



شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم



شبكة المعلومات الجامعية  
@ ASUNET



# شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم





شبكة المعلومات الجامعية

# جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

## قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها  
علي هذه الأفلام قد أعدت دون أية تغيرات



## يجب أن

تحفظ هذه الأفلام بعيدا عن الغبار

في درجة حرارة من ١٥-٢٥ مئوية ورطوبة نسبية من ٢٠-٤٠%

To be Kept away from Dust in Dry Cool place of  
15-25- c and relative humidity 20-40%

# بعض الوثائق الأصلية تالفة

# بالرسالة صفحات لم ترد بالاصل



# RECENT MRI TECHNIQUES APPLICATION IN NEUROPSYCHIATRY

B7635

An essay submitted for partial fulfillment of  
Master degree in Neuropsychiatry

By

Mohammad Saeed Alsorogi

*Under the supervision of*

**Professor Mona Abdel-Hamid Raafat**



Professor of Neurology  
Faculty of Medicine  
Ain Shams University

**Dr. Hani Amin Aref**



Ass. Professor of Neurology  
Faculty of Medicine  
Ain Shams University

**Dr. Tarek Ahmed Okasha**



Lecturer of Neuropsychiatry  
Faculty of Medicine  
Ain Shams University



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

(وَقُلْ رَبِّ زِدْنِي عِلْمًا)

صدق الله العظيم







## **Acknowledgment**

*First of all I would like to thank God for his entire great blessing.*

*With great pleasure I wish to express my deep gratitude to Professor Mona Raafat for her time and effort and also for her kindness and patience in correcting my errors and directing me to the right way.*

*Words could not express my feeling toward Dr. Hani Aref, I thank him sincerely for all what he learned me and for all the directions which made this work possible and more palatable than it would have been.*

*I would like to thank Dr Tarek Okasha for having the foresight to point me in the right direction with his gentle and intelligent instructions.*

*Then I would like to thank my family for their support and forbearance.*





## **List of content**

<b><u>Chapter name</u></b>	<b><u>Page number</u></b>
1-The Basis of MRI	1-20
2-Cerebrovascular Disease	21-41
3-Multiple sclerosis	42-63
4-Infections in the CNS	64-84
5-Neurodegenerative Disease	85-103
6-Epilepsy	104-118
7-Tumors	119-122
8-Early results from brain fMRI	123-143
9-New MRI techniques in Psychiatry	144-154
10-The Discussion	155-169
11-The Summery	170-174
12-Referances	175-209
13-Arabic summary	



### Figures and tables list

<i>Figure number</i>	<i>Page number</i>
1.1	5
1.2	6
1.3	7
1.4	7
1.5	18
2.1	22
2.2	23
2.3	24
2.4	29
2.5	29
2.6	34
3.1	38
3.2	40
3.3	43
3.4	45
3.5	46
4.1	62
4.2	63
4.3	63
4.4	69
4.5	70
4.6	71
4.7	72
4.8	76
4.9	78
4.10	78
5.1	93
5.2	94
5.3	96
5.4	97
6.1	112



