

## List of publications:

- M. Dixit, R. Baruah, D. Parikh, S. Sharma, and **A. Bhargav**, “Autothermal reforming of methane on rhodium catalysts: Microkinetic analysis for model reduction”, *Computers and Chemical Engineering*, Volume 89, June 2016, Pages 149-157.
- R. Baruah, M. Dixit, P. Basarkar, D. Parikh, & **A. Bhargav**, “Advances in ethanol autothermal reforming”, *J. Renew. Sustain. Energy Rev.*, Volume 51, November 2015, Pages 1345-1353.
- M. Dixit, R. A. Menon, R. Baruah, S. Sharma, & **A. Bhargav**, “Oxidative activation of methane on lanthanum oxide and nickel-lanthanum oxide catalysts”, *Reaction Kinetics, Mechanisms and Catalysis*, August 2015, Volume 115, Issue 2, pp 611-624.
- Y. Fulpagare and **A. Bhargav**, “Advances in Data Center Thermal Management”, *J. Renew. Sustain. Energy Rev.*, Volume 43, March 2015, Pages 981-996.
- Y. Fulpagare, G. Mahamuni, and **A. Bhargav**, “Effect of Plenum Chamber Obstructions on Data Center Performance”, *Applied Thermal Engineering*, Volume 80, April 2015, Pages 187-195.
- M. Dixit, Y. Fulpagare, J. Shukla, P. Basarkar, D. Parikh, and **A. Bhargav**, “Design of Fuel Cell Systems Laboratory for Hydrogen, Carbon Monoxide and Hydrocarbon Safety”, *Int. J. Hydrogen Energy*, Volume 39, Issue 31, October 2014, pp. 17929 – 17944.
- M. Lyubovsky, **A. Bhargav**, M. Dixit, “Managing Fuel Variability in LPG-based PEM Fuel Cell Systems – I: Simulations”, *Int. J. Hydrogen Energy*, Volume 39, Issue 30, October 2014, pp. 17231 – 17239, 2014.
- R. Mehta, P. Shah, H. Gupta, P. Bhat, V. Gandhi, K. Kale, M. Taldevkar, A. Singh, C. Ghoroi, **A. Bhargav**, and A. Karnik, “Conversion of a CNG Powered Auto Rickshaw to an Electric Rickshaw Designed for Indian Conditions”, *SAE Int.* DOI: 10.4271/2014-01-1968, Paper No. 2014-01-1968, Apr. 8, 2014 [To appear].
- **A. Bhargav**, G.S. Jackson, R.J. Ciora, P.K.T. Liu: “Model Development and Validation of Hydrogen Transport through Supported Palladium Membranes”, *Journal of Membrane Science*, Volume 356, Issues 1-2, 1 July 2010, Pages 123-132
- **A. Bhargav** & G.S. Jackson: “Thermokinetic Modeling and Parameter Estimation for Hydrogen Permeation through Pd<sub>0.77</sub>Ag<sub>0.23</sub> Membranes”, *International Journal of Hydrogen Energy*, 34:12 (2009), 5164-5173, doi:10.1016/j.ijhydene.2009.04.0109.
- J.B. Pearlman, **A. Bhargav**, E.B. Shields: “Modeling Efficiency and Water Balance in PEM Fuel Cell Systems with Liquid Fuel Processing and Hydrogen Membranes”, *Journal Of Power Sources* Volume: 185 Issue: 2 Pages: 1056-1065 Published: Dec 1 2008

## Conferences and others:

- Y. Fulpagare, Y. Joshi & **A. Bhargav**, “Rack level transient CFD modeling of data center”, International Conference on Computational Methods for Thermal Problems, ThermaComp, July 2016, Atlanta, USA
- Y. Fulpagare, **A. Bhargav** and P. Shirbhate, Design and testing of prototype data center, The Intersociety Conference on Thermal & Thermomechanical Phenomenon in Electronic Systems, iTHERM, June 2016, Las Vegas, USA
- Ruch Patrick, Ammann Jens, Daguene-Frick Xavier, Gantenbein Paul, Gupta Vishnu, **Bhargav Atul**, Michel Bruno, “Materials and system design for adsorption in heat pumps to efficiently utilize waste heat and renewable energy”, in 12<sup>th</sup> International Conference on the Fundamentals of Absorption, Friedrichshafen, Germany, May 29-June 3, 2016.
- M. Chaudhary, A. Parejiya, M. Dixit, and **A. Bhargav**, “Modeling negative temperature co-efficient for methane auto-ignition at high pressures,” International Conference of Advances in Energy Research 2015, IIT Bombay.
- M. Dixit, R. Baruah, A. Parejiya, D. Parikh, and **A. Bhargav**, “Autothermal reforming of ethanol on rhodium catalysts: Elucidation of reforming pathways from detailed microkinetics,” International Conference of Advances in Energy Research 2015, IIT Bombay.
- Fulpagare, Y., & **Bhargav, A.** Thermal Prediction Model of Data Center. Accepted in 23rd National Heat and Mass Transfer Conference and 1st International ISHMT-ASTFE Heat and Mass Transfer conference, Dec 2015.
- Sinha, Ankita and **Bhargav, Atul**, "Effect of food sample geometry on heat and mass transfer rate and cooking time during deep fat frying process", in the 23rd National Heat and Mass Transfer Conference and 1st International ISHMT-ASTFE Heat and Mass Transfer Conference (ISHMT 2015), Kerala, IN, Dec. 17-20, 2015.
- Sharma, Vikas; Marm, Dixit and **Atul, Bhargav**, "Modelling non-catalytic autothermal reforming for diesel based systems", in the India International Science Festival- (IISF), Indian Institute of Technology, New Delhi, IN, Dec. 4-8, 2015.
- Shirbhate, P., Fulpagare, Y., & **Bhargav, A.** (2015). Effect of Rack Layout on Data Center Thermal Performance Using CFD and Experimental Studies. Accepted in 23rd National Heat and Mass Transfer Conference and 1st International ISHMT-ASTFE Heat and Mass Transfer conference, Dec 2015.
- S. Gupta, **A. Bhargav**, “Design and Performance Calculations of a Solar-Aided Supercritical Coal Power Plant with Thermal Energy Storage”, paper accepted at the *ASME 2014 Power Conference*, to be held at Baltimore, Maryland, USA 28-31 July 2014.

- Jagwani, H. Bhargava, A. Patil, S. Singhal, **A. Bhargav**, "Efficient Cooling Systems for Hot and Dry Climate and Assessment of Thermal Comfort", poster presented at the *22<sup>nd</sup> National and 11<sup>th</sup> International ISHMT-ASME Heat and Mass Transfer Conference 2013*, organized by IIT Kharagpur, India.
- Y. Fulpagare, G. Mahamuni, and **A. Bhargav**, "Plenum Flow Simulation of Raised Floor Air Cooled Data Center," poster presented at *Research Scholars' Day*, , *Indian Institute of Space Science and Technology, Thiruvananthapuram*, December 16-17, 2013.
- G. Dubey, S. Chauhan, **A. Bhargav**, "Thermal Management of Vertically Stacked 3-D Microprocessors using Inter-Layer Liquid Cooling", paper presented at the *22<sup>nd</sup> National and 11<sup>th</sup> International ISHMT-ASME Heat and Mass Transfer Conference 2013*, organized by IIT Kharagpur, India.
- **Bhargav**, P. Nagendra, M. Lyubovsky, C. Tesluk:, "Control Strategies for Hydrocarbon-based PEM Fuel Cell Systems", paper presented at *Hydrogen + Fuel Cells 2013 (HFC 2013) Conference*, June 16-19, 2013 at the Vancouver Convention Center, British Columbia, Canada.
- **Bhargav**, M. Lyubovsky, C.J. Tesluk, P.L. Hearn, Control Strategies for LPG-based Fuel Processors for PEM Fuel Cell Systems, paper presented at the *International Conference on Advances in Energy Research*, IIT Bombay, 9-11 December 2011