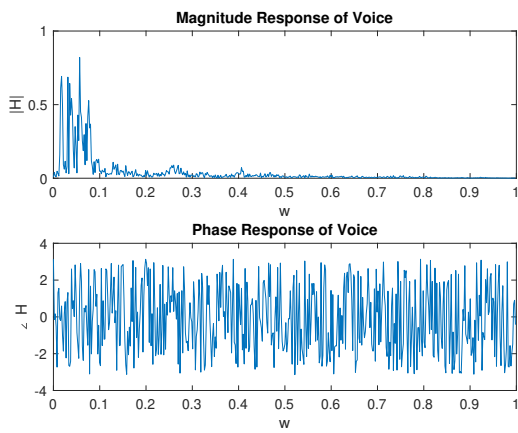


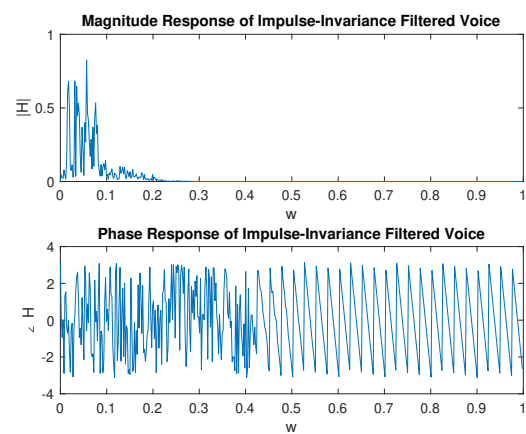
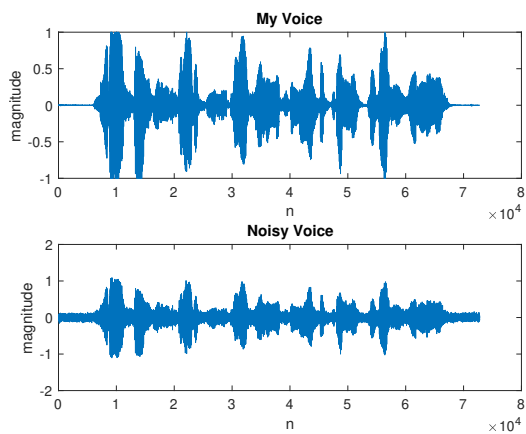
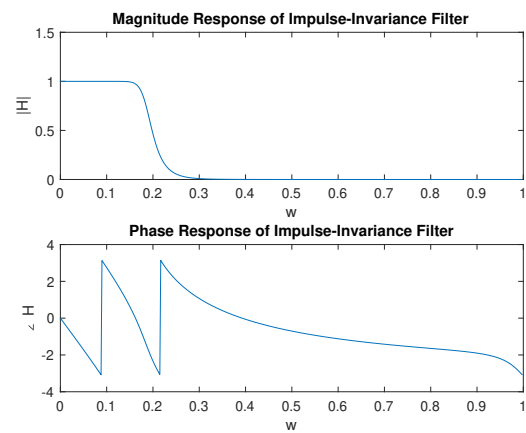
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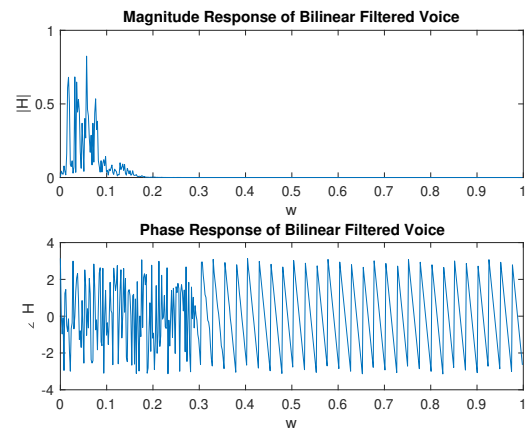
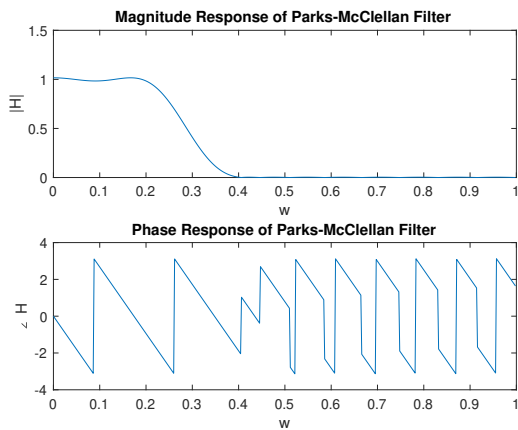
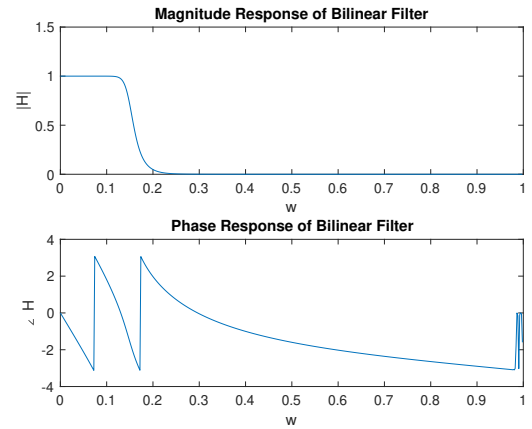
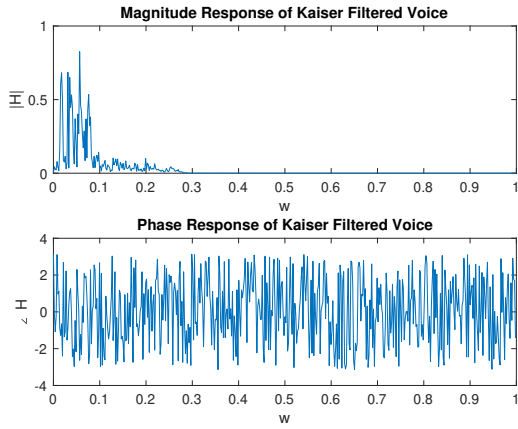
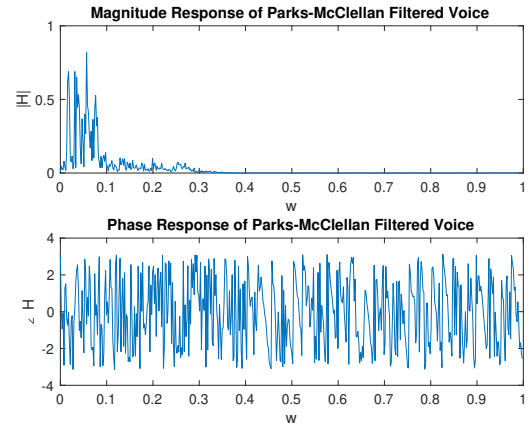
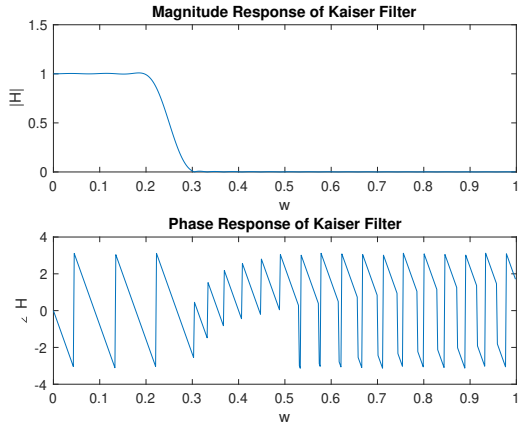
İbrahim Kahraman
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I. QUESTION-2



II. QUESTION-3





III. QUESTION-4

Kaiser and Parks-McClellan methods are implemented as they are in HW6. So, firpm and kaiser functions are used for implementation. But, for bilinear transformation and impulse invariance, bilinear and impinvar functions are used. In all of them, filter function is used in order to get filtered version of noisy data. In decision of parameters in Bilinear and Impulse Invariance, equations in slides are used to determine butterworth order N etc. While I used equations in my hw6 to decide parameters of Kaiser. As bilinear and impulse invariance are IIR filters, whereas Parks-McClellan and Kaiser are methods for FIR filters. So, IIR filters are expected to have better performance in terms of accuracy. FIR filters have lower performance even if they are more robust. In my opinion, as I listened my own voice after given filtering methods, it seems Bilinear Transformation is the best methodology, followed by impulse invariance. Comparing to IIR filters, Parks -McClellan and Kaiser have lower performance, even if there is no huge difference.