

Soft Decision Channel Optimized Vector Quantization

Introduction

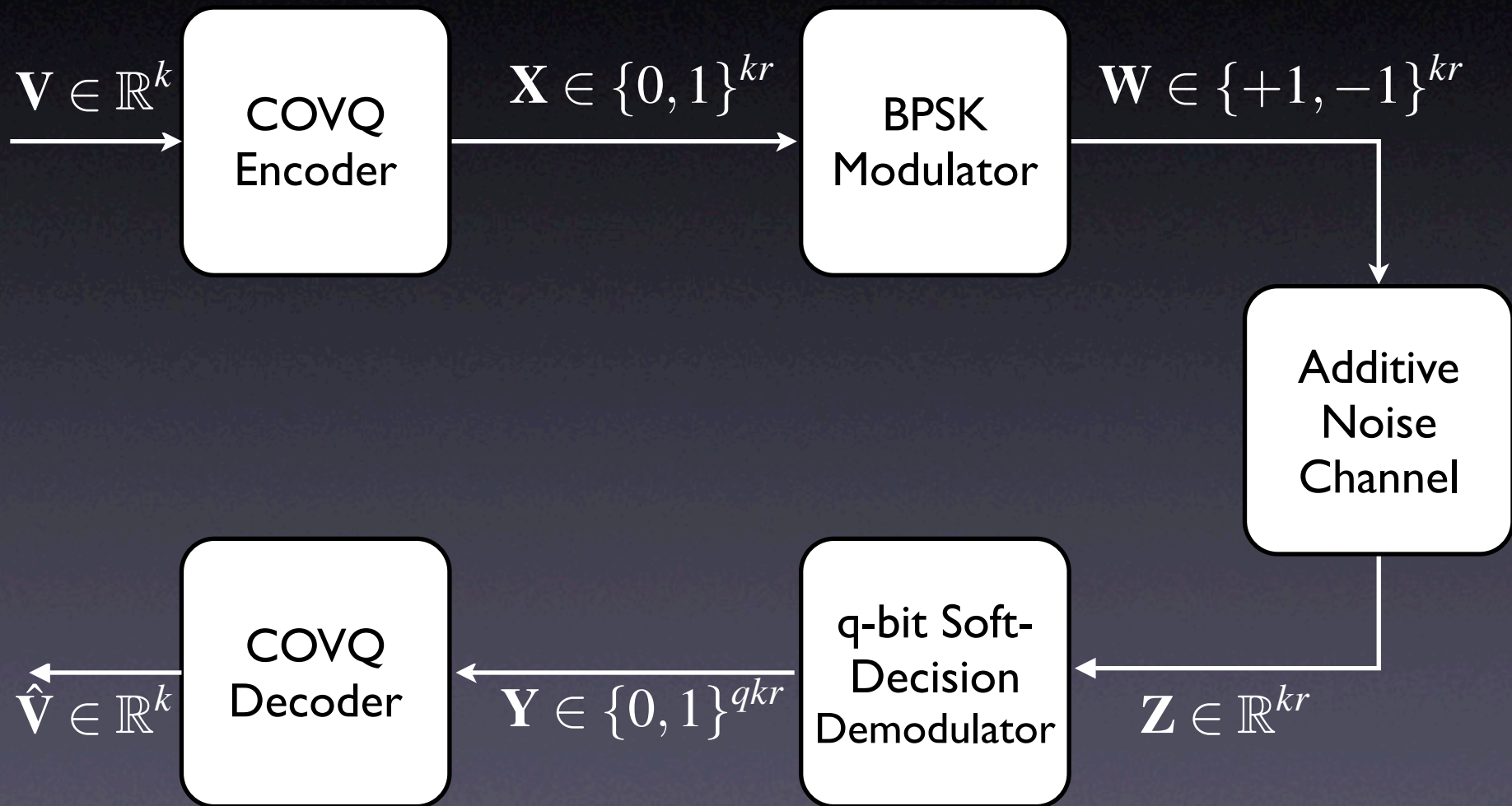
Last Year

- Extending work done previously by Andrew MacDonald, Sean Noble, and Dave Richardson
- Implemented COVQ over a Rayleigh fading channel

This Year

- Add *soft decision* to the setup
- Changes were required in both training and transmission

Famous Block Diagram



Concepts

- Channel Optimized Vector Quantization
 - LGB Algorithm
- Soft Decision

Concepts - COVQ

Concepts - LGB

Concepts - Soft Decision

Codebook Training

Image Encoding

Software Design

- Pipes & Filters Model
- Simulation Scripts

Advice for the 06's

- We think that the next step in this project would be to ...

Thanks

- Dr. Firouz Behnamfar
- Dr. Fady Alajaji