Air Conditioning,** Kassala University

TEACHING ASSISTANTSHIPS

Summer 2009	**Design of Mechanical Elements,** Nile Valley University
Winter 2009	**Design of Mechanical Systems,** Nile Valley University
Summer 2008	**Engineering Drawing,** Nile Valley University
Winter 2008	**Machine Drawing,** Nile Valley University

Summer 2007 **Refrigeration,** Nile Valley University
Winter 2007 **Air Conditioning,** Nile Valley University

TEACHING INTERESTS

Lectures: Fluid Mechanics, Thermodynamics, Mechanical Vibrations, Analysis of Composite Materials and Structures, Automation and Control, Instrumentation, Supervision of Undergraduate and Postgraduate Studies in Mechanical, Production and Civil Engineering.

SUPERVISION OF UNDERGRADUATE AND GRADUATE STUDIES

Supervised more than 300 undergraduate theses in bachelor of mechanical and production engineering, and more than 300 diploma studies and 20 graduate theses in master studies. External examiner for more than 10 theses in master degrees.

EXTERNAL EXAMINER OF GRADUATE STUDIES

1. Effects of Electric Power Blackouts on Steam Turbines Power Plants - Case Study of Power Plants in Sudan, A thesis submitted to the Faculty of Graduates – Red Sea University in Fulfillment of the Requirements for the M.sc Degree in Mechanical Engineering, Student Hussien Ahmed Hussien Alzeber, and Supervisor Associate Professor Dr. Naeim Farouk, September 2020.
2. بحث بعنوان : دور الهيئة السودانية للمواصفات والمقاييس في اختبار جودة الحديد، دراسة تطبيقية على: الهيئة السودانية للمواصفات والمقاييس ، ولاية البحر الأحمر (2017-2020 م) ، بحث تكميلي مقدم لنيل درجة الماجستير في الهندسة الميكانيكية، إعداد الطالب حسن علي محمد نور، إشراف الدكتور محمد مبارك يوسف، ديسمبر 2020م.
3. Ships' Hull Corrosion Prevention through Impressed Current Cathodic Protection 'ICCP' System, A Case Study of Sudan Navy Ships, (2017/2019), A Thesis Submitted for Partial Fulfillment of Master Degree in Mechanical Engineering (MSc) – Red Sea University. By Student: Surag Mohammed Saeed Ali and Supervisor: Dr. Mohamed El Mubarak, 2019.
4. Parametric Study of a Single Effect Lithium Bromide-Water Absorption Cooling System Powered by a Waste Heat from Diesel Engine, A thesis submitted in Partial Fulfillment of the Requirements for the Master Degree in Mechanical Engineering (Energy and Power Systems Management) - Faculty of Engineering and Technology, Nile Valley University. Student: Yagoub Abdallah Mohammed Ahmed, Supervisor: Dr. Osman Wageiallah Mohammed, 2021.

SUPERVISION OF GRADUATE STUDIES

1. Master Degree by Research in Mechanical Engineering – Faculty of Engineering and Technology, Nile Valley University, Study of Failure in Hydraulic Systems, (Case study of machinery used in local gold mining), By Student: Salih Adam Burma, and Supervisor Dr. Osama Mohammed Elmardi Suleiman Khayal, Date: September 2014.
2. Using Light Fuel Oil (LFO) and Crude Oil (CRO) in Internal Combustion Engines (ICE), Technical and Environmental Study, A Thesis submitted in Partial Fulfillment of the Requirements for the Master Degree in Mechanical Engineering - Faculty of Engineering

and Technology, Nile Valley University. Student: Awadalla Khideir Omer Youssef, and Supervisor: Osama Mohammed Elmardi Suleiman Khayal, May 2017.

3. TROUBLESHOOTING OF HYDRAULIC SYSTEMS IN THE CEMENT INDUSTRY, A Thesis Submitted in Fulfillment of the Requirements for MSc in Mechanical Engineering, Student: Engineer Mansour Hamad Elmamoun, Atbara Cement Factory, and Atbara City, Sudan. Supervisor: Associate professor Dr. Osama Mohammed Elmardi Suleiman Khayal, Nile Valley University, Faculty of Engineering and Technology, Atbara, Sudan, Mechanical engineering department, June 2021.
4. Economic and Technical Optimization of Operation and Maintenance for Pump Stations, Case Study in Sudanese Petroleum Pipelines Company Limited, Student: Engineer Elhilali Ahmed Mohammed Elhilali, Supervisor: Associate Professor Dr. Osama Mohammed Elmardi Suleiman Khayal, Nile Valley University, Faculty of Engineering and Technology, Atbara, Sudan, Mechanical engineering department, August 2020.

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2. Osama Mohammed Elmardi Suleiman Khayal, August (2003). Nonlinear Analysis of Rectangular Laminated Plates, A thesis Submitted in Fulfillment of the Requirements for Master of Science in Mechanical Engineering, Republic of Sudan, Ministry of Higher Education and Scientific Research, Nile Valley University, Faculty of Post – Graduate Studies.
3. Osama Mohammed Elmardi Suleiman Khayal, August (1998). Experimental Research Work on Water Current Turbines, A thesis Submitted in Partial Fulfillment of the Requirements for Bachelor of Science in Mechanical Engineering, Republic of Sudan, Ministry of Higher Education and Scientific Research, Sudan University of Science and Technology, Faculty of Post – Graduate Studies.
4. Osama Mohammed Elmardi Suleiman Khayal, March (1990). Technical and Economic Feasibility Study of Establishing a Machining Workshop in Atbara.

EXECUTED PROJECTS

1. Preparation of technical and economic feasibility studies of establishing production and mechanical engineering workshops in Atbara city (1990 – until now).
2. Supervisor in mill house, powerhouse and general maintenance in Kenana Sugar Company (1990-1992).
3. Design and installation of floating pumping units in Atbara agricultural food security project (1991- 1994).
4. Design and installation of floating pumping units in Wadi Halfa agricultural food security project (1992- 1993).
5. Design and installation of Atbara water current turbine in River Nile State (1990-2000).
6. Experimental Research Work on Water Current Turbines (1995- 1998).

7. Establishment of machining workshop for crank grinding, cylinder boring and honing, cylinder head repair and maintenance (2005-2020). Alkamali workshops group for small industries.
8. Establishment of automotive maintenance workshop for small, medium and complete overhaul of different sizes of engines (2010-2020). Alkamali workshops group for small industries.
9. Issuance of technical and economic feasibility studies of establishing workshops in different specialization of engineering (2010-till now).
10. Supervision of more than 300 diploma of technology projects (design and execution of engineering projects) (1990- 2020).
11. Supervision of more than 300 Bachelor of Science projects (design and execution of engineering projects) (1990- 2020).
12. Rehabilitation and reconditioning of machining workshop in faculty of engineering and technology, Atbara (2010-2012).
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