Robust and Efficient Digital Signal Processing

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Design of Crossover Filters

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In this chapter we will discuss how....

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1 Basics

In this chapter we will discuss how ... .

2 IIR Design

Prediction in general means to forecast signal samples that are not yet available (forward prediction) or to reestablish already forgotten samples (backward prediction). With this capability predictors play an important role in signal processing wherever it is desirable, for instance, to reduce the amount of data to be transmitted or stored. Examples for the use of predictors are encoders for speech or video signals.

Remark:

Before we start with the derivation of the filter design itself, the following applications should motivate the design process.

3 FIR Design

Some text ...

4 References

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[3] H. Löllmann, P. Vary: *A Filter Structure for Low Delay Noise Suppression*, Proc. ITG-Fachtagung '06, Kiel, Germany, 2006.

5 Authors of this Chapter

Gerhard Schmidt received the Dipl.-Ing. and Dr.-Ing. degrees from the Darmstadt University of Technology, Darmstadt, Germany, in 1996 and 2001, respectively. After the Dr.-Ing. degree, he worked in the research groups of the Acoustic Signal Processing Department, Harman/Becker Automotive Systems and at SVOX, Ulm, Germany. Parallel to his time at SVOX, he was a part-time Professor with the Darmstadt University of Technology. Since 2010, he has been a Full Professor with Kiel University, Germany. His main research interests include adaptive methods for speech, audio, underwater, and medical signal processing.

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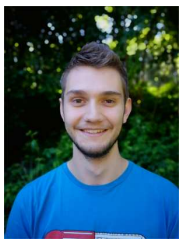

Alexander Wilbrandt received the B.Sc. degree from Kiel University, Germany, in 2016. He will finish his Master thesis at the end of 2018, in which he is working on the automatic evaluation of communication modules in breathing masks. Since he received his B.Sc., he has worked at “bbe Moldaenke” developing optical measurement systems for water quality monitoring next to his studies at Kiel University. His main interests are medical/biological signal processing and audio processing.