



### **Personal Information:**

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### **Academic and Professional Qualifications:**

1. B. Sc. (Honors) In Mechanical Engineering.  
University of Alexandria, Egypt June 1967.
2. M. Sc. in Mechanical Engineering (Automatic Control)  
University of Alexandria, Egypt July 1972.
3. Ph. D. in Mechanical Engineering.  
TU Dresden, Germany July 1978.

## List of Publications:

1. Awad, T., El Haris H., El Gundi A., Simulation of systems having step response with specified shape {Part I, II, and III}. Bulletin of the Faculty of Engineering, Alexandria University, 1973.
2. Awad T., Probleme der adaptiven modellfindung in der maschinendynamik 'Tagung Festkoerpermechanik-Dynamic und Getriebetechnik' Dresden, 1979.
3. Mostafa M., Awad, T., Gomaa A., Trabia B., A computer method for kinematic and dynamic analysis of plane mechanisms. Bulletin of the Faculty of Engineering, Alexandria University, vol. XXII, 1983.
4. Mostafa M., Awad, T., Gomaa A., Trabia B. Optimum dynamic performance of mechanisms using nonlinear programming. Bulletin of the Faculty of Engineering, Alexandria University, 1983.
5. Awad, T., A new optimization technique for discrete objective function and its application in identification of control systems. 2<sup>nd</sup> PEDAC International conference, Alexandria University, 1983.
6. Awad, T., El Gamal H., An optimization technique for modeling of structure and parameters of systems. Bulletin of the Faculty of Engineering, Alexandria University, vol. XXIII 1984.
7. El Gamal H., Awad, T. Saber E., Models of labyrinth sealings for turbomachinery Part I Formulation of the problem and study of geometrical effects. Modeling, Simulation and control, B vol. 10,
8. No. 4, pp41-52, 1987.
9. El Gamal H., Awad, T. Saber E. Models of labyrinth sealings for turbomachinery Part II The leakage problem. Modeling, Simulation and control, B vol. 10, No. 4, pp53-64, 1987.
10. El Gamal H., Awad, T. Saber E. A study of the design of labyrinth seal shapes. 3<sup>rd</sup> PEDAC International Conference, Alexandria University, 1986.
11. Mostafa M., El Gamal H., Awad, T. Morsi E., The effect of torsional vibrations on the leakage from labyrinth seals. . Bulletin of the Faculty of Engineering, Alexandria University, vol. XXV 1986.
12. Mostafa M., El Gamal H., Awad, T., Saber E., The effect of air drag and the velocity of pull on the dynamic behaviour of vibrating viscoelastic strings. Bulletin of the Faculty of Engineering, Alexandria University, vol. XXV 1986.
13. Awad, T., El Gamal H. The effect of the presense of an air bubbles in a hydraulic servomotor on the dynamic response of a control loop. 3<sup>rd</sup> PEDAC International conference, Alexandria University, 1986.
14. H. A El-Gamal, Awad T., E. E. Saber, Oscillatory flow in axisymmetric models of cavities. Modeling, Simulation and Control, B, ASME press, vol. 14, No. 20, 1988.

15. H. A El-Gamal, Awad T., E. E. Saber, Leakage control by the use of a porous labyrinth-sealing gland. Modeling, Simulation and Control, B, ASME press, vol. 14, No. 20, 1988.
16. S. Rezek, M. Abouelwafa, Awad T., A. Olick, Synthesis of four-link space mechanism. ASME Periodicals, Modeling, Simulation and Control, B, Vol.25, No1, 1989.
17. M. Abouelwafa, S. Rezek., Awad T., A. Olick, Optimum balancing of shaking effects for four-link spatial mechanism. ASME Periodicals, Modeling, Simulation and Control, B, Vol.25, No.2, 1989.
18. Awad T., M. Abouelwafa, S. Rezek, A. Olick, An approach for dynamic analysis of HCCC, RCCC and PCCC spatial mechanisms. Alexandria Engineering Journal, Vol. 28, No.4, Oct. 1989
19. Awad T., M. Abouelwafa, S. Rezek, A. Olick Closed form expression for the kinematic of HCCC spatial four link mechanism. ASME Periodicals, Modeling, Simulation and Control, B, Vol.27, No.1, 1990.
20. S. Rezek., Awad T. Optimum parameters of spool valve feedback to minimize surge pressure. SAE Transactions of Journal of Commercial Vehicles, Section 2 volumes 99, & 1990.
21. H. A. El-Gamal, Awad T., A. A. Helmy, I. M. El-Faham, Effect of shaft misalignment on the performance of heavily loaded journal bearings. Fourth International Conference of fluid Mechanics (ICFM4). Vol III session 31, 1992.
22. H. A. El-Gamal, Awad T., E. E. Saber, The leakage across a slotted labyrinth seal gland through which blowing is applied. Fourth International Conference of fluid Mechanics (ICFM4). Vol III session 22, 1992.
23. H. A El-Gamal, Awad T., E. E. Saber, The leakage from stationary and rotating labyrinth seals. 5<sup>th</sup> International Conference on Production Engineering, Design and Control, Alexandria, Vol.2, 1992
24. M. Moustafa, Awad T., H. A El-Gamal, E. Morsi, The influence of oscillatory end on vibrating visco-elastic strings. The 8<sup>th</sup> International Conference for Mechanical Power Engineering, Alexandria, Egypt, Vol. 4 1993.
25. H. A El-Gamal, Awad T., E. E. Saber, Effect of Lateral misalignment on the performance and dynamic characteristics of labyrinth seals. The 8<sup>th</sup> International Conference for Mechanical Power Engineering, Alexandria, Egypt, Vol. 2 1993.
26. M. Moustafa, Awad T., H. A El-Gamal, E. Morsi. The effect of hysteresis and air drag on the behaviour of axially moving and laterally vibrating viscoelastic thread lines. Modeling, Measurements and Control, B, Vol. 49, n3, 1993.
27. H. A El-Gamal, Awad T., Optimum model shape of sliding bearings for oscillating motion. Tribology International, Vol.27, N3, 1994.

28. Awad T., Optimal design of boiler control loops. Alexandria Engineering Journal, Vol. 33, No2 1994.
29. Awad T., Simulation and design of optimal controller for two joints arm robot with parameter uncertainty. Alexandria Engineering Journal, Vol. 33, No2 1994.
30. Awad T., Optimum Controller designs for aircraft Engine. Alexandria Engineering Journal, Vol. 34, No2 1995.
31. Moustafa M, El- Gamal H. ,Awad T. Nabieh A.,A Three Dimensional Kinematical Model of The Human Tibial Femoral Joint., Alexandria Engineering Journal Vol. 39,2000.
32. Metwally H., Awad T. , Al Chaar N. , Vibration Control of Bridges Deck Under Vertical Earthquake Component.
33. 2000 American Control Conference, Chicago USA, 2000.
34. Metwally H. ,Awad T. , Al Chaar N. , Vibration Control of Bridges Deck using Variable Dampers., SEA IX International Congress on Experimental Mechanics and Manufactures , Oralando, Florida USA 2000.
35. Metwally H.,Awad T. , Al Chaar N. , Vibration Control of Bridges Deck Using Passive and Active Mass Dampers . PEDAC Production Engineering Design and Control Alexandria Egypt, 2001.
36. Rashidy H., Saafan A., Rezeka S., Awad T., Fault Diagnosis of A Hydraulic Servovalve Using A Neuro-Fuzzy Model.,6<sup>th</sup> Biennial Conference On Engineering Systems Design and Analysis ESDA, Istambul, Turkey, 2002.
37. Rashidy H., Saafan A., Rezeka S., Awad T., A Hierarchical Neuro-Fuzzy System For Identification Of Simultaneous Faults in Hydraulic Servo valves, 7<sup>th</sup> International Conference on Intelligent Engineering Systems Assiut-Luxor, Egypt - 2003.

### **Projects**

Computer controlled Robots  
 Mobile Robot for Mines Detection.  
 Neural Control of aircraft.  
 Air combat and Autopilot.

### **Fields of Interest.**

**Control Systems, Fuzzy Control, Neural Control, Computer Control.  
 Micro-controllers.  
 Optimization Techniques.  
 Vibration Control  
 Robotics.  
 Analysis of Mechanisms  
 Sliding Bearings  
 Labyrinth Seals**