**Introduction**

Students learn by doing, and perhaps engineering students in particular, and will better understand the principles of heat transfer and thermodynamics by performing experiments and seeing results.

This part is a collection of experiments in heat transfer and thermodynamics where each experiment follows the same step-by-step format which includes the objective of the experiment, device required, procedure, suggested titles, and references. Experiments use a device that is easy to build or achieve.

# This part contains four experimental works, including calculating the heat capacity of a calorimeter, calculating the specific mass heat of solid bodies (metals), measuring the molar heat of melting for some chemicals and the specific latent heat of fusion of ice.