



**AIN SHAMS UNIVERSITY
FACULTY OF ENGINEERING**

Electronics and Communication Engineering Department

**Performance Analysis of OFDM Techniques used
in Fourth Generation Mobile Communication
Systems**

A Thesis

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For the Degree of Doctor of Philosophy in Electrical Engineering
(Electronics and Communication Engineering)**

Submitted By

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List of Abbreviations

AAS	<i>Advanced Antenna System</i>
ACI	<i>Adjacent Channel Interference</i>
ADSL	<i>Asynchronous Digital Subscriber Line</i>
AES	<i>Advanced Encryption Standard</i>
AF	<i>Amount of Fading</i>
AFC	<i>Adaptive Frequency Correction</i>
AMC	<i>Adaptive Modulation & Coding</i>
ARQ	<i>Automatic Retransmission Request</i>
AWGN	<i>Additive White Gaussian Noise</i>
BER	<i>Bit Error Rate</i>
BLER	<i>Block Error Rate</i>
BPSK	<i>Binary Phase Shift Keying</i>
CC	<i>Convolution Coding</i>
CCI	<i>Co-Channel Interference</i>
CIR	<i>Carrier-to-Interference Ratio</i>
CPS	<i>Common Part Sublayer</i>
CQI	<i>Channel Quality Indicator</i>
CS	<i>Convergence Sublayer</i>
CSI	<i>Channel State Information</i>
DAB	<i>Digital Audio Broadcast</i>
DFT	<i>Discrete Fourier Transform</i>