



# THE TECHNICAL UNIVERSITY OF KENYA



## CITATION ON

**PROF. DR.-ING FRANCIS W. O. ADUOL**

**THE VICE-CHANCELLOR OF THE TECHNICAL UNIVERSITY OF KENYA**

**on the occasion of his installation as the first  
Vice-Chancellor**

**of  
The Technical University of Kenya**

# GRADUATION 2013

*Wednesday 18<sup>th</sup> December 2013*

## **OUR MISSION**

*To provide quality and innovative technological education and training*

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## **OUR VISION**

*To be a top rated university of technology*

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## **OUR MOTTO**

*Education and training for the real world*



**Prof. Francis W. O. Aduol**

*Vice Chancellor*

## PROF FRANCIS W. ODHIAMBO ADUOL

*BScEng, MSc, MA, (Nairobi), Dr-Ing (Stuttgart), MISK, LicSurv*

**Francis William Odhiambo Aduol** grew up along the shores of Lake Victoria in Seme, Kisumu County. He had his primary school education at local primary schools within Kisumu County. He took his secondary school education at Kisumu Boys' High School in Kisumu Town in the period 1967 to 1970, where he sat his O-Levels. He subsequently joined Maseno School for his A-levels at which he studied Mathematics, Physics, and Geography. He was admitted to the University of Nairobi in 1973 to study Surveying and Photogrammetry in the Faculty of Engineering.

Francis Aduol graduated with the degree of Bachelor of Science in Engineering (Surveying and Photogrammetry) in 1976. He then joined the Government Survey Department, Survey of Kenya, as a land surveyor. In 1977 he joined the Department of Surveying and Photogrammetry at the University of Nairobi, as a tutorial fellow, on staff development programme. During his tenure as a tutorial fellow he worked towards his MSc. He graduated with the MSc degree in Surveying from the University of Nairobi in 1981 for a thesis in the area of optimisation of three-dimensional geodetic networks.

In 1983, he was awarded a German Academic Exchange Service (DAAD) scholarship to enable him pursue studies towards the PhD degree at the University of Stuttgart in Germany. After a six month German language course at the Goethe Institut in Freiburg/Breisgau, he joined the University of Stuttgart in April 1984. For the first part of his studies he took courses in Geodesy (under Prof. Erik Grafarend), Engineering Surveying (under Prof. Klaus Linkwitz), and Geophysics (under Prof. Klaus Strobach). He also prepared a Diplom-Ingenieur (Dipl.Ing.) level thesis in the area of statistical parameter estimation.

For his doctoral studies, he carried out research in the area of integrated three-dimensional geodesy. He was awarded the Doctor of Engineering

(Dr.-Ing.) degree for a dissertation entitled “Integrierte geodaetische Netzanalyse mit stochastischer Vorinformation ueber Schwerefeld und Referenzellipsoid” (in English: Integrated geodetic network analysis with stochastic prior information about the gravity field and reference ellipsoid”). His mentors during his Doctoral studies were the distinguished geodesist Professor Erik Grafarend and Professors Burkhard Schaffrin and Guenter Schmitt (University of Karlsruhe).

From the initial position of Tutorial Fellow, Francis Aduol was appointed on promotion to the positions of Lecturer in 1981, Senior Lecturer in 1988, Associate Professor in 1994, and Full Professor in 2001. His predecessors as Professors of Surveying in the University of Nairobi were Professor Lawrence Pentecost Adams (1971–1973) and Professor Raouf Shawky Rostom (1976–1993). In 2006 he delivered his Professorial Inaugural Lecture at the University of Nairobi under the title “From Rope Stretchers to E-Mapping – The Story of the Discipline of Surveying”.

Prof. Aduol’s area of specialisation within the broad field of Surveying is geodesy, which is the study of the geometry of the Earth including its gravity field as well as the precise determination of positions within geo-space. He has published widely in the area of geodesy and surveying and has supervised a number of postgraduate theses. As a lecturer he has taught in diverse areas of the discipline including: mathematical and physical geodesy, adjustment theory and computations, satellite positioning and navigation, astronomy and celestial mechanics, mathematical cartography and map projections, engineering surveying and surveying techniques, and general surveying and mapping.

Prof. Aduol is an associate member of the International Association of Geodesy (IAG) and has previously served as a corresponding member of the Special Study Group of IAG in the area of mathematical statistics. He is a member of the Institution of Surveyors of Kenya and is a Licensed Professional Land Surveyor in Kenya. He has been involved in innovative ways of applying surveying and mathematical techniques to solve problems in society; most recently he was a consultant to various

national agencies in the determination of electoral boundaries in Kenya. In 2012 he graduated with the degree of Master of Arts in Economics with specialization in Economic Policy Management from the University of Nairobi.

Prof. Aduol has served in various capacities in University administration at the University of Nairobi. From 1991 to 1995 he was Chairman of Department of Surveying; in 1995 he was elected Dean of the Faculty of Engineering and served in this position up to 1999; and from 1999 to 2008 he was Principal of the College of Architecture and Engineering. Within the framework of University administration, he has been involved in numerous important University and national committees either as Chairman or member of committee. Most recently he was a member of the National Task Force that prepared the Universities Act, 2012; Technical and Vocational Education and Training (TVET) Act, 2013; and Science, Technology and Innovation Act, 2013.

Some of the technical work carried out by Prof. Aduol in University administration has been developed into high quality research papers that have been published in international journals and conferences. He is an acknowledged expert in the area of analysis of student and academic staff loading and costing of university programmes and student unit cost. Through the Joint Admissions Board (JAB), in 1998, he spearheaded the development of the well known weighted cluster formula for selection of KCSE candidates into the public universities in Kenya and recently, in 2012, chaired another committee of JAB that introduced further improvements on the formula to make it more precise.

Prof Aduol was appointed to the position of Principal of the Kenya Polytechnic University College (KPUC) in October 2008. As the founding Principal of the University College he oversaw a smooth transition of the institution from a polytechnic into a university college and subsequently into a fully fledged university. The university college was elevated to a fully fledged university through the grant of Charter in January 2013. With the grant of Charter, the institution became The Technical University of Kenya.

The new university has been styled as polytechnical university integrating the characteristics of a technological university and a TVET institute. Prof Aduol was appointed to the position of Vice-Chancellor of the Technical University of Kenya with effect from 15th May 2013, thereby becoming the founding Vice-Chancellor of the University.

Francis Aduol is married to Margaret and they have three children; Joshua, Mark, and Timothy.

**Ladies and Gentlemen, Prof. Francis William Odhiambo Aduol!**

## **EDUCATION AND TRAINING FOR THE REAL WORLD**

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