Abstract

The basic purpose in active filters design is to calculate of filter transfer function providing desired features and is to find component values. By using of classical calculation methods in active filters component values calculations cause over time and process load and a different design with found same component value cannot be done. In this study, the reaching of analog active filter amplitude response that provides desired features with different component value that is found by helping of Genetic Algorithm (GA) is provided. With this work, the circuit design by using of different component values at different stages was enabled. In this way, unlike the studies at literature, the same selection imperative of component values have been eliminated to provide easy calculation and this offers easier circuit design possibility for users. In addition; with helping of implemented study, the increasing process load depending on filter degree is eliminated. To reach desired filter characteristic, obtained amplitude response from the used approach methods and desired amplitude response were compared and satisfactory results were observed.

References

The Design of Analog Active Filter with Different Component Value using Genetic Algorithm


Index Terms

Computer Science  
Signal Processing

Keywords

Genetic Algorithms  Analog Circuit Design  Active Filter