Annex 2 – institutional factsheet

Call Institutional University Cooperation (IUC) 2022

1. General information

Name of the university, country
The Technical University of Kenya (TU-K), Kenya
Brief history of the university (year of foundation, developmental milestones, management structure, national position, most proud achievement …)
Year of Foundation TU-K is a young Higher Education Institute making the transition from a polytechnic institute to a university. It has the ambition to become a leading university in science and technology in Kenya and beyond, 'providing education for the real world'- http://tukenya.ac.ke/tu-k-profile **Development milestones and Proud Achievement** The Technical University of Kenya currently has degree, diploma and certificate students. The students study a wide range of specialized, professional and technical courses. The university has a modern library and well-equipped laboratories. The university has achieved this by upgrading most of its learning facilities through refurbishment and installation of new and up-to-date laboratory equipment and workshop machines. The library has also installed the latest software for electronic and on-line access of its services by the users. The institution has been in the forefront in technical and vocational education and training in Kenya and within the region. The major achievement has been the capacity to design and deliver hands-on training that has continued to meet the needs of industry. This capacity has been inherited and enhanced by the long tradition of the Polytechnic approach to training. The high quality of training has ensured that those graduating from the University have been able to get employment with relative ease in both public and private sectors. The University graduates over 2000 students annually. The government institutions responsible for technical education and training continue to rely on the experience and expertise of TU-K in curriculum development and evaluation. All technical institutions in Technical and Vocational Education and Training (TVET) continue to look upon TU-K for leadership and guidance. Some of the major existing TVET institutions also trace their roots back to TU-K. The university has, in this regard established a Memorandum of Understanding with all the national Technical Training Institutes (TTIs) through the Kenya Association of Technical Training Institutes (KATTI) for collaboration in training and quality assurance. TU-K also continues to provide leadership for TVET in Africa as it still hosts the Secretariat of the Commonwealth Association of Polytechnics in Africa (CAPA). The University's main clients are students and the industry. The industry's involvement has covered curriculum development, research and development and Industry Based Learning (IBL), formerly referred to as industrial attachment for students and faculty as well as in critical support areas such as infrastructure development and provision of training equipment. In view of the fact that TU-K is currently offering degree programmes largely in the technological fields, industry participation has been broadened and specific strategies put in place to tap the resources. The University is also strengthening the alumni association to create a sustainable network with the industry. **Management Structure** http://tukenya.ac.ke/university-management-board **National Position** http://tukenya.ac.ke/tu-k-ranks-among-top-10
Mission of the university
To provide quality and innovative technological education and training

2. Financial information

Total annual budget	Kshs. 3.35B
% of annual budget government funded	58%
% of annual budget from tuition fees	40%
Briefly describe overall evolution of the budget	The budget has an increasing trend courtesy of the Institution's growth trend and investments in facilities, personnel, equipment and technologies

3. Human Resources

Total number of staff			Academic staff			Master degree holders in academic staff			PhD holders in academic staff		
Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
920	625	1545	442	283	725	225	165	388	120	63	183

Academic staff – student ratio :

	Certificate	Dip Tech	B.Tech	B. Sc	M. Sc	Ph.d
Medical & Health Sciences	16.8	14.4	12	9.6	7.2	4.8
Veterinary and Animal Sciences	19.2	16.8	14.4	12	9.6	7.2
Engineering Science & Technology	21.6	19.2	16.8	14.4	12	9.6
Pure and Applied Sciences	24	21.6	19.2	16.8	14.4	12
Applied Social Sciences	26.4	24	21.6	19.2	16.8	14.4
Humanities & Social Sciences	28.8	26.4	24	21.6	19.2	16.8

Teaching load (percentage of time of academic staff spent on teaching)

Teaching load of 1.0%

60% - Teaching

30% - Research

10% - Administrative

4. Education

Name Faculty	Name of School	Number of educational programmes (per level)			Number of students		
		Bachelor	Master	PhD	M	F	**Total**
Engineering Sciences and Technology	Architecture and the Built Environment (SABE)	8	0	2	1169	383	**1552**
	Electrical and Electronic engineering (SEEE)	2	1	1	916	157	**1073**
	Survey and Geospatial Studies (SSGS)	7	0	0	845	242	**1087**
	Infrastructure and Resource Engineering (SIRE)	2	0	1	1054	210	**1264**
	Mechanical and Process Engineering (SMPE)	6	1	2	1379	281	**1660**
Applied Sciences and Technology	Biological and Life Sciences (SBLS)	5	2	2	419	260	**679**
	Computer and Information Technology (SCIT)	3	0	1	474	138	**612**
	Health Sciences and Technology (SHST)	4	0	2	229	185	**414**

	Mathematics and Acturial Sciences (SMAS)	2	1	1	325	136	**461**
	Physical Sciences and Technology (SPST)	3	1	2	392	109	**501**
Social Sciences and Technology	Creative Arts and Technology (SCAT)	3	0	1	180	71	**251**
	Hospitality and Tourism Management (SHTM)	6	0	1	289	315	**604**
	Information and Communication Studies (SICS)	3	2	2	282	213	**495**
	Business and Management Studies (SBMS)	4	0	2	952	544	**1496**
	Social and Development Studies (SSDS)	3	1	0	222	195	**417**
	Total	**61**	**9**	**20**	**9127**	**3439**	**12566**

Please describe any important trends in student numbers and educational programmes.
Since 2008, enrolment of students in TU-Ks various programmes has been varied depending on a number of factors. In 2008, the Kenya Polytechnic had less than 1000 students, mostly pursuing diploma programmes. This number picked at 7600 in 2011/2012 when the Polytechnic transitioned into a University College and more academic programmes were actualized. A discontinuation of Diploma programmes saw admissions dip to 4000 in 2013. The trend changed in 2015 when diplomas were reintroduced. The lowest numbers were in 2017–2018 when only 2400 students were admitted. This was attributed to the introduction of new stringent measures in the moderation of secondary exam, the overall effect was that the majority of students barely made the pass mark for University admission. Enrolment has since reflected an upward trend partly due to introduction of Technical and Vocational Educational Training (TVET) programmes, and partly due to recovery of degree programmes. The number of educational programmes has continued to rise as departments formulate and launch new curricula.
Briefly describe the educational policy of the university, if any (e.g. quality assurance, doctoral schools). Please mention whether the university offers any distance education?
To achieve ts mission, TU-K is committed to high standards of teaching, research and scholarship towards a holistic education supported by practical training and commitment to the tenets of academic freedom, good corporate governance, high level of professionalism and respect for the environment. To guarantee this, the University has three main policies – the quality assurance policy, the research policy and post-graduate policy. TU-K periodically monitors and reviews processes and operations in compliance with the Quality Management System, the ISO 9001:2015 Standard, and the requisite statutory and regulatory requirements. The post-graduate policy provides a framework for staff development through training support and study funding. It also outlines modalities and processes to be followed in post-graduate studies, research ethics and quality benchmarks. The university is yet to offer any distance learning education.

5. Research

Briefly describe the research policy of the university (if any).
The Technical University of Kenya (TU-K) research operates as described in the Research Policy (version 1 Dated May 2015). Briefly the document outlines procedures that promote research at the university, the research procedures guidelines, and management systems. These guidelines apply to TU-K students, staff and research collaborators. The ethics on research conduct; academic and financial governance are also prescribed.
Briefly describe the availability of research funds.
Research funds are made available to staff as per the contractual agreement and timelines set out in the grant award by the funding agency. University research funds are treated as proprietary information; hence the level and types of funding would require non-disclosure agreements
Describe the current research performance of the university including publication outputs (both in terms of quantity and quality)
The University has registered significant increase in the publications since receiving award of charter in 2013. The current publication total is over three hundred and fifty (350) publications. The publication trend has been going upwards from 2010, picking at 90 publications in the year 2018 alone. The publications are disaggregated into 21 Books and Books Chapters, 364 Peer reviewed papers, 20 Conference/Workshop/Seminar/Proceedings, 4 Policies/reports/newsletters, 306 Projects and Business Plan, 30Thesis and Dissertations. One of the challenges that TU-K faces when it comes to publishing is inadequate access to literature materials to assist in research thus capacity building. The doctoral students lack adequate guidance and supervision when undertaking their research. Publishing in high impact scientific journals is still very low.

6. Outreach and internationalisation

External and international funded projects (last 5 year)					
Donor	Main department or faculty involved	Title & Objective of the project	Contact person	Budget amount	Period
EUROPEAN COMMISSION EDULINK	School of Creative Arts and Technologies (SCAT) School of Computing and Information Technology (SCIT) - School of Architecture and The Built Environment (SABE)	**ENERGISE** For curriculum development For capacity building For staff and students exchange program	DVC/API, Director School of Creative Arts and Technologies (SCAT)	Euro75,713.64 (plus additional co-financing)	2015 - 2018
DAAD	School of Creative Arts and Technology (SCAT)	**AUGSBURG PROJECT** Module Development for the Master Degree Course "Design and interactive media" at The Technical University of Kenya	Director School of Creative Arts Technologies (SCAT)	Euro23,663.97 (plus additional co-financing)	On going
GIZ	Faculty of Engineering Science and Technology (FEST) School of Surveying and Geospatial Sciences (SSGS)	**E4D SOGA** The university's partnership with politecnico di Milano facilitates staff and student exchange	Director School of Surveying and Geospatial Sciences	16,000 Man hours (ongoing)	The last four years

Explain whether the university has an international office (activities, budget, staff, etc.)
University has recently undertaken a restructuring and this office has been integrated in to a Networks, Partnerships and Developments Division.
Explain whether the university has an extension office or a Research and Technology Transfer (RTT) office / Tech Transfer Office (TTO)
University has a Research and Knowledge Exchange office, which works in direct contact with the University Secretary who is certified for patent applications and commercialization of innovations.

7. Infrastructure

Briefly describe the availability of Information and Communication Technology (ICT) and Information Services (IS) by providing data/information on the following topics	
Internet access	The University has a leased line Internet connectivity. There is an institutional email system available running on Exchange
Internet Speed	Internet connectivity is fibre-optic based with a bandwidth of 320 Mpbs
Wi-Fi access	Internal WIFI connectivity is available (65 Access points). The wifi is also available in the University hostels (interlinked to the main campus via a VPN).
Backbone	The network (LAN) is broadband, segmented into VLANs on a star topology. Users are served with the IT environment consists of 15 virtualized Servers which are a mixture of HP ProliantDL385 G7, HP ProLiant DL380 G8, ProLiant DL585 G7, Mac Mini, Mac Pro and HP ProLiant DL160 Gen8. The Operating Systems are Microsoft Windows Server 2008/ 2013 Enterprise edition, Linux and Mac OS in a virtualized environment.
Computer classes	3 Faculties are involved as follows: **Faculty** — **No. of Courses Taught** Faculty of Applied Sciences and Technology (FAST) — 379 Faculty of Engineering Science and Technology (FEST) — 57 Faculty of Social Sciences and Technology (FSST) — 115 **TOTAL** — **551** 4 computer labs are used for teaching and 3 classrooms
Number of computers	Desktops are approximately 700 (PCs and Macs/ Virtualized Desktop) for use by staff and Students. Students are encouraged to acquire their own laptops. The University utilizes a variety of Application packages, but mainly Office Applications. Several CADs are also used for learning and research in various departments. These include but limited to: ArcGIS, AutoCAD, SolidWorks, ArcView, MIDAS, Circuit Maker, ArchiCAD…. Licenced Anti-virus operational
Online learning platforms	<u>Distance Learning</u> Moodle Distance learning platform available but online programmes are yet to be rolled out. Remote access to e-resources <u>Staff Training</u> Conducted to introduce them to the e-resources, institutional repository, remote access to e-resources <u>Language centre</u> Not available
Library	*Infrastructure* - Library connected to internet. *Materials* - Both physical and electronic materials

	Cooperation with other libraries -The Library cooperates with other libraries especially benchmarking on areas they would like to improve on e.g. new system and software for improving services. Also members of professional bodies e.g. KLISK, KLA etc.
IT policies and governance	ICT Policies and governance, ICT Policies, ICT Security Policies, Maintenance policies, Acceptable User Policy, etc. are in draft form. Review, adoption and approval process in ongoing.
Briefly describe the availability of other adequate technological facilities (e.g. technology to collect data, technology/physical resources to deliver classes, libraries, laboratories, faculties, etc.)	
Other systems include Lecture capture systems and Video Conferencing systems	