



# THE TECHNICAL UNIVERSITY OF KENYA

Education and training for the real world

## 3<sup>RD</sup> GRADUATION CEREMONY

2015

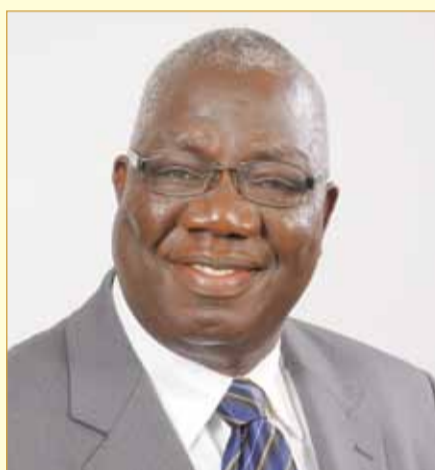
Friday, 18<sup>th</sup> December, 2015  
Starting 9.00 am

# CONGRATULATIONS TO THE CLASS OF 2015



**Dr. Manilal (Manu) P. Chandaria,**  
OBE, EBS, Chancellor

I join the TU-K community during this auspicious occasion of the 3<sup>rd</sup> Graduation Ceremony. I congratulate the graduands for making the university, parents and sponsors proud. You have worked very hard to see your academic dream comes true. Treat today's graduation as a transition to another phase of your academic and career pursuits for which the university has prepared you. As a university we are proud of the alumni who have continued to fly high the flag of TU-K wherever they are working or pursuing higher studies.



**Prof. Godfrey M. Nguru,**  
Council Chairman

Congratulations to the Class of 2015. We at TU-K, are proud of you for the good work and character you have shown over the period you have been students here. The University Council will continue to improve the learning environment through capital development projects to ensure quality learning. It is a moment of joy for all of us as we release another cohort of students to join a growing number of alumni who have continued to do well in the job market thus vindicating the quality of teaching and learning at TU-K.



**Prof. Dr.-Ing. Francis Aduol**  
Vice-Chancellor

As we hold our 3<sup>rd</sup> graduation ceremony, I wish to assure our current and prospective students that we are continuously improving the quality of education and training offered at TU-K. The university has initiated partnerships with the industry and universities from across the world to make possible knowledge sharing and transfer for our students and staff. In a modest way, TU-K is contributing to national development by producing fully-baked graduates with practical skills who seamlessly fit in employment.

### MOMENT OF PRIDE FOR GRADUANDS

Today, The Technical University of Kenya is celebrating its 3<sup>rd</sup> graduation ceremony in which 2636 graduands will be awarded degrees, diplomas and certificates in various disciplines. The ceremony to be held at the university located off Haile Selassie Avenue Nairobi, will be presided by the Chancellor, Manu Dr Chandaria. Among the expected guests are the Cabinet Secretary for Education, Science and Technology, Dr Fred Matiang'i, members of diplomatic corps, senior government officials and CEOs from public and private sectors.

### UNIVERSITY COUNCIL



**Prof. Godfrey M. Nguru,**  
Council Chairman

**Dr. Fred Matiang'i, Ph.D**  
CS Education  
Science & Technology

**Henry Rotich**  
CS Treasury

**Isabella Ochola-Wilson**

**Eng. Protus Murunga**

**Eng. Mercy Wambugu**

**Dr. Phillip Parklea**

**Prof. Dr.-Ing. Francis W. O. Aduol**

### 2015 GRADUANDS IN FIGURES

FACULTY OF ENGINEERING SCIENCES AND TECHNOLOGY				
	Certificate	Diploma	Degree	Total
School of Architecture and the Built Environment	-	95	148	243
School of Electrical and Electronic Engineering	-	64	112	176
School of Infrastructure and Resource Engineering	3	74	54	131
School of Mechanical and Process Engineering	8	177	74	259
School of Surveying and Geospatial Sciences	22	24	89	135
<b>Sub-Total</b>	<b>33</b>	<b>434</b>	<b>477</b>	<b>944</b>
FACULTY OF APPLIED SCIENCES AND TECHNOLOGY				
	Certificate	Diploma	Degree	Total
School of Biological Sciences and Technology	2	57	85	144
School of Computing and Information Technology	5	41	44	90
School of Health Sciences and Technology	18	101	29	148
School of Mathematics and Actuarial Science	0	22	38	60
School of Physical Sciences and Technology	0	37	37	74
<b>Sub-Total</b>	<b>25</b>	<b>258</b>	<b>233</b>	<b>516</b>
FACULTY OF SOCIAL SCIENCES AND TECHNOLOGY				
	Certificate	Diploma	Degree	Total
School of Business and Management Studies	30	392	217	639
School of Creative Arts and Technology	2	46	28	76
School of Hospitality and Tourism Studies	22	94	69	185
School of Information and Communication Studies	0	100	53	153
School of Social and Development Studies	0	52	71	123
<b>Sub-Total</b>				<b>1176</b>
<b>TOTAL GRADUANDS</b>				<b>2636</b>





# THE TECHNICAL UNIVERSITY OF KENYA

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## UNIVERSITY MANAGEMENT BOARD



**Prof. Dr.-Ing. Francis W. O. Aduol,**  
Vice-Chancellor



**Prof. Paul M. Shiundu,**  
Deputy Vice-Chancellor, Academics,  
Research and Students



**Prof. Joseph Kiplang'at,**  
Deputy Vice-Chancellor, Administration,  
Planning and Infrastructure



**Prof. Suki K. Mwendwa,**  
Deputy Vice-Chancellor, Technology,  
Innovation and Partnerships



**Prof. Emily A. Akuno**  
Executive Dean, Faculty of Social Sciences  
and Technology



**Prof. Michael L. Muia**  
Executive Dean, Faculty of Applied  
Sciences and Technology



**Prof. Alex M. Muumbo**  
Executive Dean, Faculty of Engineering  
Sciences and Technology

## MARKET-READY GRADUATES

Engineering graduates from The Technical University of Kenya (TU-K) are readily absorbed in the labour market, majority of them within their first year after graduation.

This is according to a tracer study carried out in June this year. The research study indicates that 75 per cent of our graduates are employed largely in the private sector while 25 per cent are self-employed.

The study covered Bachelor of Engineering and Bachelor of Technology in Electrical and Electronic Engineering graduates of between the year 2008 and 2011.

The survey sought to establish employment opportunities and performance of Bachelor of Technology in Electrical and Electronic Engineering graduates with



**TU-K students in an engineering workshop**

the aim of establishing relative performance of graduates with regard to securing employment and effectiveness in the world of work.

The findings are key in driving the university's creativity and problem-solving approaches through

industry-based learning. Majority of the respondents were satisfied with their current jobs. If given another chance to study, 87.5 per cent of the respondents would very likely choose the same course of study, while 85 per cent would very likely choose TU-K.

**T**he first batch of 24 degree aeronautical engineering students to be locally trained by a university will be among those graduating today. The students have completed a five-year course in Bachelor of Engineering in Aeronautical Engineering.

The university boasts of some of the best training facilities in Africa. TU-K is the premier institution training aircraft engineers in the East and Central Africa region. The university's precursor institution - Kenya Polytechnic, started training aircraft maintenance engineers in 1970. Our alumni have a strong presence in both local and international aviation industry.

The degree students joined TU-K in 2011 and have now successfully completed their course.

The graduating class undertook their industry-based learning at Kenya Civil Aviation Authority (KCAA), Kenya Airways and the USA-based Boeing Company, the world's leading civil commercial

## KENYA'S FIRST AERONAUTICAL ENGINEERING GRADUATES



**Kenya Airways plane takes to the sky.**

aircraft manufacturer. TU-K's Department of Aeronautical Engineering has working relationship with Cranfield University-UK and the Royal Aeronautical Society of UK, Car and General-USA, KCAA,

Kenya Airways, Boeing Company-USA, among others. Our students usually receive training from some of the best in the aviation industry both locally and internationally. The industry insiders say there is a shortage of

well-trained aeronautical engineers, a void TU-K is determined to fill.

The students spend most of their learning time in the engineering laboratories and workshops at TU-K and in partner institutions including KQ and KCAA

where they train in mechanical engineering, engine development, fleet management, component analysis among other disciplines. During internship, the students get involved with experts in repairing aircraft wings

among many other duties that offer them practical skills.

TU-K also offers Diploma in Technology in Aeronautical Engineering and Certificate in Aircraft Maintenance programmes.





## TU-K IN THE FRONTLINE OF CUTTING EDGE RESEARCH



**Prof. Fiona Mbai, Ph.D**  
Director Research and Knowledge Exchange

TU-K continues to build competencies aimed at supporting the interface between science, engineering, technology and sustainable development. The university has established a platform for research integration into academia which is geared towards developing innovative solutions in science, engineering, technology, entrepreneurship, industry, and, in policy and decision-making. Through the Directorate of Research and Knowledge Exchange, 25 early career researchers at TU-K have been selected to be trained through a programme supported by the Association of Commonwealth Universities which started in September 2015 to end in June 2016. Notably, four TU-K members of faculty this year won research grants offered by the National Commission for Science and Technology to conduct research in engineering, food science, solid waste management and health.

### Sh100m water project coming to an end

A project meant to strengthen the Technical University of Kenya to Enhance delivery of quality education programmes in Integrated Water Resources Management" that was funded by the The Netherlands Initiative for Capacity Development in Higher Education (NICHE) to the tune of about Sh100 million, is coming to an end this year. Through this project, the expertise of Dutch organisations combined with local or regional expertise, utilised to assist with capacity development. The project was initiated and spearheaded by Prof. Paul M. Shiundu, the Deputy Vice-Chancellor –Academics, Research & Students who was also the project team leader. As a result, TU-K was able to send three members of staff to pursue their Ph.D studies at the University of the Western Cape, South Africa, and several others have pursued graduate studies in local institutions. As a result of the project, TU-K has been able to upgrade some of its teaching and research equipment such as server systems, video conferencing and video streaming solutions, field sampling equipment and expendable supplies.

## FACULTY OF ENGINEERING FACULTY OF ENGINEERING SCIENCES AND TECHNOLOGY



**Director: Prof. Qs. Sylvester Masu**

### SCHOOL OF ARCHITECTURE AND THE BUILT ENVIRONMENT

Department of Architecture and Environmental Design  
Department of Building Science and Technology  
Department of Real Estate and Property Management  
Department of Spatial Planning and Design



**Director: Prof. Stephen Musyoki**

### SCHOOL OF ELECTRICAL AND ELECTRONIC ENGINEERING

Department of Electrical and Power Engineering  
Department of Telecommunications and Information Engineering  
Department of Electronics and Computer Engineering  
Department of Automation and Control Engineering



**Director: Prof. George Thumbi**

### SCHOOL OF INFRASTRUCTURE AND RESOURCE ENGINEERING

Department of Civil and Construction Engineering  
Department of Biosystems and Environmental Engineering  
Department of Mining and Minerals Engineering  
Department of Engineering Economics and Management



**Director: Prof. Reuben O. Marwanga**

### SCHOOL OF MECHANICAL AND PROCESS ENGINEERING

Department of Aerospace and Aviation Engineering  
Department of Chemical and Petroleum Engineering  
Department of Industrial and Manufacturing Engineering  
Mechanical and Mechatronic Engineering



**Director: Dr. Gordon O. Wayumba**

### SCHOOL OF SURVEYING AND GEOSPATIAL SCIENCES

Department of Geodetic Science and Navigation  
Department of Geoinformation and Earth Observation  
Department of Land Administration and Information  
Department of Surveying Science and Technology

## FACULTY OF APPLIED SCIENCES AND TECHNOLOGY



**Director: PROF. DORCAS YOLE**

### SCHOOL OF BIOLOGICAL AND LIFE SCIENCES

Department of Applied and Technical Biology  
Department of Biochemistry and Biotechnology  
Department of Ecology and Conservation Biology  
Department of Food Science and Technology



**Director: Prof. Patrick J. Ogao**

### SCHOOL OF COMPUTING AND INFORMATION TECHNOLOGIES

Department of Computer Science and Technology  
Department of Information Systems and Technology  
Department of Computational Science and Technology



**Director: Dr. Alfred Orina**

### SCHOOL OF HEALTH SCIENCES AND TECHNOLOGY

Department of Biomedical Sciences and Technology  
Department of Community and Public Health  
Department of Human Nutrition and Dietetics  
Department of Pharmaceutical Sciences and Technology



**Director: Prof. Francis Gatheri**

### SCHOOL OF MATHEMATICS AND ACTUARIAL SCIENCES

Department of Pure and Applied Mathematics  
Department of Industrial and Engineering Mathematics  
Department of Statistics and Actuarial Science



**Director: Prof. Paul Baki**

### SCHOOL OF PHYSICAL SCIENCES AND TECHNOLOGY

Department of Chemical Science & Technology  
Department of Geography and Earth Science  
Department of Materials Science and Technology  
Department of Physics and Space Science

## FACULTY OF SOCIAL SCIENCES AND TECHNOLOGY



**Director: Prof. Nixon Muganda**

### SCHOOL OF BUSINESS AND MANAGEMENT STUDIES

Department of Accounting and Finance  
Department of Business Administration and Management  
Department of Entrepreneurship and Technology Management  
Department of Management and Business Systems



**Director: Prof. Odoch Pido**

### SCHOOL OF CREATIVE ARTS AND TECHNOLOGIES

Department of Design and Creative Media  
Department of Music and Performing Arts  
Department of Fashion and Textile Technology  
Department of Printing and Media Technology



**Director: Prof. Richard Makopondo**

### SCHOOL OF HOSPITALITY AND TOURISM STUDIES

Department of Event and Leisure Management  
Department of Hospitality and Institutional Management  
Department of Tourism and Travel Management



**Director: Prof. Peter Maina Matu**

### SCHOOL OF INFORMATION AND COMMUNICATION STUDIES

Department of Information and Knowledge Management  
Department of Journalism and Media Studies  
Department of Language and Communication Studies



**Director: Dr. Benson Ateng**

### SCHOOL OF SOCIAL AND DEVELOPMENT STUDIES

Department of Criminology and Legal Studies  
Department of Economics and Resource Management  
Department of Governance and Public Policy  
Department of Human and Social Development





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## DIRECTORS OF ACADEMIC UNITS



**Prof. Fiona Mbai, Ph.D**  
Director, Research and Knowledge Exchange



**Prof. Wilson Ogola**  
Director, University-Industry Partnerships



**Prof. Joseph Lala**  
Director, School of Graduate & Advanced Studies



**Prof. Anne Ndede-Amadi**  
Director, TU-K Enterprise & Consultancy Services



**Dr. Eric Ogur**  
Director, Centre for Engineering, Innovations & Production

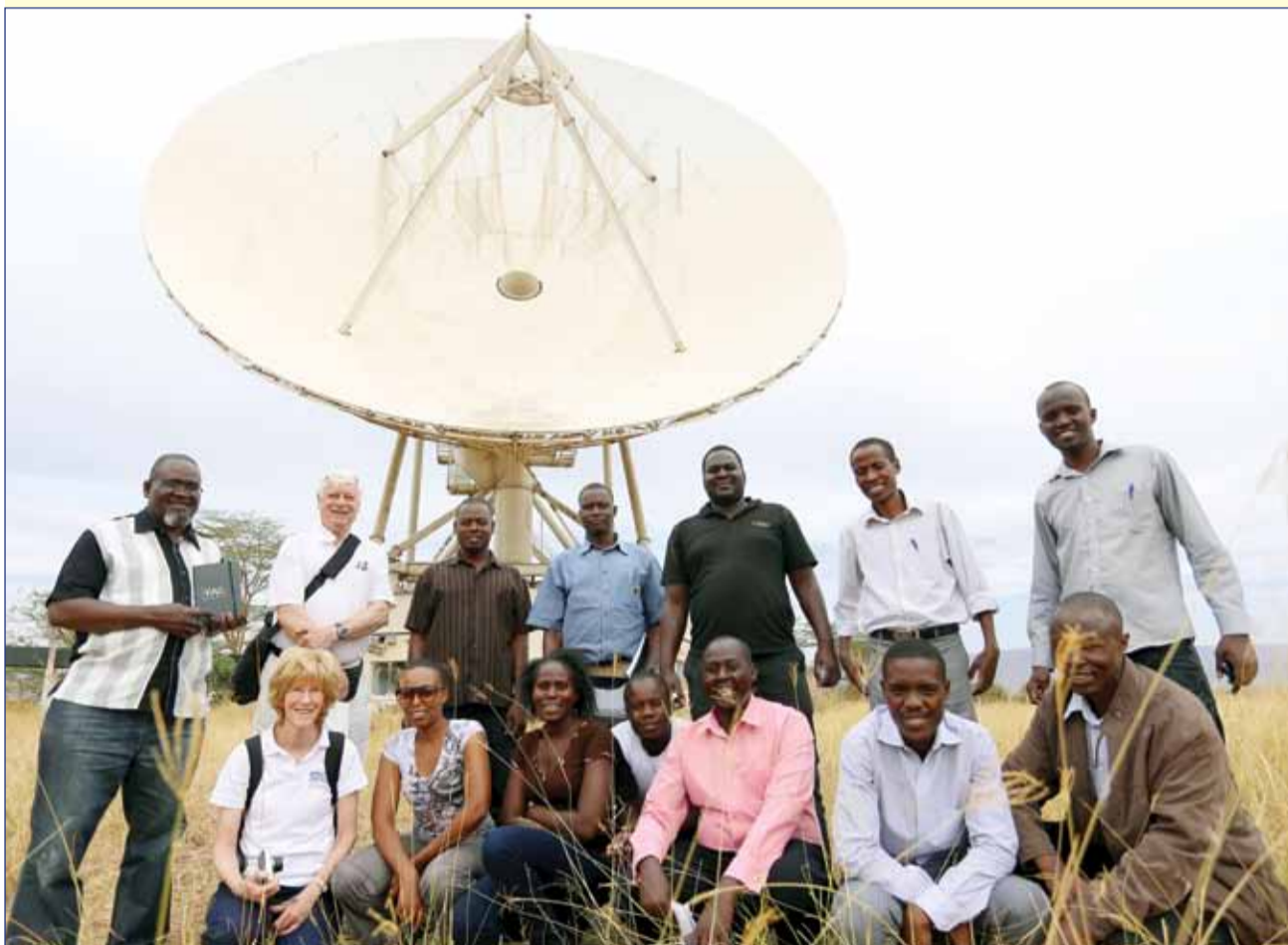


**Dr. Patrick Dikkir**  
Director, Centre for Science and Technology Studies



**Dr. Garnet Oluoch - Olunya**  
Director, Centre for Creative and Cultural Industries

## TU-K STUDENTS IN RADIO ASTRONOMY PROJECT



**Prof. Peter Wilkinson (back row, second left), Dr. Althea Wilkinson (front left) both from University of Manchester with Technical University of Kenya, School of Physical Sciences and Technology Director Prof. Paul Baki (left) and Radio-Astronomy trainees during a visit to Longonot Satellite Earth Communication Station**

TU-K's School of Physical Sciences and Technology is involved in a training programme in radio astronomy under the Square Kilometer Array (SKA) project that will set base at Longonot within five years. The site will be used in space studies as well as technological research. Plans are currently

underway to refurbish the old Longonot Satellite Earth Communication Station into a modern state-of-the-art radio telescope. The old station was phased out by fiber optic technology in 2013. This science initiative will be the next driver of technological growth in Africa.

The project is geared towards training young minds in pure sciences, it is tuned to building of high technology quality ideas, high performance computing and generation of big data.

The space experts are currently taking the trainee group through initial studies in radio astronomy at TU-K.

After this, the team will proceed to South Africa in February 2016 for further training.

The project is currently running in South Africa, Kenya, Namibia and Zambia. It is funded by the United Kingdom government through Newton Fund Project.

## KQ IN TRAINING AND JOB PLACEMENT DEAL WITH TU-K

Kenya Airways (KQ) and Technical University of Kenya (TU-K) have signed a memorandum of understanding that would see both institutions work together in creating opportunities for students taking Bachelor of Science in Aeronautical Engineering and those pursuing Piloting and Aircraft Maintenance access industrial attachments and employments.

TU-K students seeking industrial attachment at KQ will increase by more than half of the number currently attached at the airways beginning 2016.

Some of the airline's sections where students are attached and even

employed include cabin crew management, piloting, aviation, business management, aerospace engineering, passenger and cargo management, radio communications and broadcasting sections.

TU-K students who have previously been attached with the company are dedicated, hands-on and hardworking which has contributed greatly to the growth of the company.

Capital Connect, Aviation, an aviation training institution in both small and commercial aircrafts, are also in talks with TU-K to offer wider internship and employment opportunities to continuing students and graduates.

## STAFF TRAINED IN MOULDING TECHNOLOGY

**T**shwane University of Technology (TUT) of South Africa has partnered with Technical University of Kenya (TU-K) to train TU-K Technicians, Technologists and Master of Technology students on a special technology used in manufacturing plastic materials and parts.

The intensive training is designed to build capacity on fundamentals

of injection molding, a massive and complex technology process used in the manufacture of more than 40 per cent of plastic materials.

Majority of African plastic and parts manufacturing industries are still dependent on injection moulding technologies from India, China or Europe. TU-K is determined to fill this void in plastic manufacturing in the region.