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بسم الله الرحمن الرحيم

مركز الشبكات وتكنولوجيا المعلومات

قسم التوثيق الإلكتروني



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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
على هذه الأقراص المدمجة قد أعدت دون أية تغييرات



Salwa Akl



بعض الوثائق الأصلية تالفة
وبالرسالة صفحات لم ترد بالأصل



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DIGITAL MOBILE RADIO COMMUNICATIONS

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

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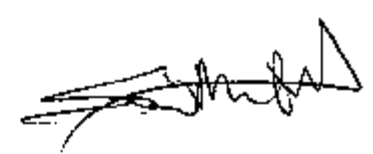
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Dedicated
to my parents

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ARABIC INTRODUCTION		

LIST OF SYMBOLS

A :

- A Amplitude of the transmitted signal.
- A_i Amplitude of the i th component.
- A_o Amplitude of the carrier signal.
- $A(t)$ Amplitude of the received faded signal.
- a_k Input data to the convolutional encoder.

B :

- B The bandwidth.
- $B(k)$ A positive integer taking the values 1, 3, 5, 7, 9, 11, 13 or 15.
- b_o The variance of the Gaussian noise components $v(t)$ and $u(t)$.

C :

- c $c = 1$ or 0 , in Chapter II, is the transmitted code word.
- $C(t)$ The coherent master oscillator's signal.
- $C_i(t)$ The coherent i th oscillator's signal.
- C_k The output of the phase mapper.
- C a constant.

D :

- D a constant.
- d The minimum distance between any transmitted code
min sequence and the received binary sequence.
- d (t)
1 The output of the one-bit differential detector
 of the two-state trellis coded 4-DPSK demodulator
- d (t)
2 The output of the two-bits differential detector
 of the two-state trellis coded 4-DPSK demodulator
- d (t)
1I The output of the in-phase channel of the one-bit
 differential detector of the four-state trellis
 coded 4-DPSK and 8-DPSK demodulator.
- d (t)
1Q The output of the quadrature channel of the one-
 bit differential detector of the four-state
 trellis coded 4-DPSK and 8-DPSK demodulator.
- d (t)
2I The output of the in-phase channel of the two-bit
 differential detector of the four-state trellis
 coded 4-DPSK and 8-DPSK demodulator.
- d (t)
2Q The output of the quadrature channel of the two-
 bits differential detector of the four-state
 trellis coded 4-DPSK and 8-DPSK demodulator.
- d
o The variance of the lognormal line-of-sight
 component.

E :

- E The pulse energy.

F :

- f
m The highest frequency contained in the waveform.
- f
c carrier frequency.
- f
i frequency of the i th sinusoid.
- f
D maximum Doppler shift.
max.
- f
o The intermediate frequency.

G :

G coding gain.

H :

h_1 The base station antenna height.

h_2 The mobile unit antenna height.

h_p The height of obstruction.

$H_F(f)$ The transfer function of the fading channel due to the Doppler effect.

$\tilde{H}_F(mf)$ The frequency response sample no. m .

$h_F(t)$ The impulse response of the fading channel due to the Doppler effect.

$h_F(nT)$ The sample no. n of the impulse response.

I :

i positive integer.

$I(t)$ in-phase signal component in the QPSK modulator.

$I(t)$ in-phase signal component in the MSK modulator.

J :

j' Number of bits shifted in the shift register of the convolutional encoder.

j A positive integer, $j = 0, 1, 2$ or 3 , it denotes the no. of the state at time k .