University of Anbar

Faculty of Engineering

Mechanical Engineering Department

Project Proposal Form

Project Title: Thermal design optimization of plate-fin heat sink using SolidWorks

Supervisor Name: Dr. Hamdi E. Ahmed **Number of student**: 1–2

Project Description:

In this final year project (FYP), we aim to let the candidate(s) learning how to use the SolidWorks software for simulating the thermal design of plate-fin heat sink in a very high simulating skills for obtaining the optimal performance maintaining the volume, weight, size, or cost constant.

The student(s) must learn the features of the SolidWorks for designing the geometry first, then how to simulate basic cases and present the results in several presentation forms. Then, s/he commences in simulating the case study aforementioned above for knowing how to varying the geometry parameters in order to optimize the thermal performance.

Project Outcomes According to ABET

First outcome: Students able to design and drawing the case study.

Second outcome: Students able to model the physical geometry according to the basic concepts of engineering drawing, strength of material and the design subjects.

Third outcome: Students able to optimize the case study for comprehensive understanding the principles of optimizing the product.

Fourth outcome: Ability to data presentation and data analysis and then project report writing.

Supervisor signature :

Project Committee Approval **Head of Department**