**Project Title: Using Machine Learning Algorithms for the prediction of thermodynamic properties for Industrial Applications**

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Problem Definition:

Prediction and analysis of thermodynamic properties and its correlations using data-driven machine learning algorithms. Different algorithms are to be employed and results are compared for model selection.

References:

1. Predicting saturated vapor pressure of LNG from density and temperature data with a view to improving tank pressure management
   https://doi.org/10.1016/j.petlm.2020.04.001
2. Thermal performance of novel ultrasonic evaporator based on machine learning algorithms
   https://doi.org/10.1016/j.applthermaleng.2018.11.083
3. Development of correlation equations on hydrogen properties for hydrogen refueling process by machine learning approach
   https://doi.org/10.1016/j.ijhydene.2021.11.053
4. Predicting hydrogen storage in MOFs via machine learning
   https://doi.org/10.1016/j.patter.2021.100291
5. Machine learning-based utilization of renewable power curtailments under uncertainty by planning of hydrogen systems and battery storages
   https://doi.org/10.1016/j.est.2021.103010
6. Machine learning optimization of a novel geothermal driven system with LNG heat sink for hydrogen production and liquefaction
   https://doi.org/10.1016/j.enconman.2022.115266
7. Machine Learning for Heat Transfer Correlations
   https://doi.org/10.1016/j.icheatmasstransfer.2020.104694
8. Predicting heating demand and sizing a stratified thermal storage tank using deep learning algorithms
   10.1016/j.apenergy.2018.06.064