

## Curriculum Vitae

### Personal Data:

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| <b>Name</b>            | <b>Abdelaziz Hagar Abdelrahman Yassin</b>  |  |
| <b>Date of Birth</b>   | <b>January 1, 1972</b>   |  |
| <b>Gender</b>          | <b>Male</b>  |  |
| <b>Nationality</b>     | <b>Sudanese</b>  |  |
| <b>Marital Status</b>  | <b>Married</b>   |  |
| <b>Mailing Address</b> | <b>Physics Department, collage of Science and Arts - Muznib, Gassim University, KSA,</b> |  |
| <b>Tel:</b>            | <b>00966530563718</b>  |  |
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### Occupation:

Head of Laser System Department, Institute of Laser, Sudan University of Science & Technology (SUST) Khartoum, Sudan.

### Academic Qualifications:

1994- 1998 B.Sc. (Hon.) (Physics), Sudan University of Science & Technology (SUST), Sudan

1999 - 2001 M. Sc. (Physics), Sudan University of Science & Technology (SUST), Sudan

#### **(Study On Performance of A diode laser Drive Circuit)**

2002-2007 PhD. Laser physics, Sudan University of Science & Technology (SUST), Sudan

#### **(Title: The Role of Material's Internal Fields and Forces in Lasing)**

### Area of specialization:

Laser optics, spectroscopy, Nondestructive Test

### Professional experience:

- 1- 1999 -2001 Teaching Assistant: department of physics , Sudan University of Science & Technology (SUST), / Khartoum – Sudan
- 2- 2001 -2002 Lecturer department of physics, college of science , Sudan University of Science & Technology (SUST), / Khartoum – Sudan
- 3- 2002 -2007 Lecturer, department of laser system, laser institute , Sudan University of Science & Technology (SUST), / Khartoum – Sudan
- 4- 2007 up to 2011, Assistant professor of laser physics, laser system department, laser institute, Sudan University of Science & Technology (SUST), Sudan
- 5- From 2011 up to now, Assistant professor of laser physics, department of physics, college of science and arts, Muznab, Gassim University, Saudi Arabia.
- 6- From 2011 up to now, Head of quality assurance unit of college of science and arts, Muznab, Gassim University, Saudi Arabia.

**Memberships:**

- 1- Member of European Society for photobiology and photochemistry
- 2- Member of Sudanese Laser Group.
- 3- Member of Sudanese society for nondestructive test.
- 4- Member of Sudanese society of physics.

**Administrative experience:**

1. Head department assistant of laser System department institute of laser SUST 2002-2008.
2. Head laser System department institute of laser SUST 2008 up to now.
3. Sharing in establishment of laser and optic fundamentals lab institute of laser SUST 2002 up to now
4. Member of the first and second academic laser season committee, institute of laser SUST 2004, 2006.
5. Member of the first training course in laser science and application, institute of laser, SUST, 2003.
6. Member of the first training course in laser application in medicine, institute of laser, SUST 2004.
7. Sharing in the first international laser conference institute of laser, SUST 2007.
8. Member of the examination committee department of physic collage of science SUST 2000-2002
9. Member of the institute of laser committee SUST 2008 up to now.
10. Member of the researches committee institute of laser SUST 2008 up to now.
11. Member of the SUST Senate 2008.
12. Member of the laboratory instrument and equipment committee institute of laser SUST 2008.
13. Member of the fifth plane of the institute of laser committee 2004 up to now.
14. Member of the Quality Council, college of science and arts, Muznab, Gassim University, Saudi Arabia.
15. Head of the Quality committee of college of science and arts, Muznab, Gassim University, Saudi Arabia.
16. Member of the Consultative Council of college of science and arts, Muznab, Gassim University, Saudi Arabia.

**Other experiences:**

- 1- Have contributed in the establishment of Institute of Laser, SUST.
- 2- Have contributed in development the curriculum of M.Sc. of Laser Application, Institute of Laser, SUST.
- 3- Evaluate and assessment laboratories and courses of laser department, school of physics ,Al-Nilain university 2009

**Teaching experience:**

Have teaches undergraduate courses at the following universities

- College of Science Sudan University of Science and Technology.
- College of Education Sudan University of Science and Technology.
- College of Science International Africa University.
- College of Science Omdurman Islamic University.
- College of Garden city.
- Physics Department, Collage of Science& Arts Muznab, Gassim University, KSA.
- Collage of Applied medical Sciences, Gassim University, KSA.

#### **Postgraduate courses:**

Have teaches postgraduate courses at the following universities:

- M.Sc. Laser Applications Institute of Laser. Sudan University of Science and Technology.
- Postgraduate Diploma in Laser application in Medicine. Institute of Laser. Sudan University of Science and Technology.
- Supervisor for physics diploma students at physics lab sessions, SUST, 2005-2010
- Supervisor for M.Sc. students at laser lab sessions, laser institute, SUST, 2002 - 2010

#### **Training courses and workshops:**

- 1- Internet Course, computer Department, collage of science, (SUST), 2000.
- 2- Course on Laser Physics, Physics Department, collage of science, Sudan University of Science and Technology (SUST), 2000-2001.
- 3- Course on Quantum optics, Physics Department, collage of science, (SUST), 2000-2001.
- 4- Course on Applied optics, Physics Department, collage of science, (SUST) 2000-2001.
- 5- Training Course on Applications of Laser in Biotechnology and Medicine. National Institute of Laser and Enhanced Matter. Cairo University. Egypt. ( 21-26) April 2001
- 6- National training course on Industrial Radiography level 2, Atomic Sudan Atomic Energy Commission, Non-Destructive Test Unit collaboration with the International Atomic Energy Agency, Khartoum, Sudan from 20 April to 8 May 2003.
- 7- Workshop on Laser Technology and Laser Application , Laser Institute, (SUST), Khartoum, Sudan, 23-28 August 2003
- 8- Training Course on Laser and its Applications Institute of Laser, (SUST) and Sudan Institute for Natural Sciences-Ministry of Higher Education and Scientific Research, Khartoum, Sudan, (17-22) April 2004.
- 9- Training course on The Theoretical and Practical Course on Statistical Data Analysis, organized by College of Medical Laboratory Science and College of Science, (SUST), Khartoum, Sudan, 24-27 May 2004
- 10- Training Course on Laser Physics, Collage of Science-Alnilain University and Institute for Natural Sciences-Ministry of Higher Education and Scientific Research Khartoum, Sudan, from 14-19 February 2005.
- 11- National training course on Ultrasonic Testing (UT) level 2, Atomic Sudan Atomic Energy Commission, Non-Destructive Test Unit, Khartoum, Sudan, from 24 September to 6 October 2005.

- 12- Training Course on Application of Laser in Medicine. Institute of Laser (SUST), Sudan Institute for Natural Sciences - Ministry of Higher Education and Scientific Research Sudan, (17-19), February, 2006.
- 13- Workshop on Development of Skills in Research ,Data Analysis, Projects and Thesis Writing, Collage of Graduate Studies, (SUST), Khartoum, Sudan, 13-17 May 2006.
- 14- Improvement of Academic Performance, College of Education (SUST), Khartoum, Sudan, March 2007
- 15- Workshop on Ability Built of Training and Dependent Nondestructive test (NDT), Khartoum, Sudan, 2007
- 16- Course in The Design of Computerized Educational Materials, Computer Center, (SUST), Khartoum, Sudan, from 1 October 2007 to 14 November 2007
- 17- Workshop on Laser Applications in Chemical Analysis and Oil Industry, Institute of Laser, (SUST), Khartoum, Sudan, (27- 28) April 2008.
- 18- Participated in Teaching for the Trainee of Second Training Course in Laser Physics and Some Applications, Institute of Laser (SUST), Khartoum, Sudan, 18-20 May 2008.
- 19- Workshop on SPuD 3.0 Program to Calculate theCrystal Structure and the Location of Atoms and Groups of Symmetry of Vehicles Bauxite, collage of science, Elnilain University, Khartoum, Sudan, (13-27) June 2009
- 20- Participated as a lecturer in a training course on Laser Science and Applications, The General Directorate of External Relation and Training Ministry of Higher Education and Scientific Research, Sudan Institute for Natural Sciences - Ministry of Higher Education and Scientific Research Sudan, Institute of Laser(SUST), Khartoum, Sudan, 2-6 August 2009
- 21- Training session on Development of communication skills in dialogue, 24 April 2013, Collage of science &Arts ,Gassim University, Muznab KSA, (11- 12 ) September, 2013
- 22- Training session on development of creative thinking among our children, Department of Acknowledge and Education, Muznab KSA, 19 May 2013.
- 23- Training session on Building achievement tests,Academic Development Deanship,Collage of science &Arts ,Gassim University, Muznab KSA, (11- 12 ) September, 2013.
- 24- Training session on Developing Creative Thinking, Academic Development Deanship, Collage of science & Arts, Gassim University, Muznab KSA, (2-3) October 2013.
- 25- Training session on Computer Education, Academic Development Deanship, KSA, 10 August 2013.
- 26- Training session on strategic plan of Gassim University and Collages, Academic Development Deanship KSA, 4 November, 2013.
- 27- Training session on Nanotechnology, Nano sensors, Biophysics, and its Applications, Majmaah University, KSA, 10-, 1-1435.
- 28- Advanced Workshop on LHC Physics and Cosmology, Cairo-Egypt, 3rd-14th February 2014, [http://wlcapp.net/confs/ICTP\\_2014\\_SMR2619/ScientificProgram.html](http://wlcapp.net/confs/ICTP_2014_SMR2619/ScientificProgram.html)
- 29- Training session on Achieving learning outcomes, Collage of science &Arts Muznab, Gassim University, KSA, (3-6) March 2014.
- 30- Training session on Electron microscopy for nanotechnology, Collage of Agriculture Auditorium, Gassim University, Gassim, KSA, 11 March 2014.
- 31- Training session on 4MAT Instructor Course, Development Deanship, Gassim University, KSA, (20-24) April 2014.
- 32- Training session on physical experimentation, Phywe System GmbH& Co KG in Goettingen (5-8)may 2015

- 33- Training session on Standardization of quality control policies, Gassim University and Collages, Academic Development Deanship KSA, 9 February 2015.
- 34- Doing Training session on Standardization of quality control policies, Gassim University, Academic Development Deanship KSA, 18 April 2015
- 35- Doing Training session on 4MAT Instructor Course, Collage of science &Arts Muznab, Gassim University, KSA, (14-16) June 2015.
- 36- Training session on Blackboard Learning Managemnt System 1, Deanship of E-Learning and Distance Learning, Gassim University, KSA, (3-4) November 2015.
- 37- Training session on Blackboard Learning Managemnt System 2, Deanship of E-Learning and Distance Learning, Gassim University, KSA, (4-5) January 2016.

### **Conferences**

- 1- International Conference on Laser applications in biology [LAB2001], International Institute for laser science , Cairo University, Cairo, Egypt, Jan. 2002
- 2- International Conference on Laser &Laser applications, Laser institute, (SUST), Khartoum, Sudan January 22- 26, 2007
- 3- International Conference in Nanotechnology and its applications, Alnilain University, Khartoum, Sudan, June, 2008
- 4- International Conference on Laser &Laser applications, Laser institute, (SUST), Khartoum, Sudan , 2009
- 5- Sixth conference, high ministry of education, King Abdul-Aziz University, Jeddah, KSA, 2015.

### **A member of the evaluation committee**

- 1- **The Effect of the Microstructure on the Electrical Properties of the Pr6O11-Based ZnO Varistor.**, research No.12242 on the fifth conference, high ministry of education, KSA, 2014.
- 2- **Quantum Dots Diode Laser**, research No. 13651, on the fifth conference, high ministry of education, KSA, 2014.
- 3- **Study of the Effect of Temperature on I-V Characterization and Efficiency of Semiconductor Solar Cells**, on the sixth conference , high ministry of education, King Abdul-Aziz university, Jeddah, KSA, 2015.
- 4- **Utilizing Laser Induced Breakdown Spectroscopy Technique for the Detection of Carcinogenic Metals in Gallbladder and Kidney Stones**, on the sixth conference , high ministry of education, King Abdul-Aziz university, Jeddah, KSA, 2015.
- 5- **Effects of Doping, Resistance and Temperature on the Performance of GaAs Solar Cells**, on the sixth conference, high ministry of education, King Abdul-Aziz University, Jeddah, KSA, 2015.

- ١- نظرية الانفجار العظيم واثباتها لوجود الله عز وجل، بحث رقم ١٣٩٤٥، المؤتمر الخامس لطلاب وطالبات التعليم العالي ، الرياض، المملكة العربية السعودية ، ٢٠١٤
- ٢- المجال المغناطيسي المصاحب للهواتف المحمولة المستخدمة في المملكة العربية السعودية ، ضمن محور الدراسات الأساسية والهندسية ، بحث رقم ١٨٥٦ ، الملتقي التحضيري الرابع لطلاب وطالبات جامعة القصيم ، القصيم ، المملكة العربية السعودية ، ٢٠١٤
- ٣- دراسة معامل امتصاص اشعة جاما لبعض انواع الجرانيت المحلي لاستخدامه كدروع إشعاعية ، المؤتمر الخامس لطلاب وطالبات التعليم العالي ، جامعة الملك عبدالعزيز، جدة، المملكة العربية السعودية ، ٢٠١٥

## **Publications:**

### **Paper (published)**

- 1- **Abdelaziz Hagar Abdelrahman**, Hussien Ali Jawad, andKhallil Ibrahim Hajim. Study On Performance of A diode laser Drive Circuit. Journal of Science and Technology, Vol. 4-No.1, January 2003
- 2- Esam Eldin B. M. Kabbashi, Hend Elata Farah, **Abdelaziz H. Abdelrahman** and Samera M. S. Yahia, Use of laser in Disinfestation of Guava Fruits from Ceratitis flies, Annual report FRC (2006 – 2007).
- 3- **A. H. Abdelrahman**, M. D. Abdallah, A. A. Osman , Kh.M.Haroun, Amplification of free electron due to the effect internal fields and forces, University of Africa, Journal of Science , Vol. 1-No.1,PP. (46-55), 2010
- 4- **A.H.Abdelrhman**, M.D.Abdella, The Possibility of Utilizing a Nano and Micro Rectangular Wave Guide as a Solar Cell and a Lasing Cavity, Journal of Science and Technology, Vol. 13, ISSN -1605 – 427X, pp 12-16, June /2012
- 5- **A. H. Abdelrahman**, M. D. Abdallah,Kh.M.Haroun, **Quantum mechanical New Lasing Mechanisms**, Journal of Science, (*U.A.J.S.*, Vol.2, 88-102), 2011
- 6- M.H.M.Hino, M.M.AbdAllah, Kh.M.Haroon, **A.H.Abdelrahman**, Generalized general and special relativity in the presence of the gravitation, related to the space-time curvature, Natural Science , Vol.4, No.5, 336-339, 2012
- 7- **A.H. Abdelrahman**, M. D. Abdella, MahgoubSalih, **The effect of External Electric Field on the Lasing Mechanism in the Fluid**, (ISSN 2315-5396) Science Park Journals, Scientific Research and Impact, 1(4): 80-85 December 2012
- 8- A. A. Alhg, **A.H. Abdelrahman**,I. M. K. Medani, M. D. Abd-Alla, A.H.Abdelrahman, MahgoubSalih Phase effect between the Electric Internal Current Field and the ExternalCurrent Field on Amplification of the Total Field and Intensity of theElectromagnetic Radiation, ISSN 2090-4304, Journal of Basic and Applied, Scientific Research, Article No. JBASR-1455-5, Vol. 3, No. 9, in September 2013.
- 9- **A.H. Abdelrahman**, Malik. A. Abdallah,Mohammed Khaled Elbadawy, possibility of using the beet dyes as a laser gain medium, NS Journals.**Vol.5, No.11, 1183-1188 (2013)**
- 10- **A.H. Abdelrahman**, Kh.M,Haroun, M. D. Abd-Alla, Modification of Schrödinger Equation in Medium, ISSN 2090-4304, Journal of Basic and Applied, Scientific Research, Article No. JBASR-1455-5, *J. Basic. Appl. Sci. Res.*,Vol. 3(11)143-149,November, 2013
- 11- **A.H. Abdelrahman**, M. A. Ahmed, I. M. K. Medani, M. Izldeen, M. D. Abd-Alla, Mubarak M Ahmed, Interpretation of Raman Effect on the Basis of Quantum Theory, ISSN: 2223-9553, Academic Research International , Issue: Vol.5, Number 2,March 2014
- 12- **A.H. Abdelrahman**, Effect of He-Ne Laser (632.8 nm) in fluorescence efficiency of solvents, ISSN: 2223-9553, Academic Research International, Issue: Vol.5, Number 3, May 2014. <http://www.journals.savap.org.pk/nextissue.html>

- 13- **A.H. Abdelrahman** Study of output Lasers of Rhodamine 6G pumped by N<sub>2</sub> laser, science park journals, 2014
- 14- Mubarak M Ahmed, **A.H. Abdelrahman**, Elhadi MahiEldeen, Samia Omer Yagoub, A.H. Abdelrahman Effect of Diode Lasers 810 nm in Hardness of Dental Ceramic, journal Optics and Photonics Journal (OPJ) , ISSN Print: 2160-8881, 2014, 4, 104-112
- 15- Mubarak M Ahmed, Elhadi MahiEldeen, Samia Omer Yagoub, **A.H. Abdelrahman**, Effect of Diode Lasers(675nm) in Hardness of Dental Ceramic, *Ind. J. Sci. Res. and Tech*, ISSN:-2321-9262 (Online) . 2014 2(2):62-66
- 16- **Abdelaziz Hagar Abdelrahman**, Lasing Due To The External Field And Target's Permeability And Conductivity, IOSR Journal of Applied Physics (IOSR-JAP) e-ISSN: 2278-4861. Volume 8, Issue 5 Ver. II (Sep - Oct. 2016), PP 05-11.

#### **Accepted Papers:**

#### **Paper under publishing:**

- 1- Kh.M,Haroun, M. D. Abd-Alla, **A.H. Abdelrahman** , Application of Modification of Schrödinger Equation in Medium.
- 2- M.D.Abdalla, A. Eltahir, **A.H.Abdelrahman**, The Generalized Gravitational Energy Momentum Tensor.