## **Publications:**

- 1. Zhiyin Yang, and Ibrahim E. Abdalla. Effects of free-stream turbulence on a transitional separated-reattached flow over a flat plate with a sharp leading edge. International Journal of Heat and Fluid Flow. 30, Issue 5, 2009, PP. 1026-1035.
- 2. Ibrahim E. Abdalla, Malcolm J. Cook, and Zhiyin Yang, 2009. Computational analysis and flow structure of a transitional separated-reattached flow over a surface mounted obstacle and a forward-facing step International journal of computational fluid dynamics, 13-1, 25-57.
- 3. Yang, Z. and Abdalla. I.E., 2008. On Coherent Structures in a Separated/Reattached Flow", WSEAS Transactions on Fluid Mechanics, Volume 3, Issue 2, pp. 143-153.
- 4. Abdalla I.E., Cook, M.J. Yang Z, 2006. Numerical study of transitional separatedreattached flow over surface-mounted obstacles using large-eddy simulation. International Journal of Numerical Methods in Fluid. 54, 2, 175-206.
- Zhiyin Yang and Ibrahim E. Abdalla, 2005. Effects of free-stream turbulence on large scale structures of separated boundary transition, International Journal for Numerical Methods in Fluids, 49, 331-348.
- 6. Ibrahim E. Abdalla and Zhiyin Yang, 2005. Numerical study of a separated reattached flow on a blunt plate, AIAA Journal, 43, 2465-2474.
- 7. Ibrahim E. Abdalla and Zhiyin Yang, 2004. Computational visualization of separatedreattached transitional flow on a blunt plate. Journal of Flow Visualisation and Image Processing, 11, 1-28.
- 8. Ibrahim E. Abdalla and Zhiyin Yang, 2004. Numerical study of the instability mechanism in transitional separating-reattaching flow on a blunt plate. International Journal of Heat and Fluid Flow, 25, 4, 593-605.
- Ibrahim E. Abdalla. On the differences of transitional separated-reattached flows over leading-edge obstacles of varying geometries. Fourteenth International Conference on Computational Methods and Experimental Measurements (CMEM 2009), 10 - 12 July, 2009, Algarve, Portugal. Transaction of the Wessex Institute, Paper DOI: 10.2495/CMEM090301.
- Ibrahim E. Abdalla, Malcolm J. Cook. Spectral analysis of a transitional separatedreattached flow using Fourier and wavelet transforms. Thirteenth International Conference on Computational Methods and Experimental Measurements (CMEM 2007),

2 - 4 July, 2007 Prague, Czech Republic. Transaction of the Wessex Institute, Paper DOI: 10.2495/CMEM070021.

- Abdalla I. E. Yang Z Investigation of vortex shedding in transitional separating reattaching flow on a blunt plate. Eleventh International Conference on Computational Methods and Experimental Measurements, CMEM 2003). 12 -14 May 2003, Halkidiki, Greece.
- 12. Abdalla I. E. Yang Z Visualisation of Large-scale Structures in Separated-Reattached Transitional Flow on a Blunt Plate. ``Seventh Triennial International Symposium on Fluid Control, Measurement and Visualisation'', Sorrento, Italy, August 25-28, 2003.
- 13. Ibrahim El-Rayah Abdalla Computer simulation of fully developed channel flow and validation of parallel code. International Arab Conference on Information Technology, December 16th 19th, 2002, Doha Qatar.
- 14. Abdalla I. E. M. D. Smith The structure Propagation of Jets. Astronomy and Astrophysics in Ireland conference, April 1-4, 2004, Armagh, Northern Ireland.
- 15. Abdalla I. E. B. H. Ouma Numerical simulation of pollutant dispersion from a factory chimney into atmosphere.2nd European and African Conference on Wind Engineering. Genova, Italy, June 22 26, 1997, Vol. 1, PP. 467 474.
- 16. Ibrahim E. Abdalla, Malcolm J. Cook, and Gary Hunt, 2009. Numerical Study of thermal plume characteristics and entrainment in an enclosure with a point heat source. Engineering applications of computational fluid mechanics, 3, No. 4, pp. 608-630.
- Ibrahim E. Abdalla, Malcolm J. Cook, Simon J. Rees and Zhiyin Yang, 2007. Large-eddy simulation of buoyancy-driven natural ventilation in an enclosure with a point heat source. International journal of computational fluid dynamics, Vol. 21 issue 5, pp. 231-245.
- 18. Ibrahim E. Abdalla, Malcolm J. Cook. Coherent air flow structures and their behaviour in transitional buoyancy driven plumes in ventilated enclosure. Roomvent 2007 conference proceeding, paper 1009. 13-15 June 2007 Helsinki, Finland.
- 19. Ibrahim E. ABDALLA, Ayedh ALAJMI, and Zhiyin YANG, 2015. Numerical study of the combustion of conventional and biofuels using reduced and advanced reaction mechanisms. Thermal Science Journal, Vol. 19, No. 6, pp. 2171-2184
- 20. Ayedh E. Alajmi, Ibrahim E. Abdalla and Jasem AlOtaibi, (2016). Numerical study of reacting flow in a methane burner with detailed reaction. American Scientific Research Journal for Engineering, Technology, and Sciences (ASRJETS), PP. 2313-4402

- Ayedh E. Alajmi, Ibrahim E. Abdalla, T. Bengherbia1 and Zhiyin Yang. Numerical simulation of spray combustion of conventional and Biofuels. 16th International Conference on Computational Methods and Experimental Measurements. 2 - 4 July, 2013. A Coru<sup>\*</sup>a, Spain.
- Numerical and Experimental Studies of the Combustion of Biofuels on Different Platform. Submitted for iNET, East Midlands Development Agency (emda) for grant No. 290310, October, 2010.
- 23. Gurevich A., Selvaratnarajah S., Abdalla, I. Theoretical and Experimental Analysis of Ultrasonic Cross Correlation Flow Measurement Technology. 31st Annual Conference of the Canadian Nuclear Society, May 24-27, 2010, Montréal, QC.