

**List of topics for annual undergraduate and graduate (M.S. level) engineering and research projects proposed for academic year 2021 – 2022.**

1. Comparative technical & economic analysis of electric battery versus thermal storage integrated with combined cycle at two-shift operation. (UG – 1 student))
2. Integration of “Long Term” energy storage with gas turbine combined cycle (UG – 1 or two students)
3. Development of high efficiency desulfurization process for wet scrubbing of marine engine exhaust using seawater. (G - 1 or UG - two students)
4. Development of “Liquid Piston” compression system for industrial cooling and refrigeration system with & w/o “cold storage”. (G - 1 or UG - two students)
5. Techno-economic analysis of “green” hydrogen” production for power generation or fuel enrichment. (UG 1 or two students).
6. Development of GT combined cycle new start-up procedure, which reduces fuel consumption and thermal fatigue damage of HRSG high temperature components. (G - 1 or UG two students)
7. Development of high (round trip) efficiency hydro-assisted compressed air storage. (G - 1 or UG two students).

The list of project proposed by  
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