

# CURRICULUM VITAE

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## Hassan Idris

### Personal information:

**Date of birth:** 14 August 1965

**Place of birth:** Karkog (Sudan)

**Citizenship:** Dutch

### Current position:

**Since January 2011**

**Al-baha University**

**Saudi Arabia**

#### **Assistant professor of Applied Physics**

Lecturing at both undergraduate and post graduate levels:

- Medical physics for applied health and medical students (undergraduate level).
- Biophysics for biological students (undergraduate level).
- General physics for medical students (undergraduate level).
- General physics for science & engineering students (undergraduate level).
- Physics of renewable energy (undergraduate level).
- Experimental Laboratory Physics (undergraduate level)
- Radiation physics (undergraduate level)
- Neutron and reactor physics (undergraduate level)
- Research methods (for medical physics students)
- Nuclear physics course (undergraduate level & master level)
- Health physics course (master level)
- Medical imaging (undergraduate level)
- Quality control in nuclear medicine (under graduate & master levels)

### Research experience:

**2001-2005**

**Technical University of Delft**

**The Netherlands**

#### **PhD in Applied Physics (medical physics)**

**Prof. Dr. Ir. C.W.E. van Eijk**

A four year research that resulted in the development of image quality assessment parameters using square-wave test objects. Test-objects made from different material such as Al, Cu, Mo, and Pb are used in clinical environments performing measurements with exactly patient exposure settings. The resolution characteristics in terms of modulation transfer function (MTF) applied for different diagnostic radiography including conventional film-screen, digital, and mammography systems. Image quality parameters deduced from contrast detail phantom made from PMMA are used for comparison purposes.

**Thesis title:** Image quality assessment in diagnostics radiography:  
“resolution characteristic in terms of modulation transfer function (MTF)”.

**1998-1999**                      **Leiden University**                      **The Netherlands**  
**Master of Science in applied Physics**  
**Dr. J. Davelaar**

A nine month research period as part of Master of Science spent at Leiden university medical centre (LUMC), department of radiotherapy. Quality control and patient’s treatment verification using electronic portal imaging device.

**1992-1994**                      **University of Khartoum**                      **Sudan**  
**Master of Science in Physics**  
**Dr. Osman Dawi**

A nine month research period as part of Master of Science working with x-ray diffraction systems performing measurements and mastering XRD techniques resulted in a dissertation: “Quantitative and qualitative measurements of Mineral Samples using X-ray Diffraction Techniques”.

**Education:**

**1984-1989**                      **University of Khartoum**                      **Sudan**  
**Bachelor of Science in Physics**  
**Dr. Mohammed Elmassalami**

A five year university degree in general physics ended with a bachelor dissertation “Synthesis and Studies of  $(Y_1Ba_2Cu_3O_{7-\delta})$  Ceramic High Temperature Superconductor”.

Degree awarded: second class–division one, Honour Degree.

**Courses:**

- Stralingshygiene Deskundigheidsniveau 3 (Radiological Health Physics course and diploma). Dutch national course that gives a deep insight on how to work with radioactive sources in both university and medical environments. Practical skills are developed through laboratory experiments, while theoretical knowledge is tested with a written examination. This diploma is widely recognized within the European Community.  
Technical University of Delft, Delft, The Netherlands.
- Stralingshygiene Deskundigheidsniveau 5 (Radiological Physics course and diploma). Dutch national course that gives a deep insight on how to work with X-ray machines and the basics of radiation exposure measurements in both university laboratories and clinics. Practical skills are developed through laboratory experiments, while theoretical knowledge is tested with a written examination. This diploma is widely recognized within the European Community.

Technical University of Delft, Delft, The Netherlands.

- Medical Physics and Radiation Technology: course that gives a basics and advances of medical physics and medical radiation imaging in the field of both diagnostic and therapeutic applications.

Technical University of Delft, Delft, The Netherlands.

- Radiation Detection Principles: course that deals with radiation detection techniques for all types of ionizing radiation. In addition it gives practical application in side nuclear reactors.

Technical University of Delft, Delft, The Netherlands.

- European School of Medical Physics. Six weeks course of medical physics attended by most European medical physics graduates students. This course deals with the latest developments in the field of medical physics.

European Scientific Institute, Archamps, -France.

- “Scientific writing in English” course, funded by the Technical University of Delft. This course gives the students the opportunity to develop their skills at writing scientific articles in proper English. The course also focuses on the style and the structure to be used in academic documents and papers.

Technical University of Delft, Delft, The Netherlands.

## Computer skills

- Operating systems: Windows
- Software: MS Word and Excel, Origin Lab,
- Image processing software: PRO-PLUS

## Work experience

- 1990-1996 Teaching assistant: Student tutor and Laboratory demonstrator: University of Khartoum -Sudan
- 1996-1998 Lecturer of Physics University of Khartoum -Sudan.
- 2007-Member of faculty board. Faculty of science-University of Khartoum -Sudan.
- 2009-Head of cultural and international relation committee. Faculty of science-University of Khartoum -Sudan.
- 2009-General secretary of student fund. Faculty of science-University of Khartoum -Sudan.
- 2009-Member of self-evaluation and quality assurance committee. Faculty of science-University of Khartoum -Sudan.

- 2009–Member of environmental committee. Faculty of science–University of Khartoum –Sudan.

#### Languages:

- ARABIC: mother tongue
- ENGLISH SPOKEN: fluent (official language within both the Leiden University and Technical University of Delft in the Netherlands); privileged communication language in both scientific and everyday environment in the years 1998–2005. It is also the instruction language at the department of Physics, University of Khartoum, Sudan.
- ENGLISH WRITTEN: fluent; course “Scientific writing in English”
- DUTCH: very good knowledge

#### Publications:

- Idris, H.H.E. Image Quality–Assessment in Diagnostic Radiography: "Resolution Characteristics in terms of Modulation Transfer Function (MTF)", ISBN: 90–407–2596–9. Delft University Press.
- Zoetelief, J, Idris, H.H. E. and Jansen, J.Th. M. Investigation of possible methods for equipment self–tests in digital radiology. Radiation Protection Dosimetry 2005 117(1–3):269–273.

#### Seminars & meetings:

- October 2003 Ninth Symposium on Neutron Dosimetry, Delft, Netherlands. 2003
- December 1994: IAEA Workshop on X–ray Generator’s Repairing and maintenance, Nairobi–Kenya.
- September 1994: College on Physics of Archaeometry and Preservation of Work of Art, ICTP; Trieste–Italy.
- October 1994: College in Biophysics; Experimental and Theoretical Aspects of Biomolecules, ICTP; Trieste–Italy.
- November 1992– February 1993: Health Physics Course, Center of Nuclear Studies; Islamabad–Pakistan.

## References:

- Dr. Mohamed Gamar Hussein  
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