**DESIGN PROJECT PROPOSAL FORM**

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| **Academic Year** | **2024 -2025** | **Semester** | | Fall Spring X |
| **Project Type** | **Research** | | **Application** | |
| ME 411 Thermal & Fluid Design | | X ME 412 Thermal & Fluid Design | |
| ME 413 Mechanical Design | | ME 414 Mechanical Design | |
| ME 415 Robotics & Control Design | | ME 416 Robotics & Control Design | |
| **Advisors** | Assoc. Prof. Sercan ACARER, Assoc. Prof. Şahin GÜNGÖR, Assoc. Prof. Umut CEYHAN | | | |

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| **Project Title** | Investigations on pumping power and thermal performance of an  industrial BPHE | | |
| **Purpose and Scope** | Main objectives of this work are:   * having additional information on industrial heat exchangers, * investigating main types of brazed plate heat exchangers (BPHE) and their industrial applications, * having skills on the calculation strategies and BPHE physics, * understanding the pressure losses and total pumping power need, * evaluation on the overall performance. | | |
| **Work Packages** | WP1: Introduction – Literature Survey (1st semester)  WP2: Proposing/Designing 3 different BPHE flow structures (1st and 2nd semesters)  WP3: Analytical-theoretical calculations for the proposed designs (2nd semester)  WP4: Numerical analyses for the thermal and hydraulic performance of the BPHEs (2nd semester)  WP5: Post-processing, data analyses, and preparation of the final documentation. (2nd semester) | | |
| **Max Number of Students** | 12 | | |
| **Student info** | Student ID | Name/Surname | Signature |
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