CURRICULUM VITAE

Mohamed Ahmed Yousof Bakier, Master

Assistant lecturer in Department of Mathematics, Faculty of Science, Assiut University, Assiut, Egypt.

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Research Interests

Computational fluid dynamic research: Modelling and simulation of

fluid flow through different geometry, open cavity, Modelling by Eulerian methods (FDM, CVM) and Lagrangian method (SPH).
Heat and Mass Transfer: Fluid flow through posous media, Nanofluid, MHD natural convection, Heat and mass transfer in open cavities, and Conjugate natural convection.

Education

Bachelor (September, 2005- June, 2009)

Faculty of Science, Assiut University, Assiut, Egypt

Major : Mathematics.

Degree : (86.87%)

Master (September, 2010 –July, 2013)

Department of Mathematics, Faculty of Science, Assiut University, Assiut, Egypt

Major : Mathematics.

Advisor : Prof. Mohamed Ahmed Mansour

Thesis : Computational Algorithms for Some Fluid Flow.

Professional Skills:

- Coding by Fortran Programming Language (very well)
- Programming with Matlab and Mathimatica software.
- Using Micro-AVS for visulaization, 'SURFER' and 'Origin7' for data discribing and curvefitting.

Research Experience:

- Study the computational algorithms for some fluid flow (2011-2013)
- Study the master courses (2010-2011)

Publications:

1. **Mansour, M.A., Bakier, M.A., Aly, A.M., "Study of the natural convection cooling of a localized heat source at the bottom of a square cavity using SPH method", *Int. Journal of Energy & Technology* 2012, 4(24), 1–8.**
2. **Mansour, M.A., Bakier, M.A., "Free convection heat transfer in complex-wavy-wall enclosed cavity filled with nanofluid", *International Communications in Heat and Mass Transfer*, 2013, 44, 108–115.**
3. **Mansour, M.A., Bakier, M.A., Gorla, R.S.R., "Natural convection in vertical I-shaped nanofluid filled enclosures", *J. Nanofluid*, 2013 a, 2, 1-11.**
4. **Mansour, M.A., Ahmed, S. E., and Bakier, M. A., "Free convection in H–shaped enclosures filled with a porous medium saturated with nanofluids with mounted heaters on the vertical walls ", Publishing in: *Special Topics & Reviews in Porous Media*, 2013 b, 4(4), 287-297.**
5. **M. A. Mansour, A. Y. Bakier, M. A. Y. Bakier,** Natural convection of the localized heat sources of T-shaped nanofluid-filled enclosures, **American Journal of Engineering Research**, 2013c,Volume-02, Issue-07, pp.49-61.
6. **M. A. Mansour, A. Y. Bakier, M. A. Y. Bakier,** MHD Natural convection in the localized heat sources of an inclined trapezoidal Nanofluid-filled enclosure, **American Journal of Engineering Research, 2013d,** Volume-02, Issue-09, pp.140-161.

7. **M. A. Mansour, M. A. Bakier, A. J. Chamkha**, Natural Convection Inside a C-Shaped Nanofluid-Filled Enclosure with Localized Heat Sources, Int. J. of Numerical Methods for Heat and Fluid Flow, 2014, Volume 24 Issue 8, pp. 1954-1978.

8. **M. A. Bakier,** Flow in open C-shaped cavities: How far does the change in boundaries affect nanofluid?, Engineering Science and Technology: an International Journal, 17 (2014) 116-130.

9. **M. A. Mansour, M. A. Bakier, A. J. Chamkha**, Numerical modelling of natural convection of a nanofluids between two encloseres, ***J. Nanofluid*, 2014 , 3, 1-12.**

10. **A. Y. Bakier, M. A. Y. Bakier**, Numerical study of natural convection in non-Darcian porous medium sandwiched by finite thickness wall, J. of Hydrodynamics, (accepted)