

## Published researches

1. W. B. El- Osta, M. Elhadi, A. Hwas, Y. Kalifa, A. Taher, "Wind Energy Potential in Libay", The national solar Energy Conference Solar 90, ASES Annual Conference, Mar.19-22-1990.
2. Dr. Widad Al-Usta, Eng. Abdul Hamid Hawas, Abdul Ati Sabita, Ali Al-Taher, Fathi Al-Qamati, "Wind Capabilities in the Jamahiriya: The Possibility of Wind Energy Contributing to Meeting the Energy Need for Electricity", First National Conference on Electricity, Tripoli, 1992.
3. A. Hwas, M. Al-Taher, "Wind Turbines," Solar Energy Magazine, Issue 2, 1/31993.
4. W. Al-Usta, A. Hwas, "Wind Energy Converters," Energy and Life Magazine, Issue 1, March 1993.
5. A. Hwas, A. Ati Sabita, and F. Al-Qamati, "A Study of the Possibility of Establishing Wind Farms in Libya," The Fourth Arab International Solar Energy Conference, Amman, Jordan, 1993.
6. Participation in preparing the "National Paper on Renewable Energy in Libya," The Fourth Arab International Solar Energy Conference, Amman, Jordan, 1993.
7. A. Hwas, "Centralized Wind Farm Monitoring and Its Impact on Reducing Operation and Maintenance Costs," Wind Energy Symposium in the Maghreb, Tunis, 2002. This paper was also published in Energy and Life Magazine, Issue 17, 2003/3.
8. Y. Khalifa, W. Al-Usta, A. Hwas, "Wind Atlas of Libya," International Conference on Energy and Environment, Brak, Libya, 2003.
9. W. Al-Usta, A. Hwas, A. Yaqoub, "Design of Horizontal-Axis Wind Turbine Blades for Several Areas in Libya," Energy and Life Magazine, Issue (20), September 2004.
10. A. Hwas, K. Al-Mansouri, "Operating a Water Desalination Plant Using a Dual System Consisting of a Solar Pond and a Wind Turbine," The Third Symposium on Scientific Research Prospects, Riyadh, Saudi Arabia, 2004.
11. Hwas, A. and Katebi, R., "*Wind Turbine Fault Monitoring*", Tutorial Training workshop improved control of wind farms", Advanced control for offshore wind-farms to reduce failures & maintenance costs, 25<sup>th</sup>-26<sup>th</sup> May 2011, Glasgow, UK.

12. Hwas, A. and Katebi, R. “*Wind turbine control using PI pitch angle controller*”, In IFAC Conference on Advances in PID Control PID'12, 28-30 March 2012, Italy.
13. Hwas, A., Katebi, R., “*Model-based fault detection and isolation for wind turbine*”, UKACC International Conference on Control (CONTROL). IEEE Conference Proceedings, pp. 876-881, 3-5 Sept. 2012, Cardiff, UK.
14. Hwas, A., Katebi, R., “*Linear and Nonlinear Observer-based Fault Detection and Isolation Methods for Wind Turbine*”, Journal paper, submitted to Wind Energy, October 2013.
15. Hwas, A., Katebi, R., “*Nonlinear observer-based fault detection and isolation for wind turbines*”, 22nd Mediterranean Conference on Control and Automation, 16 – 19 June 2014, Italy.
16. Hwas, A., Hatab, A., “*Optimizing Extension and Retraction Velocities for Double Acting Cylinder Using Taguchi Method*”, Journal of Multidisciplinary Engineering Science and Technology, ISSN: 2458-9403, Vol. 5 Issue 11, November - 2018.
17. Allelwani, N., Hwas, A., Makhlof, M., Alwahedi, A., “*Implementation of the Basic Principles of a Computer Numerical Control Machine*”, International Conference on Technical Sciences (ICST2019) 04 – 06 March 2019, Tripoli, Libya.
18. Hwas, A., Hatab, A., “*Effects of Design Parameters of Wind Turbine on Airfoil Coefficients Using Grey-Based Taguchi Method*”, Journal of Multidisciplinary Engineering Science and Technology, ISSN: 2458-9403 Vol. 7 Issue 12, December - 2020.
19. Nabil T. Alelwani, Abdulhamed M. Hwas, “*Implementation of the Computer Numerical Control Milling Machine*”, (7-2021), Libyan Conference on Automation and Robotics (LCAR 2021), 1(1), pp. 49-54
20. Khairi Benamer, Malek Elmabrouk, Abdulhamed M. Hwas, “*Animatronic Robotic Hand Controlled by Glove Using Bluetooth*” (11-2022), International Conference on Mechanical and Industrial Engineering (ICMIE2022), pp. 109-114.
21. Hwas, A., Hatab, A., “*Enhancement of Lift and Drag Coefficients of Wind Turbine Using Q-Blade and Grey-Taguchi*”, Journal of Multidisciplinary Engineering Science and Technology, Vol. 10 Issue 4, April - 2023