

## CRIRCULIM VITAE

**Title**  
**Name:**  
**Department:**  
**College:**  
**Position:**  
**Contacts:**

**Dr.**  
**SAWSAN AHMED ELHOURI**  
Physics  
Applied & Industrial Sciences.  
Coordinator of Graduated Studies.  
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### ACADEMEIC QULIFICATIONS:

**1990** Sudanese High Certificate  
Khartoum AL Gadedda High Secondary School

**1995** B.Sc.(Good) Physics and Mathematics  
Omdurman Ahlia University

**1996** Operation and Introduction, Ms-windows,  
C-Language, Leader Computer Company  
Training Center

**1998-2001** M.Sc. Physics (by courses)  
Sudan University of Science and Technology  
*Fulfillment research title:*  
The efficiency and power of the silicon cell

**16 October 2006**

PhD Physics  
Sudan University of Science and Technology  
**Thesis title:**  
The effect of magnetic flux on the efficiency of the silicon solar cells using experimental and quantum mechanical approaches.

**Professional Experience :**

**1996-1998**

Joined Newtech Industrial & Engineering Group Ltd. as Office Manager.

**16 June – 16 July 2001**

Joined Omdurman Islamic University  
Faculty of Science- Physics Department  
(Partimer) Lecturer

**5 February 2002 up to  
2December 2009**

Joined Juba University  
Faculty of Applied & industrial Science  
Physics Department  
(Fulltime) Lecturer/Assistant Professor (since October 2006)

**10 June 2006 up to  
28 August 2007**

Joined The National Ribat University  
College of Computer Studies  
(Partimer) Lecturer

**18 March 2002 up to  
2 December 2009**

Joined Sudan College for Girls  
Computer Science Program  
(Partimer) Lecturer / Assistant Professor (since October 2006)

**8 December 2009 up to 8 December 2010**

Joined Taif University(K.S.A)  
Faculty of Applied Medical Science  
(Fulltime) Assistant Professor

**1 August 2010 up to Date**

Joined (Juba) Bahri University  
Faculty of Applied & Industrial Science  
Physics Department  
(Full time) Assistant Professor

**14 November 2011 up to Date**

Graduate Studies Coordinator –Faculty of Applied &Industrial Sciences-University of Bahri

**29 February 2012 up to Date**

Member & Determinate of Research Council –Faculty of Applied & Industrial Science - University of Bahri

**29 January 2014 up to Date**

Promoted to Associate Professor of Physics  
–Faculty of Applied & Industrial Science -  
University of Bahri

### **Subjects taught:**

- \* (Heat +Classical Mechanics +Optics) – First class– General College of Applied & Industrial Sciences.
- \* (Electricity & Magnetism + Thermodynamics) – Second class– General College of Applied & Industrial Sciences.
- \* (Electronic Circuits + Atomic physics + Relativity) – Third class– Department of physics.
- \* (Electronics I + Solid State Physics I + Nuclear Magnetic Resonance) Fourth class – Department of Physics.
- \* (Solid State Physics II +Electronics II + Nuclear Physics II +Radiation Physics+ Particle Physics + Experimental & Computational Techniques + X-Ray Diffraction) Fifth class – Department of Physics.
- \* (Electric Circuits + Elements of Electrical Technology) third class – Department of Electronics & Instrumentation.
- \* (Electric Circuits III) Fifth class– Department of Electronics & Instrumentation.
- \*(Heat + Thermodynamics) First Class Laboratory Technology Diploma.
- \*(Electronics I) Third Class Laboratory Technology Diploma.
- \* Supervisor for several B.Sc. graduation projects.
- \* Internal Examiner for M.Sc. researchers at Juba University. (Table attached).
- \* External Examiner for M.Sc. Researchers at Sudan University of Science & Technology (Table attached).
- \* Internal Examiner for PhD. researcher at Bahri University. (Table attached).

### **PUBLICATIONS:**

1. Light induced current using quantum mechanical approaches.  
(*Sawsan Ahmed Elhoury Ahmed, Mubarak Dirar*) –Journal of Applied and Industrial Sciences, April, 2013, 1 (1): 16-20  
(<http://www.researchpub.org/Journal/jais.ntm>) 7 February 2012.

2. Highly ordered TiO<sub>2</sub> Nano tubes and their application to dye sensitized solar cells.  
(*Ammar Elsaanousi, Nazar Elahmin, Sawsan Elhourri, and Amel Abdalla*).  
Journal of Applied and Industrial Sciences, April, 2013, 1 (1): 39-42  
(<http://www.researchpub.org/Journal/jais.ntm>) 27 February, 2013.
3. Heisenberg Spatial Quantum Equation.(*Mubarak Dirar, Lutfi M.A/Algadir, Sawsan Ahmed Elhourri*)- Journal of Applied and Industrial Sciences, 2013, 1 (2): 16-20,  
ISSN: 2328-4595 (PRINT), ISSN: 2328-4609 (ONLINE)  
(<http://www.researchpub.org/Journal/jais.ntm>) 27 May, 2013.
4. The Effect of magnetic flux on Newton's Ring using typical glass lenses with refractive index of 1.5.(*Sawsan Ahmed Elhourri Ahmed, Mubarak Dirar*)  
Journal of Applied and Industrial Sciences, 2013, 1 (2): 21-29, ISSN: 2328-4595 (PRINT), ISSN: 2328-4609 (ONLINE)  
(<http://www.researchpub.org/Journal/jais.ntm>) 29 May, 2013.
5. The Effect of Gamma Ray Source Nucl.137/LB905 Nom. Activity 3.7 MBq on a Photodiodes. (*Sawsan Ahmed Elhourri Ahmed, Mubarak Dirar*).  
Journal of Applied and Industrial Sciences, 2013, 1 (3): 23-29, ISSN: 2328-4595 (PRINT), ISSN: 2328-4609 (ONLINE)  
(<http://www.researchpub.org/Journal/jais.ntm>) 14 August, 2013.
6. Utilization of photon equation of motion to obtain electromagnetic momentum, time & length in Einstein generalization of special relativity  
(*Fatma Madani, Mubarak Dirar, Sawsan Ahmed Elhourri Ahmed*)  
Elixir International Journal- Elixir Condensed Matter Phys. 63 (2013) 18388-18395  
(<http://www.elixirpubliher.com>) 7 October 2013
7. The Effect of Magnetic Field on the Electric Susceptibility.  
(*Sawsan Ahmed Elhourri Ahmed, Mubarak Dirar*)  
Journal of Applied and Industrial Sciences, 2013, 1 (4): 16-19, ISSN: 2328-4595 (PRINT), ISSN: 2328-4609 (ONLINE)  
(<http://www.researchpub.org/Journal/jais.ntm>) 20 October, 2013.
8. Responsivity of Silicon Photodiodes Light & Dark Current under Influence of Different Magnetic Flux Intensity and Temperature  
(*Sawsan Ahmed Elhourri Ahmed, Mubarak Dirar*)  
Elixir International Journal- Elixir Condensed Matter Phys. 65 (2013) 19771-19778  
(<http://www.elixirpubliher.com>) 5 December 2013
- 8a. Responsivity of Silicon Photodiodes Light & Dark Current under Influence of Different Magnetic Flux Intensity and Temperature  
(*Sawsan Ahmed Elhourri Ahmed, Mubarak Dirar*)

*Journal of Applied and Industrial Sciences*, 2013, 1 (5): 10-16, ISSN: 2328-4595  
(PRINT), ISSN: 2328-4609 (ONLINE)  
(<http://www.researchpub.org/Journal/jais.ntm>) 16 December, 2013.

9. The Quantum Expression of the Role of Effective Mass in the Classical Electromagnetic Theory Form & in Absence of Binding Energy  
(Mohammed Eltoum Fideil, Sawsan Ahmed Elhoury Ahmed and Mubarak Dirar Abd-Alla)  
*Journal of Applied and Industrial Sciences*, 2014, 2 (1): 31-34, ISSN: 2328-4595  
(PRINT), ISSN: 2328-4609 (ONLINE)  
(<http://www.researchpub.org/Journal/jais.ntm>) 4 February, 2014.

10. Effect of the Doping Layer Concentration on Optical Absorption in Light Dependent Resistance Doped with Phosphors (P) and Iron (Fe) Layer  
(Mohammed Eltoum Fideil, Sawsan Ahmed Elhoury Ahmed and Mubarak Dirar Abd-Alla)  
*Journal of Applied and Industrial Sciences*, 2014, 2 (3): 123-128, ISSN: 2328-4595  
(PRINT), ISSN: 2328-4609 (ONLINE)  
(<http://www.researchpub.org/Journal/jais.ntm>) 15 June, 2014.

11. The Effect of different Dyes on the Efficiency of Polymer Solar cell  
(Omer Abdalla Omer Gassim, Mubarak Dirar Abdalla, R. Abd Elgani Elobaid Mohammed & Sawsan Ahmed Elhoury Ahmed)  
*International Journal of Renewable Energy Technology Research*  
Vol. 3, No. 9, November 2014, pp. 1 - 9, ISSN: 2325 - 3924 (Online)  
(<http://ijretr.org>) 9 November 2014

12. The Quantum Expression of the Role of Relaxation Time on Optical Absorption in Semi Conductors  
(Mohammed Eltoum Fideil, Sawsan Ahmed Elhoury Ahmed)  
*International journal of engineering sciences & research Technology*  
Vol.3, Issue 11 November 2014, pp.444-455, ISSN: 2277-9655 (Online)  
[Ahmed, 3(11): November, 2014]  
(<http://www.ijesrt.com>) 30 November 2014

### Technical Report:

#### M.Sc. Juba University

Student Name	Date	Supervisor	Internal Examiner	External Examiner
Khalil Babikr Ahmed	24-2-2007	Dr. Abe Elrsoul Jabar Alzebadi	Dr. Sawsan Ahmed Elhoury	Dr. Bala Mohamed ElJack
Ali Hamoda Ali	21-3-2007	Dr. Abu Baker Alsdeeg Merganee	Dr. Sawsan Ahmed Elhoury	Dr. Abe Elrsoul Jabar Alzebadi
Taj Eldeen Abd Elgawi Bakr	20-11-2008	Dr. Abe Elrsoul Jabar Alzebadi	Dr. Sawsan Ahmed Elhoury	Dr. Bala Mohamed ElJack

**M.Sc. Bahri University**

<b>Student Name</b>	<b>Date</b>	<b>Supervisor</b>	<b>Internal Examiner</b>	<b>External Examiner</b>
Osama Khalifa Mahgoub Bashir	19-11-2013	Prof. Mubarak Dirar Abd-Alla	Dr. Sawsan Ahmed Elhourri	Dr. Mahmoud Hamid Mahmoud
Eihab Moh. Abderafife	8-12-2014	Prof. Gurashi Abdalla Co.sup. Dr. Ali Elnaeim Musa	Dr. Sawsan Ahmed Elhourri	Dr. Ibrahim Hassan Elamin

**M.Sc. Sudan University of Science & Technology**

<b>Student Name</b>	<b>Date</b>	<b>Supervisor</b>	<b>Internal Examiner</b>	<b>External Examiner</b>
Manahil Moh. Youssif	15-12-2013	Prof. Mubarak Dirar Abd-Alla	Dr. Rasha AbdElhai	Dr. Sawsan Ahmed Elhourri
Ahmed Moh. Gomaa	5-2-2014	Prof. Mubarak Dirar Abd-Alla	Dr. Rawia A/Elgani Elobaid Moh.	Dr. Sawsan Ahmed Elhourri
Muhand Elfadil Moh. Marzoug	26-11-2014	Prof. Mubarak Dirar Abd-Alla	Dr. Rawia A/Elgani Elobaid Moh.	Dr. Sawsan Ahmed Elhourri

**M.Sc. University of Dongola**

<b>Student Name</b>	<b>Date</b>	<b>Supervisor</b>	<b>Internal Examiner</b>	<b>External Examiner</b>
Hammdi Moh. Abbas Maddani	14-5-2014	Prof. Mubarak Dirar Abd-Alla	Prof. Moh. Habeb Ahmed Elkanzi	Dr. Sawsan Ahmed Elhourri

**Ph.D. Bahri University**

<b>Student Name</b>	<b>Date</b>	<b>Supervisor</b>	<b>Internal Examiner</b>	<b>External Examiner</b>
Amel Abdalla Ahmed Elfaki	7-7-2013	Prof. Mubarak Dirar Abd-Alla	Dr. Sawsan Ahmed Elhourri	Prof. Moh. Habeb Ahmed Elkanzi
Zeinelabdin Hassan Mahgoub	9-10-2013	Prof. Moh. Osman Sid Ahmed	Dr. Sawsan Ahmed Elhourri	Prof. Mubarak Dirar Abd-Alla
Magdi Elsheik Idriss Moh.	9-11-2014	Prof. Abubakr Elsidling M. Elhusien	Dr. Sawsan Ahmed Elhourri	Iman Abuel Maaly Abdelrahman