Curriculum Vitae For

Prof. Dr. Osama A. Terfas

Department of Mechanical and Industrial Engineering University of Tripoli

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Nationality: Libyan

1. Specialization: Mechanical Engineering

2. Qualifications: PhD in Mechanical Engineering, University of Glasgow, UK, 2010.

3. Work Experience

- 1. Current work: Professor at the Department of Mechanical and Industrial Engineering, Faculty of Engineering University of Tripoli, Libya.
 - BSc Courses taught: Machine Design.
- 2. Academic staff member at the Department of Marine and Offshore Engineering (April 2012-March 2022), Faculty of Engineering University of Tripoli, Libya.
 - BSc Courses taught: Machine design, Strength of materials, Offshore structures engineering, Corrosion engineering.
 - MSc courses taught: Structural Integrity of Marine Structures.
- 3. Strategic plan committee member at the Faculty of Engineering, University of Tripoli, 2020-2021.
- 4. Research and consultations committee member at the Faculty of Engineering, University of Tripoli, 2020-2021.
- 5. Scientific committee member of the IEEE 1st International Maghreb Conference on Science and Techniques of Automatic Control, Tripoli, 2021.
- 6. E-learning committee member at the Faculty of Engineering, University of Tripoli, 2020.
- 7. Academic program committee member at the Faculty of Engineering/University of Tripoli, 2019-2020.
- 8. Head of Marine and Offshore Engineering Department from Aug. 2016 to May 2017.
- 9. Teaching graduate students at Faculty of Engineering, University of Tripoli, 2014-2016.
- 10. Teaching graduate students at The Libyan Academy for Graduate Studies, Libya, 2014-2016.
- 11. Quality committee member at the Faculty of Engineering, University of Tripoli, 2012-2015.
- 12. Teaching undergraduate students at Faculty of Engineering, University of Zawia, 2012-2013.
- 13. Teaching undergraduate students at Marine Studies Academy, Libya, 2013.
- 14. Graduate teaching assistant in The Department of Mechanical Engineering, University of Glasgow, UK in the period 2007-2010.

4. Research Interests

Structural integrity, fracture mechanics and failure analysis, strength of materials, mechanical design, corrosion damage and control, mechanics of deformation in metals & polymers, and material testing.

5. Skills

Computer: Proficiency in Finite element analysis Code Abaqus, and Microsoft Office (Word, Excel, PowerPoint).

Standards: Experience with ASME, ASTM and BS.

6. Languages

- 1. Arabic (mother language).
- 2. English: I speak English fluently (speaking, reading and writing).

7. Awards and honors

- 1- ASME-PVP award for PhD students' paper competition, 2009, Prague, Czech Rep.
- 2- Excellence Engineering Award (2003) for MSc program, Faculty of Engineering, University of Tripoli.
- 3- ASME membership (Pressure vessels and piping division), 2009-2014.

8. Training

- 1- Higher education program, curriculum and course specifications according to ABET, Mar 23-26, 2013. Tripoli. Libya.
- 2- University performance evaluation according to ABET, Mar 27-28, 2013. Tripoli. Libya.
- 3- Technical training on materials testing machines, theory of machines apparatus, and mechanical instrumentations. Mar 4-8, 2013, Hamburg, Germany.
- 4- Mathematical modelling and computational methods in solid mechanics. 26th Aug.-1st Sep. 2007, Glasgow. UK.
- 5-Central air conditioning design and control systems. Sep. 2003, Dubai. UAE.

9. Publications

- 1. Mahmoud Abid, Mohamed Salem, **Osama Terfas**, Mohamed Hamouda *Microstructure Changes related Mechanical Properties of Welded HSLA Steel Plates*. Journal of Alasmarya University: Basic and Applied Sciences, V (7), 1, 2022.
- 2. Osama Terfas, Rayan Tarek, *Mechanisms of Corrosion related Sulphate-Reducing-Bacteria* and its *Impact on Steel Structure*, Scientific Research Journal for Metal Engineering and Technologies, V (2), 2021.
- 3. Osama Terfas, Nadia Nuseir, Ahmed Maher, Strategies towards the Implementation of Blended Learning in Engineering Education, Proceeding of IEEE 1st International Maghreb Conference on Sciences and Techniques of Automatic Control and Computer Engineering, 2021.
- 4. Rida B. Arieby, **Osama A. Terfas** and Rachid Rahouadj, *Effects of Loading History on The Mechanical Behavior of Semi-Crystalline Polymer*, Journal of Engineering Research issued by Faculty of Engineering, University of Tripoli, Libya, Issue (29) March 2020.

- 5. Osama Terfas, Reda Areibi, Abdulbaset Kraima, *Finite Element Analysis based Stress Intensity Factor Solutions for Surface Cracks*, The International Journal of Engineering and Information Technology (IJEIT), Vol.6, No.1,2019.
- 6. M. EM. Abid, Osama. A. Terfas, M. M. Zabti, M. A. Hamel, *Effects of sintering processing parameters and benchmarking on the orange peel texture of Polyamide PA3200 glass filled*, International Science and Technology Journal, 2019.
- 7. Osama A. Terfas, Arwa M. Elmabrouk, Ahlam Y. Elrqiq. *Analysis of the Failure of Cylindrical Pressure Vessels*. Proceediing of first conference of engineering science and technology, Algarabouli-Libya, 25-27, 2018.
- 8. Osama A. Terfas and Noureddin M. Amar, *Ductile Crack Growth Controlled By J-Integral and Stress Triaxiality*, Journal of Engineering Research and Applied Sciences (JERAS), 5th Edition, May 2018, Libya, ISSN 2414-6515.
- 9. Osama Terfas, Reda Areibi, Abdulbaset Kraima, *Effects of Low Constraint Conditions on Fracture Toughness and Failure Assessment*. Scientific Research Journal for Metal Engineering and Technology. V(1), 2018.
- 10. Rida Arieby, Kaïs Mrabet, **Osama Terfas**, Cédric Laurent and Rachid Rahouadj. *Anisotropic mechanical behavior of semicrystalline polymers: Characterization and modeling of non-monotonic loading including damage*, Journal of Applied Polymer Science, V(134), **2017**.
- 11. **Osama A. Terfas**, Rida B. Arieby, and Abdelhakim A. Hameda. *Finite Element Analysis and Experimental Investigation of Surface Cracks in Elastic-Perfectly Plastic Materials*. Proceedings of International Conference on Energy Systems, Istanbul, Yildiz Technical University. 23-25, Dec., **2015**.
- 12. Osama A Terfas, Effect of Geometry on Hydrostatic Stress and J-integral in Surface Cracks in Bending. Proceedings of International Journal Conference on Robotics, Mechanical and Manufacturing Engineering. Penang 2014, Malaysia.
- 13. Osama A. Terfas, Abdulbast M. Kriama, *Out-of-plane Constraint Based Fracture Toughness*. Proceedings of the World Congress on Engineering 2013: International Conference on Mechanical Engineering. V.3, London, UK.
- 14. **Terfas, A. O.**, and Abdasalam Alktiwi. *Ductile Crack Growth in Surface Cracked Pressure Vessels*. Proceedings of the International Conference on Automotive and Mechanical Engineering. 73, Zurich **2013**, Switzerland.
- 15. **Terfas, A. O.** *The Effect of Stress Biaxiality on Crack Shape Development*. Proceedings of the International Conference on Materials Science and Engineering. 68, Paris **2012**, France.
- 16. Terfas, A. O. Crack tip constraint for a surface crack under fully plastic conditions. Proceedings of the ASME 2009 Pressure Vessels and Piping Division Conference. PVP2009-77371. Prague, Czech Republic.
- 17. Terfas, A. O., and Bezensek, B. The development of a surface crack in a thick vessel under ductile tearing. Proceedings of the ASME 2009 Pressure Vessels and Piping Division Conference. PVP2009-77374. Prague, Czech Republic.
- 18. **Terfas, A. O.**, and Bezensek, B. *The Influence of the specimen thickness on the CTOD fracture toughness*. Proceedings of the 7th EUROMECH Solid Mechanics Conference. **ESMC2009**-398. Lisbon, Portugal.
- 19. **Terfas, A. O.**, and Z. Hatoush, *Development of Quality Control*. Libyan Quality Conference 2004 "To Develop Quality Culture" (Tripoli Libya).
- 20. Terfas, A. O., and Z. Hatoush. *Using integrated Modelling IDEF to Control Production Processes*. Libyan Conference on Development of Industrial Quality (Benghazi Libya 2002).