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AIN SHAMS UNIVERSITY
FACULTY OF ENGINEERING
ELECTRONICS AND COMMUNICATIONS ENGINEERING DEPARTMENT

Effect Of Equalizers On the Performance of Sound Systems

A Thesis

**Submitted in Partial Fulfillment for the requirements
Of the Degree of Master of Science in Electrical Engineering**

(Electronics and Communications Engineering)

Submitted By

Magdy Mounir M. Sidhom

B. Sc. Of Electrical Engineering
(Electronics and Communications Engineering)
Ain Shams University, 1994

Supervised By

Prof. Dr. Salwa El Ramly

Cairo – 2002

B
9713

6-10-11

EXAMINERS COMMITTEE

Name : Magdy Mounir Maurice Sidhom
Thesis : Effect of Equalizers on the Performance
: of Sound Systems
Degree : Master of Science in Electrical Engineering
: (Electronics and Communications Engineering)

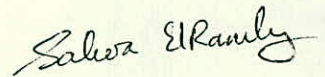
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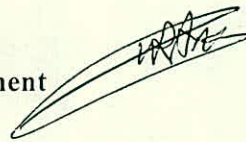
1- Prof. Dr. Amin M. Nassar
Prof. of Electronics and Communication Department
Faculty of Engineering – Cairo University



2- Prof. Dr. Salwa H. El Ramly
Prof. of Electronics and Communication Department
Faculty of Engineering – Ain Shams University



3- Prof. Dr. Wagdy R. Anis
Prof. of Electronics and Communication Department
Faculty of Engineering – Ain Shams University



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STATEMENT

This dissertation is submitted to Ain Shams University for the degree of Master of Science in Electrical Engineering (Electronics and communications Engineering).

The work included in this thesis was carried out by author at the Electrical and Communications Engineering Department, Faculty of Engineering, Ain Shams University.

No part of this thesis has been submitted for a degree or qualification at other university or institution.

Date : 30 / 5 / 2002

Signature :

Name : Magdy Mounir M. Sidhom

ABSTRACT

Alm, Robert. *Effect Of Equalization On The Performance Of Sound System Equalization*. Doctoral Dissertation, Ohio State University, 2002.

Sound System Equalization is a process in which the sound system engineer uses the equalizer as one of the available signal processing components, in order to enhance the performance of the sound system.

The thesis describes the effect of sound system equalization process on the sound system performance, such as speech intelligibility and the percentage of the understood words using Arabic language. It reviews the sound system, and the human ear construction; it also explains the sound system, and different factors affecting the speech intelligibility; different components used in sound system, and different characteristics for each component are also explained in the thesis. The thesis also reviews different types of equalizers, and the different ways for using the equalizer in the sound system.

The thesis explains the uses of acoustic simulation software to determine the expected sound system performance for the test setup, and it also explains the construction of the most sophisticated measurement system for the sound field and the sound system. The thesis explains the sound system, and the sound system performance before and after equalization using the most sophisticated measurement system given in the thesis.

The thesis responses and implements three sets of experiments to determine the effect of equalization on the performance of sound system using Arabic words, to evaluate the effect of equalization on the performance of sound system. This includes the testing of the sound system, Arabic words, testing of Arabic words, and testing of Arabic words. The thesis also explains the sound system, and the sound system performance before and after equalization using the most sophisticated measurement system given in the thesis.

The thesis also explains the effect of equalization on the sound system performance, and the results are compared with the results of the sound system before and after equalization. The thesis also explains the sound system, and the sound system performance before and after equalization using the most sophisticated measurement system given in the thesis.

Keywords:

Effect Of Equalization On The Performance Of Sound System

List of contents

	page
List of abbreviations	i
List of symbols	ii
List of tables	iii
 Chapter 1 Psychoacoustics	 1
1.1 Human hearing system	1
1.2 Ear anatomy and function	1
1.2.1 Pinna	2
1.2.2 Ear canal	3
1.2.3 Middle ear	4
1.2.4 Inner ear	5
1.2.5 Critical bands	6
1.3 Non-linearity of the ear	8
1.4 Phase sensitivity of the ear	8
1.5 Auditory area	9
1.6 Equal loudness contours	10
1.7 Loudness versus loudness level	11
1.8 Loudness versus bandwidth	12
1.9 Pitch versus frequency	13
1.10 Timbre versus spectrum	14
1.11 Delay effects	14
1.11.1 Spatial localization, one ear or two	14
1.11.2 Hass effect	15
1.12 Conclusion	17
 Chapter 2 Room Acoustics	 18
2.1 Introduction	18
2.2 Room acoustics	18
2.2.1 Absorption coefficients and reverberation time	18
2.2.2 Mean free path	22
2.2.3 Sound levels and fields in a closed space	23
2.3 Sabine's equation	25
2.3.1 Derivation of Sabine's equation	25
2.4 Speech intelligibility	27
2.4.1 Articulation loss of consonants	27
2.4.2 Speech power and articulation	28
2.4.3 $\%Al_{cons}$ Charts	30
2.5 Causes of reduced intelligibility	30
2.6 The RASTI method	31
2.7 Converting RASTI to $\%Al_{cons}$	36

2.8	Conclusion	37
Chapter 3	Components of sound reinforcement system	39
3.1	Introduction	39
3.2	Microphones	39
3.2.1	Principles of reception	39
3.2.1.1	Pressure microphones	39
3.2.1.2	Pressure gradient microphones	41
3.2.1.3	Interference microphones	43
3.2.2	Transducer principles	43
3.2.2.1	Electro-dynamic microphones	44
3.2.2.2	Electro-static microphones	44
3.2.3	Special microphones	45
3.2.3.1	Boundary microphones	45
3.3	Loudspeakers	46
3.3.1	The electro-dynamic loudspeakers	47
3.3.2	The electro-static loudspeakers	48
3.3.3	Piezoelectric loudspeakers	50
3.3.4	Broad-radiating single speakers without preferential directivity	50
3.3.5	Bass reflex loudspeakers	51
3.3.6	Loudspeakers arrays with in-line arrangement of radiators	52
3.3.7	Horn type loudspeakers	56
3.3.7.1	Bass horns	56
3.3.7.2	Medium-frequency horns	67
3.3.7.3	Horn loudspeakers for information sound reinforcements	58
3.4	Amplifiers	59
3.4.1	Voltage amplifiers	59
3.4.2	Power amplifiers	60
3.4.2.1	High impedance technique	61
3.4.2.2	Low impedance technique	62
3.4.2.3	Processor amplifiers	63
3.5	Sound processing equipment	64
3.5.1	Delay equipment	64
3.5.2	Compressors	66
3.5.3	Expanders	67
3.5.4	Limiters	68
3.5.5	Noise gates	68
3.5.6	Aural exciter	68
3.5.7	Equalizers	69
3.6	Conclusion	69