This article expounded upon the motivations for why they used Support Vector Regression (SVR) to model the energy consumption for multi-family residential buildings in comparison to other models. The authors made the important, sound point of how their sensor-based approach allow them to harvest localized data that can be cleanly calculated compared to other less precise methods. Their model extracted several parameters from the residential buildings that were material, geometric and structural in nature. The authors concluded that the most effective models included hourly consumption at the floor level.

I had several questions about this paper, such as why the author posited the use of Artificial Neural Networks as an alternative machine learning technique for use and how their model and analysis would differ from single-family buildings and how significantly.

Good evening Suchit. Sound analysis on the paper. I agree with both you and the other students as to why Artificial Neural Networks were used as an alternative approach when their flaws were clearly pointed out in that subsection of the report. The report also made me question whether temporal granularity would have the same effect on single-family homes as well.

Good evening Neeraj. Sound analysis on the paper. I agree that an exhaustive study must be done in the future in order to make a rich comparison between the different types of techniques found that could’ve been used within this problem. In the conclusion, the authors considered the possibility of using an Artificial Neural Network (ANN) as an alternative tool they could’ve used to analyze the data.