

# KNOWLEDGE MANAGEMENT

FY 2014 / 2015

## NAIROBI TECHNICAL TRAINING INSTITUTE



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PERFORMANCE CONTRACT

FY 2014 / 2015

KNOWLEDGE MANAGEMENT

# KNOWLEDGE MANAGEMENT

## INTRODUCTION

Knowledge Management (KM) is the process of gathering, managing and sharing organization's knowledge as an asset. It involves the systematic process of finding, selecting, organising, distilling and presenting organization's information as a productivity asset. People, processes and technology are key components of Knowledge Management.

Knowledge sharing throughout the organisation enhances existing organisational business processes, introduces more efficient and effective business processes and removes redundant processes. It is a discipline that promotes a collaborative and integrated approach to the creation, capture, organisation access and use of an enterprise's knowledge assets.

KM has now become a mainstream priority for organizations of all sizes. Capturing an organization's most valuable Knowledge (asset) and distributing it effectively enhances productivity and organization's growth. KM helps an organisation to gain insight and understanding from its own experience.

Specific knowledge management activities help focus on organisation on acquiring, storing and utilizing knowledge for problem solving, dynamic learning, strategic planning and decision making. It also prevents intellectual assets from decay, adds to firm intelligence and provides increased flexibility.

Knowledge management, as a discipline can result in better achieving organization's objectives. The purpose of Knowledge Management in an organization is not only to become more knowledgeable, but also to be able to create, transfer and apply Knowledge for overall growth.



Nairobi Technical Training Institute at a Strategic Plan review workshop

## About Nairobi Technical Training Institute

Nairobi Technical Training Institute is a public tertiary institution under the Ministry of Education Science and Technology. The Institute receives full support from government through grants, training equipment and personnel.

The government has continually funded infrastructure development in various fields including Health and Applied Sciences, which is our Centre of Excellence. Currently the Institution is expanding existing Science laboratories to accommodate the ultra-modern equipment received from ADB through the GOK.

In addition, it has also funded the construction of a new Information Communication Technology Centre which is equipped with modern training facilities.

In collaboration with the government of the Netherlands, the Directorate is undertaking an intensive training for lecturers and refurbishment of Engineering departments so that they can offer market driven courses using modern equipment and technology.

The government has funded the construction of Engineering Workshops and Laboratories under the Economic Stimulus Implementation Programme which will help improve on the Engineering Training Services for the realization of Vision 2030.

The Institute is registered with the Kenya Universities and Colleges Central Placement Services (KUCCPS) which places students for various Diploma courses offered in the Institute. Upon placement, the Institute issues joining instructions to the successful applicants. Applications are sent directly to the placement body through their website: [www.kuccps.uonbi.ac.ke](http://www.kuccps.uonbi.ac.ke)

The Ministry of Education, Science and Technology has approved training in Higher National Diploma in the following courses: HND in Human Resource Management, HND in Food Science Technology (Quality control) and HND in Electrical Engineering (Power Option)

The Institute operates under a Quality Management System (QMS) that has enabled maintenance of high levels of performance. This has led to the Certification of the Institute on ISO 9001:2008 Quality Standards by the Kenya Bureau of Standards.



Electronics Lab in Electrical and Electronics Department

The Institution has established collaboration with German Agency for International Cooperation (GIZ), the University of Nairobi in the area of Health and Applied Sciences in capacity building for the teaching staff, Training partnership with Samsung Electronics through Samsung Engineering Academy for the training of Electrical and Electronic Engineering Diploma students and Training of Solar PV Technicians in collaboration with Kenya Renewable Energy Association (KEREAA) and Japan International Cooperation Agency (JICA)



Computer Laboratory - Information and Communication Technology Department

**Levels of Training: We admit students under three main levels namely;**

(i) Artisan course: Entry requirement is usually a KCSE Certificate and above. On qualifying at this level students can progress to the next level of Craft Certificate.

(ii) Craft Certificate Courses: (Modular Based). Minimum entry requirement to these courses is usually a KCSE mean grade D (plain) for Module One and PASS for Module Two. Upon completion of Certificate Courses, students can proceed to Diploma Courses.

(iii) Diploma Courses: (Modular Based). Entry requirements at this level is usually a KCSE mean grade C- (minus) and different cluster subjects for different courses.

(iv) Higher National Diploma courses: Entry qualifications to the HND level require completion of a relevant Diploma Course.

Currently, Nairobi Technical Training Institute has the following departments:

- |   |                                |
|---|--------------------------------|
| 1. Administration                       | 8. Institutional Management    |
| 2. Mechanical and Chemical Engineering  | 9. Liberal Studies             |
| 3. Health and Applied Sciences          | 10. Entrepreneurship Education |
| 4. Automotive Engineering               | 11. Library                    |
| 5. Electrical and Electronics           | 12. Games and Sports           |
| 6. Information Communication Technology | 13. Industrial Liaisons Office |
| 7. Business Studies                     | 14. Guidance and Counselling   |

## KNOWLEDGE AND RESOURCES IN DEPARTMENTS

### MECHANICAL & CHEMICAL ENGINEERING DEPARTMENT

#### 1. DEPARTMENT DETAILS

##### a) Section Names

- i. Plant
- ii. Production
- iii. Chemical

##### b) Staff

- i. 15 TSC Staff
- ii. 1 BOG Staff
- iii. 2 Technicians

#### 2. BRIEF HISTORY AND GROWTH OF THE DEPARTMENT

The department is as old as the Institute as there used to be metal works when it was a high school. With the introduction of 8-4-4 System of education Artisan courses began and later Craft courses were started. In the 90s Diploma in Mechanical Engineering Plant and Production options were introduced. Courses in Refrigeration & Air Conditioning together with Diploma in Chemical Engineering are also offered. Diploma in Petroleum Management is the new course in the department. The department offers both part time and regular courses

#### 3. EQUIPMENT AND FACILITIES IN THE DEPARTMENT

##### WELDING AND FABRICATION WORKSHOP

NO	ITEM	CURRENT STOCK	REMARKS
1	Lathe machines w/shop 3	6 units	Working
2	Lathe machines w/ 4	6 units	n/w
3	Milling machines	1 unit	Working
4	Pillar drilling machine	4 units	Working
5	Bench drilling machine	3 units	Working
6	Bench surface grinder	1 unit	Working
7	Classroom tables	1 unit	okay
8	w/shop benches	8 units	Okay
9	Sheet metal folding m/c big	1	Okay
10	Sheet metal rolling m/c	1	Okay
11	Sheet metal folding m/c small	1	Okay
12	Hydraulic pressing m/c small	1	Okay
13	Hydraulic pressing m/c big	1	Okay
14	Workshops bench vices	16 pcs	Okay
15	Bench shears small	1	Okay
16	Shearing m/c	2	Okay
17	Power hacksaw (old)	1	n/w
18	Power guillotine m/c	1	Working

19	Sheet metal notching m/c	1	Working
20	Pedestal grinding m/c	3	Working
21	Fume extractors	2	Okay
22	Oxy-acetylene gas cylinders(old)	1 unit	Okay
23	Arc welding m/c	2 units	Working
24	Welding benches	6	Okay
25	Oxy-acetylene gas cylinders(new)	2 set	Okay
26	Mig gas cylinders mig-mag gas	3	Okay
27	Mig m/c	2	Working
28	Tig m/c	1	Working
29	Spot welding m/c	1	Working
30	Manual charcoal blower	1	Okay
31	Arc welding rods m/c	1	Okay
32	Anvil	3	Okay
33	Carbon dioxide cylinders	2	Okay
34	Polishing m/c	1	Okay
35	Hole punching m/c (sheet metal)	1	Working
36	Surface plate	4	Okay
37	Bench grinder	1	Working
38	Swage block	1	Okay
39			

### MACHINE WORKSHOP

NO	ITEMS	CURRENT STOCK	REMARK
1	Lathe m/c (small)	2 units	Working
2	Lathe m/c (big)	2 units	Working
3	Surface grinding m/c	1 unit	Working
4	Power hacksaw	1 unit	Working
5	Universal milling m/c	1 unit	Working
6	Horizontal milling m/c	1 unit	Working
7	Vertical milling m/c	1 unit	Working
8	Tool grinding m/c	1 unit	Working

9	Soft metal cutting m/c	1 unit	Working
10	Hardness testing m/c	1 unit	Working
11	Tool rags	3 unit	Okay
12	Pedestal grinding m/c	1 unit	Working
13	Pillar drilling m/c	1 units	Working
14	Shearing m/c	1 units	Okay
15	Kiln m/c	1 unit	Okay
16	Vertical band machine	1 unit	Working
17	Horizontal band machine	2 units	Working
18	Manual press (bench)	1 u nit	Okay
19	Material rolling stands	3 units	Okay
20	Surface plates	2 units	Okay
21	Workshop bench	4 units	Okay
22	Bench vices	7 units	Okay
23	Anvil	1 unit	Okay
24	Tools trolley	1 unit	Okay

#### 4. COURSES AND TRAINING IN THE DEPARTMENT

- Diploma in Mechanical Engineering – PLT TEP
- Diploma in Mechanical Engineering – Module 1 & 2
- Diploma Chemical Engineering
- Diploma in Refrigeration and Air Conditioning
- Diploma in Petroleum Management
- Diploma in Engineering by City & Guilds
- Craft in Mechanical Engineering
- Certificate in Plumbing Grade 3
- Certificate in Mechanical fitting Grade 3
- Short course on HC conversion by GIZ/MEWNR

#### 5. WAY FORWARD AND FUTURE DEVELOPMENT PLANS FOR THE DEPARTMENT

The Department intends to:

- Increase enrolment in all the courses in the department
- Launch New Courses like Solar Water Heating, Biogas Technology
- Increase collaborations with other Institutes within and out of the country
- Continue its training on safe use of Hydrocarbon Refrigerants.

# HEALTH & APPLIED SCIENCES DEPARTMENT

## 1. DEPARTMENT DETAILS

### Section Names

- a) Analytical Chemistry
- b) Applied Biology
- c) Food Technology
- d) Science Laboratory Technology
- e) Medical Laboratory Technology

### f) Pharmaceutical Technology

### Staff

- a) 31 TSC Staff
- b) 13 BOG Staff
- c) 3 Technicians
- d) 3 Non-Teaching Staff

## 2. BRIEF HISTORY AND GROWTH OF THE DEPARTMENT

The Department started offering Certificate course in Science Laboratory Technology in 1990. In the year 1996 Diploma courses were started in Analytical Chemistry and Applied Biology, later in the year 2000 the department started offering Health courses in Pharmacy and Medical Laboratory Technology. Over the years the department has grown from strength to strength having a new course in Food Technology in 2005.

The department is one of the country's Centres of Excellence (CoE) identified by the Ministry of Education Science and Technology in 2007. Since then, the department has acquired State of the Art equipment from the Government, the African Development Bank, among other Financiers. Since inception, the department has graduated 1,314 student trainees in the various disciplines.

- Diploma in Pharmaceutical Technology
- Diploma in Medical Laboratory Technology
- Diploma in Food Technology
- Diploma in Applied Biology
- Diploma in Analytical Chemistry
- Craft Certificate in Science Laboratory Technology.

Our graduates are absorbed in Research Institutions, in Hospitals, in Food and Beverage Industries, in Medical Laboratories and Learning Institutions, both in the private and Public sectors.

All the Diploma graduates are eligible to further their studies in Bachelor of Science degree in their areas of specialization. Successful certificate graduates can pursue a KNEC Diploma course in any of the following areas;

- Food Technology
- Applied Biology or
- Analytical Chemistry

Both Pharmaceutical Technology and Medical Laboratory Technology are Registered with the regulatory bodies i.e. Pharmacy and Poisons Board (PPB) and Kenya Medical Laboratory Technicians and Technologist Board (KMLTTB) respectively.

The department has highly qualified, vibrant and self-motivated staff with varying areas of specialization.

The future prospects of the department are to establish a research laboratory, a public medical facility for diagnosis and a dispensing pharmacy.



### 3. COURSES AND TRAINING IN THE DEPARTMENT

- 1) Diploma in Analytical Chemistry
- 2) Diploma in Applied Biology
- 3) Diploma in Food Technology
- 4) Certificate in Food Technology
- 5) Certificate in Science Laboratory Technology
- 6) Diploma in Medical Laboratory Technology
- 7) Certificate in Medical Laboratory Technology
- 8) Diploma in Pharmaceutical Technology

### 4. EQUIPMENT AND FACILITIES IN THE DEPARTMENT

NAME OF EQUIPMENT	QUANTITY	CURRENT CONDITION
BIOSAFETY CABINET (AIR STRAM)	2	WORKING
TEACHING MICROSCOPE	2	WORKING
CENTROGRAM 0.01-311 Grams	5	WORKING
THERMOSTAT WATER BATH	4	WORKING
ANALYTICAL BALANCE	6	WORKING
PH METER	3	WORKING
FLAME PHOTO METER	3	WORKING
INCUBATOR	7	WORKING
TALLY COUNTER	2	WORKING
MICROPIPETTE	10	WORKING
MICROSCOPE BINOCULAR QS100	20	WORKING
MEAT MINCER	1	WORKING
MEAT CHOPPER	2	WORKING
SAUSAGE STUFFER	1	WORKING
GAS TABLE TOP BURNER	2	WORKING
BAKING TINS ASSORTED	30	WORKING
COOLING SHELVES	2	WORKING
COOLING FAN	1	WORKING
JUICE EXTRACTOR	1	WORKING
PULLER (juice finisher)	1	WORKING
BLENDER	3	WORKING

SIEVES ASSORTED SET	SET	WORKING
DEIONISER HUMAPURE	2	WORKING
VISCOMETER FALLING SPHERE		WORKING
OSCILLOSCOPE	2	WORKING
BAROMETER DIAL	2	WORKING
MICROMETER SCEW GAUGE	10	WORKING
UV LAMP	1	WORKING
VORTEX MIXER	3	WORKING
LOVIBOND COMPARATOR	1+5	WORKING
CHLORINE TEST DISK	1	WORKING
LAC MUFFLE FURNACE	2	WORKING
DISINTEGRATION TEST APPARATUS	2	WORKING
FLIABILITY TEST	2	WORKING
BATCH MIXER	1	WORKING
BUTTER CHURN	1	WORKING
BLOOD MIXER	2	WORKING
AIR CONDITIONER	4	WORKING
DEEP FREEZER	2	WORKING
DISSECTING MICROSCOPE	10	WORKING
COAXIL CABLE	1	WORKING
FIRE EXTINGUISHER	6	WORKING
GLUCOMETER	2	WORKING
HOMOGENIZER MACHINE	1	WORKING
ICE CREAM MACHINE	1	WORKING
MICRO HEMATOCRIT CENTRIFUGE	1	WORKING
PUFFING MACHINE	1	WORKING
REFRIGERATOR	1	WORKING
SOXHLET EXTRACTOR	3	WORKING
ELECTROPHORESIS MACHINE	1	WORKING

STANDARDIZER MACHINE	1	WORKING
VACUUM PUMP	1	WORKING
VDRL SHAKER 1W 210	2	WORKING
UPS 650V 1.7	3	WORKING
WATER TANK 10,000 LTRS	1	WORKING
WATER BATH 22L	1	WORKING
ARGO SHIELD CYLINDER	1	WORKING
WATER BATH BM 402 (30LTRS)	4	WORKING
BAKING OVEN	1	WORKING
PASTEULIZER	1	WORKING
KYMOGRAPH	1	WORKING
High performance (Pressure) Liquid chromatography (HPLC)	1	WORKING
HPLC Training Costs	1	WORKING
UV -VIS Detector	1	WORKING
Fluorescence detector	2	WORKING
Refractive Index Detector	1	WORKING
Ultrasonic bath transonic, Digital	3	WORKING
HPLC Mobile Phase Filtration Apparatus	1	WORKING
UPS for HPLC	3	WORKING
Columns and other accessories		WORKING
HPLC DataApex Clarity Lite Software		WORKING
Heating Mantles		WORKING
Rotary Evaporator With Vacuum Pump		WORKING
Electrophoresis Unit		WORKING
Melting Point Apparatus		WORKING
Soxhlet Extraction Apparatus		WORKING
Magnetic Stirrer Hotplate		WORKING
Conductivity Apparatus		WORKING
UV-VIS Spectrophotometer		WORKING

Organ Bath		WORKING
Horizontal Lamination Flow Cabinet		WORKING
PCR Machine		WORKING
Ultra-Pure Water Purification System		WORKING
Thermoblock Part No. 7001740	2	WORKING
Stirred Water Bath	2	WORKING
Conductivity Meters	2	WORKING
DEAE column (Sephadex)	1	WORKING
Orbital Shaker Incubator	2	WORKING
Shaking water bath	2	WORKING
ELISA Reader	1	WORKING
Block Digester	1	WORKING
Test Sieves	2	WORKING
Digidoc-IT Imaging System	1	WORKING
Autoclave	2	WORKING
Inverted Microscope	2	WORKING
Laboratory Fermenter	1	WORKING
Fluorescent microscope	2	WORKING
Incubator for Bacteriology & Cell Culture	2	WORKING
Freeze Dyer	1	WORKING
Cryostat	1	WORKING
Refrigerated centrifuge	1	WORKING
Ultra-Centrifuge Part No. 700136	1	WORKING
Tissue processors	1	WORKING
Floatation baths	2	WORKING
Electroscope	2	WORKING
Conductivity Apparatus	1	WORKING
Intermediate Spectrometer	2	WORKING
Kymograph	2	WORKING

Dissolution Rate Test Apparatus	2	WORKING
Sausage Stuffer	3	WORKING
Meat Chopper	2	WORKING
Ice Maker	2	WORKING
Viscometer	2	WORKING
Refrigerator/ Freezer	2	WORKING

#### 5. WAY FORWARD AND FUTURE DEVELOPMENT PLANS FOR THE DEPARTMENT

The future prospects of the department are to establish a research laboratory, a public medical facility for diagnosis and a dispensing pharmacy.

# AUTOMOTIVE DEPARTMENT

## 1. DEPARTMENT DETAILS

### Staff

- a) 9 TSC Staff
- b) 2 BOG Staff
- c) 2 Technicians

## 2. BRIEF HISTORY AND GROWTH OF THE DEPARTMENT

The current student enrolment stands at 142 males and 5 females making a total of 147. The courses attract few female students. The female students are encouraged to enrol for Engineering courses since they stand high chances of getting employment faster than their male counterparts.

The department has been equipped with tools and equipment from Netherlands-Devotra through the initiative of the Kenyan Government. The equipment has made the quality of training to improve. The institute has also supplemented in supplying the equipment and materials needed for training.

### Challenges

- The Automotive courses attract few female students
- There is low enrolment of female students. The ratio of male lecturers to female lecturers is zero.
- Lack of enough resources to enhance innovations in the department

## 3. COURSES AND TRAINING IN THE DEPARTMENT

- Diploma in automotive Engineering (modular)-KNEC
- Craft Certificate in Automotive Engineering (modular)-KNEC
- Artisan Certificate in Motor Vehicle Mechanics-KNEC
- National Industrial Training Authority (NITA)-Grade Test Examinations
- Diploma and Certificate courses by City and Guilds

## 4. EQUIPMENT AND FACILITIES IN THE DEPARTMENT

The department has a spacious workshop of 24m x 23m which is able to accommodate a good number of tools and equipment. It has also an office for the HOD, Staffroom and tools stores.

The equipment and machines in the department include the following:

SNO.	Name of equipment/Machine
1	Workbench 2150x950x865 mm
2	Engine / Petrol Engine 4-Cylinder
3	Cylinder compression tester
4	Tool cabinet, 4 drawers, 870x5
5	Engine / Diesel Engine 4-Cylinder
6	Engine valve grinder
7	Engine valve seat boring kit
8	Tool storage cabinet
9	Parts cleaning tank
10	Valve and clutch spring tester
11	Brake bleeding unit
12	Brake and parts cleaner
13	Brake tool kit
14	Garage jack, 3.0 MT
15	Tyre repair kit, cold
16	Tyre testing tank
17	Pneumatic drill, portable, 10
18	Tyre inflation gauge
19	Air filter with regulator

20	Tyre inflation gauge
21	Voltmeter, 30 V
22	Tyre changer, cars
23	In-line spark plug tester
24	Head light tester
25	Starter/charger 12 and 24 V
26	Battery service tool kit
27	Low loading trolley
28	Soldering iron, 100 W
29	Digital automotive analyser
30	Engine diagnostic unit
31	Inspection lamp, neon tube, 8
32	Cooling system analyser
33	Cylinder compression tester
34	Digital automotive analyser
35	Spark plug cleaner and tester
36	Engine stethoscope
37	4 gas emission tester
38	Grease gun, lever type
39	Grease gun, push type
40	Lubrication pump, pneumatic
41	Oil dispenser, portable
42	Drum pump, manual
43	Air filter with regulator
44	Tool storage cabinet, wheels
45	Vacuum cleaner, wet and dry, 2
46	High pressure cleaner
47	Pneumatic drill, portable, 10
48	Body straightening kit, 100 KN
49	Sand blasting gun, pneumatic
50	Garage jack, 3.0 MT
51	Tool storage cabinet, wheels a
52	Storage cabinet, 2000x1000x300
53	Paint drying panel
54	Storage can
55	MIG Welding Machine
56	Cylinder hone set, 25-57 mm
57	Cylinder honing set, 51-177 mm
58	Car lift, 3.5 Ton
59	Transmission jack, high lift
60	Oil drain unit
61	Portable crane
62	Garage jack, 3.0 MT
63	Transmission jack, low lift
64	Hydraulic workshop press,
65	Arbor press, 20 kN
66	Air compressor, 1300 l/min
67	Pillar drilling machine, 28 mm
68	Pedestal grinder , 200 mm
69	Pedestal grinder , 300 mm
70	MMA Welding Machine
71	Workbench for AC/DC welding
72	Combined welding & cutting out - oxy-acetylene welding
73	Workbench for oxy-acetylene welding
74	Wheel balancer
75	Low lift trolley, 20 kN

76	Four stroke petrol engine model
77	Two stroke petrol engine model
78	Four stroke diesel engine model
79	Single disc clutch model
80	Gearbox model
81	Differential model
82	Planetary gear model
83	Torque converter model
84	Steering mechanism model
85	Rack and pinion steering model
86	Hydraulic dual circuit brake
87	Diesel injection element model
88	In-line injection pump model
89	Distributor and injection pump
90	Carburettor model
91	Fuel feed pump model
92	Turbocharger model
93	Alternator model
94	Generator model
95	Starter motor
96	Battery model
97	Ignition model
98	Auto electrical model, showing
99	Storage cabinet, 2000x1000x300
100	Air filter with regulator and
101	Air lubricator
102	Air blow gun, 1/4" BSP
103	Angle grinder, 125 mm
104	Pneumatic drill, portable, 10
105	Bottle trolley jack, 100 kN
106	Soldering iron, 300 W
107	Fire extinguisher
108	Storage cabinet, 2000x1000x300
109	Exhaust pipe service kit
110	Storage cabinet, 2000x1000x300
111	Engine stethoscope
112	Digital automotive analyzer
113	Mechanical tachometer, 9999 rpm
114	Digital tachometer
115	Cooling system analyzer
116	Coolant tester
117	Thermometer, infrared
118	Compression tester, diesel
119	Compression tester, petrol

## 5. WAY FORWARD AND FUTURE DEVELOPMENT PLANS FOR THE DEPARTMENT

- Market the courses offered and encourage female students to join the courses to increase their chances of employment opportunities.
- The department plans to start a driving school as part of the curriculum implementation and also use the school as one of the strategies to raise revenue for the department.
- The vehicle services intended to be offered to the customers would include vehicle repair and maintenance, panel beating and spray painting, car washing and vacuuming.



# ELECTRICAL AND ELECTRONIC ENGINEERING DEPARTMENT

## 1. DEPARTMENT DETAILS

### Section Names

- a) Electrical Power
- b) Electronics

### Staff

- a) 21 TSC Staff
- b) 1 BOG Staff
- c) 2 Technicians
- d) 1 Non-Teaching Staff

## 2. BRIEF HISTORY AND GROWTH OF THE DEPARTMENT

The Department has two main sections, namely:

- a) Electrical Power Section
- b) Electronics Section

The courses offered in the Department are at Artisan, Craft Certificate and Diploma levels and are examined by Kenya National Examinations Council (KNEC) and City & Guilds International. We are also a registered Center for the Directorate of Industrial Training Grade III Electrical Wireman and Electrical Fitter examinations. We cater for students who wish to pursue their courses in Full-time, Part-time and Evening programs. The department has a Staff of twenty one Lecturers, two Technicians and a population of over 600. We have fully embraced the new revised Modular syllabus for both the Certificate and Diploma Courses in Electrical Engineering.

The Department together with its sister engineering Departments of Automotive and Mechanical Engineering have been the beneficiaries of the KENYA – NETHERLANDS Technical Support Project. This has been in the form of refurbishment of the workshops and the installation of large quantities of modern equipment. Lecturers in these departments have also undergone training in the use of this equipment. This has enhanced the capacity of the department to effectively offer a wide range of courses including tailor made ones for special groups.

In response to market demands, the department has been offering evening courses for Certificate and Diploma Electrical Power students drawn from the job market since 2007 with significant success. The majority of these evening students have been from Kenya Power.

The Department was approved to offer Photo-Voltaic Solar training courses which commenced in December 2013. This training was enhanced in September 2014 when the Institute signed a Memorandum of Understanding with the Kenya Renewable Energy Association (KEREAA) which subsidized the fee for the trainees. The main donor was USAID. The Institute has also forged a partnership with Strathmore University for PV Solar training.

## 3. COURSES AND TRAINING IN THE DEPARTMENT

- 1) Diploma in Electrical and Electronic Technology - Power Option (Modular)
- 2) Diploma in Electrical and Electronic Technology - Telecommunication Option (Modular)
- 3) Diploma in Electrical and Electronic Technology - Instrumentation and Control Option (Modular)
- 4) Certificate in Electrical and Electronic Technology - Telecommunication Option (Modular)
- 5) Certificate in Electrical and Electronic Technology - Power Option (Modular)
- 6) Certificate in Electrical Installation
- 7) Certificate in Photo-Voltaic Solar

#### 4. EQUIPMENT AND FACILITIES IN THE DEPARTMENT

##### A. ELECTRONICS SECTION

S/No	Item Description	Serial No.	QTY	Brand/Model	Remarks
1.	0-30V Digital Power Supply		1		Good condition
2.	Soldering Re-work station		2		Good condition
3.	Dual trace oscilloscope		6		Good condition
4.	Function Generator	FG 321	2		Good condition
5.	S-Link DSH 16 Hub		1		Good condition
6.	Digital satellite		1		Good condition
7.	300V Power supply pack		1		Good condition
8.	Strobe scope		2		Good condition
9.	Bread board		24		Good condition
10.	Networking punch down		1		Good condition
11.	Screw driver - flat		6		Good condition
12.	Combination Pliers		7		Good condition
13.	Pliers – side cutters		8		Good condition
14.	Pliers – Long nose		10		Good condition
15.	Wire Brushes		11		Good condition
16.	Soldering iron stands		10		Good condition
17.	Solder sucker		10		Good condition
18.	Tweezers		4		Good condition
19.	Magnifying glass		1		Good condition
20.	U- Magnet		1		Good condition
21.	Magnet Pick up		1		Good condition
22.	Wire Strippers		5		Good condition
23.	Micrometer screw gauge		1		Good condition
24.	Vernier calipers		1		Good condition
25.	Battery carrier		1		Good condition
26.	Allen keys wrench set		2		Good condition
27.	Hammer copper face		2		Good condition
28.	Hammer soft face		2		Good condition
29.	Punch Prick - Automatic		1		Good condition
30.	Punch Pin set		1		Good condition
31.	Oil can		1		Good condition
32.	Pop riveter		1		Good condition
33.	Tap Wrenches		1		Good condition
34.	Gauge Drill sharpener		2		Good condition
35.	Counter sink 80"		1		Good condition
36.	Counter sink rose type		1		Good condition
37.	Power Bits		4		Good condition
38.	Bench Drill Power bits		1		Good condition
39.	Plastic Tuning set		2		Good condition
40.	Robotics conveyor Kit		1		Good condition
42.	Robotics stack magazine kit		1		Good condition
43.	Robotics Handling Kit		1		Good condition
44.	Single cylinder Mini compressor		1		Good condition
45.	0-30V Digital Power Supply		1		Good condition

46.	Soldering Re-work station		2		Good condition
47.	Dual trace oscilloscope		6		Good condition
48.	Function Generator	FG 321	2		Good condition
49.	S-Link DSH 16 Hub		1		Good condition
50.	Digital satellite		1		Good condition
51.	300V Power supply pack		1		Good condition
52.	Strobe scope		2		Good condition
53.	Bread board		24		Good condition
54.	Networking punch down		1		Good condition
55.	Screw driver - flat		6		Good condition
56.	Combination Pliers		7		Good condition
57.	Pliers – side cutters		8		Good condition
58.	Pliers – Long nose		10		Good condition
59.	Wire Brushes		11		Good condition
60.	Soldering iron stands		10		Good condition
61.	Solder sucker		10		Good condition
62.	Tweezers		4		Good condition
63.	Magnifying glass		1		Good condition
64.	U- Magnet		1		Good condition
65.	Magnet Pick up		1		Good condition
66.	Wire Strippers		5		Good condition
67.	Micrometer screw gauge		1		Good condition
68.	Vernier calipers		1		Good condition
69.	Battery carrier		1		Good condition
70.	Allen keys wrench set		2		Good condition
71.	Hammer copper face		2		Good condition
72.	Hammer soft face		2		Good condition
73.	Punch Prick - Automatic		1		Good condition
74.	Punch Pin set		1		Good condition

**ELECTRONICS LABORATORY  
DEVOTRA TRAINING KITS: LABORATORY WORK STATION SET UP**

S No.	ITEM DESCRIPTION	CODE	QTY	REMARKS
1	Working Table	Nil	7	Good Condition
2	Teachers Chair	Nil	1	Good Condition
3	Student Stool	Nil	23	Good Condition
4	Projector Screen Display	Nil	1	Good Condition
5	Dell Projector	1210s	1	Good Condition
6	Colour Television Trainer	B4431	1	Good Condition
7	Power Electronics Trainer	B3600	1	Good Condition
8	Workstation	B1181-Ws	6	Good Condition
9	Electron Oscilloscope Hz4318	B12ao	2	Good Condition
10	RF Signal Generator	Rsg-17	6	Good Condition
11	Digital Multimeter	My68	6	Good Condition
12	HP-Compaq Monitor	Le1711	7	Good Condition
13	HP Pro C.P.U	537533-001	7	Good Condition
14	HP Mouse	Nil	7	Good Condition
15	HP Key Board	P/N539130	7	Good Condition
16	HP Printer 8500a	Cm756-64001	7	Good Condition

**DEVOTRA TRAINING KITS  
CABINET A**

S No	ITEM DESCRIPTION	CODE	QTY	REMARKS
1	BASIC ELECTRONICS TRAINER PART 1 OF 2	B1110	4	GOOD CONDITION
2	BASIC ELECTRONICS TRAINER PART 2 OF 2	B1110	4	GOOD CONDITION
3	STEREO HI-FI TRAINER	B4410B	1	GOOD CONDITION
4	DIGITAL ELECTRONICS TROUBLE SHOOTING	B1150D	1	GOOD CONDITION
5	ANALOG ELECTRONICS TROUBLE SHOOTING	B1150	1	GOOD CONDITION
6	FM RADIO RECEIVER EXPERIMENTS	B4220BB	1	GOOD CONDITION
7	FM/PM RADIO TRANSMITTER EXPERIMENTS	B420AB	1	GOOD CONDITION
8	AM/DSB RADIO TRANSMITTER EXPERIMENTS	B4200 A B	1	GOOD CONDITION
9	AM/DSB RADIO RECEIVER EXPERIMENTS	B4201A B	1	GOOD CONDITION
10	ADVANCED ELECTRONICS TRAINER	B1115	2	GOOD CONDITION
11	ANALOG PULSE SIGNAL CONVERTERS	B1140	1	GOOD CONDITION
12	PHASE LOCKED LOOP CIRCUIT	B30160 B	1	GOOD CONDITION
13	EVENT COUNTER TRAINER	B4351 P	2	GOOD CONDITION
14	NETWORKS AND FILTER CIRCUIT	B4120B	1	GOOD CONDITION
15	FIBER OPTIC TRAINER	B4530Y	1	GOOD CONDITION
16	TELEPHONE LINE SIMULATOR	B4680	1	GOOD CONDITION
17	BASIC TELECOMMUNICATION CIRCUITS	B4110B	1	GOOD CONDITION
18	POWER ELECTRONICS TROUBLE SHOOTING	B1150P	1	GOOD CONDITION
19	SEMICONDUCTOR MEMORIES TRAINER	B1140 MEM	1	GOOD CONDITION
20	DSB/SCB BASIC EXPERIMENTS	B4150B	1	GOOD CONDITION
21	FM/PM BASIC EXPERIMENTS	B4141B	1	GOOD CONDITION
22	AM BASICS EXPERIMENTS	B4130B	1	GOOD CONDITION
23	FDM FREQUENCY DIVISION MULTIPLEX	B4260B	1	GOOD CONDITION
24	DIGITAL TRANSMISSION ANALOG SIGNALS	B43SI	1	GOOD CONDITION
25	DIGITAL SIGNALS MODULATION	B43S2	1	GOOD CONDITION

**DEVOTRA TRAINING KITS  
CABINET B**

S/No	ITEM DESCRIPTION	CODE	QTY	REMARKS
1	AM/FM RADIO RECEIVER TRAINER	4415	1	Good Condition
2	TV/SATELLITE LEVEL METER	B44MC577	1	Good Condition
3	PAL TV PATTEERN GENERATOR	B44CPG1367	1	Good Condition
4	TELEPHONE LINE TESTER	B4685	1	Good Condition
5	TV ANTENNA TRAINER	4450	1	Good Condition
6	MICROPROCESSOR TRAINER	B5100	2	Good Condition
7	P.L.C WITH POWER SUPPLY	B3729	1	Good Condition
8	UNIVERSAL P.L.C WITH POWER SUPPLY	B3730	1	Good Condition
9	ANALOGUE ELECTRONICS DEVELOPMENT WORKSTATION	B1136	2	Good Condition
10	TELEPHONY TRAINER	B4610	1	Good Condition
11	TELEPHONE SET	B422A	1	Good Condition
12	POWER ELECTRONICS TRAINER	B4192	2	Good Condition
13	INDUSTRIAL ELECTRONICS TRAINER	B3601	1	Good Condition
14	BASIC ELECTRICITY & ELECTRONICS TRAINING SYSTEM	B1103	2	Good Condition
15	TRANSMISSION LINE ADVANCED COMMUNICATION	B4510	1	Good Condition

## DEVOTRA TRAINING KITS

### CABINET C

S No.	ITEM DESCRIPTION	CODE	QTY	REMARKS
1	TEMPERATURE CONTROL TRAINER	B3510A	1	Good Condition
2	STRAIN GAUGE TRAINER	B3510G	1	Good Condition
3	DC MOTOR SPEED CONTROL TRAINER	B3510G	1	Good Condition
4	SOUND AND VIBRATION TRANSDUCER APPLICATION TRAINER	B3510H	1	Good Condition
5	ULTRASONIC TRANSDUCER APPLICATION TRAINER	B35011	1	Good Condition
6	AIR FLOW MEASUREMENT TRAINER	B3510M	1	Good Condition
7	DIFFERENTIAL POSITION ENCODER TRAINER	B3510N	1	Good Condition
8	ROTATIONAL POSITION ENCODER TRAINER	B3810P	1	Good Condition
9	LINEAR VARIABLE DIFFERENTIAL TRANSFORMER	B3510Q	1	Good Condition
10	AC MOTOR CONTROL TRAINER	B3510S	1	Good Condition
11	STEPPER MOTOR CONTROL TRAINER	B3510T	1	Good Condition
12	FM MICRO RECEIVER KIT	B2300K 1	1	Good Condition
13	AM RECEIVER KIT	B2300K3	1	Good Condition
14	FM MICRO RECEIVER KIT	B2300K 3	1	Good Condition
15	2W AUDIO AMPLIFIER KIT	B2300K4	1	Good Condition
16	1-2W AUDIO MICRO AMPLIFIER KIT	B2300K5	1	Good Condition
17	STAIRCASE GENERATOR KIT	B2300K6	1	Good Condition
18	TRANSISTOR TESTER KIT	B2300K7	1	Good Condition
19	BLINKER KIT	B2300K8	1	Good Condition
20	ANALOG MULTIMETER	B2300K9	1	Good Condition
21	FM TRANSMITTER KIT	B2300K10	1	Good Condition
22	ANALOG MULTIMETER	7080	3	Good Condition
23	COMPUTER SERVICE TOOL KIT	B125Y815	2	Good Condition
24	CD/DVD PLAYER TRAINER	B4425	1	Good Condition

## B. INSTALLATION SECTION

### INSTALLATION SECTION - EQUIPMENT

NO	ITEM DESCRIPTION	QTY	REMARKS
1	Auger bits	7	Good
2	Ratchet brace	5	4 Broken
3	Bending machine	3	1 Broken
4	Chisel bevel edged	7	Broken
5	Electrical drill (portable)	1	Winding problem
6	Hand drill	2	Handles broken
7	Dividers spring	5	Good
8	File	6	No handles
9	Grinding wheel dresser	1	Good
10	Goggles safety	1	Good
11	Hacksaw flames	10	2 Broken
12	Hammer ball pain	12	Good
13	Hammer cross pain	2	Good
14	Kilowatt hour meter (single phase)	10	Good condition
15	Three phase motor	6	3 winding problem
16	Single phase motor	4	2 winding problem
17	Earth insulation tester (megger) Analogue	1	Working
18	Oil can	2	1 Broken pump
19	Plumb bob line	2	Not complete
20	Bending spring	12	8 Not good

21	Punch marking letters	1	Good
22	Punch marking numbers	1	Good
23	Power bits	6	Good
24	Combination pliers	4	2 Broken
25	Steel rule	37	Good
26	Reamer	1	Good
27	Screwdriver flat	25	Good
28	Snip compound level (Sheers)	2	Broken
29	Masonry square	4	Good
30	Screw driver bit set	19	Good
31	Tri-square	7	Good
32	Tap and die set	1	Not complete
33	Vice pipe tripped (movable)	2	Broken
34	Wire brush	1	Good
35	Punch hollow center	7	Good
36	Twist drill set	2	No drill bits intact
37	Bolt cutter	1	Good condition
38	Straight edge rule	1	Good
39	Drilling machine Electrical (Bench)	1	Working
40	Grinder bench	1	Dismantled
41	Spirit-level	11	Good
42	Earth insulation tester (megger)Digital	1	Good
43	Solar panels (Modules)	6	Good
44	Power Inverter (300/600W)	8	Good
45	Solar Battery	5	4 Not charging
46	Charge controller 6A	8	Good

#### INSTALLATION SECTION: DEVOTRA EQUIPMENT

S/No	LOT NO	ITEM DESCRIPTION	SERIAL NO	QTY	REMARKS
1	L09.01.08.01	Line simulator	A29IDLE2	1	Good condition
2	L09.01.02.01	Power supply	A0245	6	Good condition
3	L09.01.10.03	Cutter	A3350	1	Good condition
4	L09.01.10.02	Stator support	A3340	1	Good condition
5	L09.01.10.01	Coil winder hand operated	A3310C	1	Good condition
6	L09.01.13.20	Brake generator	A4430S	1	Good condition
7	L09.01.13.19	Eddy currents brake	A4420S	1	Good condition
8	L09.01.13.12	Two speed motor	A4224S	1	Good condition
9	L09.01.13.13	Capacitor motor	A4232S	1	Good condition
10	L09.01.13.08	Squirrel cage motor	A4220S	1	Good condition
11	L09.01.13.17	DC shunt excitation motor-generator	A4244S	1	Good condition
12	L09.01.13.16	DC series excitation motor-generator	A4242S	1	Good condition
13	L09.01.13.14	Universal motor	A4234S	1	Good condition
14	L09.01.13.11	Synchronous motor	A4223S	1	Good condition
15	L09.01.13.10	Slip ring motor	A4222S	1	Good condition
16	L09.01.07.01	Under-over current relay (Analogue)	A2651	1	Good condition
17	L09.01.07.05	Capacitor bank	A2685	1	Good condition
18	L09.01.13.23	Capacitive load	A4520S	1	Good condition
19	L09.01.05.01	Contactora	A21M210A	1	Good condition
20	L09.01.05.02	Contactora	A21M210B	1	Good condition
21	L09.01.13.24	Inductive load	A4530S	1	Good condition
22	L09.01.02.10	Reversing switch	A12C1/1B	1	Good condition
23	L09.01.02.10	Reversing switch	A12C1/2B	1	Good condition
24	L09.01.02.12	Millivolt meter	A12SLD-E/VCC	1	Good condition
25	L09.01.02.11	Galvanometer	A12SLD-	1	Good condition

			E/G		
26	L09.01.06.03	Residential installation kit	A2421	6	Good condition
27	L09.01.07.03	Earth fault relay (Analogue)	A2653	1	Good condition
28	L09.01.13.05	Three phase transformer	A4115S	1	Good condition
29	L09.01.07.02	Under-over voltage relay (Analogue)	A2652	1	Good condition
30	L09.01.05.09	Signaling lamps	A21M240	2	Good condition
31	L09.01.03.05	Differential protection single phase	A21M012-1	1	Good condition
32	L09.01.13.31	Stroboscope (Digital)	A4726/DT-2239A	1	Good condition
33	L09.01.13.04	Single phase transformer	A4110S	1	Good condition
34	L09.01.13.44	Flywheel	A4885M	1	Good condition
35	L09.01.04.13	Intercom	A21M170 1×(1+E)	1	Good condition
36	L09.01.09.02	Consumable for motor kit (small power)	A3110COS	1	Good condition
37	L09.01.06.05	Industrial installation kit	A2431	6	Good condition
38	L09.01.13.30	Tachometer (Digital)	A4725/DT22 34B	1	Good condition

S No.	LOT NO	ITEM DESCRIPTION	SERIAL NO	QTY	REMARKS
39	L09.01.02.09	Linear rheostats 500Ω 320w	A12RHd	1	Good condition
40	L09.01.13.27	Starting rheostat for three phase motors	A4620S	1	Good condition
41	L09.01.02.09	Linear rheostats 650Ω 320w	A12RHc	1	Good condition
42	L09.01.02.09	Linear rheostats 100Ω 160w	A12RHa	2	Good condition
43	L09.02.18.10	Position control	B3510J	1	Good condition
44	L09.01.11.01	Stator and rotor (Polarity) tester	A3870	1	Good condition
45	L09.ad6	Digital Multimeter	MY-68	6	Good condition
46	L09.ad5	Analog Multimeter	7080	3	Good condition
47	L09.01.11.02	Insulation tester	A3875ST1504	1	Good condition
48	L09.01.09.04	Transformers kit (small power)	A3120S	1	Good condition
49	L09.01.09.07	Tools for motors & transformer winding	A3120-TS	1	Good condition
50	L09.01.07.04	Reactive power controller	A2680	1	Good condition
51	L09.01.04.01	One pole one way switch	A21M110	1	Good condition
52	L09.01.04.04	One pole push button	A21M116	3	Good condition
53	L09.01.04.02	One pole two way switch	A21M112	2	Good condition
54	L09.01.04.03	One pole reversing switch	A21M114	2	Good condition
55	L09.01.03.07	Fuse holder 2×38 (set 2)	A21m014	1	Good condition
56	L09.01.04.05	Switch relay	A21M120	1	Good condition
57	L09.01.05.10	Timer unit	A21M250	2	Good condition
58	L09.01.04.11	Timer	A21M150	1	Good condition
59	L09.01.13.26	Starting rheostat for Dc motor	A4610S	1	Good condition
60	L09.01.05.12	Motor protection switch (All types)	A21M262	1	Good condition
61	L09.01.03.04	Magneto thermal protection three phase	A21M011-3	1	Good condition
62	L09.01.03.03	Magneto thermal protection single phase	A21M011-1	1	Good condition
63	L09.01.04.06	Commutator relay	A21M122	1	Good condition
64	L09.01.04.07	Socket	A21M130	2	Good condition
65	L09.01.13.09	Fault simulator for squirrel-cage motor	A4220FS	1	Good condition
66	L09.01.13.24	Inductive load	A4530S	1	Good condition
67	L09.01.13.28	Excitation rheostat for DC&AC machines	A4630S	1	Good condition
68	L09.01.02.06	Inductance box	A12L40	1	Good condition
69	L09.01.05.11	Thermal protection (All types)	A21M260	2	Good condition
70	L09.ad 11	Cable support	A4890CS	6	Good condition
71	L09.01.05.04	Push buttons	A21M212	1	Good condition
72	L09.01.03.06	Differential protection three phase	A21M012-3	1	Good condition
73	L09.01.05.08	Auxiliary contactor-24V	A21M220	1	Good condition

74	L09.01.05.01	Contactora	A21M210-A	1	Good condition
75	L09.01.03.11	Main switch	A21M021	4	Good condition
76	L09.01.05.06	Pole reversing switch	A21M215	1	Good condition
77	L09.01.05.07	Star-delta switch	A21M216	1	Good condition
78	L09.01.05.05	Speed reversing switch	A21M214	1	Good condition
79	L09.01.04.10	Buzzer	A21M144	1	Good condition
80	L09.01.04.08	Lamp holder with incandescent lamp	A21M140	2	Good condition

S/No.	LOT NO	ITEM DESCRIPTION	SERIAL NO	QTY	REMARKS
81	L09.01.03.09	Rectifier bridge	A21M018	1	Good condition
82	L09.01.03.08	Fuse holder 5×20 (set of 4)	A21M015	1	Good condition
83	L09.01.13.39	Paralleling board	A4810SYNC1	1	Good condition
84	L09.01.03.12	Emergence push button	A21M022	1	Good condition
85	L09.01.04.12	Calling unit	A21M160C	1	Good condition
86	L09.01.04.12	Answering unit	A21M160A	1	Good condition
87	L09.01.04.14	Electric lock	A21M190	1	Good condition
88	L09.01.03.10	Key switch	A21M020	1	Good condition
89	L09.01.03.13	Three phase socket	A21M030	1	Good condition
90	L09.03.19.03	Motor control with 1Ph thyristor Diode bridge	B3608	1	Good condition
91	L09.04.29.02	Coax transmission line trainer	B4510	1	Good condition
92	L09.01.02.07	Resistance box	A12CR-B/5DCIR50	1	Good condition
93	L09.01.13.22	Resistive load	A4510S	1	Good condition
94	L09.01.02.07	Capacitance box	A12C50	1	Good condition
95	L09.01.04.09	Fluorescent lamp	A21M142	1	Good condition
96	L09.01.14.01	Multi-function machine trainer	A4300	1	Good condition
97	L09.ad 4	Digital electric power measuring module	A4750D	6	Good condition

## 5. WAY FORWARD AND FUTURE DEVELOPMENT PLANS FOR THE DEPARTMENT

To develop the training of renewable energy mainly Photo Voltaic Solar in addition to the mainstream courses specializing in the power option courses that attract the majority of the students.



# BUSINESS STUDIES DEPARTMENT

## 1. DEPARTMENT DETAILS

Section Names	Staff
a) Supplies Management	a) 20 TSC Staff
b) Management and Accounting	b) 1 Non-Teaching Staff

## 2. BRIEF HISTORY AND GROWTH OF THE DEPARTMENT

The Department was created after the country shifted from the 7-4-2-3 System to the 8-4-4 System of Education. The adoption of 8-4-4 System saw the Technical Institutes begin to offer courses in Technical Education and this is when the department was created. It started offering Craft Courses under the Technical Education Programme (TEP). The department started offering Craft Certificate in Business Administration and Craft Certificate in Supply Chain Management in the early 1990s.

The department was also offering Kenya Accountants and Secretaries National Examination Board (KASNEB) Examinations at the Accounting Technician Level (ATC). Later the Diploma Courses under the TEP were introduced in 1995 to cater for the large number of school leavers who were leaving high school but who could not secure admission into Public Universities and could not afford the high fees charged by Private Universities.

In 2011, Modular courses were introduced and with time the Technical Education Programme which used to take a duration of two continuous years without a break were phased out. All the courses now offered in the department are Modular based and last for a period of two terms. They are all examined by KNEC. The Modular courses are flexible and students can take a break after six months. A good number of them have obtained employment after successfully completing Module one.

The performance of the students has been very good and the current average pass for the department stands at 85%. The department has grown from strength to strength and the students' population was high during TEP courses. All the lecturers in the department are employed by the Teachers Service Commission and are highly qualified and experienced.

## 3. COURSES AND TRAINING IN THE DEPARTMENT

- Business Management at Certificate and Diploma Level
- Supply Chain Management at Certificate and Diploma Level
- Human Resource Management at Certificate and Diploma Level
- Sales and Marketing at Certificate and Diploma Level

## 4. EQUIPMENT AND FACILITIES IN THE DEPARTMENT

1. Computer
2. Internet Access
3. Management Information System (MIS)
4. Bookshelf
5. Office table
6. Tables
7. Telephone
8. Office chairs

## 5. WAY FORWARD AND FUTURE DEVELOPMENT PLANS FOR THE DEPARTMENT

The department intends to intensify its marketing strategies by visiting schools in the neighborhood to market the courses available in order to increase enrolment. The department also intends to start other new courses in the business field subject to availability of facilities and human resource.

# INSTITUTIONAL MANAGEMENT DEPARTMENT

## 1. DEPARTMENT DETAILS

### Section Names

a) Food & Beverage

### Staff

a) 20 TSC Staff

b) 2 BOG Staff

c) 2 Technicians

## 2. BRIEF HISTORY AND GROWTH OF THE DEPARTMENT

The Department started in 1994 offering a Craft Course in Garment Making. In January 1997, a one year Diploma Course in Clothing Technology was introduced from KTTC and later in January 1998, a 3 year course was introduced of the same. In 1999, Food & Beverage Production and Service course was introduced as a one year part time Certificate course which was examined internally.

Later in May 2002, a two year Craft course in Food & Beverage Production and Service was introduced of which the first pioneer class sat for KNEC Exam in June/July 2004. In January 2004, a three year Diploma Course in Food & Beverage Management was introduced and the pioneer class sat for their KNEC Examination in October/November 2006.

In January 2013, the Department started offering Modular courses in Food & Beverage at both Diploma and Certificate level. TEP programme is gradually being phased out to Modular programs which are geared towards Competence Based Education Training (CBET) by KNEC. The first modular group sat for KNEC Examination in October/November 2013 while the last group for Diploma and Certificate in TEP programme will sat for their KNEC Examination in June/July 2015 and October/November 2015 respectively.

The Department started operating with one kitchen and one restaurant. But today, there are two kitchens and two restaurants. The Department opened its doors with 3 qualified lecturers but currently, it has a total of 20 qualified lecturers. Currently, the Department has a total enrolment of over 200 students.

## 3. COURSES AND TRAINING IN THE DEPARTMENT

- Diploma in Food & Beverage Management-Full time & Evening
- Craft Certificate in Food & Beverage Production & Service-Full time & Evening
- Artisan in Food & Beverage Production & Service-Part time
- Certificate in Food & Beverage Production & Service-Part time

## 4. EQUIPMENT AND FACILITIES IN THE DEPARTMENT

- |                    |                                   |
|--------------------|-----------------------------------|
| 1) Gas range-3     | 11. Office Computer-1             |
| 2) Freezer-1       | 12. Weighing Scales-3             |
| 3) Fridge-1        | 13. Internet                      |
| 4) Charcoal Oven-3 | 14. Management Information system |
| 9. Blenders-4      | 15. Kitchens-2                    |
| 10. Dough Mixer-1  | 16. Restaurants-2                 |

## 5. WAY FORWARD AND FUTURE DEVELOPMENT PLANS FOR THE DEPARTMENT

The Department wishes to start other hospitality related courses such as;

- a) Food & Beverage Management Catering & Accommodation
- b) Catering, Housekeeping & Accommodation

For development plans, the Department looks forward to having 3 modern and well equipped training workshops i.e. 3 Kitchens and 3 Restaurants. This is due to the demand towards the course which has led to increase in numbers.

# LIBERAL STUDIES DEPARTMENT

## 1. DEPARTMENT DETAILS

### Staff

- a) 8 TSC Staff
- b) 1 BOG Staff

## 2. BRIEF HISTORY AND GROWTH OF THE DEPARTMENT

The Department is charged with the responsibility of teaching Communication Skill, Life-Skills and Kiswahili in the seven Academic Departments in the Institute. In 2012 the Department started offering a Diploma and Certificate Courses in Social Work & Community Development both in Full-time and Part-time basis.

## 3. COURSES AND TRAINING IN THE DEPARTMENT

- Certificate in Social Work & Community Development.
- Diploma in Social Work & Community Development

## 4. EQUIPMENT AND FACILITIES IN THE DEPARTMENT

- a) Management Information System (ABN MIS)
- b) Computer
- c) Printer
- d) Internet

## 5. WAY FORWARD AND FUTURE DEVELOPMENT PLANS FOR THE DEPARTMENT

We look forward to become a fully pledged Department and to increase students' enrolment.

# LIBRARY DEPARTMENT

## 1. DEPARTMENT DETAILS

### Section Names

- a) Reserve
- b) Short Loan
- c) Long Loan

### Staff

- a) 1 TSC Staff
- b) 4 Non-Teaching Staff

## 2. BRIEF HISTORY AND GROWTH OF THE DEPARTMENT

The department started in one of the classrooms, operating as the central library. The library was too small to accommodate all the books, and therefore each department had to maintain its own library at departmental level. With time the Institute started realising an increase in students' enrolment and acquisition of books necessitating for space to accommodate both.

The Institute, once a boarding Institute, was converted to a day Institute, rendering the hostel un-occupied. This created space which was used to construct the current library which started its operations in the year 2008. The library has a seating capacity of 200 library users, and 6500 books. This saw the merging of departmental libraries with the central library to form one Institute's library, meaning all the books from the departments were brought to the library.

## 3. EQUIPMENT AND FACILITIES IN THE DEPARTMENT

- a) Books- 6500 volumes
- b) 4 computers
- c) CCTV Cameras
- d) Library Management Information systems
- e) ABN Management Information System
- f) Internet
- g) 200 chairs
- h) 8 big carrel partitioned tables

## 5. WAY FORWARD AND FUTURE DEVELOPMENT PLANS FOR THE DEPARTMENT

- a) In future the Department intends to introduce e-books. This will avail a lot of Information Materials especially current Information to the library users since they will be able to access most of the current books in the market.
- b) Expand the reading space so that we can be able to accommodate more library users.

# GAMES AND SPORTS DEPARTMENT

## 1. DEPARTMENT DETAILS

### Staff

a) 10 TSC Staff

## 2. BRIEF HISTORY AND GROWTH OF THE DEPARTMENT

The Games Department carries out its activities under the Dean of Students office. It performs the role of co-ordinating and supervising all sporting Activities within the Institute. The Institute being a Technical Institution carries on Sports activities under KETTISO (Kenya Technical Training Institutes Sports Organisation) –under KATTI (Kenya Association of Technical Training Institutions)

The Department prepares Teams/Participants to represent the Institute in KETTISO – Athletics and Ball Games Championships both at Regional and National Level during the First Term and Second Term respectively. Selection of Teams is done during the Inter-Departmental Competitions. There are sufficient Sporting facilities including a Swimming Pool where students can relax and keep physically fit as well as cut a career in areas where they are most talented.

The following are the names of the lecturers who coach and train the students and the disciplines which they deal with.

S/NO	NAME OF COACH	DISCIPLINE
1	Francis Muriithi	Volleyball-Women
2	Patrick Nganga	Athletics/Volleyball-Men
3	Mary Muriga	Netball-Women
4	Winston Atenya	Handball-Women
5	Thomas Kahihu	Handball-Men
6	Lena Nyaga	Football-Women
7	Joseph Oira (Retired)(Replaced by Emmanuel Loyamuruki)	Football-Men
8	Muthua Muti	Rugby – Men
9	Francis Mbulo	Basketball –Men and Women
10	Thomas Wanyoike	In – Door Games

The Department has been performing very well-in 2011 only the Handball – Men team proceeded to the Nationals, however in 2012 we took three (3) teams, namely Netball, Rugby and Handball-Men where the latter became the National Champions and in 2013, we took four (4) teams to the Nationals that is Netball, Volleyball-ladies and Handball-Men and Women and the latter turned out to be National Champions. In 2014 we managed to take only two (2) Teams to the Nationals i.e Volleyball Women and Netball.

## 3. EQUIPMENT AND FACILITIES IN THE DEPARTMENT

S/NO	NAME OF THE ASSET/PROPERTY	QUANTITY	CONDITION
	<b>UNIFORMS</b>		
1	RUGBY- ( Blue &White stripes)	14 pairs & 3 Tops	Used
2	ATHLETICS –Navy blue & white	23 pairs & 3 Tops	Used
3	VOLLEY BALL- Mesusa (Green &White/Red	8 pairs & 1 Top	Used
	-Purple &White	8 pairs & 1 Top	Used
	-Yellow & White	7pairs	Used
	-Grey & Whit	12 pairs	Used
4	HANDBALL -Red & White	6 pairs & 3 Tops	Used

	-Light Blue & white stripe	6 pairs & 2Tops	Used
	-Yellow Green & Black	9 pairs	Used
5	<b>FOOTBALL</b> -Grey &White	20 pairs & 1 Top	Used
	-Sky blue & white	13 pairs	Used
	-Royal Blue & White	14 pairs	Used
	-Dark blue	19 pairs	Used
	-Black & white	13 pairs	Used
	-Bibs:Red	10 pieces	Used
	-Light Blue	11 pieces	Used
6	<b>NETBALL</b> -Green	7 Pairs	Used
	Navy Blue	7 pairs	Used
	Royal Blue skirt	7 pairs	Used
	Bibs-Grey	7 pairs	Used
	-Royal Blue	7 pieces	Used
	-Black	7 pieces	Used
7	<b>HANDBALL</b> - Yellow/ green / white	8 pairs	Used
	-Red /white	3 Tops	Used
8	<b>BASKETBALL</b> -Black sleeveless	5 pairs	Used
	-Maroon(sleeveless)	8 pairs	Used
	-Maroon / white(labeled)	7 pairs & 2 Tops	Used
	- Maroon / white	6 pairs	Used
	- Blue & white	12 pairs & 1 Top	
9	<b>OTHER UNIFORMS</b> :-Royal blue/ white with collar & labeled	7 pairs & 7 Tops	Used
	-Arsenal Blue/ Yellow	2 pairs & 3 Tops	Used
	-White & Navy Blue	4 pairs & 3 Tops	Used
10	<b>GOALKEEPER'S UNIFORM:</b> -Royal Blue/white/Black Top	1 pair	Used
	& Black short.		
	-Multicolor.	1 Top	Used
	-Yellow / Black	1 Top	Used
	-Green	1 pair	Used
	-Red/White Jersey/Black shorts.	1 pair	Used
11	<b>SPORTS SHOES:</b> -Butter Bullets	9 pairs	Old
	-North Star.	6 pairs	Used
	-Jump	1 pair	Used
	-Filan	1 pair	Used
	<b>Peak</b> -Sky Blue/White	2 pairs	Used
	-White/pink	4 pairs	Used
	-White/Royal Blue Stripe.	2 pairs	Used
	-White/orange/Grey.	2 pairs	Used
	-Netball Sports Shoes.	12 pairs	Used
	-Volleyball Sports Shoes (Women)	6 pairs	Used
	-Basketball Sports Shoes (Women)	6 pairs	Used
	-Puma Boots (Ladies)	12 pairs	Used
	-Rugby Boots	16 pairs	Used
	-Football Boots	10 pairs	Used
	<b>-Athletics spikes:</b> -Black	7 pairs	Old
	-Orange/Black	1 pair	Used
	-White/Dark Blue	1 pair	Used
	-Basketball-shoes	4 pairs	Used

12	<b>NETS :</b> -Basketball Blue/Black	2 pairs	New
	:Badminton Brown/black	1 piece	Used
	:Volleyball	7 pieces	1 new & 7Used
	:Football	3 pairs	Used
	:Handball	1 pair	Used
13	<b>GLOVES - (Handball &amp; Football)</b>	3 pairs	Used
14	<b>SOCKS:-</b> Green/White	36 pairs	New
	White/Navy Blue	25 pairs	New
	White /Blue stripe (soccer)	11 pairs	Used
	White /Blue stripe(Netball) Women	10 pairs	Used
	White /Royal Blue.	9 pairs	Used
	Maroon/White.	2 pairs	Used
	Yellow /White	4 pairs	Used
	Dark/Green/White	4 pairs	Used
	Navy Blue/White	2 pairs	Used
	Royal Blue/White	6 pairs	Used
15	<b>KNEE CAPS-;</b> White/Red	12 pairs	New
	Royal Blue/White.	12 pairs	New
	Navy Blue/White.	8 pairs	Used
	Red/White.	2 pairs	Used
	Sky Blue/White	2 pairs	Used
16	<b>SHIN GUARDS:-</b> Black	12 pairs	Used
17	<b>BALLS:</b> Volleyball	12 pieces	Used
	Basketball	7 pieces & 3	7 Old & 3 Used
	Netball	3 pieces & 3	3 New & 3 Used
	Football	2 pieces & 6	2 New & 6 Used
	Handball	5 pieces & 2	5 New & 2 Used
	Rugby	1 pieces & 4	1 New & 4 Used
18	<b>OTHERS ITEMS:-</b> Marking Tape (iron)	1 piece	Used
	Tape measure.	2 pieces	Used
	Table Tennis (Table).	1 piece	Used
	Table Tennis Clips	1 pair	Used
	Table Tennis Net.	1 piece	Used
	Badminton Rackets	3 pairs	New
	Relay Burtons	5 pieces	Used
	Shuttle cocks	6 pieces	New
	Trophies	5 pieces & 5	5 Old & 5 Used
	Bags -(Blue)	1 piece	1 Used &1 Worn-out
	Whistles	12 pieces	Used
	Start board	2 pieces	Used
	Buckets- (Assorted	8 pieces	Used
	Basin -Red	1 piece	Used
	Hammer	1 pieces	Old
	Mattresses	107 pieces	Used
	Shot put	3 pieces	Used
	Discuss	5 pieces	Used
	Javelin-(Blue )	3 pieces	Used
	Javelin-(Yellow)	1 piece	Used
High Jump stand (Blue)	1 set	Used	
High Jump. Bar(Yellow)	1 piece	Used	

	Containers ( Jerry can)	Two (2)- 20 liters	Used
	Paper punch	1 piece	Old
	Stapler	1 piece	Old
19	<b>FIRST AID :</b> Farm Liniment	5 litres	
	Gastrocid	¼ Tin	
	Centamol	¼ Tin	
	Paracetamol	½ Tin	
	Clip bandage	6 pieces	
	Surgical spirit	5 liters	
	Cotton wool	400 GMS	
	Surgical blades	½ packet	

#### 4. WAY FORWARD AND FUTURE DEVELOPMENT PLANS FOR THE DEPARTMENT

- a) There is need for fencing/construction of a perimeter wall around the Institute's Playground. Construction of Washrooms, Dias, Planting of Grass, permanent markings of well designated pitches. If possible, a parking can be created too.
- b) Membership/Registration of various disciplines in federations in order to participate in Nation Leagues to improve on the standards of performance of teams and individual talents.
- c) Hold Annual sponsored tournaments with teams from within the Nairobi Region.
- d) Training of Coaches – The HOD and one of the Coaches – Mr. Patrick Nganga were trained by Athletics Kenya (Gusii Stadium) from 17th – 20th March 2015 on Basic Coaching and officiating Course and were awarded Certificates.

In future more Coaches will be trained through sponsorship of KATTI in both Athletics and Ball Games.



# INDUSTRIAL LIAISON OFFICE

## 1. DEPARTMENT DETAILS

### Staff

- a) 1 TSC Staff
- b) 1 Non-Teaching Staff

## 2. BRIEF HISTORY AND GROWTH OF THE DEPARTMENT

The Industrial Liaison Office runs across the Eight (8) Academic Departments in the Institute and is run by the Industrial Liaison Officer (ILO) together with Departmental Attachment Coordinators (DAC's) from all the Departments. The office has two obligations:

### A. Providing Insurance Certificates for Personal Accident cover to all the students in the Institution.

This is done three times in a year that is January, May and September as per the students' intake. They are provided to both new and continuing students annually depending on the intake. The cover is valid for (1) one year.

### B. Attachment

Currently Trainees go out for attachment in January to March or September to November depending on their requirements. There are no trainees out on attachment in May to July.

All students taking courses in the Institute both Business and Technical courses are required to go for Attachment during the course of their training. All courses require the students to be attached in the relevant Companies, Organizations or Firms for a period of (3) months except for Diploma in Pharmaceutical Technology and Diploma in Medical Laboratory where the trainees are Attached for (6) six months.

The Department assists the trainees to get attachment places by providing them with Attachment Sourcing Letters which they fill and are then signed and stamped by the Departmental Attachment Coordinators (DAC's) or the Industrial Liaison Officer (ILO).

Once attached, the trainees inform the Institution where they are through their respective DAC's who then prepare an Industrial Attachment Visitation Schedule by assigning Assessors to go out and assess the students. Upon return to the Institution from Attachment, trainees are required to submit to their DAC's a copy of the recommendation letter, the Logbook and Industrial Attachment report.

The numbers of student proceeding for Attachment have been increasing over the years. Currently the institution sends out 1,200 students and the numbers are growing as time progresses.

## 3. EQUIPMENT AND FACILITIES IN THE DEPARTMENT

- 1 Computer
- 1 Printer
- ABN Management Information System (MIS)
- Internet
- 1 Office desk and chair
- 1 Table
- 3 Chairs

## 4. WAY FORWARD AND FUTURE DEVELOPMENT PLANS FOR THE DEPARTMENT

1. Currently the number of students assessed while out on Attachment is 59%. The department wishes to put in a lot more effort by facilitating the DAC's with Air time so that the department reaches out to more students as some do not inform the Institution where they are attached in order for them to be assessed.
2. The department also wishes to award Attachment Certificates to all trainees who have successfully completed their attachment

# GUIDANCE AND COUNSELLING DEPARTMENT

## 1. DEPARTMENT DETAILS

### Staff

- a) 1 TSC Staff

## 2. BRIEF HISTORY AND GROWTH OF THE DEPARTMENT

The Guidance and Counselling department is a service department in the office of the Dean of Students. This department is charged with the responsibility to offer Psycho Social support to all the students, teaching and non-teaching staff. The department has been assigned nine (9) counsellors from each academic department.

## 3. EQUIPMENT AND FACILITIES IN THE DEPARTMENT

- a) Accessible internet
- b) Telephone extension
- c) Book shelf
- d) Chest of drawers
- e) Two chairs

## 4. WAY FORWARD AND FUTURE DEVELOPMENT PLANS FOR THE DEPARTMENT

- a) Need for computer and printer for the department
- b) Train the departmental counsellors to improve their effectiveness
- c) Organise for debriefing sessions once a term for all Counsellors
- d) A face lift for the office-paint, finish the floor, provide natural lighting by creating a window.
- e) Need a lockable desk
- f) Need a lockable cabinet to secure information and records