THE TECHNICAL UNIVERSITY OF KENYA

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NAME: PROF ERIC OKOTH OGUR

Faculty:	ENGINEERING AND THE BUILT ENVIRONMENT
School:	MECHANICAL AND AEROSPACE ENGINEERING
Department:	Mechanical and Mechatronic Engineering
Current Designation:	Associate Professor, DEPARTMENT OF MECHANICAL AND AEROSPACE ENGINEERING (DMAE)
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Consultation Hours:	8AM-5PM MON - FRI



EDUCATION

LEVEL	QUALIFICATION NAME	INSTITUTION	YEAR
Doctor of Philosophy (PhD)	ENGINEERING	UNIVERSITY OF WARWICK(United Kingdom)	2007
Masters of Science (M.Sc.)	MANUFACTURING SYSTEMS ENGINEERING	UNIVERSITY OF WARWICK(United Kingdom)	2003
Bachelor of Engineering (B.Eng)	MECHANICAL AND MANUFACTURING ENGINEERING	UNIVERSITY OF PORTSMOUTH(United Kingdom)	2022
Higher Diploma	MECHANICAL ENGINEERING	THE KENYA POLYTECHNIC(Kenya)	1996

HONOURS/AWARDS

TITLE	BODY/INSTITUTION	DATE	REASON
Moran of the Order of the Burning Spear	Office of The President	08/07/2022	Distinguished Service Rendered to the Nation

WORK EXPERIENCE

PERIOD	INSTITUTION	POSITION
Oct 2022 - To Date	The Technical University of Kenya	Associate Professor
May 2019 - October 2022	Ministry of Education	TVET Advisor to the Cabinet Secretary
2011 - 2015	TECHNICAL UNIVERSITY OF KENYA	SENIOR LECTURER
2008 - 2009	Proctor and Gamble	Scientist/Engineer
2007 - 2008	University of Warwick	Research Fellow

GENERAL STATEMENT ON RESEARCH AREAS

Cutting edge research on biofuels, renewable energy and their applications

CURRENT RESEARCH PROJECTS

Co- investigator – Production of Biodiesel from Waste Cooking Oil/Fat - under the 3rd Call for Women Scientists, National Council for Science and Technology – KSh. 2,000,000/=	Biotechnology/Engineering
Co- innovator – Production of Bioparaffin from the Local Brew, chang'aa - under the 4th Call for Innovations, National Council for Science and Technology – KSh. 1,000,000/=	Biochemistry/Engineering
Co- investigator – Utilization of Solid Municipal Waste (SMW) as an Alternative Energy Source - under the 5th Call for Women Scientists , National Commission for Science Technology and Innovation – KSh. 2,100,000/=	Environmental Science and Engineering
Co- investigator – Enhanced Biogas Production through Co-digestion of Potato Peels and Fish Processing Residues in Informal Settlements - under the 5th Call for Women Scientists , National Commission for Science Technology and Innovation – KSh. 2,000,000/=	Biochemistry and Engineering
Principal- innovator – Production of Alternative Derived Fuel from Waste Engine Oil - under the 5th Call for Innovations, National Commission for Science Technology and Innovation – KSh. 675,000/=	Engineering
Co- investigator – Innovative Production of Particle Boards from Natural Fibres and Binders - under the 5th Call for Innovations, National Commission for Science Technology and Innovation – KSh. 675,000/=	Composite Materials Engineering

SELECTED PUBLICATIONS

TITLE	LINK TO PUBLICATION	YEAR
1. Ogur, E.O. et al, (2004), Microcellular Foaming with Supercritical CO in Injection Moulding, Cellular Polymers, Vol.23, No. 1.	View online	
2. Ogur, E.O. et al, (2008), Effect of Magnetic Field on the Distribution and Orientation of Magnetic Particles in Co-injection Moulding, Progress in Rubber, Plastics and Recycling Technology, Vol.24 No. 4.	View online	
3. Smith, G.F., Goodship, V, Ogur E.O., Stidworthy P, (2008), Smart 'in mould' Manipulation of Materials, Plastics Rubber and Composites, Vol. 37, No: 2-4	View online	
4. Ogur, E.O. and Mburu, J.K. (2013), Failure Analysis of a Bar Soap Extrusion Machine, International Journal of Engineering Research and Application, Vol.3, No: 6, pp. 624-629	View online	
5. Ogur, E.O. and Ogola, W.O., (2013), The Role of Computers in Mechanical Engineering Education in Kenyan Universities, International Journal of Engineering and Science, Vol. 2, No: 11, pp. 77-81	View online	
6. Ogur, E.O. and Irungu, P, (2013), Design of a Biogas Generator, International Journal of Engineering Research and Application, Vol. 3, No: 6, pp. 630-635	View online	
7. Ogur, E.O. and Mbatia, S, (2013), Conversion of Kitchen Waste into Biogas, International Journal of Engineering and Science, Vol. 2, No: 11, pp. 70-76	View online	
8. Ogur, E.O. et al, (2014), Performance Evaluation of Waste Vegetable Cooking Oil as Biodiesel, International Journal of Recent Development in Engineering and Technology, Vol. 3, No: 3, pp. 1-4	View online	
9. Ogur, E.O. and Kariuki, S.M. (2014), Effect of Car Emissions on Human Health and the Environment, International Journal of Applied Engineering Research, Vol. 9, No: 21, pp. 11121 - 11128	View online	
10. Ogur, E.O. and Ogola, W.O., (2015), Effect of Hydroxy Gas Enriched Fuel Combustion on the Performance of a Compression Ignition Engine, Kenya Journal of Technical and Vocational Education and Training, (Accepted, May 2015).	View online	
11. Ogur, E.O. and Mbatia, B.N., (2014), A Tank for Pre-treatment of Waste Oil/Fat in Biodiesel Production, Kenya Intellectual of Property Institute, KE/P/14/002141	View online	
22. Ogur, E.O. (2018), A Literature Review of the Teaching Factory Concept, Journal of Technical Education and Training, (In preparation)	View online	
12. R. Ndeda, S. E. M. Sebusang, R. Marumo and E. O. Ogur, (2015), Laser Applications in Underground Drilling , BIE Journal of Engineering and Applied Sciences, Volume 6 Issue 1, pp. 18 – 24	View online	
13. R. Ndeda, S. E. M. Sebusang, R. Marumo and E. O. Ogur, (2015), Review of Thermal Surface Drilling Technologies, Proceedings of the Sustainable Research and Innovation (SRI) Conference, 6th – 8th May 2015	View online	
14. R. Ndeda, S. E. M. Sebusang, R. Marumo and E. O. Ogur, (2015), LASER for Underground drilling: State of the Art, BIE Journal of Engineering and Applied Sciences, Volume 6 Issue 1, pp. 18 - 24	View online	
15. Masime, J.O., Ogur, E.O., Mbatia, B.N., Aluoch, A.O. and Otieno, G., (2016), Extraction and Characterization of Yellow Oleander (Thevetia Peruviana) Seed Oil From Kenya and Analysis of Eggshells Catalysts as Potential Feedstocks for Biodiesel Production, Journal of the Kenya Chemical Society 10-1 (2017), 58-69	View online	
16. Masime, J.O., Ogur, E.O., Mbatia, B.N., Aluoch, A.O. and Otieno, G., (2017), Optimization and Thermodynamics of the Extraction of Yellow Oleander Seed Oil Using Soxhlet Extractor, Journal of Scientific Achievements, Vol. 2, No. 1, pp: 43–50	View online	
16. Masime, J.O., Ogur, E.O., Mbatia, B.N., Aluoch, A.O. and Otieno, G., (2017), Optimization and Thermodynamics of the Extraction of Yellow Oleander Seed Oil Using Soxhlet Extractor, Journal of Scientific Achievements, Vol. 2, No. 1, pp: 43–50	View online	
17. R. Ndeda, S. E. M. Sebusang, R. Marumo and E. O. Ogur, (2017), On the Role of Laser Pulses on Spallation of Granite, Lasers in Manufacturing and Material Processing, 4(2), 60-75	View online	
18. R. Ndeda, S. E. M. Sebusang, R. Marumo and E. O. Ogur, (2017), Numerical Model of Laser Spallation Drilling of Inhomogeneous Rock, ScienceDirect, International Federation of Automatic Control PapersOnline 50(2), 43-46.	View online	
19. R. Ndeda, S. E. M. Sebusang, R. Marumo and E. O. Ogur, (2017), Numerical Model of Laser Spallation Drilling of Inhomogeneous Rock, ScienceDirect, International Federation of Automatic Control PapersOnline 50(2), 43-46.	View online	
20. R. Ndeda, S. E. M. Sebusang, R. Marumo and E. O. Ogur, (2018), Graduate Studies Supervisor – Supervisee Relationship, SADC International Conference on Postgraduate Research for Sustainable Development, Gaborone, Botswana	View online	
21. Ogur, E.O. (2018), An Evaluation of the Performance of Mechanical Engineering Students on External Industry Based Learning, International Journal for Service Learning in Engineering, Humanitarian Engineering and Social Entrepreneurship, (In preparation)	View online	
23. Ogur, E.O. (2018), Demand Driven Training: A Solution for Unemployment in the TVET Sector, Journal of Technical Education and Training, (In preparation)	View online	
24. Masime, J.O., Ogur, E.O., Mbatia, B.N., Aluoch, A.O. and Otieno, G., (2020), Characterization of Yellow Oleander Oil and Engine Performance Characteristics of the Biodiesel and Blends (Fuel, submitted April 2020)	View online	
30.Ogur, E.O. et al., (2019), Integrated Address Management System, Kenya Intellectual of Property Institute, KE/P/2019/3218	View online	
25. Masime, J.O., Ogur, E.O., Mbatia, B.N., Aluoch, A.O. and Otieno, G., (2020), Characterization of Eggshells Nanocatalyst, Synthesized by Bottom Up Technology Using BET, BJH, TEM, XRD and XRF Spectroscopy (Journal of Catalysis, submitted May 2020)	View online	
26. Masime, J.O., Ogur, E.O., Mbatia, B.N., Aluoch, A.O. and Otieno, G., (2020), Optimization of Yellow Oleander Biodiesel Production Using Synthesized Eggshell as a heterogeneous Nanocatalyst (Chemical Engineering Journal, submitted April 2020)	View online	
30.Ogur, E.O. et al., (2019), Integrated Address Management System, Kenya Intellectual of Property Institute, KE/P/2019/3218	View online	
27. Masime, J.O., Ogur, E.O., Mbatia, B.N., Aluoch, A.O. and Otieno, G., (2020), Life Cycle Analysis of Biodiesel Production From Yellow Oleander Oil in Kenya (In press)	View online	
28. Masime, J.O., Ogur, E.O., Mbatia, B.N., Aluoch, A.O. and Otieno, G., (2020), The Thermogravimetric and FTIR Analysis of Synthesized Egg Shell Derived Nanocatalyst For Biodiesel Production (Thermochimica Acta, submitted May 2020)	View online	
29. Ogur, E.O. and Mbatia, B.N., (2014), A Tank for Pre-treatment of Waste Oil/Fat in Biodiesel Production, Kenya Intellectual of Property Institute, KE/P/14/002141	View online	
30. Ogur, E.O. et al., (2019), Integrated Address Management System, Kenya Intellectual of Property Institute, KE/P/2019/3218	View online	
31. Ogur, E.O. et al., (2019), Public Vehicle Transport and Passenger Location System, Kenya Intellectual of Property Institute, KE/P/2019/3219	View online	
32. Ogur, E.O. (2019), Wireless Water Tank Monitoring System, Kenya Intellectual of Property Institute, KE/P/2019/3287	View online	
33. Tarwish, L. C. and Ogur, E.O. (2019), Automatic PSV Overloading Control System, Kenya Intellectual of Property Institute, KE/P/2019/3288	View online	
34. Ogur, E.O. (2019), Automatic PSV Speed Control System, Kenya Intellectual of Property Institute, KE/P/2019/3286	View online	

POSTGRADUATE STUDENTS SUPERVISION

NAME	PROJECT TITLE	PERIOD
Julius Kirui	Cutting Tool Optimization for Drilling Operations	2014-2017
Rehema Ndeda	Prediction and Optimization of Thermal Spallation of Heterogeneous Brittle Rocks for Oil and Gas D	2014-2017
Esther Wangui	Reliability Evaluation of Distribution Systems with Wind Power and PHEV's	2014-2017
Jeremiah Masime	Production Of Biodiesel Blend From Yellow Oleander Seed Oil And Biobutanol From Water Hyacinth Usi	2014-2017
Gerald Bwire	Design and Performance Evaluation of a Solar Powered Adsorption Refrigerator using LiCl-Expanded G	2013-2015
John Kariithi	Wind Assisted Direct Evaporative Cooling System for Building Application in Semi-arid Areas using	2013-2015
Patrick Odhiambo Owino	Characterization of Biodiesel Blends from Waste Oils and Fats	2013-2015
Jonathan Agunda Ototi	Energy Analysis of Ol Karia Geothermal Power Plant, Design and Simulation of an Organic Power Plan	2013-2015

PROFESSIONAL AFFILIATIONS AND SOCIETIES

TITLE	INSTITUTION
Fellow	Institution of Engineering and Technology, Kenya
GRADUATE ENGINEER	ENGINEERS BOARD OF KENYA
ELECTED MEMBER	INSTITUTION OF MECHANICAL ENGINEERS