BL40A2010 Introduction to IoT-Based Systems

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Assignment 1

- 1. Electric heater as a system can be viewed with procedures as systems definition defines. Thermostat is set to wanted temperature. If temperature is below wanted, thermostat sends a signal and electric heater starts. As it warms up it heats the room and when reaches desired temperature it tries to maintain it by going through the same procedure.
- 2 Classical: New phone charger is being tested for safety, the data and results are compared to other phone charger results to determine wheter it fits the regulations or not.

Non-classical: Simulations and models used to predict some scenarios, for example testing bridges.

Inteventionist:-

- 3 1. When it's colder outside you house will get colder faster. This means electric heater set to certain temperature will need to work through the process more often making it more expensive.
- 3.2 Geothermal heating. Uses thermal energy captured in earth and is concidered as a renewable source. Needs very little electricity compared to normal electric heating.
- 3.3 Wood. Wood is burned in a fire place and it transfers heat to air and also captures it in stones or in water. Is concidered as a renewable energy soure. Cheap and cost efficient. Depends on the markets and if you have woods of your own.
- 3.4 Oil. Oil is burned to produce enery which heats the water which heats the house. Expensive, old-school and big emissions. Doesn't take much electricity.