

André D. B. Christensen (110033)

Jacob A. F. Pedersen (120374)

Speech Coding - Final Project in DSM4

Digital Signal Processing and Mathematics 4

Speech Coding - Final Project in DSM4

This report was prepared by:

André D. B. Christensen (110033) Jacob A. F. Pedersen (120374)

Advisors:

John Kryer Sørensen, DTU Ballerup Campus

DTU Diplom

Lautrupvang 15 2750 Ballerup Denmark

Tel: +45 3588 5088

diplom@diplom.dtu.dk

Project period: September 2013 - December 2013

ECTS: 10

Education: BEng

Field: Electrical Engineering

Copyrights: ©André D. B. Christensen & Jacob A. F. Pedersen, 2013

Contents

Co	ontents	i
Li	st of Figures	iii
1	Companding - Redundancy Based on the Statistical Properties of the Source	1
2	Signal with Memory - Random Processes	3
3	Prediction Filters	5
4	Pitch Excited Coding (LPC) and Vocal Tract Models	7

List of Figures

Companding - Redundancy Based on the Statistical Properties of the Source

Signal with Memory - Random Processes

Prediction Filters

Pitch Excited Coding (LPC) and Vocal Tract Models