SWAPNIL SURYAKANT SALVI

Ph.D. in Mechanical Engineering
Department of Mechanical and Aerospace Engineering
University of Texas at Arlington
701 S. Nedderman Drive
Arlington, TX 76019, USA

Phone: +1 (682) 256-5914
swapnilsuryakan.salvi@mavs.uta.edu
swapnilsalvi1993@gmail.com
www.swapnilsalvi.com
https://www.linkedin.com/in/salviswapnil/

Educational Details

- **University of Texas at Arlington, USA**
  Doctor of Philosophy in Mechanical Engineering, 2018 –Present
- **Indian Institute of Technology Ropar, India**
  Master of Technology in Mechanical Engineering, 2016 – 2018
  CGPA – 8.66/10
- **Dwarkadas J. Sanghvi College of Engineering, Mumbai-56, India**
  Bachelor of Engineering (BEng), Mechanical Engineering, 2013 – 2016
  CGPA – 8.97/10
- **Shri Bhagubhai Mafatlal Polytechnic, Mumbai-56, India**
  Diploma, Mechanical Engineering, 2009 – 2013
  CGPA – 8.60/10

Experience

- **Graduate Research Assistant at University of Texas at Arlington**
  August 2018 – Present
- **Teaching Assistant at Indian Institute of Technology, Ropar**
  July 2016 – May 2018
- **Inplant Trainee at TATA Power Company Limited**
  January 2013 - May 2013
  As an Inplant Trainee (5 months) at Combined Cycle Power Plant (CCPP: UNIT#7)
  Studied the working and maintenance of gas turbine and steam turbine. I was working on performance enhancement of super critical boilers as internship project.
- **Inplant Trainee at Heavy Engineering at Larsen & Toubro Limited**
  June 2011 - November 2011
  As an Inplant Trainee (6 months) at Environmental Health & Safety Department
  Worked on the project named as "HIRA - Hazard Identification and Risk Assessment" which concluded analysis of mostly all of the manufacturing processes carried out on shop-floor. My routine was related to carrying out audit work of workshop processes on the basis of standard industrial safety measures.

Projects

- **Thermal management of micro-electronic devices** [August 2018 – Present]
  It is a Ph.D. thesis work, which includes include thermal measurements and thermal management techniques for Li-Ion cells (Under the guidance of **Dr. Ankur Jain**).
- **Solar thermal energy storage** [June 2017 – May 2018]
  Final year project work, M.Tech in Mechanical Engineering (Under the guidance of **Dr. Himanshu Tyagi**)
  Working on mathematical, numerical modelling and analysis of different Phase Changing Materials (PCMs) as a working medium for latent heat thermal storage systems. Applying the concepts of energy storage using PCM in the areas like energy efficient buildings, thermal protection, etc.
- **Thermo-Electric Simultaneous Heating and Cooling** [June 2015 – March 2016]
  Final year project work, Bachelors of Engineering in Mechanical Engineering.
- **Hydraulic Trainer** [July 2012 – November 2012]
  Final year project work, Diploma in Mechanical Engineering

Refereed Journal Papers (International):

A. 1 **Salvi, S. S.**, Bhalla, V., Taylor, R. A., Khullar, V., Otanicar, T. O., Phelan, P. E., and Tyagi, H., "Technological Advances to Maximize Solar Collector Energy Output: A Review", *Accepted* for publication in the *ASME Journal of Electronic Packaging*. [DOI: 10.1115/1.4041219]

Conference Papers and Posters

B. 1 **Salvi, S. S.**, Khullar, V., and Tyagi, H., "Numerical Modelling of Solar Thermal Energy Storage with Phase Change Materials", *International Conference on Sustainable Energy and Environmental Challenges (SEEC-2018)*, IISc Bangalore, India, Jan 01 – 03, 2018.

B. 2 Bhalla, V., Garg, K., **Salvi, S. S.**, Badarla, V., Fulwani, D., Khullar, V., Rao, M., Chakrapani, A., Krishnan, N. and Tyagi, H. "Utilization of Nanoparticle-Based Solar Energy Systems for Improving the Overall Energy Efficiency of Buildings", *International Conference on Sustainable Energy and Environmental Challenges (SEEC-2018)*, IISc Bangalore, India, Jan 01 – 03, 2018.

B. 3 **Salvi, S. S.**, Garg, K., Bhalla, V., Khullar, V., and Tyagi, H., "Numerical Modelling of Phase Change Material incorporated Brick Wall as a Thermal Energy Storage: Building's Energy Efficiency Applications", *International Symposium on Functional Materials (ISFM-2018): Energy and Biomedical Applications*, Chandigarh, India, Apr 13 – 15, 2018.

B. 4 Bhalla, V., Garg, K., **Salvi, S. S.**, Khullar, V., and Tyagi, H., "Effect of Blended Nanoparticles-laden Fluid on the Thermal Performance of Direct Absorption Solar Collector", *International Symposium on Functional Materials (ISFM-2018): Energy and Biomedical Applications*, Chandigarh, India, Apr 13 – 15, 2018.

B. 5 Garg, K., Bhalla, V., **Salvi, S. S.**, Khullar, V., Das, S. K., and Tyagi, H., "Numerical Study of Direct Absorption Solar Collector Based Brine Recirculation Multistage Flash Desalination System for Small Scale Applications", *International Symposium on Functional Materials (ISFM-2018): Energy and Biomedical Applications*, Chandigarh, India, Apr 13 – 15, 2018.

B. 6 **Salvi, S. S.**, Garg, K., Bhalla, V., Khullar, V., and Tyagi, H., " Numerical Modelling of Thermal Energy Storage using Phase Change Materials: Energy Efficient Buildings Application", *Fifth International Conference on Computational Methods for Thermal Problems (ThermaComp-2018)*, IISc Bangalore, India, Jul 09 – 11, 2018.

B. 7 Garg, K., **Salvi, S. S.**, Bhalla, V., Khullar, V., Das, S. K., and Tyagi, H., "Thermal Performance of Direct Absorption Solar Collector based Single Stage Flashing Desalination System", *Fifth International Conference on Computational Methods for Thermal Problems (ThermaComp-2018)*, IISc Bangalore, India, Jul 09 – 11, 2018.