



Dr. Habib Ibrahim Abualhamayel

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Research Projects & Representative Publications

- **H. I. Abualhamayel** and M. Yagub, "Prediction of species and temperature profiles in methanol, oxygen and argon flames," *The Arabian Journal for Science and Engineering*, 21(4A), 499, 1996.
- **H. I. Abualhamayel** and P. Gandhidasan, "A method of obtaining fresh water from the humid atmosphere," *Desalination*, 113(1), 51, Oct. 1997.
- M. A. I .El-Shaarawi, **H. I. Abualhamayel** and E. M. A. Mokheimer, "Developing laminar flow in eccentric annuli," *Transactions of the ASME*, 119, 724, Sep.1997 .
- B. S. Yilbas ,M. Sami and **H. I. Abualhamayel**, "3-dimensional modeling of laser repetitive pulse heating: A phase change and a moving heat source considerations," *Applied Surface Science*, 134, 159, 1998.
- B. S. Yilbas ,S. Z. Shuja, S. A. Gbadebo, **H. I. Abualhamayel** and K. Boran, "Natural convection and entropy generation in a square cavity," accepted for publication in the *International Journal of Energy Research*.
- P. Gandhidasan ,**H. I. Abualhamayel** and S. M. Zubair, "Second law analysis of a tilted solar still," *World Renewable Energy Journal (WREC)*, 2061, 1998.



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Journal Publications

1. Gandhidasan P. and **Abualhamayel, H.I.** "A Simple Analysis of Solar Desalination of Seawater," *Desalination*. Vol. 99 (1994), pp. 137-147.
2. Gandhidasan, P. and **Abualhamayel, H.I.**, "Water Recovery from the Atmosphere," *Renewable Energy*. Vol. 9 (1996), pp. 745-748.
3. **Abualhamayel, H.I.** and Gandhidasan, P., "A Method of Obtaining Fresh Water from the Humid Atmosphere," *Desalination*. Vol. 113 (1997), pp. 51-63.
4. Gandhidasan, P. and **Abualhamayel, H.I.**, "Analytical Prediction Model for the Performance of a Tilted Solar Still," *Journal of King Abdulaziz University - Engineering Sciences, Special Issue: The Fourth Saudi Engineering Conference, Jeddah (1999)*, pp. 229-234.
5. Gandhidasan, P. and **Abualhamayel, H.I.**, "Modeling and Testing of a Dew Collection System," *Desalination*. Vol. 180 (2005), pp. 47-51.
6. Gandhidasan, P. and **Abualhamayel, H.I.**, "Fog Collection as a Source of Fresh Water Supply in the Kingdom of Saudi Arabia," *Water and Environment Journal*, Vol. 21 (2007), pp. 19-25.
7. Gandhidasan, P. and **Abualhamayel, H.I.**, "Application of Desiccant Technology for Concentrating Liquid Foods – Experimental Investigation," *International Journal of Food Engineering*. Vol. 3 (2007), Issue 5, Article 3, pp. 1-14.
8. Gandhidasan, P. and **Abualhamayel, H.I.**, "Investigation of Humidity Harvest as an Alternative Water Source in the Kingdom of Saudi Arabia," *Water and Environment Journal*. Vol. 24 (2010), pp. 282-292.
9. Gandhidasan, P. and **Abualhamayel, H. I.**, "Exploring Fog Water Harvesting Potential and Quality in the Asir Region, Kingdom of Saudi Arabia," *Pure and Applied Geophysics*, (2011), DOI 10.1007/s00024-011-0341-z.

Conference Publications

1. Gandhidasan, P. and **Abualhamayel, H.I.**, "Solar Desalination of Sea Water," *Proceedings of 28th Intersociety Energy Conversion Engineering Conference, IECEC-93, Atlanta, Georgia, Vol. 2 (1993)*, pp. 591-595.
2. Gandhidasan, P., **Abualhamayel, H. I.** and Zubair, S.M., "Second Law Analysis of a Tilted solar Still," *Proceedings of the World Renewable Energy Congress V, Florence, Italy, Vol. IV (1998)*, pp. 2061-2064.



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- 3. Abualhamayel, H.I. and Gandhidasan, P.,** “An Investigation of Renewable Water Sources in the Kingdom of Saudi Arabia,” - Proceedings of the Third International Conference on Fog, Fog Collection and Dew, Cape Town, South Africa, Oct. 11-15, 2004.
- 4. Abualhamayel, H.I. and Gandhidasan, P.,** “The Concentration Energy (CDE) System for Liquid Food Concentration,” Proceedings of the Second International Green Energy Conference (IGEC-2), Oshawa, Ontario, Canada, 25-29 June 2006, pp. 1355-1363.
- 5. Abualhamayel, H.I. and Gandhidasan, P.,** “Experimental Investigations of Fresh Water Collection from the Humid Atmosphere,” - Proceedings of the Fourth International Conference on Fog, Fog Collection and Dew, City of La Serena, Chile, July 22-27, 2007, pp.273-276.
- 6. Abualhamayel, H.I. and Gandhidasan, P.,** “Design and Testing of Large Fog Collectors for water Harvesting in Asir Region, Kingdom of Saudi Arabia,” – Proceedings of the 5th International Conference on Fog, Fog Collection and Dew, Munster, Germany, 25-30 July 2010, pp. 116-119.

Awards & Honors

Certificate of Recognition by Vice Rector for Distinguished Services to the University.
Certificate of Recognition for Distinguished Performance in the student activities.