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Research

- Experimental Fluid mechanics
- Biomechanical Systems
- Flow Visualisation
- Education Management and Leadership
- Engineering Education

Other activities

Editor in Chief, Journal of Engineering Science & Technology

Publications

Selected Publications & Presentations

Referred Journals

- Al-Atabi, M.T., Ooi, R.C., Luo, X.Y., Bird, N. and Chin, S.B. 2012. "Computational Analysis of the Flow of Bile in Human Cystic Duct." Journal of Medical Engineering Physics. Vol. 34, No. 8, pp. 1177-1183. DOI: 10.1016/j.medengphy.2011.12.006.
- Al-Atabi, M.T., Espino, D., Hukins, D. and Buchan, K. 2012. "Biomechanical Assessment of Surgical Repair of the Mitral Valve". Proceedings of the Institution of Mechanical Engineers, Part H, Journal of Engineering in Medicine. Vol. 226, No. 4, April 2012 pp. 275 - 287.
- Al-Atabi, M.T., 2011. "Experimental Investigation of the Use of Synthetic Jets for Mixing in Vessels". Journal of Fluids Engineering. Vol. 133, Issue 9, doi:10.1115/1.4004941.
- Shah, Q.H., Mujahid, M., Al-Atabi, M.T., and Abakr, Y.A. 2011. "Load Carrying Capability of Liquid Filled Cylindrical Shell Structures under Axial Compression". Journal of Engineering Science and Technology. Vol. 6, No. 4, pp. 516- 529.
- Abakr, Y.A., Al-Atabi, M.T., and Baiman, Chen. 2011. "The Influence of Wave Patterns and Frequency on Thermo-Acoustic Cooling Effect" Journal of Engineering Science and Technology. Vol. 6, No. 3, pp. 392- 396.
- Al-Atabi, M.T., and Mahdi, A.S. 2011. "CDIO Curriculum for Mechanical Engineering Undergraduate Course". Journal of Engineering Science and Technology. Vol. 6, No. 2, pp. 251- 259.
- Lad, N., Aroussi, A., Adebayo, D. and Al-Atabi, M.T. 2011. "Characterisation of Multiphase Fluid-Structure Interaction Using Non-Intrusive Optical Techniques". Journal of Engineering Science and Technology. Vol. 6, No. 2, pp. 131- 145.
- Al-Atabi, M.T. 2011. "Design and Assessment of a Novel Static Mixer". Canadian Journal of Chemical Engineering. Vol. 89, No. 3, pp.550- 554. DOI: 10.1002/cjce.20412
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- Al-Atabi, M.T., Chin, S.B., and Luo, X.Y. 2010. "Experimental Investigation of the Flow of Bile in Patient Specific Cystic Duct Models". ASME Journal of Biomechanical Engineering. Vol. 132, No 4.
- Al-Atabi, M.T., Espino, D. and Hukins, D. 2010. "Computer and Experimental Modelling of Blood Flow through the Mitral Valve of the Heart". JSME Journal of Biomechanical Science and Engineering. Vol. 5, No 1, pp. 78-84.
- Mahdi, A.S. and Al-Atabi, M.T. 2008. "Effect of Body Shape on the Aerodynamics of Projectiles at Supersonic Speeds". Journal of Engineering Science and Technology (JESTEC). Vol. 3, No 3, pp. 278-292.
- Al-Atabi, M.T., Chin, S.B., Luo, X.Y. and Beck, S.B.M. 2008. "Investigation of the Flow in a Compliant Idealised Human Cystic Duct". Journal of Biomechanical Science and Engineering. Vol. 3, No. 3, pp. 411-418.
- Al-Atabi, M.T. 2007. "Flow in Ducts of Polygonal Cross-Sections with Internal Corner Ribs". International Journal of Heat Exchangers. Vol. 8, No. 2.
- Al-Atabi, M.T. and Abakr, Y.A. 2007. "Laminar Mixing in SMX Static Mixers". Journal of Engineering Science and Technology (JESTEC). Vol. 2, No 1, pp. 95-101.
- Al-Atabi, M.T., Chin, S.B., Beck, S.B.M and Boucher, R.F. 2007. "From Cystic Duct to Static Mixer: A Serendipitous Journey via Flow Visualization". Journal of Visualization (JOV). Vol. 10, No.2, pp. 141-144. (Invited paper).
- Al-Atabi, M.T., Chin, S.B. and Luo, X.Y. 2006. "Flow in Non-Circular Ducts with Corner Ribs". Journal of Flow Visualization and Image Processing (JFVIP). Vol. 13, No 3, pp 203- 216.
- Al-Atabi, M.T., Chin, S.B. and Luo, X.Y. 2006. "Visualization Experiment of Flow Structures inside Two-Dimensional Human Biliary System Models". Journal of Mechanics in Medicine and Biology (JMMB). Vol. 6, No. 3, pp 249-260.
- Al-Atabi, M.T., Al-Zuhair, S.A., Chin, S.B. and Luo, X.Y. 2006. "Pressure Drop in Laminar and Turbulent Flows in Circular Pipe with Baffles – An Experimental and Analytical Study". International Journal of Fluid Mechanics Research (IJFMR). Vol. 33, No. 4, pp 303-319.
- Al-Atabi, M.T., Chin, S.B. and Luo, X.Y. 2006. "Cystic Duct Visual-Based Evaluation of Gallstones Formation Risk Factors". Journal of Engineering Science and Technology (JESTEC). Vol. 1, No. 1, pp 1-9.
- Al-Atabi, M.T. 2006. "Aerodynamics of Wing Tip Sails". Journal of Engineering Science and Technology (JESTEC). Vol. 1, No.1, pp 89-98
- Al-Atabi, M.T. 2006. "A Subsonic Jet Thrust Vector Control Using Fluidic Means". Journal of Mechanical Engineering. Vol. 56, No. 6, pp 332- 338.

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- Yusaf, T.F., Al-Atabi, M.T. and Buttsworth, D.R. 2003. "Small Scale Power Generation using a Dual Fuel System". *International Energy Journal*. Vol. 4, No. 2, pp 129- 138.

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- Koo, B. and Al-Atabi, M.T. 2013 "Extreme Learning Process: Design Learning Organizations as Distributed Computing Systems." *Proceedings of CDIO International Conference*, Boston MA, USA. 9-13 June 2013.
- Namasivayam, S. and Al-Atabi, M.T. 2013 "The Amalgamation of Industry Practices in an Engineering Capstone Project." *Proceedings of CDIO International Conference*, Boston MA, USA. 9-13 June 2013.
- Al-Atabi, M.T. 2012 "Development of Project Management Skills through Collaborative Learning." *Proceedings of AAEE 2012 Conference*, Melbourne, Australia. December 2-5, 2012.
- Al-Atabi, M.T. 2012 "Experimental Investigation of Mixing in Vessels with Synthetic Jets using Particle Image Velocimetry." *Proceedings of the ASME 2012 International Mechanical Engineering Congress & Exposition IMECE2012*, Houston, Texas, USA. November 9-15, 2012.
- Al-Atabi, M.T. 2012 "Inculcating CDIO Skills at Pre-Degree Level." *Proceedings of the 8th International CDIO Conference*, Queensland University of Technology, Brisbane, July 1 - 4, 2012.
- Al-Atabi, M.T. 2012 "Managing Projects for Success: Integrating CDIO and Management Skills." *Proceedings of the 8th International CDIO Conference*, Queensland University of Technology, Brisbane, July 1 - 4, 2012.
- Al-Atabi, M.T., Ng, K K., Liang, H. C., Hia, I. L., Chin J. J., and Ooi F. L. 2011. "Particle Image Velocimetry Study of Mixing in Tanks Using Synthetic Jets." *Proceedings of the International Conference on Chemical Engineering & Industrial Biotechnology*. University Malaysia Pahang, Kuantan, Malaysia. Nov. 28- Dec. 1.
- Al-Atabi, M.T., Ismail, R., Younis, O. and Hosseini, M. 2011. "Smart Industrial Placement Programme." *Proceedings of the 4th International Conference of Education, Research and Innovation*. International Association of Technology and Development (IATED). Madrid, Spain, November 14- 16.
- Al-Atabi, M.T. and Wong, Y.W. 2011. "Effect of Reflective Assessment on Internalisation of CDIO Principles." *Proceedings of the 7th International CDIO Conference*, Technical University of Denmark, Copenhagen, June 20-23.
- Al-Atabi, M.T., Chung, Edwin, and Younis, O. 2010. "Corporate Style Team-Building Activities for Undergraduate Engineering Programmes." *Proceedings of the 2010 Australian Association of Engineering Education Conference*, Sydney, Australia, Dec 5-8.
- Al-Atabi, M.T. and Younis, O. 2010. "Use of Facebook to Support Module Delivery for Undergraduate Engineering Programmes". *Proceedings of the 2010 Australian Association of Engineering Education Conference*, Sydney, Australia, Dec 5-8.
- Al-Atabi, M.T. 2010. "Case Based Learning in Engineering Labs". *Proceedings of the 6th International CDIO Conference*, École Polytechnique de Montréal, Québec, Canada, June 15-18.
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- Al-Atabi, M.T. 2010. "Flow around Symmetrical Airfoil with Backward Facing Step". *Proceedings of the 14th International Symposium on Flow Visualisation*, Daegu, Korea, June 21-24.
- Al-Atabi, M.T. and Shamel, M. 2010. "Mixing in Tanks Using Synthetic Jets". *Proceedings of the 14th International Symposium on Flow Visualisation*, Daegu, Korea, June 21-24.
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- Al-Atabi, M.T. 2009. "The Use Of Project Based Learning As A First Year Integrated Teaching And Learning Medium". *Proceedings of the 5th International CDIO Conference*, Singapore Polytechnic, Singapore, June 7 – 10.
- Afolabi, L., Aroussi, A., Mat Isa, N. and Al-Atabi, M.T. 2009. "The Prevailing Fluid Motion in a Model Coal Classifier". *Proceedings of the 4th Algerian Congress of Engineering Processes*, Algiers, 4-6 May.
- Al-Atabi, M.T., Espino, D. and Hukins, D. 2009 "Experimental Study of the Flow through a Two Dimensional Mitral Valve Model". *Proceedings of 4th Asian Pacific Conference on Biomechanics*. University of Canterbury, Christchurch, New Zealand, 14- 17 April.
- Al-Atabi, M.T. 2008. "The Use of Self Tracking Skill Matrix to Encourage Student Centred Learning". *Proceedings of the 2008 Australian Association for Engineering Education Conference*. Yeppoon, Australia, 7- 10 December.
- Al-Atabi, M.T., Loong, Z., Ng, W. K., Yoong, K. X. and Tee, J. 2008. "Novel Solution for the Automobile Blind Spot Problem". *Proceedings of the 2nd Regional Conference on Vehicle Engineering and Technology 2008*. Kuala Lumpur, 15-17 July.
- Al-Atabi, M.T., Chin, S.B. and Aroussi, A. 2008. "Student Centred Learning Using Flow Visualisation". *Proceedings of the 13th International Symposium on Flow Visualisation (ISFV13)*. Nice, France 1- 4 July.
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- Al-Atabi, M.T., Chan, M.W., Chang, L.S., Abakr, A.Y. 2007. "Assessment of Mixing in a Commercial Mixer (SMX)". *Proceedings of the 21st Symposium of Malaysian Chemical Engineers (SOMCHE 2007)*, UPM, Serdang, Selangor, Malaysia, December 12-14.
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- Al-Atabi, M.T. & Abakr, Y.A. 2005. "Competition-Based Engineering Learning" Proceedings of the 2005 Regional Conference on Engineering Education. December 12-13, Johor, Malaysia.
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- Al-Atabi, M.T., Chin, S.B. and Luo, X.Y. 2004. "An Experimental Study of the Flow in an Idealized Human Cystic Duct". Proceedings of the First Asian Pacific Conference on Biomechanics (APBiomech2004) - (JSME), Osaka, Japan. March 25-28, pp.33-34.
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- Yusaf, T.F. and Al-Atabi, M.T. 2002. "Experimental Investigation of A Single Cylinder Diesel Engine as A Hybrid Power Unit for A Series Hybrid Electric Vehicle". Proceedings of the 2002 Student Conference on Research and Development (SCOReD2002). Shah Alam, Malaysia. July 16-17, pp 261-264.
- Yusaf, T.F., Al-Atabi, M.T. and Buttsworth, D. 2001. "Engine Performance and Exhaust Gas Emission Characteristics of (CNG/Diesel) Dual-Fuel Engine". Proceedings of the Small Engine Technology Conference (SETC). Pisa, Italy. July 28-30.
- Al-Atabi, M.T. and Yusaf, T.F. 2000. "Wind Tunnel Study of a Symmetrical Wing with Tip Sails". Proceedings of the Fourth Biennial Engineering Mathematics and Applications Conference (EMAC2000). RMIT University, Melbourne, Australia. September 10-13, pp. 227-230.
- Al-Atabi, M.T. and Asrar, W. 1999. "Wake and Aerodynamic Forces Study for A Wing with Tip Sails". Paper No. 99-3203. Proceedings of AIAA Norfolk Summer Conference. Norfolk, VA, USA. June 28- July1.

