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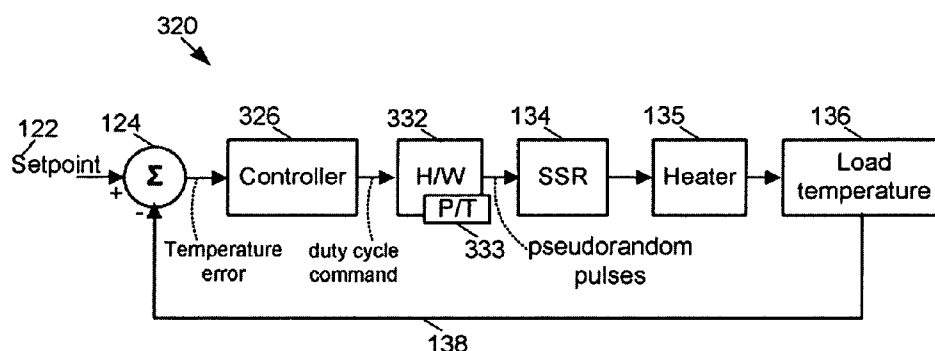
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(54) Title: METHODS AND SYSTEMS FOR CONTROLLING ELECTRIC HEATERS



(57) Abstract: Systems and methods for controlling a heater to drive a load temperature to approximate a setpoint. At the beginning of each AC cycle, a sigma delta modulation algorithm is computed to determine whether the AC cycle should be turned on or off. The running estimate of the past actual duty cycle is compared to the desired output duty cycle, and the difference between the two is used to adjust the next AC cycle's output. This results in a pseudo-random pulse sequence output which does not contain significant periodic components that could cause undesirable small periodic thermal 'ripples' on the element being heated.

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