CURRICULUM VITAE

Professor Dr. Eng.

AHMED MAGED AHMED MOHAMED OSMAN

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Prof. Dr. Eng. / AHMED MAGED AHMED MOHAMED OSMAN

Address:

7, block 17, nine region, Nasr City, Cairo, Egypt.
Telephone : 02/24730389, 01220597222 and 01093042585
E-Mail: amaosman57@hotmail.com

Personal Data :

Date of birth : 1 / 1 / 1957
Place of birth : Giza-Egypt
Nationality : Egyptian
Religion : Moslem
Martial Status : Married + two sons.

Qualifications :

- Ph.D. in Mechanical Power Engineering , 1987, Cairo University, Egypt.
- M. Sc.: in Mechanical Power Engineering , 1982, Zagazig University, Shoubra Faculty of Engineering,Cairo, Egypt.
- B. Sc. (Excellent with Hon. degree) in Mechanical Power Engineering , 1979, Zagazig University, Shoubra Faculty of Engineering, Cairo, Egypt.

Experiences :

Academic Experiences and posts :

1. **Emeritus professor: From 1-7-2017 up to now**. Benha University, Shoubra Faculty of Engineering, Cairo, Egypt.
   Mechanical Engineering Department.

2. ***Vice dean for post graduate studies and acting dean: Fom 10-2016 up to 7-2017.*** Benha University, Shoubra Faculty of Engineering, Cairo, Egypt.

3. Dean of Al-Salam Higher Institute for Engineering and Technology: From 9-2014 up to 31-8- 2016.

4. .Head of Mechanical Engineering Department : From 2013
Benha University, Shoubra Faculty of Engineering, Cairo, Egypt.
Mechanical Engineering Department.

5. Professor : From 2006
Benha University, Shoubra Faculty of Engineering, Cairo, Egypt.
Mechanical Engineering Department.

Duties:

Teaching and supervising the Following Subjects:

- Turbomachinary, (pumps, turbine and compressors)
- Steam and gas turbines
- Pipe lines design
- Hydraulic and pneumatic power systems.
- Hydraulic Machines
- Fluid Mechanics
- Thermodynamics
- Gas dynamics

6. Associate Professor : From 2000 to 2006
Zagazig University, Shoubra Faculty of Engineering, Cairo, Egypt.
Mechanical Engineering Department.

Duties:

Teaching and supervising the Following Subjects:

- Turbomachinary, (pumps, turbine and compressors)
- Steam and gas turbines
- Pipe lines design
- Hydraulic and pneumatic power systems.
- Hydraulic Machines
- Fluid Mechanics
- Thermodynamics
- Gas dynamics

7. Assistant Professor : From 1988 to 2000, Zagazig University, Shoubra Faculty of Engineering, Cairo, Egypt.
Mechanical Engineering Department.
Duties:
Teaching and supervising the following subjects:
- Turbomachinary, (pumps, turbine and compressors)
- Steam and gas turbines
- Pipe lines design
- Hydraulic and pneumatic power systems.
- Hydraulic Machines
- Fluid Mechanics
- Thermodynamics
- Gas dynamics

8. Lecturer : From 1982 to 1988.
Zagazig University, Shoubra Faculty of Engineering, Cairo, Egypt.
Mechanical Engineering Department.

Duties:
Teaching the Following Subjects:
- (pumps, turbine and compressors)
- Steam and gas turbines
- Hydraulic and pneumatic power systems.
- Hydraulic Machines
- Thermodynamics
- Gas dynamics
- Fluid Mechanics
- Pipe lines design

9. Lecturer Assistant : From 1979 to1982
Zagazig University, Shoubra Faculty of Engineering, Cairo, Egypt.
Mechanical Engineering Department.
Duties:
Teaching the Following Subjects:
- Turbomachinary, (pumps, turbine and compressors)
- Steam and gas turbines
- Hydraulic and pneumatic power systems.
- Thermodynamics
- Gas dynamics
- Hydraulic Machines
- Fluid Mechanics

Other Academic Posts :

1. Teaching at many faculties of engineering in the Egyptian universities and institutes.

2. Teaching at different technical and industrial colleges and institutes in Egypt.

3. Teaching and Training different Technical Courses for Industrial Staff (Engineers and other technical staff) in the field of:

a. Gas turbines performance characteristics
b. Steam and gas turbines performance characteristics
c. Operation, maintenance and troubleshooting of steam cycles.
d. Operation, maintenance and troubleshooting of gas turbine cycles.
e. Operation, turbine protection, troubleshooting and alarm trip of gas turbine cycles
f. Calculations of heat rate and efficiency for combined gas and steam cycle.
g. Operation, maintenance and troubleshooting of combined gas turbine cycles.
h. Maintenance and operation of steam generator (boiler)
i. Steam generator calculations and design
j. Valves operation, maintenance and troubleshooting.
k. Air and gas compressors
l. Operation, maintenance, troubleshooting and overhaul of screw compressors.
m. Operation, maintenance, troubleshooting, control and overhaul of reciprocating compressors.
n. Operation, maintenance, troubleshooting and overhaul of centrifugal compressors.
o. Operation and maintenance of steam and gas turbines
p. Basic of hydraulic and pneumatic
q. Pneumatic circuits, components and maintenance.
r. Hydraulic power system maintenance and troubleshooting 1
s. Preventive hydraulic failer
t. Preventive maintenance of hydraulic system
u. Hydraulic cartridge and servo valves
v. Hydraulic proportional and servo valves
w. How to solve and prevent hydraulic system problems
x. Hydraulic system operation and troubleshooting 2
y. Hydraulic control (advanced).
z. Pneumatic control (advanced).

aa. Rexroth hydraulic pumps Control.
bb. Parker hydraulic pumps controls.
cc. Pumps maintenance and troubleshooting.
dd. Positive and dynamic pumps selection, maintenance and troubleshooting.
ee. Electro-hydraulic control, (basic and advanced).
ff. Electro-pneumatic control, (basic and advanced).
gg. Control valves and actuators
hh. Hydraulic and pneumatic system
ii. Maintenance and operation of rotating equipments
jj. Operation, maintenance and troubleshooting of pipe jacking hydraulic circuits for Arab Contractors Osman Ahmed Osman from 2010 up to 2012.
kk. Operation, maintenance and troubleshooting of concrete mixer hydraulic circuits (closed loop), for Arab Contractors Osman Ahmed Osman from 2007 up to 2010.
ll. Operation, maintenance and troubleshooting of concrete pumps hydraulic circuits, for Arab Contractors Osman Ahmed Osman from 2007 up to 2010.
mm. Operation, maintenance and troubleshooting of earth equipments hydraulic circuits.
nn. Air (pneumatic) compressors and motors.
oo. Hydraulic pumps and motors design and maintenance.
pp. Hydraulic circuits for different drilling machines, (work over and super -rig like Tesco, Varco, Maratime, ….),for EDC (Egyptian Drilling Company) from 2001 up to 2006.
qq. Hydraulic circuits for different drilling machines, (work over and super -rig like Tesco, Varco, ….),for Sino-Thrwa Company) from 2008 up to 2012.
rr. Hydraulic torque convertor
ss. Hydraulic systems for Parker hydraulic at Egypt from 2005 up to 2010.
tt. Compressors and pumps
uu. Operation, maintenance, troubleshooting and overhaul positive and non-positive displacement pumps.
vv. Pipe lines design.

Other Activities & Professionals:

1. Consultant engineer in hydraulic and pneumatic controls for many industrial companies (Arab Contractors Osman Ahmed Osman, Parker Hydraulic Pumps, Cairo Hydraulic, Egyption Drilling Company And Sinothrwa).
2. Consultant engineer in hydraulic and pneumatic (for many projects in Egypt).
3. Design and supervising on the construction and maintenance of the following for many industrial companies:

a- Hydraulic circuits for different furnace types (melting and intermediate), capacities (up to 15 tons) and melted materials (cast iron, aluminum and copper).
b- Hydraulic circuits for different presses up to 1000 tons.
c- Hydraulic circuits for fixed and movable shears.
d- Hydraulic and pneumatic circuits for a continues pouring machine line.
e- Hydraulic circuits for aluminum wire rolling line.
f- Hydraulic circuits for different wood presses.
g- Pneumatic circuits for drilling wood machine.
h- Hydraulic circuits for different scrap presses.
i- Hydraulic circuits for clamping in vibrating machine.
j- Hydraulic circuits to control the vertical motion of aluminum cylinder continuous pouring machine for diameters varies from 6 to 8 inches and length up to 6 m.
k- Hydraulic circuit to measure the flow losses in pumps.
l- Hydraulic circuit to tests the hydraulic actuators, directional control valves, pressure control valves, flow control valves, hydraulic pumps, hydraulic motors and check valves.
m- Hydraulic circuits superimposed on a wenches of 30 tons to control the motion and rotation of a metal tower of height 30 m moved on it a vibrators used in soil fixation.
n- Different water pumping stations and lines for cooling aluminum and copper continuous casting machines.
o- Hydraulic circuits for control the movements of the continuous concrete pipes casting machine.
p- Hydraulic circuits for truck cranes up to 50 tons.
q- Development hydraulic circuits for different machine tools industry.
r- Development hydraulic circuits for different construction equipment industry.
s- Development hydraulic circuits for different agricultural machinery.
t- Development hydraulic circuits for different plastic-manufacturing machinery.
u- Development hydraulic circuits for different earth equipments.
v- Development hydraulic circuits for concrete pumps, (Elba, Putzmeister, Schwing, …..).

PUBLICATIONS

A sample of Publications

1. Heikel, H. A., Ayad, S. S., Helmy, H. M., and Osman, A. M., 1984," Experimental Study of the Plane Turbulent Wake Behind an Aerofoil With

Pressure Gradient", 5th International Mechanical Power Engineering Conference, February 5-7, 2000, Ain-Shams University,Egypt, pp. IV.3.1-IV.3.14.

2. **Mobarak, A., Khalafallah, M. G., Osman, A. M., and Heikal, H. A., 1988,**" Experimental Investigation of Secondary-Flow and Mixing Downstream of Straight Turbine Cascades", ASME, Paper No. 88-GT-8.

3. **Mobarak, A., Khalafallah, M. G., Heikal, H. A., and Osman, A. M., 1989,**" Study of Various Factors Affecting Secondary Loss Vortices Downstream a Straight Turbine Cascade", ASME, Paper No. 89-GT-12.

4. **Mobarak, A., Khalafallah, M. G., Osman, A. M. and Shafik, N. M., 1990, "** Effect of Tip Clearance on the Secondary Flow Losses Downstream of a Linear Cascade of Turbine Blades", Proceedings of The Seventh International Conference of Mechanical Power Engineering, December 17-20, 1990, Cairo University, Egypt, pp. V/4-1-V/4-12.

5. **Osman, A. M., 1999, " Prediction of Hydrostatic Pumps Losses,**" Journal of Engineering Research, Faculty of Eng., Mataria, Helwan University, Cairo, Egypt, Vol. 66, pp. 16-31.

6. **Osman, A. M., ShafiK, N. M., Abdel Moneim, S. A., and Abd-Rabbo, M. F., 1999,** " Effect of Flow Entrance on Pressure Drop and Heat Transfer in Pipes", Journal of Engineering Research, Faculty of Eng., Mataria, Helwan University, Cairo, Egypt, Vol. 66, pp. 1-15.

7. **Osman, A. M., 2000,**" Prediction of the Torque Variation on the Swash-Plate of an Axial Piston variable Displacement pump", Journal of Engineering Research, Faculty of Eng., Mataria, Helwan University, Cairo, Egypt, Vol. 67, pp. 1-14.

8. **Osman, A. M., and Sherif H. Taher, 2000**,"Experimental Investigation For Counter Flow Cooling Tower", 11th International Mechanical Power Engineering Conference, February 5-7, 2000, Helwan University, Cairo, Egypt, pp. H1-H12.

9. ***ShafiK, N. M., Osman, A. M., Abdel Moneim, S. A., and Abd-Rabbo, M. F., 2000****, "Study of the Heat Transfer and Pressure Drop Characteristics in Turbulent Air-Solids Flow in a Horizontal Pipe", Cairo 7th International Conference on Energy and Environment, March 11-13, 2000, Cairo, Egypt, pp. 387-406.*

10. Sherif H. Taher, and Osman, A. M., 2000,*"Augmentation of the Heat Transfer in Evaporator Tubes Under Swirl Flow", Al-Azhar Engineering Sixth International Conference, September 1-4, 2000, Cairo, Egypt, pp. 135-152.*

11. ***Osman, A. M., and Sherif H. Taher, 2000****,"The Effect of Surface Roughness on the Heat Transfer Through the Evaporator Tubes", Al-Azhar Engineering Sixth International Conference, September 1-4, 2000, Cairo, Egypt,*

12. ***Osman, A. M., and Abdel Hafiz, A., 200****1,"Experimental and Theoretical Methods for Determining The Oil Effective Bulk Modulus at Different Pressures and Temperatures", Journal of Engineering Research, Faculty of Eng., Mataria, Helwan University, Cairo, Egypt, Vol. 75, pp. 69-85.*

13. ***Abdel Hafiz, A., Bayomi, N. N., and Osman, A. M., 200****2,"The Effect of Inlet Configurations on Centrifugal Fan Performance", Journal of Engineering Research, Faculty of Eng., Mataria, Helwan University, Cairo, Egypt, Vol.80, pp. 146-163.*

14. Osman, A. M., Berbish, N. S., and Sherif H. Taher, 2002,*"Heat Transfer Characteristics of Gravity Assisted Heat Pipes With Inserting Concentric Finned Tubes", Journal of Engineering Research, Faculty of Eng., Mataria, Helwan University, Cairo, Egypt, Vol.80, pp. 163-183.*

15. Sherif H. Taher, Berbish, N. S., and Osman, A. M., 2002,*"Heat Transfer Characteristics of a Packed Heat Pipe ", Journal of Engineering Research, Faculty of Eng., Mataria, Helwan University, Cairo, Egypt, Vol.80, pp. 184-204.*

16. Sherif H. Taher, Eed Abdel-Hadi, and Osman, A. M., 2002,*"Effect of Pottery Lined Inside Evaporator Tubes on The Heat Transfer and Pressure Drop", Sci. Bult. Fac. Eng. Ain Shams Univ., Vol.37, pp. 611-637.*

17. Osman, A. M., Eed Abdel-Hadi, and Sherif H. Taher, 2002,*"Investigation of Film Condensation of R-11 in Internally Grooved Horizontal Tubes on The Heat Transfer and Pressure Drop", Journal of Engineering Research, Faculty of Eng., Mataria, Helwan University, Cairo, Egypt, Vol.81, pp. 131-151.*

18. Eed Abdel-Hadi, Sherif H. Taher, and Osman, A. M., 2002,*"Latent Heat Thermal Energy Storage Using Spiral Heat Exchanger", Engineering Journal, Al-Azhar University, Vol. 5, No. 2, pp. 238-260.*

19. Sherif H. Taher, Berbish, N. S., and Osman, A. M., 2003,*" Heat Transfer Characteristics of Gravity Assisted Heat Pipes With Inserting Concentric Finned Tubes", Journal of Engineering Research, Faculty of Eng., Mataria, Helwan University, Cairo, Egypt, Vol.89, pp. M14-M41.*

20. ***Saber, M., El-Mashed, Y. A., Abd Rabo, S., and Osman, A. M., 2003,*** *" Theoretical and Experimental sensitivity Analysis and Control of Hydrostatic Transmission System", Proceedings of 10th ASAT Conference, GN-7, pp. 1001-1015.*

21. Osman, A. M., 2005,*" Heat Transfer and Pressure Drop Through Annular And Accelerating Flow In Horizontal Evaporator Tubes For R-22", Journal of Engineering Research, Faculty of Eng., Mataria, Helwan University, Cairo, Egypt, Vol.101, pp. M35-M58.*

22. Osman, A. M., 2006,*"Augmentaion of gravity assisted Heat Pipe Performance With Inserted Wire Mesh Layers", Journal of Engineering*

Research, Faculty of Eng., Mataria, Helwan University, Cairo, Egypt, Vol. 103, pp.M67-M84.
23. ***Osman, A. M., 2006,*** *" Experimental Investigation of Condensation Heat Transfer In Externally Augmented Horizontal Tubes", Journal of Engineering Research, Faculty of Eng., Mataria, Helwan University, Cairo, Egypt, Vol. 103, pp.M51-M66.*