

List of Publications:

Journals Refereed Papers:

1. M.K. Bahr Khalil and Don Lopper, “Hydraulic System Protection against Catastrophic Line Failure using Local Safety Valve”, **International Journal of Fluid Power**, Vol. 9 #2, pp. 35-46, August 2008. **Germany**.
2. M.K. Bahr Khalil and Shajan John, “IESHYD010V01 - Hydraulic Components Sizing Calculator”, **International Journal of Fluid Power**, Vol. 8 #3, pp. 65-67, November 2007. **Germany**.
3. M. K. Bahr Khalil, J. Svoboda and R.B. Bhat, “Modeling of Swash Plate Axial Piston Pumps with Conical Cylinder Blocks”, **Journal of Mechanical Design**, ASME Transaction, Vol.126, pp 196-200, January 2004, **USA**.
4. M. K. Bahr Khalil, J. Svoboda and R.B. Bhat, “Dynamic Loads on the Drive Shaft Bearings of Swash Plate Axial Piston Pumps with Conical Cylinder Blocks”, **CSME Transaction**, Vol.27 #4, pp 309-318, January 2004, **Canada**.
5. M. K. Bahr, J. Svoboda and R.B. Bhat, “Vibration Analysis of Constant Power Regulated Swash Plate Axial Piston Pumps” **Journal of Sound and Vibration**, Vol. 259(5), pp1225-1236, January 2003, **USA**.
6. M.K. Bahr Khalil, V. Yurkevich , J. Svoboda and R. B. Bhat “Implementation of Single Feedback Control Loop For Constant Power Regulated Swash Plate Axial Piston Pumps” **International Journal of Fluid Power**, Vol. 3 #3, pp27-36, December. 2002, **Germany**.
7. M. K. Bahr, “Geometrical Analysis of Four-Nozzle Pintle Hydraulic Servovalves”, **Engineering Research Bulletin**, Vol. 2, pp102-115, 1991, **Faculty of Engineering, Mataria, Cairo, Egypt**.

Conference Proceedings:

- 8.M.K. Bahr Khalil, "ON THE MODELING OF HYDRAULIC PUMPS FOR APPLICATION ENGINEERS, ARTICLE #1" 53rd National Conference on Fluid Power, International Fluid Power Exhibition, IFPE 2011 Technical Conference, March 2014, Las Vegas, NV., USA.
- 9.M.K. Bahr Khalil, "Design Process of an Electro-Hydraulic Cylinder Position Feedback Control System" 52st National Conference on Fluid Power, International Fluid Power Exhibition, IFPE 2011 Technical Conference, March 2011, Las Vegas, NV., USA.
- 10.M.K. Bahr Khalil, "Interactive Analysis of Closed Loop Hydraulic Control System", Proceedings of the Thirteenth International Conference on Aerospace Science & Aviation Technology, ASAT13, May 26 – 28, 2009, Cairo, Egypt.
- 11.M.K. Bahr Khalil, "Estimated versus Calculated Viscous Friction Coefficient in Spool Valve Modeling" Proceedings of the 51st National Conference on Fluid Power, International Fluid Power Exhibition, IFPE 2008 Technical Conference, March 2008, Las Vegas, NV., USA.
- 12.M.K. Bahr Khalil, "Innovative Tool for Custom Course Building and Delivery", 11th Annual World Conference on Continuing Engineering Education, May 2008, Atlanta, USA.
13. Khalil, M.K., Deping Li and Bhat, R.B. "Controlling of Rolling Mills Operating Conditions Using Variable Displacement Pump and Electro-Hydraulic Pressure Compensator". 12th International Conference on Applied Mechanics and Mechanical Engineering AMME-12, May 16-18, 2006, Military Technical College, Cairo, Egypt.
14. M. K. Bahr, J. Svoboda and R.B. Bhat, "Experimental Investigation on Swash Plate Axial Piston Pumps with Conical Cylinder Blocks Using Fuzzy Logic Control" International Mechanical Engineering Congress and Exposition ASME-ME2002, November 17-21, 2002, New Orleans, USA.
15. M. K. Bahr, J. Svoboda and R.B. Bhat, "Dynamic Loads on the Drive Shaft Bearings of Swash Plate Axial Piston Pumps with Conical Cylinder Blocks", CSME Forum2002, May 21-24, 2002, Queen's University, Kingston, Canada.
16. M. K. Bahr, J. Svoboda and R.B. Bhat, "Response of Constant Power Regulated Swash Plate Axial Piston Pumps to Harmonic and Random Inputs", International Conference on Multidisciplinary Design in Engineering, CSME-MDE2001, November 21-22, 2001, Concordia University, Montreal, Canada. Winner of the first prize of the student paper competition.
- 17.S.A. Kassem and M.K. Bahr, "Fuzzy Logic Control of Constant Power Regulated Swash Plate Axial Piston Pumps", International Mechanical Engineering Congress and Exposition ASME-ME2001, November 11-16, 2001, New York, USA.
- 18.S.A. Kassem and M. K. Bahr, "On the Dynamics of Swash Plate Axial Piston Pumps with Conical Cylinder Blocks", Sixth Triennial International Symposium on Fluid Control Measurement and Visualization Flucome2000, August 13-17, 2000, Sherbrooke University, Sherbrooke, Canada.
- 19.S.A. Kassem and M. K. Bahr, "Effect of Port Plate Silencing Grooves on Performance of Swash Plate Axial Piston Pumps", 7th Mechanical Design and Production Congress MDP7, Pergamon Press139-148, February 2000, Faculty of Engineering, Cairo University, Cairo, Egypt.