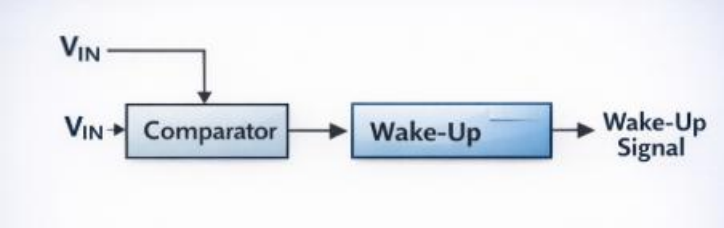
Circuit Simulation Project

Name of the participant : LAHARI PASHIKANTI

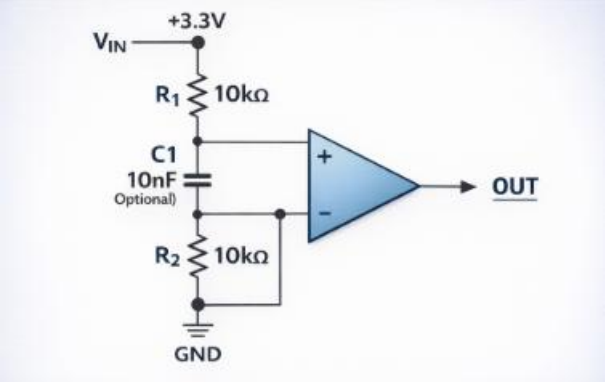
Title of the circuit: Low power wake-up comparator

Theory/Description: Low-Power Wake-Up Comparator is a circuit that monitors an input signal and generates an output when the input crosses a certain threshold. This circuit is designed to consume very low power, making it ideal for battery-operated and always-on devices. In low-power wake-up comparators, an operational amplifier (Op-Amp) is commonly used to compare the input voltage with a reference voltage. When the input voltage exceeds the reference, the comparator triggers a wake-up signal to activate the rest of the system. This approach helps save energy by keeping the main system in sleep mode until it is needed.

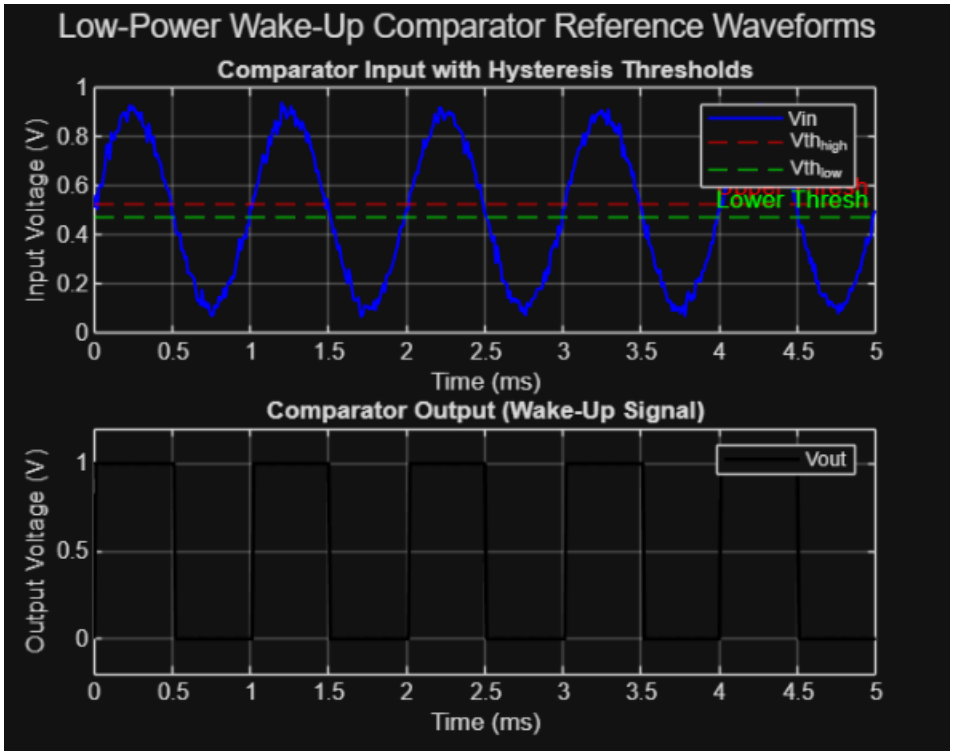
Block Diagram:



Circuit Diagram:



Output:



Source/Reference(s):

https://www.bing.com/search?pglt=299&q=A+Khorami%2C+M+Sharifkhani+-+AEU-International+Journal+of+Electronics+and+%E2%80%A6%2C+2016+-+Elsevier&cvid=0bec182af52e45dfa1921e4aa14caa79&gs_lcrp=EgRlZGdlKgYIABBFGDsyBggAEEUYOzIGCAEQRRg8MgcIAhDrBxhA0gEHNTk1ajBqMagCALACAA&FORM=ANNTA1&PC=ASTS