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Linkedin: https://www.linkedin.com/in/luma-tawfiq-22b700128/

Publons profile: <u>https://publons.com/author/1195907/luma-naji-mohammed-tawfiq#profile</u> Mendeley: <u>https://www.mendeley.com/profiles/luma-tawfiq/</u>

http://baheth.clubmid.org/members/l-n2004/

Mobile Phone No.: 07904508953

Academic degree: Ph.D.

Academic Rank: Professor

Country: Iraq

General Specialization: Mathematics Field of Specialization: Applied Mathematics – Parallel Processing – Neural Networks

Research Fields: Artificial Neural Networks: Theory and Applications, Differential Equation, Numerical Analysis, Numerical Optimization



Qualification: Ph.D. in Applied Mathematics

Date of Obtaining The scientific Title: 14-6-2006

## **EDUCATION:**

1986 – 1990	Bachelor degree in Mathematics Graduated from	
	University of Baghdad – Baghdad – Iraq.	
1992 – 1994	Master degree of Science in Mathematics Graduated from	
	University of Baghdad – Baghdad – Iraq.	
2002 - 2004	Doctor of Philosophy in Mathematics Graduated from	
	University of Baghdad – Baghdad – Iraq.	

## Skills

- Using Advanced Methods in Teaching.
- Highly motivated.
- Ability to adapt to new environments.
- High ability in learning any computer language or software.
- I have very good experience in Design and training ANN
- I have very good experience in Simulink
- I have very good experience in Adaptive data
- I have very good experience in data processing

## **Research Interests**

Applied Mathematics, Neural Network, Numerical Analysis, Differential Equation, Fuzzy Set and Theory, Image Processing, Optimization Techniques.

Number of Publications Researches in Iraq: 96

Number of Publication Researches in International Journal: 77

Dissertations supervised: 47

Number of Conferences in which she participated in Iraq: 96

International Conferences: 9

Number of Letters of Appreciation and Certificates of Appreciation: 145

Awards she Got: 3

Books Authored In Arabic:1

Books Composed or Compiled: 16

## **Professional Work Experience:**

• I am a referee of some international journals such like

Journal of Physical Science and Environmental Studies- Merit Research Journal of Medicine and Medical Sciences- African Journal of Engineering Research- etc.

- Editorial Board in Ibn Al-Haitham Journal for Pure & Applied Sciences
- Membership of Consulting Science Bureau
- Membership in scientific consultations office
- Membership Committee of arguments MSc and PhD thesis
- Editorial Board in International Journal of Innovations in Scientific Engineering
- Editorial Board in International Journal of Research in Science And Technology
- Editorial Board in IJAAMM Journal
- Editorial Board in IRA Publish
- Editorial Board in Mathematics and Statistics Journal
- Editorial Board in Mathematical modeling and computing
- Editorial Board in IJRST: <u>http://www.ijrst.com/editorboard1.php</u>
- Editorial Board in Lawarence Press
- Editorial Board in IJMRET
- Editorial Board in ijr group
- Editorial Board in GJESR
- Editorial Board in JIAATS

- Editorial Board in IJRERD
- Editorial Board in EPH International Journal of Mathematics and Statistics (ISSN: 2208-2212)
- Editorial Board in Scientific Research International: Journal of Mathematical Science And Application
- PhD theses Examiner: I am a major or member in many examiner of PhD theses for degree of doctor of Philosophy in mathematics in the college of science or college of education for pure science in many university in Iraq such Baghdad University, AL-Mustansirya and Al-Nahrain University.
- MSc theses Examiner: I am a major or member in many examiner of MSc theses for degree of MSc of science in mathematics in the college of science or college of education for pure science in many university in Iraq such Baghdad University, AL-Mustansirya and Al-Nahrain University.

## **Teaching Experience (More than 25 years)**

Teaching various theoretical and practical subjects;

No.	Department	Subject	Year
1	Mathematics	Algebraic Geometry	1994-1995 & 1995-1996
2	Computer	Discrete structure	1995-1996 & 1996 -1997
3	Computer	Applied Mathematics	=
4	Mathematics	Calculus	=
5	Mathematics	Group Algebra	1997 - 1998
6	Mathematics	Mathematical	1998 - 1999
7	Mathematics	Numerical Analysis	1999 - 2000 & 2000 - 2001 &
			2001 - 2002
8	Mathematics	Applied Mathematics	2004 - 2005 & 2005 - 2006 & 2006 - 2007 & 2007 - 2008 & 2008 - 2009 & 2009 - 2010 & 2010 - 2011& 2011- 2012 & 2012-2013
9	Mathematics	Graph Theory	2013 - 2014

### **Courses Which You Teach**

10	Mathematics	Computer science	2014 – 2015, 2015 – 2016, 2016- 2017.
11	Mathematics	Applications in Linear Algebra	2017 - 2018
12	Mathematics	Applied Mathematics	2018 - 2019

## **Training & Experiences:**

## Member of:

- Attained and participated in several continuing educational course sponsored by Training center.
- Attained and participated in several continuing educational course sponsored by the Training center of the BrightTALK Developer.
- Member of the scientific committee of the
- Member of the Teaching committee of the

#### No. **Conferences Title** Place Type of Year **Participation First Science Conference of Al-Qadisiyah** 2008 Researcher 1 Qadisiyah University -**University - College of Computer Science** College of Computer august & Mathematics Science & Mathematics Baghdad University -2 Third Science Conference of Science 2009 = College of Science College march 3 First Science Conference Iraqi – France 14-18/ College of Science =11 / 2009 in Science College University Second Science Conference of Al-Qadisiyah 4 16-18/ Qadisiyah University -= University - College of Computer Science & March College of Computer Mathematics 2010 Science & Mathematics First Science Conference of Computer 2002 5 Baghdad University -= Science & Mathematics in Education Ibn Al-College of Education Ibn Haitham College Al-Haitham Jordon – amman -Special 6 First Arabic Conference of Mathematics 6-8/10 = **Applied Science University** 2004 in Special Applied Science University **Baghdad University – College** First Science Conference of Mathematics 4/5/ 7 preparative of Education Ibn Al-Haitham 2010 Department student committee Symposium about ANN 2010 8 Researcher =Symposium about the Importance of 2009 9 = = Mathematics in society

## **Conferences Participated**

10	Symposium about Applied Mathematics	2010	Baghdad University - College of Woman	partaken
11	Symposium about Modul of Algebra	2010	Baghdad University – College of Education Ibn Al-Haitham	=
12	Third Science Conference of Al- Qadisiyah University - College of Computer Science & Mathematics	19-20/4/ 2011	Qadisiyah University - College of Computer Science & Mathematics	Researcher
13	First International Conference of Mathematics and its Applications	1-3/3/ 2011	Al-Basra University - College of Science	=
14	Symposium about special type for Modul of Algebra	Septemb er 2011	University of Baghdad – College of Education Ibn Al-Haitham	partaken
15	Symposium about FFNN	=	=	=
16	Symposium about BVP	2011	=	=
17	Symposium about singular BVP	=	=	=
18	Symposium about stochastic process of Integral Equation	=	=	=
19	Symposium about mathematical stochastic	=	=	=
20	Second Conference on Computer and Information Technology	4-5/4/ 2012	College of Computer – University of Anbar	Researcher
21	First Conference of Karbala University - College of Education for Pure Sciences	29-4- 2012	Karbala University - College of Education for Pure Sciences	=
22	Nineteenth Science Conference of Al- Mustansiriyah University - College of Education	25-26/4/ 2012	Al- Mustansiriyah University - College of Education	=
23	Symposium about mathematics teaching between situated and ambitious	6-5- 2012	University of Baghdad – College of Education Ibn Al-Haitham- department	=
24	The second Scientific Conference for pure science of Al-Anbar University	20 - 22 / 11/2012	Al-Anbar University	=
25	The Interfusion Between of Science	13/3/201 3	Baghdad University – College of Education Ibn Al-Haitham- department of mathematics	partaken
26	The second woman Scientific Conference	26- 28/3/201	Baghdad University- college of woman science	Researcher
27	Second Science Conference of Mathematics Department student	5/5/2013	Baghdad University – College of Education Ibn Al-Haitham	preparative committee
28	Twenty Science Conference of Al- Mustansiriyah University - College of Education	25-26/4/ 2013	Al- Mustansiriyah University - College of Education	Researcher
29	International Conference of applied and pure Mathematics	8- 9/5/2013	Baghdad University - College of Science	=
30	2 <sup>nd</sup> International Conference of Mathematics and its Applications	23- 24/10 /	Al-Basra University - College of Science	=

31	Symposium about using Ann's in e-	19-3-	Baghdad University –	Researcher
51	Government and its Applications in	2014	College of Education for	Resourcher
	governing College of Education for pure		pure science-	
32	The 3rd International Conference on	17-19	Kuala Lumpur, Malaysia	Researcher
	Mathematical Sciences (ICMS3)	December 2013		
33	Third Science Conference of	14/5/2014	Baghdad University –	preparative
	Mathematics Department student		College of Education for	committee
			pure science/ Ibn Al-	
34	Symposium about Applied Mathematics	26/2/201	Baghdad University –	Researcher
	and its Matters	5	College of Education for	
35	Symposium about "The Advantages and	12/4/201	Baghdad University – College	Researcher
	Disadvantages of Using the Internet"	5	of Education for pure science-	
26		10/1/	mathematical department	
36	Using Modified Mathematical Methods	10/1/ 2016	=	=
27	for Determining the Rate of			
37	The Water is national asset and its	29/1 /	=	=
38	keeping is The Ethos scientific researcher	2016 10/1/	Baghdad University –	partaken
30	The Ethos scientific researcher	2015	College of Education for	partaken
39	Multidisciplinary Studies Academic	16-17/	Sintok - Malaysia	Researcher
57	National Conference 2016	4 / 2016	Shitok - Walaysia	Researcher
40	On Using Modified Mathematical Technique	8/1/2017	Baghdad University – College	Researcher
	for Availing from Natural Riches		of Education for pure	
41	Recent Trend in Science and	17-18/	science-mathematical Penang, Malaysia	Researcher
11	Engineering Research International	2/ 2017	r chung, muluystu	Researcher
	Conference	_, _01,		
42	The 23th specialization scientific	26-27/4	Al-Mustansirya University –	Researcher
	Conference in Al-Mustansirya	/ 2017	College of Education -	
	University		Baghdad - Iraq	
43	Second Scientific Conference	22/12/	General Education in	partaken
		2016	Baghdad Rusafa First	
44	Second Annual Environmental	15-16/4/	The Iraqi Environmental	Researcher
	International Conference	2017	upgrading & developing	
15	The importance of methometics in life	26/2/	organization, Kerbala, Baghdad University –	Researcher
45	The importance of mathematics in life	26/2/ 2017	College of Education for	Kesearcher
		2017	pure science-mathematical	
			department	
46	10 <sup>th</sup> Scientific Conference for	6-7/	Ministry of Agriculture	Researcher
	Agricultural Research	12/2017		
	U Contra de la c			Researcher
17	Ibn Al-Haitham First International	13.14/	I nivercity of Reconded	
47	Ibn Al-Haitham First International Scientific Conference	13-14/ 12/ 2017	University of Baghdad- College of Education for	Researcher
47	Ibn Al-Haitham First International Scientific Conference	13-14/ 12/ 2017	College of Education for pure science–Ibn Al Haitham	Researcher
47			College of Education for	Researcher

49	College of Ibn Al-Haytham organizes a scientific symposium on the proportions of pollution in environment	University of Baghdad- College of Education for pure science–Ibn Al Haitham <u>http://en.uobaghdad.edu.i</u> <u>q/?p=1019</u>	Researcher

# **Scientific Activities**

Within the College	Outside the College
Membership of Science committee in Mathematics Department	Discussion MSc. & Ph.D. Thesis
Membership committee of high studies	Assessing the Science search of different Science Journals
Membership of board Mathematics Department	Assessing the Search of Science Preferment
Membership Committee Examination of High Studies	Assessing the Science & linguist of MSc & PhD Thesis
Supervise on search of Mathematics Department student	Training the Teaching in Ministry of Education on Numerical Analysis
Conducting Educational	Editor board in 8 International Journals
Membership Committee of learning continuate	Membership Committee of proof Scientific Degree in Baghdad university
Membership of Ibn Al-Haitham Journal for Pure & Applied Sciences	
Membership Committee of science preferment of college Education Ibn Al-Haitham	
Membership Committee of science supervised on foremost student	
Chairman committee assessing of researches in College of Education	
Membership Committee of learning day in 7/2/2013	
Membership Committee of setting condition for choosing lecturer of seminar	
Membership Committee of Universal examination for Ph.D. thesis	
Membership in scientific consultations office	

#### **Invitations:**

- Third Science Conference of Science College, march 2009, College of Science University of Baghdad session Organizer, Iraq.
- First Science Conference of Mathematics Department student, 4/5/ 2010, College of Education for pure science - Ibn Al-Haitham -University of Baghdad – scientific committee, Iraq.
- Invitation to participate in Symposium about Applied Mathematics, April 2010, College of Woman Science - University of Baghdad – Iraq.
- Invitation to organize the Second Scientific Conference of Mathematics Department student, 5/5/2013, University of Baghdad – College of Education for pure science- Ibn Al-Haitham, Iraq.
- Invitation to organize the Third Scientific Conference of Mathematics Department student, 14/5/2014, College of Education for pure science/ Ibn Al-Haitham –University of Baghdad, Iraq.
- Invitation to organize the Second Scientific Conference, 22/12/2016, General Education in Baghdad Rusafa First, Iraq.

No.	Research Title	Place of Publication	Year
1	Some results on configurational theorems and their algebra	Ibn Al-Haitham Journal for Pure & Applied Sciences	Vol.10(2)1999
2	On minor forms of quasi Desargues	=	Vol.10(2)1999
3	Minor forms of the proposition of Desargues	Sciences AL-Mustansirya Journal	Vol.8(1)1997
4	Geometric aspects of four minor	=	Vol.8(2)1997
5	On minor forms of Pappus	Ibn Al-Haitham Journal for Pure & Applied Sciences	Vol. 8(2) 1997
6	The dual of operation $+_p$ in the ternary ring of a projective plane	=	Vol. 13(3) 2000
7	Reidemeister proposition	=	Vol. 14(4A)2001
8	A Ringoid of the ternary ring of a projective plane	=	Vol. 11(1) 1999

#### **Research Papers:**

9	Solution of Max-Min Composite	First Science Conference of Computer Science & Mathematics in Education	14-15 / 9 / 2002
	Fuzzy Relational Equations	Ibn Al-Haitham	
10	Fuzzy Jordan – Holder theorem	Ibn Al-Haitham Journal for Pure	Vol. 15(3) 2002
11	Groupoids associated with the ternary ring of a projective plane	& Applied Sciences Ibn Al-Haitham Journal for Pure & Applied Sciences	Vol. 11(2) 1999
12	Chain length of space of fuzzy orderings and the isotropy theorem	Journal Published by Iraqi Society of Physics & Mathematics	Vol. 16(2)2001
13	Fuzzy logics	=	Vol. 17(2)2002
14	K-Standard Sequence Logic	=	Vol. 17(1)2002
15	On minor forms of Quasi-Pappus	=	Vol. 15 (2)2000
16	Stability of Runga – Kutta Methods	Ibn Al-Haitham Journal for Pure & Applied Sciences	Vol. 15 (4D) 2002
17	The dual of operation * in the ternary ring of a projective plane	=	Vol. 13 (3) 2000
18	Fuzzy internal direct product	=	Vol. 18 (1) 2005
19	Orderings and pre orderings of planar ternary rings	Sciences AL-Mustansirya Journal	Vol. 9 (2) 1998
20	A space of fuzzy orderings	Ibn Al-Haitham Journal for Pure & Applied Sciences	Vol.22 (4) 2009
21	On training of artificial neural	Al- Fattah Journal	No. 23, 2005
22	On training of feed forward neural networks	Um-Salama Journal of Sciences	Vol. 4(1) 2007
23	Density and approximation by using feed forward neural networks	Ibn Al-Haitham Journal for Pure & Applied Sciences	Vol. 20 (1) 2007
24	The finite element neural network and its applications to forward and inverse problem	=	Vol. 19(4) 2006
25	Some results on fuzzy coverings and partitions	Sciences AL-Mustansirya Journal	Vol. 18 (2) 2007
26	On threshold relation and their application	Um-Salama Journal of Sciences	Vol. 3 (1) 2006
27	Fuzzy Sub Spaces for Fuzzy Space of Orderings	=	Vol. 4 (1) 2007, pp: 314-317
28	Design of artificial neural network for solving inverse problem	Journal of Al-Nahrain University - Sciences	Vol. 10 (2) 2007 2007pp.187-194
29	On Design of artificial neural networks for solving differential equations	First Arabic Conference of Mathematics in Special Applied Science University - Jordon	6-8 /10 / 2004
30	On feed forward neural network with ridge basis function	Al-Qadisiyah Journal for Pure Sciences	Vol. 12 (4) 2007

31	On radial basis function neural	=	Vol. 12 (3) 2007
32	networks Numerical solutions of fractional differential equations	Journal of Al - Nahrain University - Sciences	Vol.12( 4) 2009 pp. 156-162
33	On radial basis function neural networks and its applications	First Science Conference of Al- Qadisiyah University - College of Computer Science & Mathematics	27-28/8/2008
34	On Multilayer neural networks and its applications for Approximation	Third Science Conference of Science College Baghdad University	brass tacks Book pp: 672 - 678
35	On Solution of two point Second Order Linear Boundary Value Problems by using Semi-Analytic	Al-Qadisiyah Journal for Pure Sciences	Vol. 15 (1) 2010 pp: 56-69
36	Numerical solution of System of Linear Fredholm Integral equations using Open Newton Cotes Formulas	First Science Conference Iraqi – France in Science College University	14 - 18 / 11/ 2009
37	On training feed forward neural networks for Approximation Problems	Al-Qadisiyah Journal for Pure Sciences	Vol.15 (2) 2010 pp: 132 -145
38	THE COMMUTATOR OF TWO	Ibn Al-Haitham Journal for Pure & Applied Sciences	Vol. 25 (2) 2012 pp: 347-358
39	Some Results about the Commutator of two Fuzzy Subsets of group	Al-Qadisiyah Journal for Pure Sciences	Vol. 15 (3) 2010 pp: 87- 97
40	Stability of Back Propagation Training Algorithm For Neural Networks	Baghdad Journal for Sciences	Vol. 9 (4) 2012 pp: 713- 719
41	On Fuzzy groups and group homomorphism	Ibn Al-Haitham Journal for Pure & Applied Sciences	Vol.25, No.2 ,2012 pp: 340-346
42	N-Topological Space and it applications in Artificial Neural	=	Vol. 24 (1) 2011
43	Improving Gradient Descent method For Training Feed Forward Neural Networks	First International Conference of Mathematics and its Applications - Al- Basra University	1-3/3/2011
44	Some Results on Solvable Fuzzy sub groups of A group	Al-Qadisiyah Journal for Pure Sciences	Vol.16, No.4,2011 pp: 17-29
45	On Solution of Two Point Second Order Non Linear Boundary Value Problems using Semi-Analytic	Third Science Conference of Al- Qadisiyah University - College of Computer Science & Mathematics	2011
46	On Comparison Between Radial basis function and Wavelet basis function Neural Networks	Ibn Al-Haitham Journal for Pure & Applied Sciences	Vol. 23(2) 2010 pp: 184 - 192
47	On Solution of Special Case of Two Point Second Order Boundary Value Problems using Semi-Analytic	Al-Qadisiyah Journal for Pure Sciences	Vol. 2 (1) 2010
48	The Effect of Number of Training Samples for Feed Forward Neural Network	=	Vol. 2 (2) 2010 , pp: 26-35

49	The Effect of Number of Training	Ibn Al-Haitham Journal for Pure	Vol.23(3) 2010
50	Samples for Artificial Neural Network Solving Special Case of Two Point Second Order Linear Boundary Value Problems using	& Applied Sciences Conference of Al- Kufa	2011
51	Semi-Analytic Technique On Solution of Two Point Second Order Boundary Value Problems using Semi- Analytic Method	Journal of Basrah Researches (Sciences)	Vol.37(4D) 2011 pp:69-77
52	Improving Conjugate Gradient method For Training Feed Forward Neural Networks	Third Science Conference of Al- Qadisiyah University - College of Computer Science & Mathematics	2011
53	Improving Gradient Descent method For Training Artificial Neural	Conference of Al- Kufa	2011
54	Using Semi-Analytic Method to Decreasing Dangers of Lead	Ibn Al-Haitham Journal for Pure & Applied Sciences	Vol.24(3) 2011
55	Solution of a System of Ordinary Non Linear Initial Value Problems using Semi Analytic Technique	Al-Qadisiyah Journal for Pure Sciences	?
56	Using Semi-Analytic Method for Solving Higher Order Ordinary Non Linear Initial Value Problems	Iraqi Journal for Sciences	Vol.53,No.1, 2012, pp:140- 147
57	Design Numerical scheme to Fast and Decrease the Computations of Interpolation Using Data Compression	Journal of Basic Education	Vol. 17 (69) 2011 , pp: 175- 182
58	Semi-Analytic Method for Solving Higher Order Ordinary Differential Equations with Initial condition	AL-MUSTANSIRIYAH Journal for Sciences	Vol. 23 (5) 2012 pp: 183- 194
59	Design Feed Forward Neural Network for Solving Linear Volterra Integro-	Ibn Al-Haitham Journal for Pure & Applied Sciences	Vol. 25 (3) 2012 pp: 316- 324
60	Solution of High Order Ordinary Boundary Value Problems Using Semi-Analytic Technique	=	Vol. 26 (1) 2013 pp: 281- 291
61	Fast Training Algorithms For Feed Forward Neural Networks	=	Vol. 26 (1) 2013 pp: 275- 280
62	On Solution of Regular Singular Ordinary Boundary Value Problem	=	Vol. 26 (2) 2013 pp: 249- 256
63	Using Semi – Analytic Technique for Solving Heat Conduction Problem in the Human Head	Al-Mustansiriyah Journal for Sciences	Vol. 23 (6) 2012 pp: 211- 218
64	On Solution of Non Linear Singular Boundary Value Problem	Ibn Al-Haitham Journal for Pure & Applied Sciences	Vol. 26 (3) 2013 pp: 320- 328
65	Solution of Fifth Order Ordinary BVPs Using Osculatory Interpolation Technique	AL-MUSTANSIRIYAH Journal for Sciences	Vol. 26 (3) 2013 pp: 320- 328
66	Solution of Six Order Boundary Value Problems Using Osculatory Interpolation Method	International Journal of Modern Mathematical Sciences	2013, 7(3): 330- 338

67	Design Fast Feed Forward Neural	AL-MUSTANSIRIYAH Journal	Vol. 23 (6) 2012
	Network To Solve Initial Value Problems	for Sciences	pp: 189- 196
68	On Solving Special Case of System of Initial Value Problems using Semi- Analytic Technique	Journal of Al-Qadisiyah For Pure Science	Vol. 17 (2) 2012 Pp:102- 110
69	Improve Levenberg-Marquardt Training Algorithm For Feed Forward Neural Networks	Second Conference on Computer and Information Technology/ College of Computer – University of Anbar	accepted
70	Solution of Ordinary BVPs of Eighth Order Using Osculatory Interpolation Technique	Al- Mustansiriyah University - Journal of the College of Education	Vol. 4, 2012, pp: 277-287
71	Solution of Third Order Ordinary BVPs Using Osculatory Interpolation Technique	The First Scientific Conference the College of Education for Pure Sciences Karbala University	29/4/2012, pp: 257-263
72	Solution of 2 <sup>nd</sup> Order Nonlinear Three-Point Boundary Value Problems By Semi-Analytic Technique	Ibn Al-Haitham Journal for Pure & Applied Sciences	Vol.27, No. 3, 2014, pp:501-512
73	Solution of Nonlinear 2 <sup>nd</sup> Order Multi-Point BVP By Semi-Analytic Technique	مجلة الرافدين لعلوم الحاسوب و الرياضيات – كلية علوم الحاسوب و الرياضيات ⊣لموصل Raf. J. of Comp. <i>&amp; Math's. ,</i>	Vol. 10, No. 2, 2013
74	Design Feed Forward Neural Networks To Solve Higher Order Boundary Value Problem	Ibn Al-Haitham Journal for Pure & Applied Sciences	Vol.27, No. 3, 2014,
75	Design Feed Forward Neural Network To Solve Boundary Value Problems	Journal of University of Anbar for Pure Sciences	2013, Vol.7, No.1, PP:149-157
76	Using Semi-Analytic Technique for Solving Lane Emden Equations	Iraqi Journal for Sciences	2013, Vol.54, No.1, Pp.165-196
77	On Solution of Regular Singular Initial Value Problems	Ibn Al-Haitham Journal for Pure & Applied Sciences	2013, Vol. 26, No.2 pp: 257-264
78	On solution of irregular differential equation with boundary conditions	Scientific Journal of Pure and Applied Sciences	2013, Vol. 2, No.8 pp: 293-298
79	Design Feed Forward Neural Network to Determine Doses of the Decongestant for Cold Pills	Ibn Al-Haitham Journal for Pure & Applied Sciences	Vol. 25 (3) 2012 pp: 404- 415
80	The Efficiency of Feed Forward Neural Network to Metrifying Doses of the Antihistamine Medication	International Journal of Modern Biology and Medicine	2013, 4(2): 71-84
81	Efficient Semi-Analytic Technique for Solving Nonlinear Singular Initial Value Problems	Ibn Al-Haitham Journal for Pure & Applied Sciences	Vol.27, No.3, pp:513-522, 2014
82	Design Feed Forward Neural Network To Solve Boundary Value Problems Neumman	The second Scientific Conference for pure science of Al-Anbar University	=
83	Stability and Convergence of Explicit Difference Method for Solving the 3- Dimensional Fractional Diffusion Equation	International Journal of Modern Mathematical Sciences, Florida, USA	Vol.2, No.1, pp:9- 21, 2012
84	Influence Activation Function in Approximate Periodic Functions Using Neural Networks	Ibn Al-Haitham Journal for Pure & Applied Sciences	Vol. 27, No.1, pp: 306-313, 2014
85	Solving Eigenvalue Problem Using Semi- Analytic Technique	Al- Mustansiriyah University - Journal of the College of Education	Vol.3/2013specail No./pure science

96	Neurol Network and Mathematical	International Journal of Modern	2012 Vol 2
86	Neural Network and Mathematical Modeling of a Spherical Body of Gas	Computer Science & Engineering	2013, Vol.2, No.1, pp: 1-11
87	Mathematical Model for Determining the Increased Cost of Reactive Power Transmission in Electric Power Systems	International Journal of Modern Mathematical Sciences	2013, Vol. 6, No. 3, pp: 144-150
88	Solving Multi-Point Boundary Value Problems by Hermite Interpolation	International Journal of Modern Mathematical Sciences	2013, 5(2): 92-98
89	Solving Singular Eigenvalue Problem Using Semi-Analytic Technique	International Journal of Modern Mathematical Sciences	2013, 7(1):121-31
90	Mathematical Model for Determination the Increase in Operational Cost Caused by Reactive Power Transmission in Electric Power Systems	International Journal of Modern Engineering Sciences	2013, 2(1): 51-62
91	Improving Gradient Descent Method for Training Feed Forward Neural Networks	International Journal of Modern Computer Science & Engineering	2013, 2(1): 12-24
92	Design Feed Forward Neural Network to Solve Singular Boundary Value Problems	Hindawi Publishing Corporation ISRN Applied Mathematics	Vol. 2013, 2013, Pp: 1-7
93	Mathematical Model for Determination the Increase in Operational Cost of Transmission Line from HAD3 to QIM3 in Electric Power Systems	Iraqi Journal of Sciences	<b>2013, Vol.54, No.</b> <b>3, PP:</b> 757-763
94	Solution of Nonlinear High Order Multi-Point Boundary Value Problems By Semi-Analytic Technique	Journal of Baghdad for Sciences	2015, Special Issue
95	Efficiency of Semi–Analytic Technique for Solving Singular Eigen Value Problems with Boundary Conditions	Basrah Conference	2015, Special Issue
96	Design Feed Forward Neural Network to Solve Nonlinear Singular Boundary Value Problems	Basrah Conference	2015, Special Issue
97	The effect of meta-cognitive thinking on the achievement in mathematics of the second grade students in the inter-medial stage	Journal of University of Anbar for humanism Sciences	=
98	Design FFNN for solving nonlinear singular BVP	Basrah Conference	2015, Special Issue
99	Effect of model for up gnostic in turning over mathematics for second secondary school students	Journal of Al-Anbar University for humanistic science	2015, Vol. 2
100	Using Semi-Analytic Technique In protecting from lead Poisoning	AmericanOpenAppliedMathematics Journal	Vol. 1, No. 3, 2013, PP: 10 - 18
101	Explicit difference method for solving the two-dimensional two-sided fractional diffusion equation in the shifted grunwald estimate form	Scientific Journal of Pure and Applied Sciences	2013, vol.2, No.9, pp: 314-322
102	Mathematical Model for Determination of the Energy Loss in Electric Power Systems and its Application in Station in West of Iraq	International Journal of Modern Engineering Sciences	2013, 2(2): 84-96

103	Mathematical Model For Determination the Economically Justified Distance for Reactive Power Transmission in Electric Power System	International Journal of Scientific & Engineering Research	Volume 5, Issue 2, February-2014, pp: 1291-1297
104	Solving the Quadratic Eigenvalue Problem Using Repeated Interpolation	International Journal of Modern Mathematical Sciences	2014, 9 (3): 145 - 153
105	Using Feed Forward Neural Network to Solve Eigen value Problems	Conference Papers in Science journal	Vol. 2014, 2014, Article ID 906376, pp: 1-8
106	Design Neural Network to Solve Singular Perturbation Problems	Applied & Computational Mathematics journal	Vol. 3 , Issue 3, 2014, p:1-5
107	Design Collocation Neural Network to Solve Singular Perturbed Problems with Initial Conditions	International Journal of Modern Engineering Science	2014, 3(1): 29-38
108	Using Neural Network to Solve Nonlinear Singular Perturbaton Problems	Journal of Al-Qadisiya for Pure Science	Vol.19,No.4, 2014,pp:190-201
109	Solving Multi-Parameter Eigenvalue Problem Using Osculator Interpolation Method	International Journal of Modern Mathematical Sciences	2014, 12(2): 64- 73
110	Improve Levenberg-Marquardt Training Algorithm for Feed Forward Neural Networks	International Journal of Modern Engineering Sciences	2015, 4(1):14-21
111	Solution of System of Differential Equations with Initial Conditions Using Repeated Interpolation Technique	International Journal of Advanced Scientific and Technical Research	Issue 5 volume 2, March-April 2015, pp: 289-300
112	Mathematical Modeling for the Tumor Growth in the Bladder	International Journal of Innovative Science, Engineering & Technology (IJISET)	Vol. 2 Issue 5, May 2015,pp:660-665
		Intermeticanal Journal of Madaum	
113	Detection and Classification of Cancer Using Feed Forward Neural Network	International Journal of Modern Biology and Medicine	2015, 6(1): 88-94
113 114	Using Feed Forward Neural Network Solving Two-Parameter Eigenvalue	<b>Biology and Medicine</b> International Journal of Modern Applied Physics	2015, 6(1): 88-94 2015, 5(1): 26-36
	Using Feed Forward Neural Network Solving Two-Parameter Eigenvalue Problem Using Semi-Analytic Technique Pollution of Soils by Heavy Metals in East Baghdad in Iraq	<b>Biology and Medicine</b> International Journal of Modern Applied	
114	Using Feed Forward Neural Network Solving Two-Parameter Eigenvalue Problem Using Semi-Analytic Technique Pollution of Soils by Heavy Metals in	Biology and Medicine International Journal of Modern Applied Physics IJISET - International Journal of	2015, 5(1): 26-36 Vol. 2 Issue 6, June
114 115	Using Feed Forward Neural Network Solving Two-Parameter Eigenvalue Problem Using Semi-Analytic Technique Pollution of Soils by Heavy Metals in East Baghdad in Iraq using semi-analytic technique to solve	Biology and Medicine International Journal of Modern Applied Physics IJISET - International Journal of Innovative Science, Engineering & International Journal of Research	<b>2015, 5(1): 26-36</b> <b>Vol. 2 Issue 6, June</b> <b>2015, pp: 181 - 187</b> 2015, Vol. No. 5, Issue No. II, Apr-
114 115 116	Using Feed Forward Neural Network Solving Two-Parameter Eigenvalue Problem Using Semi-Analytic Technique Pollution of Soils by Heavy Metals in East Baghdad in Iraq using semi-analytic technique to solve singular quadratic eigenvalue problems using artificial neural network technique for the estimation of cd concentration in contaminated soils Mathematical Model for Estimation the Concentration of Heavy Metals in Soil for Any	Biology and Medicine International Journal of Modern Applied Physics IJISET - International Journal of Innovative Science, Engineering & Thternational Journal of Research in Science And Technology(IJRST) International Journal of Innovations	<b>2015, 5(1): 26-36</b> <b>Vol. 2 Issue 6, June</b> <b>2015, pp: 181 - 187</b> 2015, Vol. No. 5, Issue No. II, Apr-Jun, <b>pp:60-71</b> 2015, Vol.1, No. 1, Jan-Jun, <b>pp:1-7</b> Issue 5, vol. 4, July- August 2015, p:718-
114 115 116 117	Using Feed Forward Neural Network Solving Two-Parameter Eigenvalue Problem Using Semi-Analytic Technique Pollution of Soils by Heavy Metals in East Baghdad in Iraq using semi-analytic technique to solve singular quadratic eigenvalue problems using artificial neural network technique for the estimation of cd concentration in contaminated soils Mathematical Model for Estimation the	Biology and Medicine International Journal of Modern Applied Physics IJISET - International Journal of Innovative Science, Engineering & International Journal of Research in Science And Technology(IJRST) International Journal of Innovations in Scientific Engineering (IJISE) International Journal of Advanced	<b>2015, 5(1): 26-36</b> <b>Vol. 2 Issue 6, June</b> <b>2015, pp: 181 - 187</b> 2015, Vol. No. 5, Issue No. II, Apr-Jun, <b>pp:60-71</b> 2015, Vol.1, No. 1, Jan-Jun, <b>pp:1-7</b> Issue 5, vol. 4, July-
114 115 116 117 118	Using Feed Forward Neural Network Solving Two-Parameter Eigenvalue Problem Using Semi-Analytic Technique Pollution of Soils by Heavy Metals in East Baghdad in Iraq using semi-analytic technique to solve singular quadratic eigenvalue problems using artificial neural network technique for the estimation of cd concentration in contaminated soils Mathematical Model for Estimation the Concentration of Heavy Metals in Soil for Any Depth and Time and its Application in Iraq Diagnosis of cancer using Artificial	Biology and MedicineInternational Journal of Modern AppliedPhysicsIJISET - International Journal ofInnovative Science, Engineering &International Journal of Researchin Science And Technology(IJRST)International Journal of Innovationsin Scientific Engineering (IJISE)International Journal of AdvancedScientific and Technical ResearchInt. J. Adv. Appl. Math. And Mech.	<b>2015, 5(1): 26-36</b> <b>Vol. 2 Issue 6, June</b> <b>2015, pp: 181 - 187</b> 2015, Vol. No. 5, Issue No. II, Apr- Jun, <b>pp:60-71</b> 2015, Vol.1, No. 1, Jan-Jun, <b>pp:1-7</b> Issue 5, vol. 4, July- August 2015, p:718- 726 3(2) (2015) 45 -
114 115 116 117 118 119	Using Feed Forward Neural NetworkSolving Two-Parameter EigenvalueProblem Using Semi-Analytic TechniquePollution of Soils by Heavy Metals inEast Baghdad in Iraqusing semi-analytic technique to solvesingular quadratic eigenvalue problemsusing artificial neural network technique forthe estimation of cd concentration incontaminated soilsMathematical Model for Estimation theConcentration of Heavy Metals in Soil for AnyDepth and Time and its Application in IraqDiagnosis of cancer using ArtificialNeural NetworkUsing Neural Network and Singular	Biology and MedicineInternational Journal of Modern AppliedPhysicsIJISET - International Journal ofInnovative Science, Engineering &International Journal of Researchin Science And Technology(IJRST)International Journal of Innovationsin Scientific Engineering (IJISE)International Journal of AdvancedScientific and Technical ResearchInt. J. Adv. Appl. Math. And Mech.(IJAAMM)International Journal of Modern	<b>2015, 5(1): 26-36</b> <b>Vol. 2 Issue 6, June</b> <b>2015, pp: 181 - 187</b> 2015, Vol. No. 5, Issue No. II, Apr- Jun, <b>pp:60-71</b> 2015, Vol.1, No. 1, Jan-Jun, <b>pp:1-7</b> Issue 5, vol. 4, July- August 2015, p:718- 726 3(2) (2015) 45 – 49

123	Design Suitable Neural Network for Processing Face Recognition	Global Journal Of Engineering Science And Researches	Vol.3, No. 3, March 2016, pp:58-64
124	Design Collocation Neural Network To Solve nonlinear singular differential Equation	MJ Journal on Differential Equations	Vol.1, No. 1, 2016, pp:1-8
125	Using Artificial Neural Network Technique to Estimation the Concentration of Copper for Contaminated Soils	Mathematics and Statistics (MSOA)	Vol. 2 Issue 1, 2016, pp: 1-4
126	Using Collocation Neural Network to Solve Eignvalue Problems	MJ Journal on Applied Mathematics	Vol.1, No. 1, 2016, pp:1-8
127	Evaluate the Rate of Contamination Soils by Copper Using Neural Network Technique	Global Journal Of Engineering Science And Researches	Vol.3, No. 5, 2016, pp:18-22
128	Solving the singular multi-parameter eigenvalue problem using repeated interpolation technique	MJ Journal on Applied Mathematics	Vol.1, No. 1, 2016, pp:9-15
129	Efficiency of Semi–Analytic Technique for Solving Singular Eigen Value Problemswith Boundary Conditions	Basrah Journal of Science	Vol. 34 (2), 2016, p:133-140
130	Design Feed Forward Neural Networks To Solve Higher Order Boundary Value Problem	University of Anbar	2016
131	Improving Conjugate Gradient Method for Training Feed Forward Neural Networks	International Journal of Modern Mathematical Sciences	2016, 14(3): 283- 295
132	Using Artificial Neural Network Technique to Estimation the Concentration of Copper for Contaminated Soils	Mathematics and Statistics	2016, 2(1), 1-4
133	Using Cubic Trigonometric B-Spline Method to Solve BBM-Burger Equation	Mathematics and Statistics Journal	2016. 2(2): 1-9
134	numerical model for estimation the concentration of heavy metals in soil and its application in iraq	Global Journal Of Engineering Science And Researches	3(3)2016, 75-81
135	design suitable neural network for processing face recognition	Global Journal Of Engineering Science And Researches	3(3)2016, 58-64
136	using artificial neural network technique to estimation the concentration of copper for contaminated soils	Global Journal Of Engineering Science And Researches	3(1)2016, 77-80
137	Estimate the concentration of heavy metals in soil by using trigonometric cubic b-spline method and its application in Baghdad, Iraq	Global Journal Of Engineering Science And Researches	3(9)2016, 13-20
138	mathematical modeling of groundwater flow	Global Journal Of Engineering Science And Researches	3(10)2016, 15-22
139	Using Collocation Neural Network to Solve Eignvalue Problems	MJ Journal on Applied Mathematics	1 (1) (2016) 1-8
140	Solving the singular multi-parameter eigenvalue problem using repeated interpolation technique	MJ Journal on Applied Mathematics	1 (1) (2016) 9-15
141	Mathematical model for estimation the concentration of heavy metals in soil	MJ Journal on Applied Mathematics	1 (1) (2016) 16-19
142	on solving singular eigen value problems	Transnational Journal of Mathematical Analysis and Applications	2016

143	design collocation neural network to solve nonlinear singular differential equation	<i>MJ Journal on Differential Equations</i>	1 (1) (2016) 1-8
144	On solution of irregular singular initial value problems	MJ Journal on Differential Equations	1 (1) (2016) 9-14
145	Semi-analytic technique to solve Emden–Fowler type differential equations	<i>MJ Journal on Differential Equations</i>	
146	Numerical solution of singular perturbation problems by using collocation neural networks	MJ Journal on Numerical Analysis	1 (1) (2017) 1-7
147	Numerical solution of the equation Modified Equal Width Equation by using Cubic Trigonometric B-Spline Method	Recent Trend in Science and Engineering Research International Conference	17-18/2/2017
148	Heavy Metals Pollution in Soil and Its Influence in South of Iraq	International Journal of Discrete Mathematics	2017; 2(3): 59-63
149	Using collocation neural network to solve nonlinear singular differential equations	International Journal of Statistics and Applied Mathematics	2016; 2(1): 50- 56
150	Estimate the Heavy Metal Contamination in Soils Using Numerical Method and Its Application in Iraq	International Journal of Basic & Applied Sciences IJBAS-IJENS	<b>2017</b> , Vol:17 No:02, <b>p:29-35</b>
151	Mathematical Model for Estimation the Effect of Rainwaters in Contaminated Soil and its Application in Baghdad	Proceedings of the 23th specialization scientific Conference in Al-Mustansirya University-Baghdad	25-26-4-2017
152	Estimate the Rate of Pollution in Bachdad Soil by Heavy Motals	Second Annual Environmental International Conference-Kerbala	15-16/4/2017
	Baghdad Soil by Heavy Metals	International Comerence-Kerbala	
153	Numerical Solution of the Coupled Viscous Burgers' Equation via Cubic	Mathematics and Statistics (MSOA)	Vol.2, Issue 2, <b>2017,p:1-13</b>
153	Numerical Solution of the Coupled	Mathematics and Statistics	
	Numerical Solution of the Coupled Viscous Burgers' Equation via Cubic Trigonometric B-spline Approach Solve the Groundwater Model Equation	Mathematics and Statistics (MSOA)	<b>2017,p:1-13</b> 5(1) (2017)
154	Numerical Solution of the Coupled Viscous Burgers' Equation via Cubic Trigonometric B-spline Approach Solve the Groundwater Model Equation Using Fourier Transforms Method Numerical solution of the equation Modified Equal Width Equation by using Cubic	Mathematics and Statistics (MSOA) IJAAMM Journal Int. J. Adv. Appl. Math. And Mech. International Journal of Engineering	<b>2017,p:1-13</b> 5(1) (2017) p: 75 - 80 7 (3.7) (2018), p:
154	Numerical Solution of the Coupled Viscous Burgers' Equation via Cubic Trigonometric B-spline Approach Solve the Groundwater Model Equation Using Fourier Transforms Method Numerical solution of the equation Modified Equal Width Equation by using Cubic Trigonometric B-Spline Method Mathematical Model for Estimation the Effect of Rainwaters in Contaminated	Mathematics and Statistics (MSOA) IJAAMM Journal Int. J. Adv. Appl. Math. And Mech. International Journal of Engineering & Technology Journal of the college of Education-	<b>2017,p:1-13</b> 5(1) (2017) p: 75 - 80 7 (3.7) (2018), p: 340-344 <b>2017,special</b>
154 155 156	Numerical Solution of the Coupled Viscous Burgers' Equation via Cubic Trigonometric B-spline Approach Solve the Groundwater Model Equation Using Fourier Transforms Method Numerical solution of the equation Modified Equal Width Equation by using Cubic Trigonometric B-Spline Method Mathematical Model for Estimation the Effect of Rainwaters in Contaminated Soil and its Application in Baghdad Design Simulink model to Estimate the Dispersion Parameter with Application	Mathematics and Statistics (MSOA) IJAAMM Journal Int. J. Adv. Appl. Math. And Mech. International Journal of Engineering & Technology Journal of the college of Education- Al-Mustansirya University global journal of engineering	2017,p:1-13 5(1) (2017) p: 75 - 80 7 (3.7) (2018), p: 340-344 2017,special issue, 4(11):November
154 155 156 157	Numerical Solution of the Coupled Viscous Burgers' Equation via Cubic Trigonometric B-spline Approach Solve the Groundwater Model Equation Using Fourier Transforms Method Numerical solution of the equation Modified Equal Width Equation by using Cubic Trigonometric B-Spline Method Mathematical Model for Estimation the Effect of Rainwaters in Contaminated Soil and its Application in Baghdad Design Simulink model to Estimate the Dispersion Parameter with Application in Iraq Estimation the Effect of Rainwaters in Contaminated Soil by Using Mathematical	Mathematics and Statistics (MSOA) IJAAMM Journal Int. J. Adv. Appl. Math. And Mech. International Journal of Engineering & Technology Journal of the college of Education- Al-Mustansirya University global journal of engineering science and researches TIJAS TIJAS	2017,p:1-13 5(1) (2017) p: 75 - 80 7 (3.7) (2018), p: 340-344 2017,special issue, 4(11):November 2017, p:33-37
154   155   156   157   158	Numerical Solution of the Coupled Viscous Burgers' Equation via Cubic Trigonometric B-spline ApproachSolve the Groundwater Model Equation Using Fourier Transforms MethodNumerical solution of the equation Modified Equal Width Equation by using Cubic Trigonometric B-Spline MethodMathematical Model for Estimation the Effect of Rainwaters in Contaminated Soil and its Application in Baghdad Design Simulink model to Estimate the Dispersion Parameter with Application in IraqEstimation the Effect of Rainwaters in Contaminated Soil by Using Mathematical Method and its Application in Baghdad	Mathematics and Statistics (MSOA) IJAAMM Journal Int. J. Adv. Appl. Math. And Mech. International Journal of Engineering & Technology Journal of the college of Education- Al-Mustansirya University global journal of engineering science and researches TIJAS	2017,p:1-13 5(1) (2017) p: 75 - 80 7 (3.7) (2018), p: 340-344 2017,special issue, 4(11):November 2017, p:33-37 Accepted

162	Steady State Radial Flow in Anisotropic and Homogenous in Confined Aquifers	IOP Conf. Series: Journal of Physics	<b>1003</b> (2018) 012056
163	Persons Camp Using Interpolation Method	IOP Conf. Series: Journal of Physics	Vol. 1003 (2018) 012055
164	Estimate the Effect of Rainwaters in Contaminated Soil by Using Simulink Technique	IOP Conf. Series: Journal of Physics	1003 (2018) 012057
165	Design Neural Network Based upon Decomposition Approach for Solving Reaction Diffusion Equation	JARDCS	Accepted
166	New Approach for Theis Well Function in Groundwater Management Application	JARDCS	Accepted
167	Mathematical Model for Moisture Content Resultant by Spreading Groundwater	Applied Mathematical Sciences Journals	Accepted
168	New Transform Fundamental Properties and its Applications	Ibn Al-Haitham Journal for Pure and Applied Science	Vol. 31 (2) 2018 pp:151-163
169	Solution of System of Viscous Burgers' Equation via Collocation Method	International Journal of Modern Mathematical Sciences,	2018, 16(2): 106- 123
170	Convergence of Levenberg-Marquardt Training Algorithm for solving Singular perturbation method	ICPS2018	Accepted
171	New Approach for Solving Three Dimensional Space Partial Differential Equation	Baghdad Science Journal	Accepted
172	Design Suitable Feed Forward Neural Network to Solve Troesch's Problem	ISI Science International J.	Accepted
173	Solving Systems of Non-linear Partial differential Equations by Using Coupled Method	ICPS2018	Accepted

# Awards and Certificates of Appreciation

No.	Name of Awards and Certificates	Donor	Year
1	Certificates of Appreciation for Communion in First Science Conference of Al-Qadisiyah University - College of Computer Science & Mathematics	Al-Qadisiyah University - College of Computer Science & Mathematics	2008
2	Certificates of Appreciation for Communion in Second Science Conference of Al-Qadisiyah	=	2010
3	Certificates of Appreciation for Communion in Third Science Conference of Baghdad University -	Baghdad University - College of Sciences	2009

4	Certificates of Appreciation for Contributed in success the Third	Baghdad University - College of Sciences	2009
	Science Conference of Baghdad	-	
5	Certificates of Appreciation for Contributed in success the First Science Conference of	Baghdad University – College of Education Ibn Al-Haitham	2010
6	Award of catholicity for patronal the scientists	Ministry of Higher Education and Scientific Research	2001
7	Award of obtain on PhD Thesis in Standard interval	Baghdad University – College of Education Ibn Al-Haitham	2004
8	Award of catholicity for patronal the scientists	Ministry of Higher Education and Scientific Research	2002
9	Certificates of Appreciation for catholicity of patronal the	College of Education Ibn Al-Haitham	2002
10	Certificates of Appreciation for exerted efforts in examining of Mathematical	=	2001
11	Certificates of Appreciation for exerted efforts of Assessing the Science search which introduced to Journal Published by Iraqi Society of	College of Education Ibn Al-Haitham	16-11-2000
12	Certificates of Appreciation for exerted efforts in examining of Mathematical	=	27- 6 -2000
13	Certificates of Appreciation for donation of some books & papers for	=	4 - 7 - 2000
14	Certificates of Appreciation for donation of some books & important	=	21-10-2000
15	Certificates of Appreciation for exerted efforts of Assessing the Science search which introduced to Journal Published by Iraqi Society of Physics	College of Education Ibn Al-Haitham	26 – 2 -2000
16	Certificates of Appreciation for exerted efforts of supervised On search student in Science Conference 18 in Education Ibn Al- Haitham College	=	12 - 6 - 2001
17	Certificates of Appreciation for exerted efforts for supervised to MSc Thesis of Mahioub Mohammed Qa'aed	=	10 – 11 - 2002
18	Certificates of Appreciation for exerted efforts in discussion MSc Thesis of	=	10 - 11 - 2002
19	Certificates of Appreciation for Science exerted efforts in Mathematics	=	27 – 1 - 2010
20	Certificates of Appreciation for exerted efforts in discussion MSc Thesis of	=	13- 11 - 2002

21	Certificates of Appreciation for donation of some books & Science papers for library of college	=	14 - 3 - 2000
22	Certificates of Appreciation for exerted efforts of preparative committee for Science Conference 18 in Education	=	12 – 6 - 2001
23	Certificates of Appreciation for exerted efforts of Assessing the Science search which introduced to Journal Published by Iraqi Society of Physics	College of Education Ibn Al-Haitham	16 – 12- 2000
24	Certificates of Appreciation for exerted efforts of examine	=	20 - 4 - 1995
25	Certificates of Appreciation for exerted efforts of committee of high studies in <b>Mathematics Department</b>	=	20 - 10 - 2010
26	Certificates of Appreciation for exerted efforts in First Science Conference of Mathematics Department student	=	18 – 5 - 2010
27	Certificates of Appreciation for exerted efforts in developing Ibn AI-Haitham Journal for Pure &	=	7 – 6 - 2009
28	Certificates of Appreciation for exerted efforts in developing high studies in Mathematics Department	=	28 – 2 - 2010
29	Certificates of Appreciation for exerted efforts in developing Mathematics Department	=	30 - 1-2011
30	Certificates of Appreciation for Communion in third Science Conference of Al-Qadisiyah	Al-Qadisiyah University - College of Computer Science & Mathematics	19-20/4 / 2011
31	Certificate of Merit for Communion in International Conference of Mathematics and its applications	Basrah University College of Science	1-3/3/ 2011
32	Certificates of Appreciation for exerted efforts of examine committee of first	College of Education Ibn Al-Haitham	2011
33	Certificates of Appreciation for exerted efforts in developing Ibn Al-Haitham Journal for Pure & Applied Sciences	=	No.3103 In - 28 -7-2011
34	Certificates of Appreciation for getting professor degree	Minister of Higher Education and Scientific Research	No. 23283 In5 2011-9-
35	Certificates of congratulating for getting professor degree	Baghdad University	<b>No.1A</b> / 1359 In <b>2011-3-</b> 9
36	Certificates of Appreciation for communion in inclusive examine for	AL-MUSTANSIRIYA university College of Sciences- Dean office	No. 2162 In 4/4/2012

Certificates of Appreciation for communion in determination the title of	AL-MUSTANSIRIYA university College of Sciences- Dean office	No. 5012
in second woman Science Conference of Baghdad University - College of woman	College of woman Science	
Organizing Committee in second Science Conference for student of Mathematics Department - College of Education for	science - Ibn Al-Haitham	No. 2418, in 9/5/2013
International Conference of applied and pure Mathematics in 8-9/5/2013	College of Science	N. 6410 : 0/5/2012
the creating work"on initial value problems and its applications" on 3 <sup>rd</sup>	University	25/4/2013
Certificates of Appreciation for Communion in second Science Conference for student of Mathematics Department - College of Education for science - Ibn Al-Haitham Certificates of Appreciation for getting	College of Education Ibn Al-Haitham- Mathematics Department President of Baghdad	5/5/2013 No. 6/8/٤/156in
Certificates of Appreciation for Communion in Twenty Science Conference of Al- Mustansiriyah University - College of	College of Education Al- Mustansiriyah University	24/5/2013
Certificates of Appreciation for exerted efforts in fixing the recollecting Head of the Department of College of Education for pure Science in 20/3/2013	College of Education Ibn Al-Haitham	<b>No. 1756</b> in2/4/2013
getting the creating work" on initial value problems and its applications" on 3 <sup>rd</sup> degree in pure science pivot in festival first science youth of Baghdad university in 27/2/2013	Ministry of Youth and Sport - Directorate General of Scientific Welfar – Adminstrative Section	No.556 in 24/3 2013
Certificates of Appreciation for communion in inclusive examine for	AL-MUSTANSIRIYA university College of Sciences- Dean office	No. 1054in 28/2/2013
Certificates of Appreciation for dedicating the book of discrete	College of Education Ibn Al-Haitham	No. 305 in 20- 1- 2013
Certificates of Appreciation for exerted efforts in developing Iraqi Journal for Sciences Vol 53, No 4 2012	Baghdad University-Dean of Science College	No.24/150 in 9- 1- 2013
Certificates of Appreciation for Communion in second Conference of	Al-Anbar University	
Certificates of Appreciation for teaching phD study and communion in inclusive	AL-MUSTANSIRIYA university College of Education	No.2990In 6/12/2012
Certificates of Appreciation for Communion in Nineteenth Science Conference of Al- Mustansiriyah University - College of	College of Education Al- Mustansiriyah University	24/5/2012
Communion in second Conference on Certificates of Appreciation for Communion in first Conference of Karbala University - College of Education for	University of Anbar College of Education for Pure Sciences - Karbala University	
efforts in developing Iraqi Journal for Sciences Vol 53, No 1 2012 Certificates of Appreciation for	of Science College College of Computer –	
	Seianase Viol 52 No 1 2012Certificates of Appreciation forCommunion in second Conference onCertificates of Appreciation forCommunion in first Conference ofKarbala University - College of Education forCertificates of Appreciation for Communionin Nineteenth Science Conference of Al-Mustansiriyah University - College ofCertificates of Appreciation for teachingphD study and communion in inclusiveCartificates of Appreciation forCommunion in second Conference ofCertificates of Appreciation forCommunion in second Conference ofCertificates of Appreciation forCommunion in second Conference ofCertificates of Appreciation forCertificates of Appreciation forCertificates of Appreciation forCertificates of Appreciation forCertificates of Appreciation forcentificates of Appreciation forcommunion in inclusive examine forgetting the creating work" on initial valueproblems and its applications" on 3 <sup>rd</sup> degreein pure science pivot in festival first scienceyouth of Baghad university in 27/2/2013Certificates of Appreciation for Communionin Twenty Science Conference of Al-Mustansiriyah University - College ofCertificates of Appreciation for Communionin Twenty Science Conference of Al-Mustansiriyah University - College ofCertificates of Appreciation for communionin second Science Conference of appliedand pure Mathematics in 8-9/5/2013Certificates of Appreciation f	efforts in developing Iraqi Journal for Sciences Of Appreciation for Communion in second Conference on Rarbal University - College of Education for Certificates of Appreciation for Communion in Nineteenth Science Conference of Al- Mustansiriyah University - College of Education for Certificates of Appreciation for Communion in Nineteenth Science Conference of Al- Mustansiriyah University - College of Education for Education for Communion in Nineteenth Science Conference of Al- Mustansiriyah University - College of Education for Education for Certificates of Appreciation for teaching phD study and communion in inclusive sciences Vol 53 No 4 2012AL-MUSTANSIRIYA university-Cean of Science College Sciences Vol 53 No 4 2012Certificates of Appreciation for Ecritificates of Appreciation for certificates of Appreciation for communion in inclusive examine for getting the creating work" on initial value problems and its applications" on 3"d egree in pure science pivot in festival first science youth of Baghdad university in 27/2/2013Ministrative Section College of Education Ibn Al-HaithamCertificates of Appreciation for communion in second Science Conference of Al- Mustansiriyah University - College of Education for communion in second Science Conference of Al- Mustansiriyah University - College of Education for science - Ibn Al-HaithamCertificates of Appreciation for Communion in second Science Conference of Al- Mustansiriyah University - College of Education for science - Ibn Al-HaithamCertificates of Appreciation for communion in second Science Confer

55	Certificates of Appreciation for communion	AL-MUSTANSIRIYA university	No. 5018
	in determination the title of phD thesis	College of Sciences- Dean office	In 26/9/2013
56	Certificate of Merit for Communion in	Basrah University College	23-24/10/ 2013
	2 <sup>nd</sup> International Conference of	of Science	
57	Certificates of Appreciation for the	President of Baghdad	ع ش /No. 1129
	characteristic science achieving on	University	In 13/10/ 2013
	international sphere		
58	Certificates of Appreciation for publish	assisted President of Baghdad	ش ع/No.507
	paper in international science journal	University for scientific affairs	In 2014/1/30
59	Certificates of Appreciation for publish	assisted President of Baghdad	ش ع/No. 512
	paper in international science journal	University for scientific affairs	In 30/1/2014
60	Certificates of Appreciation for the	minister of high education	م و No.280/5
	characteristic science achieving	and scientific research	In 16/2/2014
61	Certificates of Appreciation for publish	President of Baghdad	No.1316 ش ع/
	paper in international science journal	University	In 20/3/2014
62	Certificates of Appreciation for the	College of Education for	No. 1748 in 31/3/2014
(2)	characteristic science achieving through	science - Ibn Al-Haitham	14/5/2014
63	Certificates of Appreciation for Communion in third Science Conference for student of	College of Education Ibn Al-Haitham- Mathematics	14/5/2014
	Mathematics Department - College of	Department	
64	Education for science - Ibn Al-Haitham	*	: 10/0/c * 1
64	Certificates of Appreciation for publish paper in international science journal	assisted President of Baghdad University for scientific affairs	العدد ش ع /1868 في 2014/5/11
65	Certificates of Appreciation for the members	College of Education for	No. 3131in 17/6/2014
05	Organizing Committee in third Science	science - Ibn Al-Haitham	110. 515111 17/0/2011
	Conference for student of Mathematics		
	Department - College of Education for		
	science - Ibn Al-Haitham		
66	Certificates of Appreciation for	assisted President of	ش ع/ No. /2287
	Communion in the 3rd International	Baghdad University for	In 11/6/2014
	Conference on Mathematical Sciences	scientific affairs	
67	Certificates of Appreciation for publish	assisted President of Baghdad	5574 ش ع/ No.
	paper in international science journal	University for scientific affairs	In 29-9-2014
68	Certificates of Appreciation for scientific	assisted President of Kufa	No.2199
	appraising for MSc. thesis	University	In 24-9-2014
69	Certificates of Appreciation for publish	assisted President of Baghdad	ش ع/No.5896
	paper in international science journal	University for scientific affairs	In 26-10-2014
70	Certificates of Appreciation for	College of Education for pure	No. 5321
	communion in examine and correct for	science - Ibn Al-Haitham	In30-10-2014
	forerunner to MSc and PhD study		
71	Certificates of Appreciation for exerted	Baghdad University-Dean	No.14/7958
	efforts in developing Iraqi Journal for	of Science College	In20-10-2014
72	Certificates of Appreciation for publish	assisted President of Baghdad	ش ع/No.6382
	paper in international science journal	University for scientific affairs	In 24/11/2014
73	Certificates of Appreciation for publish	assisted President of Baghdad	ش ع/No.6384
	paper in international science journal	University for scientific affairs	In 24/11/2014
74	Certificates of Appreciation for	College of Education for	
	Communion in the 2 <sup>nd</sup> book exhibition	science - Ibn Al-Haitham	

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76Certificates of Appreciation for the characteristic science achieving throughCollege of Education for pure science - Ibn Al-HaithamNo.2005 In 8/4/2077Certificates of Appreciation for communion in inclusive examine forCollege of Education for pure science - Ibn Al-HaithamNo.2972 In 27/5/278Certificates of Appreciation for publishPresident of Baghdad	
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78Certificates of Appreciation for publishPresident of Baghdad	
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79 Certificates of Appreciation for publish assisted President of Baghdad No.2578	}
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80 Certificates of Appreciation for publish assisted President of Baghdad	العدد: ش ع/ 2578 : مراركة 2018
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82 Certificates of Appreciation for assisted President of Baghdad	العدد: ش ع/3234
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83 <b>Certificates of Appreciation for</b> assisted President of Baghdad	العدد: ش ع/3459 في 2015/7/27
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84 <b>Certificates of Appreciation for</b> assisted President of Baghdad	العدد: ش ع/4364 في 2015/10/5
working as editor in 6 journals in Ira University for scientific affairs	-
85 Certificates of Appreciation for working as Editor Bord in IJAAMM assisted President of Baghdad University for scientific affairs	العدد: ش ع/96
	في 1/1/ 2016
86 <b>Certificates of Appreciation for</b> assisted President of Baghdad	العدد: ش ع/197 ذ 11/11/200
publish paper in international scienceUniversity for scientific affairs	في 2016/1/11
87 <b>Certificates of Appreciation for</b> assisted President of Baghdad	العدد: ش ع/984
publish paper in international science University for scientific affairs	في 2016/2/24
88 Certificates of Appreciation for College of Education for pure	العدد 1357
participant in symposium to science - Ibn Al-Haitham	في10 –3- 2016
student of undergraduate in	
89 Certificates of Appreciation for assisted President of Baghdad	العدد: ش ع/1107
publish paper in international science University for scientific affairs	في 2/3/2 2016
90 Certificates of Appreciation for The Dean of College of	2016-3-13
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92 Certificates of Appreciation for The Dean of College of No.42 3-1-	2016
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108	Certificates of Appreciation for working as	assisted President of Baghdad	عدد:ش ع/ 3367 في 2016/6/22
107	Certificates of Appreciation for working as Editor Bord in <b>GJESR</b>	assisted President of Baghdad University for scientific affairs	عدد:ش ع / 2953 في 6/6/6/6
100	communion in determination the	Education for pure science - Ibn Al-Haitham	لحد. 100 حي 2010 مي
106	Communion in determination the title of PhD those Certificates of Appreciation for	Ibn Al-Haitham The Dean of College of	عدد: 3160 في 2016/6/21
105	Certificates of Appreciation for communion in determination the	The Dean of College of Education for pure science -	عدد: 3217 في 2016/6/26
	Editor Bord in International J.of Modern Research	University for scientific affairs	2016/5/22
104	of PhD thesis Certificates of Appreciation for working as	Ibn Al-Haitham assisted President of Baghdad	عدد: ش ع / 2530 في
103	Communion in MDSG Certificates of Appreciation for communion in determination the title	The Dean of College of Education for pure science -	عدد2481 في 21-5- 2016
102	Certificates of Appreciation for	Penang, Malaysia	17-18/2/2017
101	Editor Bord in Editorial Board	University for scientific affairs	2016/4/21
101	participant in symposium in mothematical deportment Certificates of Appreciation for working as	Ibn Al-Haitham assisted President of Baghdad	عدد: ش ع / 2009 في
100	Certificates of Appreciation for	The Dean of College of Education for pure science -	العدد 2326 في 2016/5/8
99	Certificates of Appreciation for <b>appraising</b> <b>paper of preferment scientificly</b>	The Dean of College of science – Tikrit University	العدد 1633/15/7 في 2016/4/14
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98	<b>journal</b> Certificates of Appreciation for	The Dean of College of	No.2481 in 12/5/2016
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117		The Deep of College of	201(/0/10 : 200(
115	Certificates of Appreciation for	The Dean of College of	عدد: 2806 في 2016/9/19
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116	overining MSe study Contificates of Approximation for	assisted President of Baghdad	عدد: ش ع /3862 في 2016/7/27
110	Certificates of Appreciation for	University for scientific affairs	<b></b> : -تاع 1300 <i>2 -ي 12</i> 010
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117	<b>Certificates of Appreciation for</b>	President of Baghdad	عدد:1أ/ 1023 في 2017/2/6
	publish book	University	
118	Certificates of Appreciation for	The Dean of College of	عدد:592 في 2017/2/5
110	conferment book	Education for pure science –	
	conterment book	Divala University	
119	Certificates of Appreciation for	The Dean of College of	عدد: 446 في 2017/2/6
	conferment book	Computer science and	
		Information Technology- Al- Qadisiyah University	
120	Contificates of Appreciation for	The Dean of College of	عدد:599 في 2017/2/8
120	Certificates of Appreciation for conferment book	sciences – Divala University	لعد: 599 مي 2017/208
121	Conterment book Certificates of Appreciation for	The Dean of College of	عدد:1576 في 2017/4/24
141	conferment book	Basic Education– Diyala	<u> </u>
122	Certificates of Appreciation for	The Dean of College of	عدد2280 في 2/1/3/8
122	conferment book	Education– Al- Qadisiyah	
123	Certificates of Appreciation for	assisted President of Baghdad	عدد:ش ع/5299 في 2016/11/10
125	publish book in international lap	University for scientific affairs	* C-
	Lambert publisher		
124	Certificates of Appreciation for	assisted President of Baghdad	عدد:ش ع/5298 في 2016/11/10
127	publish book in international lap	University for scientific affairs	<b>₩ ₩ =</b>
125	<u> </u>	The Dean of College of	عدد: 252 في 11/1/ 2017
123	Certificates of Appreciation for	Education for pure science -	عدد. 202 في 2011/11/12
	participant in symposium in	Ibn Al-Haitham	
10.6	mathematical department		2016/5/17 20(10
126	Certificates of Appreciation for	The Dean of College of	عدد: 2610 في 2016/5/17
	publish IHJPAS Issue No.1,Vol.29,	Education for pure science -	
105	2016	Ibn Al-Haitham	2017/1/26 : 550
127	<b>Certificates of Appreciation for</b>	The Dean of College of	عدد:558 في 2017/1/26
	publish IHJPAS Issue No.3,Vol.29,	Education for pure science -	
	2016	Ibn Al-Haitham	
128	Certificates of Appreciation for publish	The Dean of College of	عدد: 2419 في 2017/5/8
	IHJPAS Issue No.1, Vol.30, 2017	Education for pure science -	
		Ibn Al-Haitham	
129	Certificates of participation in the Second	President of Conference and	2017/4/16
	Annual Environmental International	President of organization	
130	Certificates of participation in the Second	President of Baghdad	2017/12/22
	Scientific Conference of General Education	Provincial council	
131	Certificates of participation in the 23th	The Dean of College of Education	2017/4/27
	specialization scientific Conference in	- Al- Mustansiriyah University	
132	Certificates of Appreciation for	The Dean of College of Education	عدد: ك ت ع/23 في 9/2/2017
	conferment book	– Iraqia University	
133	Certificates of Appreciation for	The Dean of College of	عدد1183 في 2017/2/28
155		Education for pure science -	
	participant in symposium in	Ibn Al-Haitham	
104	mathematical department		2010 /2/22 \$210 /5 ····
134	Certificate of Appreciation for the	Minister of high education	عدد: م و 5/ 319في 22/2/ 2018
	characteristic science achieving	and scientific research	

# **Books:**

No.	Scientific Literature Title	Year of The
1	On Initial Value Problems and its Applications	LAP LAMBERT Academic Publishing - 2012
2	Fast Feed forward Neural Networks to Solve Boundary Value Problems	LAP LAMBERT Academic Publishing - 2012
3	Multi-Point Boundary Value Problems	LAP LAMBERT Academic Publishing - 2012
4	Singular Initial Value Problems	LAP LAMBERT Academic Publishing - 2013
5	Design Feed forward Neural Networks for Solving Ordinary Initial Value	LAP LAMBERT Academic Publishing - 2013
6	On Solving Singular Boundary Value Problems and Its Applications	LAP LAMBERT Academic Publishing - 2013
7	Design Fast Feed forward Neural Networks To Solve SBVP	LAP LAMBERT Academic Publishing - 2014
8	High Order Two Point Boundary Value Problems	LAP LAMBERT Academic Publishing - 2014
9	Using ANN to Decrease The Losses in Electric Power System	LAP LAMBERT Academic Publishing - 2014
10	On Eignvalue Problems	LAP LAMBERT Academic Publishing - 2015
11	New Technique to Estimate the Concentration of Heavy Metals in Soil	LAP LAMBERT Academic Publishing- 2016
12	MATHEMATICAL MODELING AND SOIL POLLUTION	LAP LAMBERT Academic Publishing- 2016
13	New Technique to Estimate the Tumor Growth for Cancer	LAP LAMBERT Academic Publishing- 2016
14	MATLAB Programming Fundamentals-First Edition	National Publisher House
15	Effect of Rainwater in Contaminated Soil Using Mathematical Methods	LAP LAMBERT Academic Publishing- 2018
16	Mathematical Models For Contamination Soil	LAP LAMBERT Academic Publishing- 2018
17	Introduction of Simulink Environment	In Press

## **Chapters in Books**

### 1. Laplace Transforms,

https://issuu.com/lumanajimohammedtawfig/docs/laplace

2. Exploring Microsoft Office Word 2010, 2017 https://issuu.com/lumanajimohammedtawfig/docs/word-2010

## Projects

1. Estimate the Rate of Cadmium Pollution in Baghdad Soils by Using Neural Network Technique, https://issuu.com/lumanajimohammedtawfiq/docs/project\_1\_1f14f7cf30e4c6

# Software: (Published)

- 1. An Introductory on MATLAB and Simulink, 2016 https://issuu.com/lumanajimohammedtawfiq/docs/matlabsimulinktutorial-issuu
- 2. Introduction to matlab 1, 28/3/2017,

https://issuu.com/lumanajimohammedtawfiq/docs/introduction\_to\_matlab\_1

3. **Two Dimensional Plots**, 2017 <u>https://issuu.com/lumanajimohammedtawfiq/docs/matlabplotting\_2</u>

## **University Activities**

1. College of Ibn Al-Haytham organizes a scientific symposium on the proportions of pollution in environment in 19/1/2016:

http://en.uobaghdad.edu.iq/?p=1019