













- The plate heat exchanger has 9.67% less heat transfer area than Shell and Tube heat exchanger. Hence Plate heat exchanger is compact.
- COP of Plate heat exchanger is more than COP of Shell and Tube heat exchanger by 4.42 %.

## REFERENCES

- [1] Dawit Bogale, "Design and Development of Shell and Tube Heat Exchanger for Harar Brewery Company Pasteurizer Application (Mechanical and Thermal Design)", *AJER/VOL.3/Issue 10/2014/99-109*.
- [2] Tisekar Salman W, Mukadam Shakeeb A, Vedpathak Harshad S, Rasal Priyanka K, Khandekar S. B, "Performance analysis of corrugated plate heat exchanger with water as working fluid", in *International Journal of Research in Engineering Technology (IJRET)*, 2016.
- [3] Avinash D. Jadhav, Tushar A. Koli, Vijay H. Patil, "A critical review on different heat exchangers used for heat transfer between two fluids", in *International Journal of Engineering, Business and Enterprise Applications (IJEBA)*, 2014.
- [4] Sandeep K. Patel, Alkesh M. Mavani, "Heat Exchanger Thermal Design with Optimization of Mass Flow Rate Baffle Spacing", *IJAERS/VOL.II/Issue I/Oct.-Dec.,2012/130-135*.
- [5] Vindhya Vasiny Prasad Dubey, Raj Rajat Verma, Piyush Shanker Verma, A.K. Srivastava, "Shell & Tube Type Heat Exchangers: An Overview".in *International journal of research in Aeronautical and Mechanical engineering*, Vol.2 Issue.6, June 2014, Pgs: 1-7.
- [6] Frashid Bagheri, M. Fakoor-Pakdaman, Majid Bahrami, "Utilization of orthographic graphite plate in plate heat exchangers analytical modelling", in *International journal heat and mass transfer* 77(2014),301-310.
- [7] Yasuyuki Ikegami, Sami Mutair, Yusuke Kawabata, "Experimental and Numerical Investigations on Plate-Type Heat Exchanger Performance", *Scientific research publishing*, 23 March 2015.
- [8] Sreejith K., Basil Varghese, Deepak Das, Delvin Devassy, Harikrishnan K., Sharath G. K, "Design and Cost Optimization of Plate Heat Exchanger", *Research Inventy: in International Journal of Engineering and Science Vol.4, Issue 10 (October2014)*, PP 43-48.
- [9] S. Muthuraman, "Investigation of Brazed Plate Heat Exchangers with Variable Chevron Angles", in *American Journal of Engineering Research (AJER)*, 2013.
- [10] *Process Heat Transfer* by D.Q. Kern – 21st edition, 1983. 154-169.
- [11] *Heat Exchangers- selection, rating and thermal design* by SadiKakac- second edition – 413-461.
- [12] *Heat transfer equipment* by R.K. Shah – page 634-78.