**CURRICULUM VITAE**

**Personal Data**:

**Name**: Mubarak Elmahal Ahmed Elmahal

**Date of Birth**: 1962

**Nationality**: Sudanese.

**Address**:

**Occupation Address**: Department of Physics College of Science and Art

 Almuthnab, Qassim University Saudi Arabia.

**Mobil**: 00966550458851

**E – Mail**: el\_mahal@yahoo.com

**Employment History:**

1988 -----1999 Teach. Assistant. Teacher, Department of Physics College of

 Science. Sudan University of Science and Technology.

1999 -----2004 Lecturer, Department of Physics College of Science.

 Sudan University of Science and Technology.

2004 ---2009 Assistant Prof. Institute of Laser, Sudan University of

 Science and Technology.

2009 ---2013 Associate Prof. Institute of Laser, Sudan University of

 Science and Technology.

1999 -----2001 Head of Steering Committee of Institute of Laser, Sudan

 University of Science and Technology.

2002 -----2005 Head of Engineering and Industrial Applications of Laser

 Department, Institute of Laser.

2005 -----2008 Dean of Institute of Laser, Sudan University of Science and

 Technology.

2009----- 2013 Dean of College of Technology, Sudan University of

 Science and Technology.

2014 ----present Associate Prof. Department of Physics College of Science and Art

 Almuthnab, Qassim University Saudi Arabia.

**Academic Qualifications:**

2004 Ph.D Laser Physics. Sudan University of Science and Technology.

1999 M.Sc Physics. Sudan University of Science and Technology.

1997 B.Sc Physics first class honor College of Science Sudan University of

 Science and Technology.

**Training Courses, Workshops and Conferences**:

2014 Training Course on Achieving Learning Outcomes, Academic Development

 Deanship Qassim University. Saudi Arabia, From 3/3/2014 to 6/3/2014.

2014 Training Course on Thermo Molecular Spectroscopy Solutions – on

 FTIR,UV-VIS, and NMR.Thermo Scientific, Riyadh, Saudi Arabia on

 9/2/2014.

2013 Training Course on Laser and its Applications Institute of Laser, Sudan

 University of Science and Technology, Sudan Institute for Natural Sciences,

 Ministry of Higher Education and Scientific Research Sudan, From

 16/6/2013 to 20/6/2013.

2013 Training Course on Moodle version 2.5 Sudan University of Science and

 Technology 5/5/2013 -15/5/2013.

2013 Scientific Support to enhance investigations and criminal justice

 Conference. Khartoum, 12/2/2013-14/2/2013.

2013 First Meeting of the Non – destructive Testing and Industrial Training.

 College of Science, Sudan University of Science and Technology

 23/3/2013.

2012 Training Course on End-Note (A Bibliographic Management Tool)

 Sudan University of Science and Technology 9/8/2012.

2012 Training Course on Talking and Speech Art - Sudan University of Science

 and Technology 20/7/2012.

2012 Training Course on Registration System of Credited Hours System

 Program. Sudan University of Science and Technology 19/7/2012.

2012 Training Course on Credited Hours System Program and Academic

 Guidance- Sudan University of Science and Technology 18/7/2012.

2011 Training Course on Result System of Credited Hours System

 Program - Sudan University of Science and Technology 8/1/2011.

2010 Training Course on Data Entering Sudan University of Science and

 Technology, 1/8/2010.

2010 Training Course on Moodle version 1.8

 Sudan University of Science and Technology 5/5/2013 -15/5/2013.

2009 Training Course on Applications of Internet on Electronic Noting - Sudan

 University of Science and Technology, From 14/10/2009 to 17/10/2009.

2009 Workshop on Laboratory Work Promotion, Africa City of Technology.

 Ministry of Science and Technology. From 30/6/2009 to 5/7/2009

2009 Training Course on Art of Public Communication - Sudan University of

 Science and Technology, Sudan from 24/5/2009 to 28/5/2009.

2009 Training Course on Training Course on Credited Hours System Program

 and Academic Guidance- Sudan University of Science and Technology

 2/4/2009.

2009 Training Course on Applications of Laser in Dentistry Institute of

 Laser - Sudan University of Science and Technology, Sudan

 Institute for Natural Science - Ministry of Higher Education and

 Scientific Research Sudan, From 17/2/2009 to 19/2/2009.

2008 Workshop on Basic Sciences as a Key Role in Development,

 Basic Sciences Committee - Ministry of Higher Education and

 Scientific Research. Sudan, 21/12/2008.

2008 Workshop on Laboratory Work Promotion, Sudan University of

 Science and Technology. From 5/8/2008 to 6/8/2008.

 **Chairman of the committee of the workshop.**

2008 Workshop on Setting Good Exam. College of Medical Laboratory,

 Sudan University of Science and Technology. 12/7/2008.

2008 Workshop on Laser Applications in Chemical Analysis and Oil

 Industry, Institute of Laser, Sudan University of Science and

 Technology. From 27/4/2008 to 28/4/2008.

 **Chairman of the committee of the workshop.**

2007 Scientific Meeting for Engineering and Computer Students

 Third Meeting. Association for Promotion of Scientific

 Innovation. From 15/12/2007 to 17/12/2007.

1. Winter College on Optical Fiber, Fiber Lasers and Sensors

 **ICTP Italy Trieste.** From 4/2/2007 to 23/2/2007.

2007 First International Conference of Laser Engineering, Science and

 its Applications, Institute of Laser, Sudan University of Science

 and Technology. From 24/1/2008 to 28/1/2007.

2006 Training Course on Application of Laser in Medicine. Institute of

 Laser - Sudan University of Science and Technology, Sudan

 Institute for Natural Sciences - Ministry of Higher Education and

 Scientific Research Sudan, From 17/2/2006 to 19/2/2006.

2005 Training Course on Laser Physics Elneelain University

 Institute for Natural Sciences, Ministry of Higher Education and

 Scientific Research Sudan, From 14/2/2005 to 19/2/2005.

2004 Training Course on Laser and its Applications Institute of

 Laser, Sudan University of Science and Technology, Sudan

 Institute for Natural Sciences, Ministry of Higher Education and

 Scientific Research Sudan, From 17/4/2004 to 22/4/2004.

2002 Computer and Information Technology for Leaders (ICDL)

 Computer Center. Sudan University of Science and Technology.

 From 10/ 11/2002 to 31/12/2002.

2001 Training Course on Applications of Laser in Biotechnology and

 Medicine. National Institute of Laser and Enhanced Matter.

 Cairo University. **Egypt**. From 21/4/2001 to 26/4/2001.

1. Training Course on Applications of Laser in Engineering and

 Industry and Communications. National Institute of Laser and

 Enhanced Matter. Cairo University**. Egypt.**

1. The Second Arabic Conference on Scientific Instrumentations,

 paper on Applications of CRO in the Maintenance of Scientific

 Instruments, Ministry of Higher Education Cairo**, Egypt**.

 From 25/10/1997 to 28/10/1997.

1997 Computer Maintenance Course College of Engineering and College of

 Further Education Sudan University of Science and Technology.

 From 20/9/1997 to 16/10/1997.

1997 Improvement of Academic Performance College of Education

 Sudan University of Science and Technology.

 From 7/6/1997 to 26/6/1997.

**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 Medical Laboratory Science Sudan University of Science and Technology.
* College of Computer Science Sudan University of Science and Technology.
* College of Technology Sudan University of Science and Technology.
* College of Engineering Sudan University of Science and Technology.
* Elneelain University. College of Science.
* Omdorman. Islamic University. College of Science.
* Omdorman Aahlia University. College of Science.
* Karrary University.
* National Rabat University.
* Kordofan University.
* Aali Elneel University.
* Qassim University Saudi Arabia.

**Undergraduate courses**:

* General physics.
* Electricity and magnetism
* Electromagnetic theory
* Modern physics
* Atomic physics
* Energy physics
* Vibrations and waves.
* Geometrical optics.
* Wave optics.
* Analog electronics.
* Digital electronics.
* Laser.
* Laser application.
* Laser tissue interaction.
* Laser safety.
* Instrumentation science.
* Optoelctronics.
* Nuclear physics.
* Biophysics.

 **Postgraduate courses:**

 Have teaches postgraduate courses at the following universities:

* M.Sc. Laser Applications Institute of Laser. Sudan University of Science and Technology.
* M.Sc. Physics College of Science Sudan University of Science and Technology.
* M.Sc. Solid State Physics College of Science Sudan University of Science and Technology.
* M.Sc. in Medical Physics Sudan Academy of Science Ministry of Science and Technology.
* M.Sc. Medical Physics College of Medical Radiologic SciencesSudan University of Science and Technology.
* Postgraduate Diploma in Laser application in Medicine. Institute of Laser. Sudan University of Science and Technology.
* Postgraduate Diploma in Physics College of Science Sudan University of Science and Technology.

 **Postgraduate courses:**

* Applied optics.
* Laser.
* Laser applications.
* Optics.
* Laser safety.
* Laser tissue interaction.
* Non-ionizing radiation.
* Optoelctronics.
* Optical fiber.
* Photodetectors.
* Advanced optics
* Laser matter interaction

**Memberships:**

 2008– present: Full member of International Commission for

 Optics **(ICO).**

2003 – 2011: Member of Laser Committee, Sudanese Standards and

 Metrology Organization (SSMO).

 2012 – 2014: President of Laser Committee, Standards and Metrology

 Organization (SSMO).

 2008 – 2014 : Member of Basic Science Committee Ministry of

 Higher Education and Scientific Research.

2001 – 2014 : Member of Atomic Sciences and Laser Committee. Sudan Institute

 of Natural Sciences - Ministry of Higher Education and Scientific

 Research.

2007 – present: Member of Arab Laser Network.

1999 – present: Member of Sudanese Laser Group.

2009 – 2013: Member of University Council Sudan University of Science and

 Technology.

1. – 2013: Member of Financial Committee University Council

 Sudan University of Science and Technology.

2002 – 2013: Member of University Senate Sudan University

 of Science and Technology.

2003 – 2013: Member of Academic Committee Sudan.

2011 – 2013: Member of Editorial Board Journal of Science and

 Technology, Natural and Medical Sciences. Sudan

 University of Science and Technology.

2010 – 2013: Member of Authorship Translation and Publication

 Committee Sudan University of Science and Technology.

2006 – 2008: Member of Scientific Research Council Sudan

 University of Science and Technology.

2005 – 2008: Member of Postgraduate College Council Sudan

 University of Science and Technology.

2005 – 2008: Member of University Committee for Assessment

 and Accreditation Sudan University of Science and

 Technology.

2009 – 2013: Member of University Committee for Self Assessment

 and Quality Assurance Sudan University of Science and

 Technology.

 2000 – 2014: Member of Institute of Laser Council Sudan

 University of Science and Technology.

2006 – 2008: Head of Institute of Laser Council Sudan

 University of Science and Technology.

2000 – 2014 : Member of Institute of Laser Research Board

 Sudan University of Science and Technology.

 2006 – 2008: Head of Institute of Laser Research Board Sudan

 University of Science and Technology.

 2006 – 2008: Head of Institute of Laser Committee for

 Assessment and Accreditation Sudan University of

 Science and Technology.

2006 – 2008: Member of College Council, College of Science

 Sudan University of Science and Technology.

2009 – 2013: Member of College Council, College of Communication

 Science Sudan University of Science and Technology.

2009 – 2013: Member of College Council, Computer Center Sudan University of

 Science and Technology.

2009 – 2013: Member of Deputy Council, Sudan University of Science and

 Technology.

1993 – 1999: Member of the Examinations Committee, College

 of Science, Sudan University of Science and Technology.

2000– 2001: Head of Examinations Committee, College of Science

 Sudan University of Science and Technology.

 2009 – 2013: Member of College of Technology Council Sudan

 University of Science and Technology.

2009 – 2013: Head of College of Technology Council Sudan

 University of Science and Technology.

1. – 2013: Member of Laboratory Instruments and Device Committee

 Sudan University of Science and Technology.

2009 – 2013: Head of Examinations Committee, College of Technology

 Sudan University of Science and Technology.

**Other experiences**:

* Have contributed in the establishment of College of Science,

 Sudan University of Science and Technology.

* Have contributed in the establishment of Institute of Laser, Sudan

 University of Science and Technology.

* Have contributed in development the curriculum of M.Sc Laser

 application, Institute of Laser, Sudan University of Science and

 Technology.

* Have contributed in development the curriculum of Postgraduate

 Diploma in Laser Application in Medicine, Institute of Laser, Sudan

 University of Science and Technology.

* Have contributed in development the curriculum of M.Sc. in Physics,

 College of Science, Sudan University of Science and Technology.

* Have contributed in development the curriculum of Diploma Programs

 College of Technology, Sudan University of Science and Technology.

* Have contributed in Strategic Plan College of Technology, Sudan University

 of Science and Technology.

**Research Projects:**

**Principal Investigator: Mubarak Elmahal Ahmed**

1. **Project title: Design an Implementation of Optical Fiber Temperature Sensor.**

Financed by the Administration of Scientific Research, Ministry of Higher Education and Scientific Research, 2006.

**Principal Investigator: Mubarak Elmahal Ahmed**

1. **Project title: Measurement of Molecular Weight of Some Particle Using Laser Beam.**

Financed by the Scientific Research Council Sudan University of Science and Technology, 2007.

**Principal Investigator: Mubarak Elmahal Ahmed**

1. **Project title: Design and Implementation of MgO Optical Filter for Infrared Region.**

Financed by the Administration of Scientific Research, Ministry of Higher Education and Scientific Research, 2008.

**Principal Investigator: Mubarak Elmahal Ahmed**

1. **Project title: Utilization of Optical Fiber Sensors to Determine the Molecular Weight for Liquid Samples.**

Financed by the Administration of Scientific Research, Ministry of Higher Education and Scientific Research, 2009.

**Principal Investigator: Mubarak Elmahal Ahmed**

1. **Project title: Detection of Contaminates in water waist in Industrial Ares Using Spectroscopy Produced by Laser.**

Financed by the Administration of Scientific Research, Ministry of Higher Education and Scientific Research, 2009.

**Publications:**

1/ Mohamed M. Rashed, **Mubarak M. Ahmed**, Nafie A. Almoslet, Kais S. Elnaimee, *Design and Construction of Controlled Laser Switch*. Journal of Science and Technology, Sudan University of Science and Technology. Vol 9 No 1, p 87 January 2008.

2/ Esam G. Ahmed, **Mubarak M. Ahmed**, Nafie A. Almoslet, Kais S. Elnaimee, *Utilization of microbending effect in optical fiber to act as a pressure sensor*. Journal of Science and Technology, Sudan University of Science and Technology. Vol 9 No 1, p 106 January 2008.

3/ Mutaz Abedalla, **Mubarak M. Ahmed**, Saad Doud, Nafie A. Almoslet, *Encoded voice transmission via optical fiber link*, Industrial Research Journal, Industrial Research and Consultancy Center, Vol 6, p 63 June 2008.

4/ / Esam G. Ahmed, , Nafie A. Almuslet, **Mubarak M. Ahmed,** M. A. Moharam, Waleed Musaad. *The use of Fourier Infrared Spectroscopy and Laser – Raman Spectroscopy in Bladder Malignancy Diagnosis*, *A Comparative Study*. Journal of Applied Physics Research, Vol. 2, No. 1, May 2010.

5/ Mohammed A.Gondal, Mohamed M.Nasr, **Mubarak M. Ahmed**, Zain H. Yamani and M.S. Alsalhi, *Detection of lead in paint samples synthesized locally using-laser-induced breakdown spectroscopy*. Journal of Environmental Science and Health Part A(2011) 46, 1–8.

6/ Nafie A. Almuslet, Rasha I. Yousif, **Mubarak M. Ahmed,** *Investigation of the Concentration for Some Liquid Drugs using Light Angular Scattering*, Indian Journal of Science and Technology. Vol. 4, No. 6, June 2011.

7/ Hassan E. Eltaher, Kasim M.Alhity, **Mubarak M. Ahmed,** *Design and Implementation of Video Tracking System Based on Camera Field of View,* Industrial Research Journal, Industrial Research and Consultancy Center. Vol. 9, Page 13, January 2012.

8/ Nafie A. Almuslet, Esam G. Ahmed, **Mubarak M. Ahmed,** Spectroscopic Analysis of Bladder Cancer Tissues Using Laser Raman Spectroscopy. Research Journal of Pharmacy (July-2013), Vol.01, Issue 02, pp.01-11 United Kingdom (UK).

9/ **Mubarak M Ahmed**, Elhadi Mahi Eldeen, Samia Omer Yagoub and A. H. Abdelrahman, EFFECT OF DIODE LASERS 675NM IN HARDNESS OF DENTAL CERAMIC

Indian Journal of Scientific Research and Technology ISSN: 2321-9262, Ind. J. Sci. Res. and Tech. 2014 2(2):62-66.

10/ 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.

Academic Research International Vol. 5(2) March 2014.

11/ **Mubarak M. Ahmed**, Abdelaziz Hagar Abdelrahman, Elhadi Mohieldin, Samia Omer Yagoub, Effect of Diode Laser 810nm in Hardness of Dental Ceramic

Optics and Photonics Journal, 2014, 4, 104-112, Published Online May 2014 in SciRes. http://www.scirp.org/journal/opj.

12/ I. M. K. Medani, A. H. Abdelrahman, M. A. Ahmed, M. Izldeen, M. D. Abd-Alla**, Mubarak M. Ahmed**, Explanation of Raman Scattering Spectrum on the Basis of Semi Classical Model and Klein Gordon Equation 2

*IOSR Journal of Applied Physics (IOSR-JAP) e-ISSN: 2278-4861.Volume 6, Issue 3 Ver. IV (May-Jun. 2014), PP 49-52*.

13/ **MUBARAK M. AHMED**; A. H. ABDELRAHMAN; ALAELDEANABD ALLAH MOHAMED, DETERMINATION OFABSORPTION AND EMISSION FROM COUMARIN500 IN DIFFERENT SOLVENTS PUMPED BY N2 LASER

Asian Academic Research Journal of Social Sciences and Humanities Year 2014, Volume-1, Issue-25 (July 2014).

14/ Aboobida Y.A. Haj noor, Faiz M. B. Elshafia, **Mubarak M. Ahmed,**

 IR optical system design of uncooled thermal imaging camera in long band (8—12μm), *IOSR Journal of Applied Physics (IOSR-JAP) e-ISSN: 2278-4861.Volume 6, Issue 5 Ver. III (Sep.-Oct. 2014), PP 32-40.*

**Books:**

Investigation of goodness for some drugs using laser scattering: Laser scattering for goodness investigation. Lambert Academic Publish in, Germany, 2012.

**Postgraduate Students:**

**1. Ph.D.**

**1.1 Supervisor.**

**5 Candidates.**

**1.2 Co-Supervisor.**

**2 Candidates.**

**1.3 External examiner.**

**2 Candidates.**

**1.4 Internal examiner.**

**16 Candidates.**

**2. M.Sc. by research**

**2.1 Supervisor.**

**2 Candidates.**

**2.2 Co - Supervisor.**

**1 Candidate.**

**2.3 External examiner**.

**3 Candidates.**

**2.4 Internal examiner**.

**2 Candidates.**

**3. M.Sc by courses and research**

**3.1 Supervisor**

**6 Candidates.**

**3.2 External examiner.**

**2 Candidates.**

**3.3 Internal examiner.**

**12 Candidates.**

**4. Postgraduate Diploma**

**4.1 Supervisor (Sudan University of Science and Technology)**

**4-1-1 Postgraduate Diploma of Laser in Dermatology:**

**9 Candidates.**

**4-1-2 Postgraduate Diploma of Laser in E.N.T:**

**2 Candidates.**

**4-1-3 Postgraduate Diploma of Laser in Dentistry:**

**3 Candidates.**

**4.2 Postgraduate Diploma Supervisor other universities**

* Omdurman Elahlia University 10 Postgraduate Diplomaprojects

**4.3 Postgraduate Diploma Examiner**

More than 23 candidates.

**5. Undergraduate Students:**

**5.1. Sudan University of Science and Technology**

More than 80 graduation projects for B.Sc. student.

**5.2. Other Universities**

More than 15 graduation projects for B.Sc. student (AlNeelain University, Omdurman Elahlia University, Omdurman Islamic University).