

## **Dr. Abdulati El-Alem**

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### **Experience History:**

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- Consultant in the field of petrochemicals, polymers, corrosion, and chemical industries
- Quality control in the field of machineries, polymers, textiles, and materials
- Teaching in the field of thermodynamics, heat transfer, fluid mechanics, plant design, and Polymers

### **Scientific File:**

- PhD and Professor, chemical engineering University of Tripoli, 1982-present
- Consultant National Oil Cooperation Libya 1982 1994
- Head of NELCO Consultation Office, 1995-2005
- Head of chemical engineering, University of Tripoli, 1983-1988
- Ph.D in chemical engineering, University of Illinois, USA, 1982
- M.Sc in chemical engineering, North Carolina State University, USA, 1978
- B.Sc in chemical engineering University of Tripoli with highest honor, Libya, 1974
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### **Recent selected publications**

- 1- Swesi,Y, Elalem,A, Meshrgi,A,Alfoghi W, Utilization of cement kiln dust in absorbtion technology , Tunisian Chemical Engineering Society, Jerba, Tunis, Nov 2013
- 2- Elalem,A, Rejeibi,S, Melt flow of ceramic composite materials with polypropylene, 11<sup>th</sup> Arab International Conference on Polymer Science and Technology, Harghada, Egypt, Aug, 2013
- 3- Elalem A, Tunsu B, Gezawi S, Almeshrgi A.,Experimental assessment of fuel production from waste plastics, EMR Conference, Malaga, Spain, June, 2013
- 4- Belhaj,R,Elalem A, El-Bourawi M, Production of automobile spare parts in Arab Countries,AIDMO,, Arab Union sixth International Conference Tunisia June 2012
- 5- Elalem,A, Hadid,F., Reduction of Carbon Dioxide and Dust Emissions from Ethad Cement Plant, 12<sup>th</sup> International Arab Conference of Industry,Arab Union, Khartomm.Sudan, Nov 2012
- 6- Elalem A., Rejeibi S.,Monder W., Gydi O., Effect of Rotary Kiln Reactor Rotation in Ceramic Industries, 12<sup>th</sup> International Arab Conference of Industry,Arab Union, Khartomm.Sudan, Nov 2012
- 7- Ellalem,A, Khyri,N, Belhaj R, Assessment of composite materials in construction and automobile industries, Fifth International Conference of small and medium Industries Algeria,March 2010

- 8- Aldeib,M,Elalem,A.,Modelling of Heat Transfer in Burning Zone of Rotary Cement Kiln, Fifth International Conference on Chemical & Environmental Engineering Military Applications Cairo May Egypt 2010
- 9- Elalem, A.,Aborawi, M., Mahfod, H., Minimization of gas flaring from crude oil storage tanks in Libya, World Congress in Chemical Engineering, San Francisco, USA 2010
- 10- Elalem, A.,Aborawi, M.,Reduction of carbon dioxide emissions in Automobile industries,13<sup>th</sup> International Conference on material forming, Italy, 2010
- 11- Elalem, A., Rejeibi S., Belhaj, R, Design of sewer system using reinforced thermoplastic materials. 13<sup>th</sup> International Congress on Polymer in Concrete, Madeira, Portugal 2010
- 12- Elalem, A.,Rejeibi,S.,Aldieb, M., Energy Recovery of rotary kiln systems in calcium oxide plants, 6<sup>th</sup> International conference on African geology, Egypt 2009
- 13- Elalem,A.,Rejeibi,S.,Abdelrazag,J.,Utilization of clay in composite materials based industries, 2<sup>nd</sup> Arab Conference on mining industries AIDMO,Moroco 2009
- 14- Elalem,A.,Rejeibi,S.,Aldieb,M.,Energy waste of rotary kiln system in calcium oxide plants,2<sup>nd</sup> Arab Conference on mining industries AIDMO,Moroco 2009
- 15- W. Duffara and Abdulati El-Alem, "Assessment of pollution problems for reducing carbon dioxide emissions from Misurata power plant", 1st International Conference on Chemical Engineering University, of Tripoli Libya, 2009
- 16- R. Belhaj and Abdulati El-Alem, "Improvement of energy of fracture of thermoplastic materials", 1st International Conference on Chemical Engineering, University of Tripoli, Libya, 2009

#### **Selected Previous Publications:**

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- 1- Alem A., Tareq T., "Production of transformer oil in Libya", International Seminar, Bombay, India, 1992
- 2- Alem A., Ahmed A., and Mohamed Z., "Polymeric materials in the construction industries", OAPEC conference, Tunisia, 1991
- 3- Alem A. and Ahmad A., "Future uses of woven bags in Magreb countries", Libyan-Tunisian seminar on chemical engineering, Gabes, Tunisia, 1991
- 4- El-Dbah S., Beck H., Alem A., Ahmed Busiefi, and M. Farooqi, "Production of lube oil base stocks", Libyan-Tunisian seminar on chemical engineering, Gabes, Tunisia, 1991
- 5- Alem A., "Local raw materials and its role in development of petrochemical industries", Photochemical industries seminar, ministry of industry, Mesrata, Libya, 1990
- 6- Alem A., "Evaluation of methanol based industries", RPC Journal, January, 1989
- 7- Alem A. and Ahmed A., "Utilization of offshore gas of BOURI field", OAPEC conference, Doha, Qatar, 1989
- 8- Alem A.. and Ahmed A., "PVC utilization and processing", International conference, split, Yugoslavia, 1989
- 9- Alem A., H. Beck, and N. Farooki, "New experiments for engineering laboratories", Regional conference, OAPEC, DOHA, Qatar, 1988
- 10- Alem A., "Integration of petrochemical industries in Arab countries", OAPEC conference, Mnama, Bahrain, 1987
- 11- Alem A., "Utilization of mathematical models in evaluation of methanol based industries", International society of simulation and modeling. Milano, Italy, 1987
- 12- Alem A."Viscosity blending models for lubricating oils", 4th LAWSPSP symposium, Bombay, India, 1985

- 13- Alem A. and G. Mansoori, "Analytical equation of state of polar fluids AICHEJ, May, 1984, Part II
- 14- Alem A. and G. Mansoori, "The VIM theory of molecular thermodynamics", AICHEJ, May, 1984, Part I
- 15- Alem A. and G. Mansoori, "Analytical variational – Yukawa equation of state", chemical engineering thermodynamics, Chapter 16, Foster Wheeler Synfuels corporation, Butterworth, 1982
- 16- Alem, A. and G. Mansoori, "Analytical Variation Approach to Equation of State". 2nd World Congress of Chemical Engineering, Montreal, Canada, Oct-1981

#### **Selected Master Thesis Supervised:**

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- 1- Experimental and Theoretical Assessment of Fuel Production from Waste Plastics
- 2- Nano Technology in Improvement of Dust collection System
- 3- Utilization of composite materials in piping industries
- 4- Impact behavior of composite materials
- 5- Assessment of pollution problems for reducing carbon dioxide emissions from Misurata power plant
- 6- Assessment of composite materials sandwich panels in construction and automobile industries
- 7- Optimization of energy requirements of rotary kilns in Libyan cement plants
- 8- Improvement of dust collection systems in cement industries
- 9- Gasification of waste plastics in rotary kiln

#### **Selected Technical and Feasibility Studies:**

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- 1- Quality control and inspection of machineries with different fields in England, France, Italy, Korea, Switzerland, Morocco, Egypt, and Tunisia. Mainly crushers plants, plastic bags plants, cement factories, textile plants, and paper bags plants, 1995-2005
- 2- Several Techno-Economical projects and quality control work under NELCO consultation office, acting as a general manager, 1995-2005
- 3- Follow-up of natural gas plant for Agip oil company (Start-up and laboratory evaluation of production lines), 1993
- 4- Feasibility study of Methanol based industries in Libya for National Oil Corporation, 1992
- 5- Feasibility study of cement bags production for Arab union insurance company, 1991
- 6- Evaluation of piping system and drinking water of Leptis cement factory and Zelten cement factory, 1990
- 7- Feasibility study of production of plastic windows from PVC for industrial research center, 1989
- 8- Technical study of environmental pollution from acidic gasses in Mursa-Brega for National Oil Corporation, 1988
- 9- Feasibility study of refining industries in Libya for petroleum research center, 1987
- 10- Evaluation of piping system of Tobacco factory in Tripoli, 1986
- 11- Feasibility study of asphalt production in Libya for petroleum research center, 1985
- 12- Evaluation of Gasoline production in Libya for National Oil Corporation, 1984
- 13- Feasibility study of natural gas transportation from offshore Agip oil company, 1983