

## Programming Assignment 1: GP Regression

The goal of this project is to predict energy efficiency of a building (measured by heating and cooling requirements) from design parameters using regression. Details of the dataset is found in this link:

<https://archive.ics.uci.edu/dataset/242/energy+efficiency>

You may choose any GP prior, and corresponding hyperparameter values as you wish. However, choose a prior which captures the basic nature of the data. Assume a Gaussian noise with zero mean and variance of 0.1 denoting the error in reporting of cases.

Bonus: Perform hyperparameter optimization

Submission: You need to submit two files - (i) a single program file (with your name, roll and dependencies mentioned in the header), (ii) a write-up (single pdf file) with your name/roll and the details of method used and visualization of results. For the program any language python/Julia/C/C++/java may be used. You may use basic data processing, linear algebra, random number generation libraries. But do not use GP functions directly.