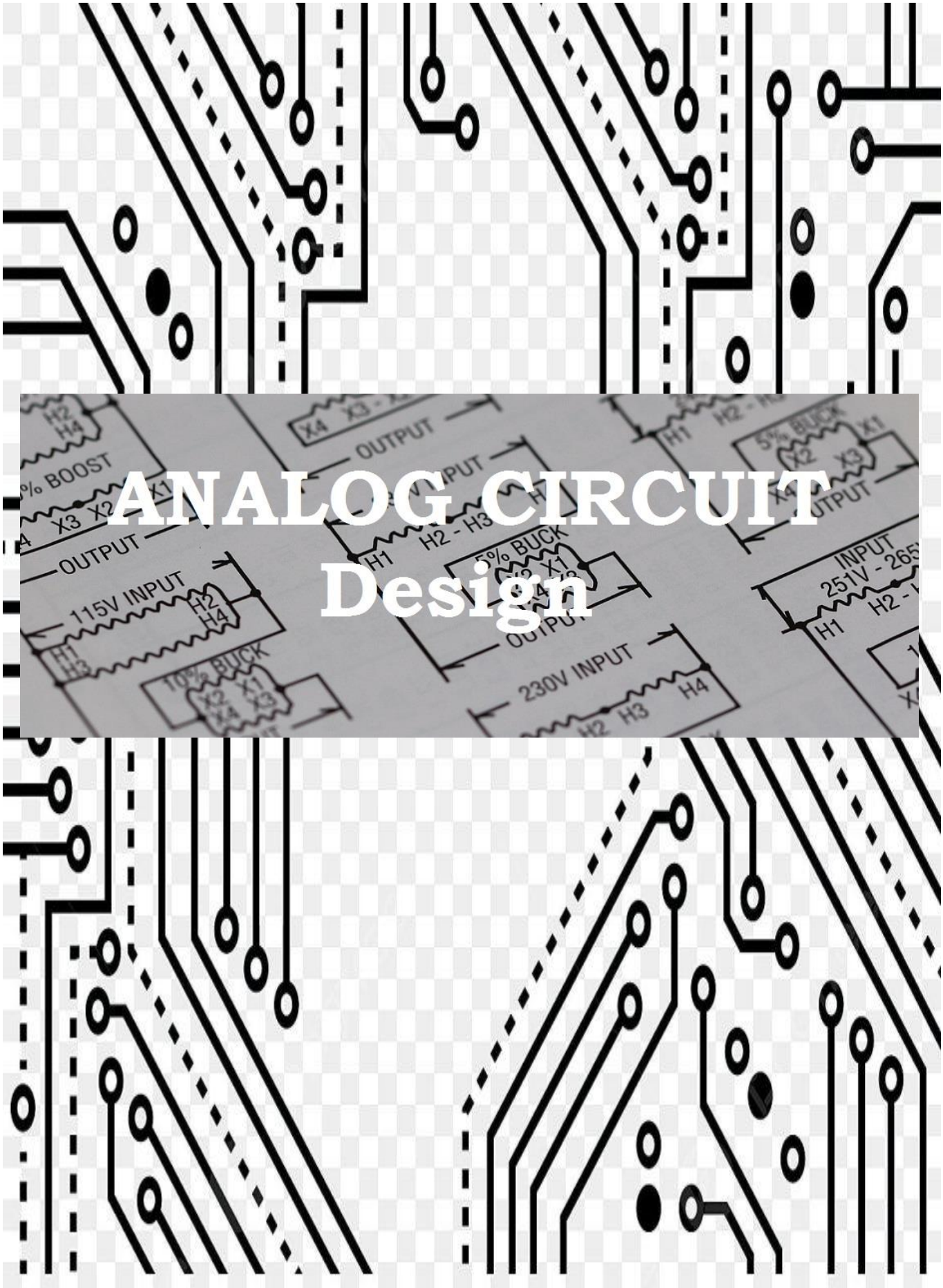

ANALOG CIRCUIT
Design

Ain Shams University
Faculty of Engineering
ECE Program

ECE313: Analog Circuit 2
Spring 2024

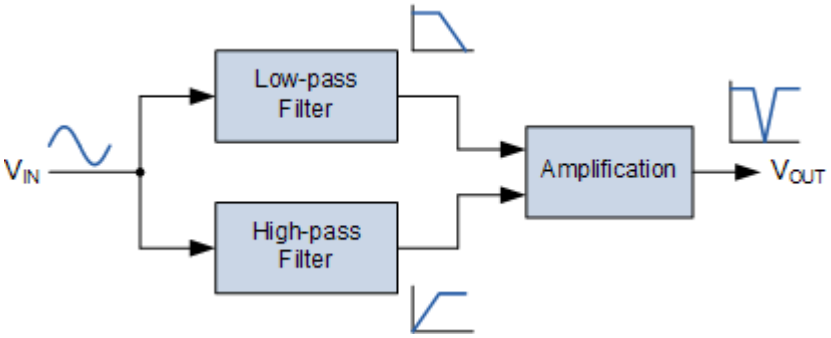
The project report

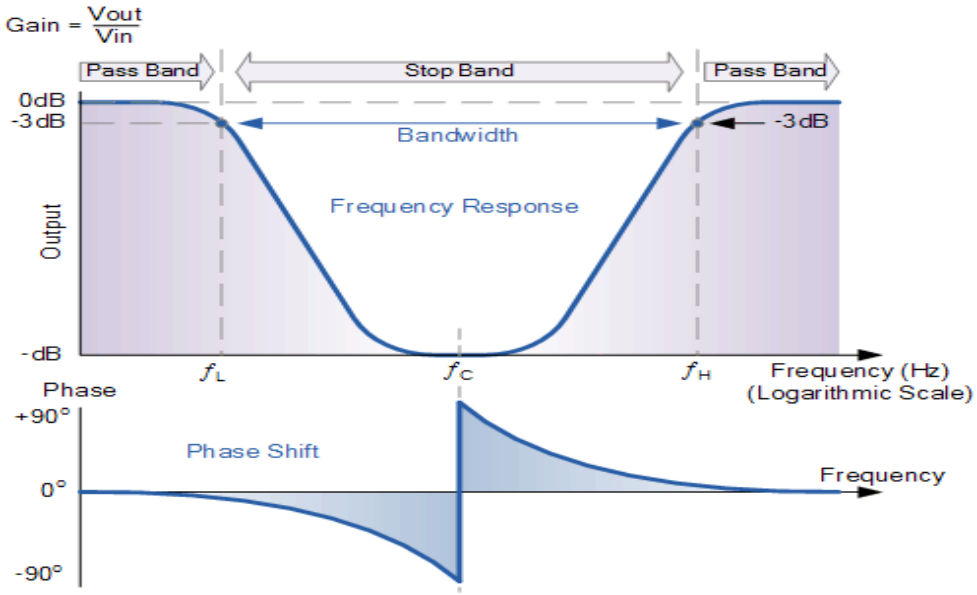
NAME	ID
Abdallah Karim Motwea	2000993
Amira Bahey Eldin Mahmoud	2000067
Rahaf Abdullah Atef	2000099
Mariam Badie Wanis	2001253
Marina Ebram Sarabmon	2001149

((ACTIVE STOP BAND FILTER))

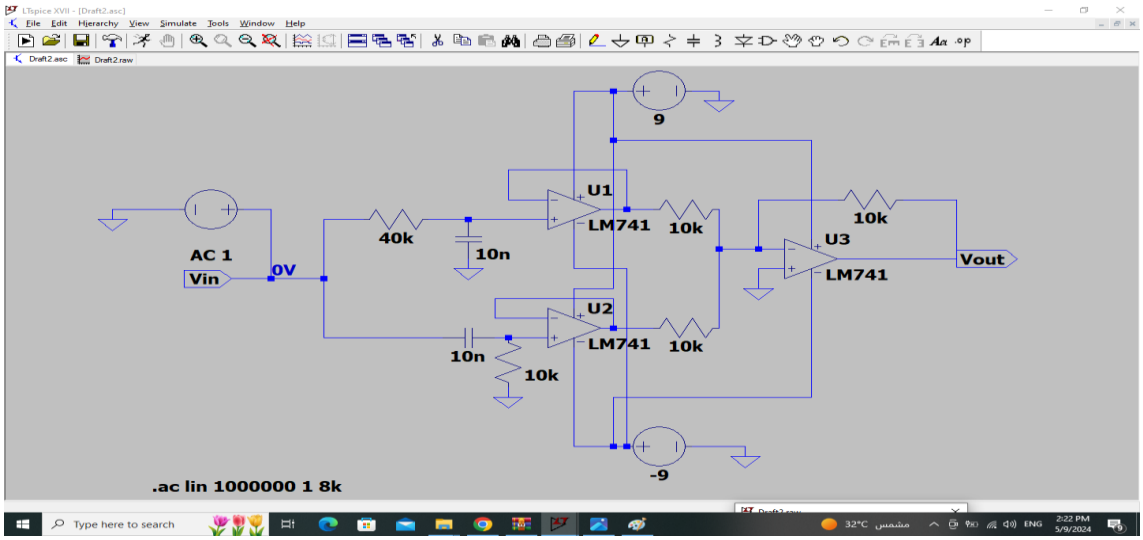
Theoretical background:

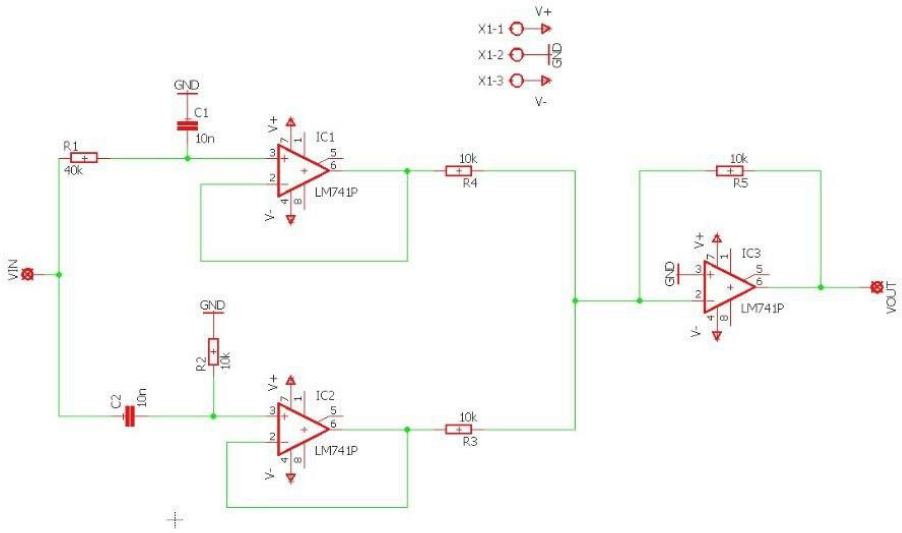
It uses op-amps to make low pass filter and high pass filter together to attenuate a specific range of frequencies within a signal (the range of frequencies between the two cutoffs) while allowing other frequencies to pass through unaltered (all other frequencies).



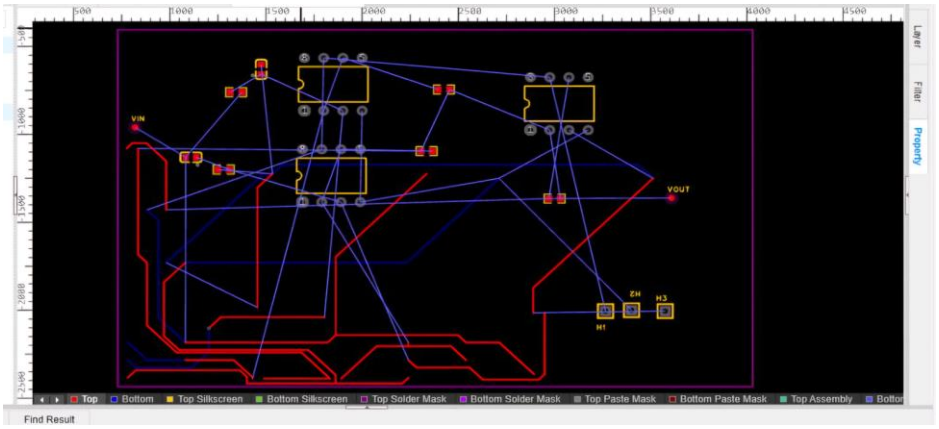
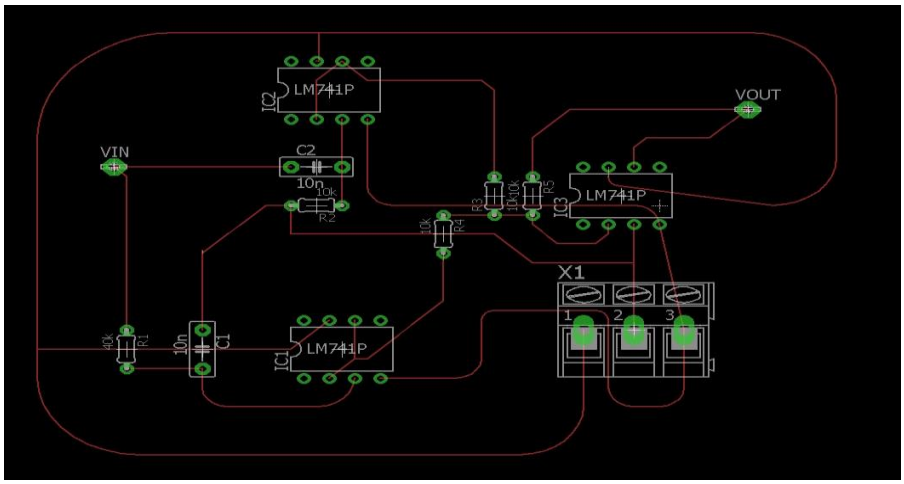
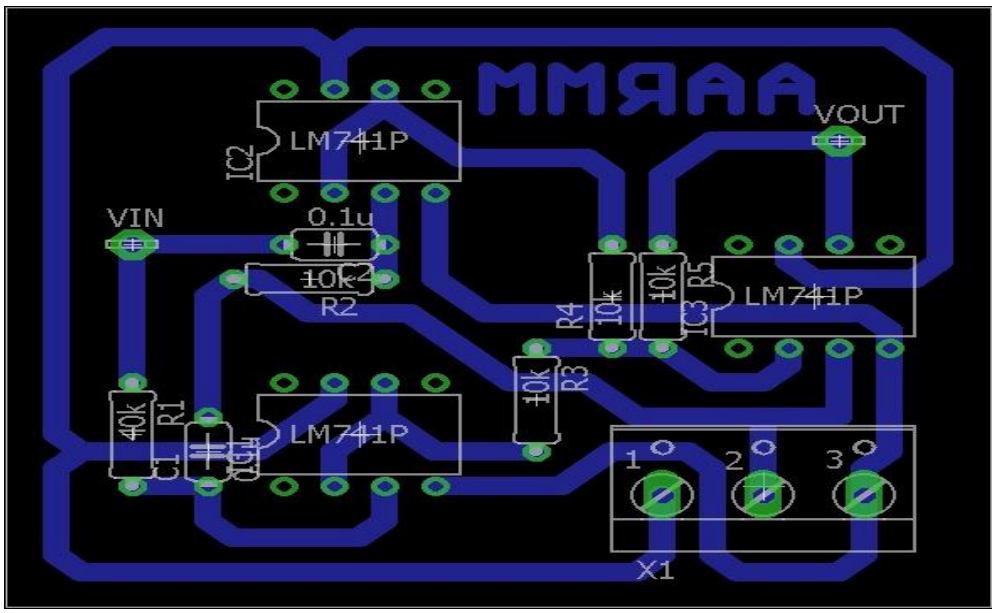


The schematic :

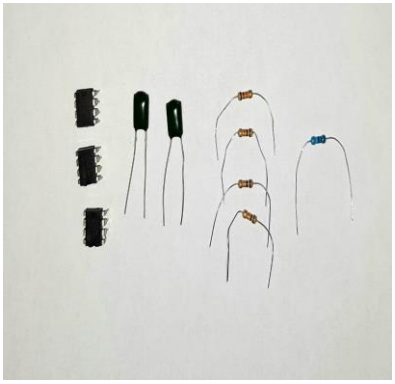


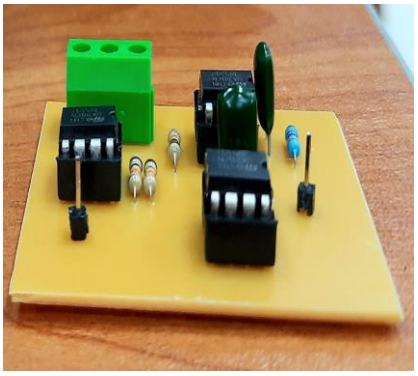


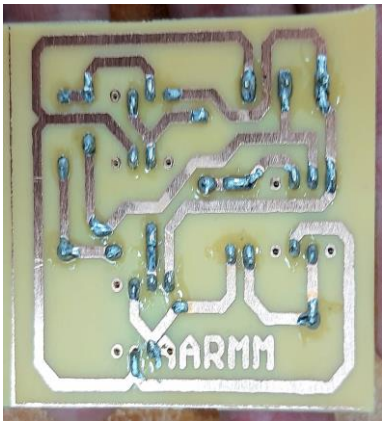
The layout:

The first try	
The last try by taking a printed circuit as reference	
The industry layout	

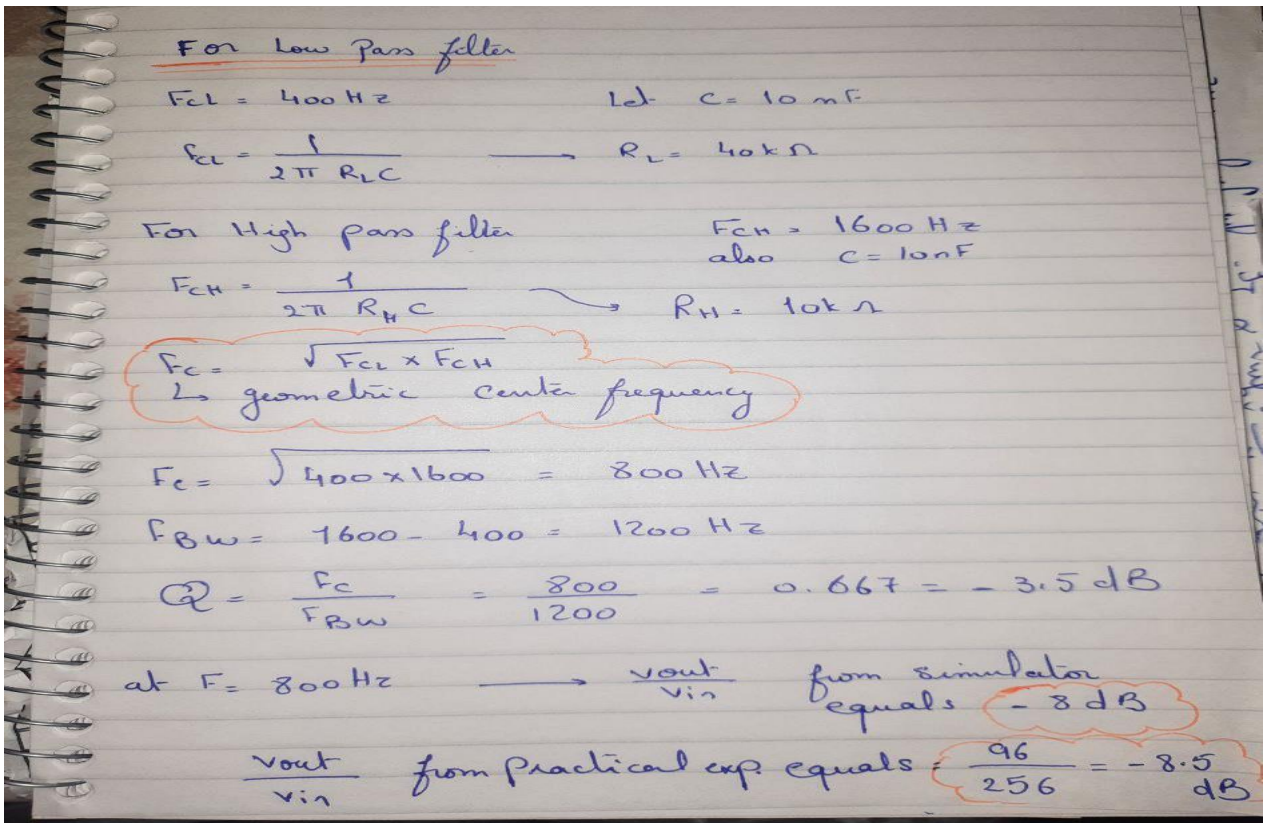
The components and the PCB:



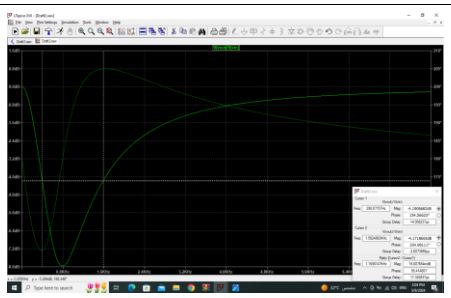
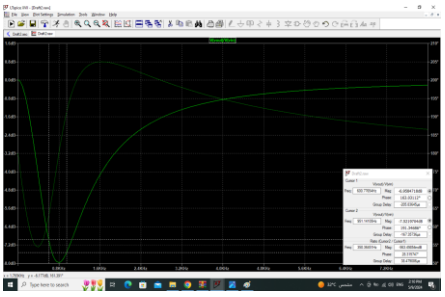
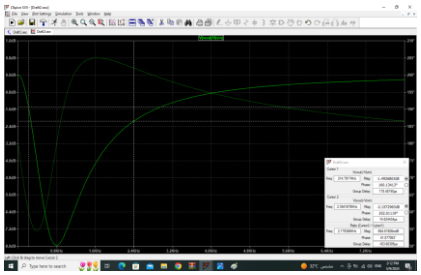
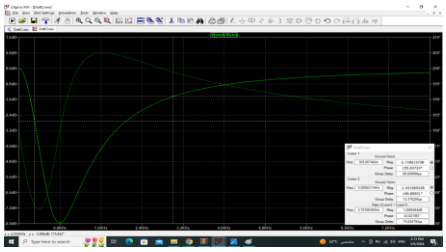
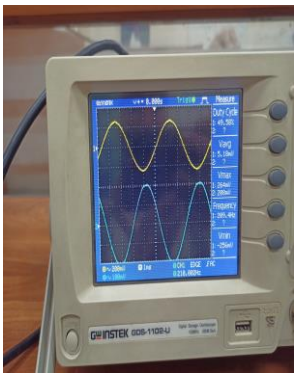
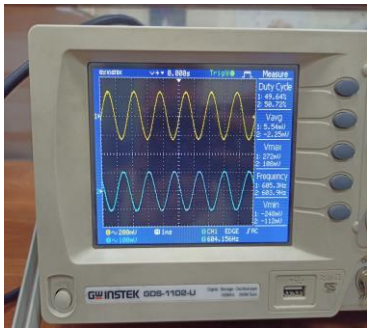
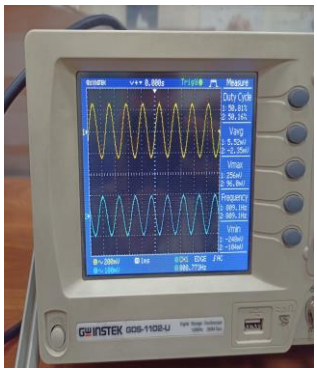
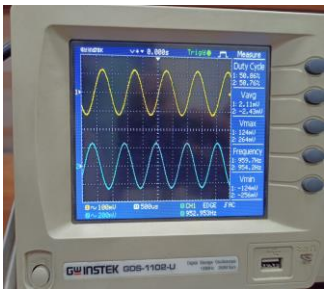
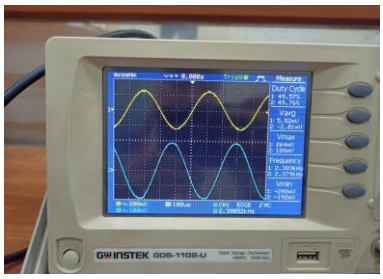




Project Analysis



The measurements and simulations:

Simulations	   
Measured	    

As we see the input signal passes without any attenuation if its frequency is before 400HZ (FcL) and if exceeded it it starts to attenuates till reaching 1600HZ (FcH) it starts to increase again till it returns to its initial form and passes without any attenuation