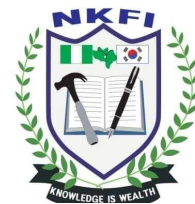# unlock your endless potentials

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NIGERIA-KOREA FRIENDSHIP INSTITUTE

OF VOCATIONAL AND ADVANCED TECGHNOLOGY.

Brochure

Nigeria Korea Friendship Institute
of Vocational and Advanced Technology
Beside Kogi State Polytechnic, Felele,
Lokoja Kogi State , Nigeria

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alternative formats.
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unlocking your potentials

WELCOME TO NKFI

Welcome to Nigeria Korea Friendship Institute of Vocational and Advanced Technology (NKFI). Our Institute is the solution to unemployment in Nigeria. With its focus on vocational and advanced technology training, the institute aims to equip Nigerian youths with the necessary skills and knowledge to thrive in today's competitive job market.

We offer a wide range of vocational courses and advanced technology programs and provide students with practical and industry-relevant training. This ensures that graduates are job-ready and capable of meeting the demands of various sectors in Nigeria's economy.

One of the key advantages of NKFI is its collaboration with Korea, a country known for its technological advancements and innovative industries. Through this partnership, the institute can leverage Korea's expertise and transfer valuable knowledge to Nigerian students. This not only enhances the quality of education but also creates opportunities for technology transfer and collaboration between the two nations.

NKFI's curriculum is designed to bridge the gap between theoretical knowledge and practical skills. The institute emphasizes hands-on training, internships, and industry placements, allowing students to gain real-world experience and develop a strong understanding of their chosen fields. This practical approach equips graduates with the confidence and competence needed to excel in their careers.

Nigeria Korea Friendship Institute of Vocational and Advanced Technology is a transformative solution to unemployment in Nigeria. Through its focus on vocational training, advanced technology programs, practical education, entrepreneurship, and collaboration with Korea, the institute equips Nigerian youths with the skills, knowledge, and mindset needed to succeed in the job market.

Williams Charles Oluwatoyin
Rector

CONTENT

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ABOUT THE INSTITUTE

Nigeria-Korea Friendship Institute is a Technical and Vocational Education Training (TIVET) Institution approved and accredited by the National Board for Technical Education (NBTE). It has been operating since 2015 as Monotechnic, which promotes and encourages the acquisition of industrial and commercial skills required for National and Economic development.

MANDATE

The institute was established by the Korean Government through the Korea International Corporation Agency, KOICA in partnership with the Kogi State Government. The MOU for the establishment of the institute was signed in March, 2010.

In 2011, staffs of the Institute were trained at Daelim University College, South Korea. This training continued in 2012 and 2014, where Lecturers, Instructors and Technologists of the institute underwent Technical and Vocational courses at Daelim University College, South Korea respectively.

The institute was commissioned and handed over to the Kogi State Government in July, 2015, with the following mandate:

- ❖ To produce technical staff members who will respond to the level of industrial advancement and demand from the industries, and to help contribute to the socioeconomic growth of Nigeria.
- ❖ To provide high-quality vocational training to uneducated youths and both unemployed and employed adults in Kogi State, to ensure employment and
- ❖ To promote friendship and cooperation between Korea and Nigeria, by sharing Korea's experience in national development.

Vision
To be a top-class level technical and vocational institute in Nigeria that is focused on educating vocational competency and providing industry-specific employable skills to serve as an economic development catalyst for the Nigeria.

Mission Statement
- ❖ Educate competent graduates, provide competence-based skills, and develop skills in technology for the industry and economy;
- ❖ Provide quality capacity building program to industry employee in sustainable development   through the up-to-date curriculum;

- ❖ Provide the necessary link between education, science, technology, innovation and the labour market;
- ❖ Contribute economic empowerment of the individual and community by increasing employability.

PRINCIPAL STAFF

- ❖ Rector
- ❖ Deputy Rector
- ❖ Registrar
- ❖ Bursar
- ❖ Librarian
- ❖ Director of Works, Planning and Development

DEPARTMENTS AND UNITS

- ❖ Bursary
- ❖ Works
- ❖ Library
- ❖ Academic Planning Unit
- ❖ Training , Research/Grant
- ❖ NKFI consult
- ❖ Cooperation
- ❖ SIWES
- ❖ Student services
- ❖ Entrepreneur
- ❖ Security

ACADEMIC DEPARTMENTS

- ❖ Automotive & Mechatronics
- ❖ Electrical & Electronic Technology
- ❖ Computer Software Engineering
- ❖ Networking & System Security
- ❖ Welding & Fabrication
- ❖ General studies
- ❖ Vocational training.

AUTOMOTIVE MECHATRONIC DEPARTMENT

Contents

Engine Management system

Engine Management system

PROGRAMME DESCRIPTION

The rapid advancement in technology has transformed the Auto Mechanic functions from purely mechanical to include electronics (Auto-tronics) and its relevant technology. This trend has brought about the addition of complex , computerized and electronics system in the form of onboard Diagnostic (OBD) in all modern vehicles.

Automobile technicians and drivers/mechanics need to be abreast with the special diagnostic equipment designed to detect any malfunction in the vehicle and recommend appropriate corrective measures.

This work is designed and developed to equip the participants with basic automobile diagnostic skills and knowledge in line with the industry trend.

LEARNING OUTCOME.

At the end of this training, participants should be able to:

❖ Critical thinking skills in business and technical problem solving

- ❖ Technical knowledge, understanding and skills for applied tasks of ASE/NATEF accreditation.
- ❖ The working systems of an automobile.
- ❖ Differentiate between sensors, actuators and switches
- ❖ Relate the practical difference between OBD 1 & 2 compliant vehicles.
- ❖ Demonstrate the uses of tools and equipments like computer for research, manage, reports, troubleshoot present industry related data and fault rectification.
- ❖ Read and interpret symbols on the instrument cluster.

TARGET AUDIENCES: Automobile technicians, drivers and mechanics.

MEHODOLOGY: Lectures, Demonstrations and practical.

ELECTRICAL ELECTRONICS TECHNOLOGY

CONTENTS

1. ELECTRICAL INSTALLATION AND MAINTENACE
2. CONSUMER ELECTRONIC REPAIRS AND MAINTENANCE
3. SEQUENCE AND PLC PROGRAM

ELECTRICAL INSTALLATION AND MAINTENANCE

PROGRAMME DESCRIPTION

Fire outbreak and destruction of equipment are sometimes caused by faulty installation and use of sub-standard materials. In the event of malfunction in any facility, the safety of the personnel as well as the facility would be at risk during the ensuing emergency.

This training is designed to enhance the skills, knowledge and competencies of personnel in charge of electrical installation and maintenance.

LEARNING OUTCOME

> At the end of this training, students should be able to:
> - Identify and interpret electrical symbols and state their applications according to specification.
> - Understand the principles and practice of house wiring, industrial installation of machines and buildings, fault tracing and rectification of faulty power circuits.
> - Explain the principles of operation of protective devices in electrical system.
> - Understand various industrial installations of electric machines and motor drives.
> - Apply safety procedures during installation and maintenance of electrical system.

TARGET AUDIENCE: ElectricalEngineers, supervisors, Electrical technicians and maintenance staff.

METHODOLOGY: lectures, discussion demonstration and practical.

CONSUMER ELECTRONICS MAINTENANCE

PROGRAMME DESCRIPTION

All electronics equipment has undergone a greater digitalization during the past fews years. Hence the availability of equipment with Al-driven smart features has increase as a result If increased digitalization. With the market's selection of smart gadgets, repair and maintenance are required,

Electronic devices now are more technologically advanced than they are fifty years ago, and they are also more readily available, more diverse, and more reasonably priced. The requirement for upkeep and repair consequently grows.

LEARNING OUTCOME

- At the end of this training, students should be able to:
- Understand the principle of electronics
- Understand consumer Electronic device circuit.
- Diagnose faults of consumer electronic devices (TV, Radio, Fan, Electronics, Iron etc)
- Repair Consumer Electronics devices.

TARGET AUDIENCE: ElectricalEngineers, supervisors, Electrical technicians and maintenance Officers.

METHODOLOGY: lectures, discussion demonstration and practical.

SEQUENCE AND PLC PROGRAM

PROGRAMME DESCRIPTION

In today's industry, programmable logic controls (PLC) are the controllers of choice for most automated processes. PLCs have been gaining prominence on the factory floor and will remain predominant for some time to come. In most industries, increased productivity and production of products with better quality, precision and accuracy is achieved through automation.

This training is designed based on practical applications and experience in using programmable logic controllers in the workplace. Participants for this training would be able to perform and understand programming with the application of PLC devices in automation systems.

LEARNING OUTCOME

At the end of this training, participants should be able to:

- ❖ Describe the operational principle of PLC.
- ❖ Write programmes in ladder diagram.
- ❖ Operate a programmable logic controller.
- ❖ Effectively carryout basic maintenance and troubleshooting of PLC system.
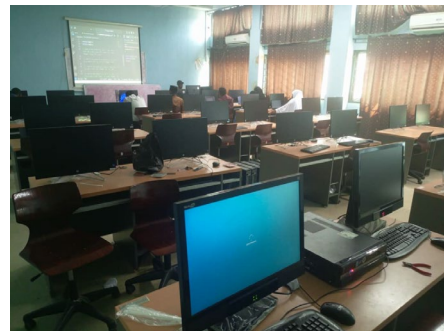- ❖ Observed safety practices while working with PLC and its devices.

TARGET AUDIENCE: Electricals/Electronics Engineers, Mechanical Engineers, Technicians and instructors of instrumentation and control systems.

METHODOLOGY: Lectures, discussion, demonstration and practical.

INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)

There are two departments under Information and Communication Technology (ICT)

1. **Computer Software Engineering**
2. **Networking and System Security**

COMPUTER SOFTWARE ENGINEERING (CSE) DEPARTMENT

Welcome to the dynamic world of Computer Software Engineering, a department at the forefront of technological innovation and problem-solving. As an integral component of the broader field of computer science, software engineering focuses on the design, development, testing, and maintenance of software systems that power our digital world. This multifaceted discipline combines creativity, logical thinking, and technical expertise to create solutions that address the ever-evolving needs of users and organizations. From designing user-friendly interfaces to developing robust algorithms, software engineers play a pivotal role in shaping the digital landscape. With a strong emphasis on collaboration, adaptability, and continuous learning, the Computer Software Engineering department is a hub of innovation, driving advancements that propel us into the future of technology.

Program Goal

This program is designed to produce skilled software technicians who should be able to solve a wide range of problems by the systematic development and evaluation of large, high quality software systems.

Program Objectives

A product of NID in Computer Software Engineering should be able to:

➢ Develop and maintain software
➢ Detect technical faults in a Computer installation
➢ Design and test software to optimize its production and support
➢ Design and run efficient programs in a wide spectrum of fields, and in various languages
➢ Install a computer system
➢ Produce large, high quality software systems
➢ Advise on the installation of Computer facilities

- Carry out routine (preventive) maintenance of Computer facilities
- Work with a team on a project
- Become an employer of labour in a self-owned enterprise.

Short Courses (Three Months / Six Months)

- Web Design/Development
- Computer Hardware and Networking
- Computer Graphics
- Computer programming.

WEB DESIGN

PROGRAMME DESCRIPTION

Web Design refers to the design of websites that are displayed on the internet. It usually refers to the user experience aspects of website development.

LEARNING OUTCOME:

At the end of the course, students should:

- Be able to create the structure and content of web pages using HTML (Hypertext Markup Language).
- Be proficient in HTML forms for user input and data submission.
- Be proficient in CSS (Cascading Style Sheets) for styling web pages.
- Be able to create responsive designs and layouts using CSS media queries.
- Be proficient in JavaScript for adding interactivity and functionality to web pages.
- Have the ability to manipulate the Document Object Model (DOM) to dynamically update web page content..
- The skills to create websites that adapt and work well on various screen sizes and devices.
- Have the knowledge of responsive design techniques, including fluid grids and responsive images.
- Have the ability to ensure web pages work consistently across different web browsers (e.g., Chrome, Firefox, Safari, Edge).

Target Audience: Experienced and non-experienced persons who wants to pursue a career in web development

Methodology: Lectures, Hands-on practice and projects.

COMPUTER PROGRAMMING WITH PYTHON.

PROGRAMME DESCRIPTION

This program covers basic and advanced concepts in python. Learners will be introduced to programming skills with basic python syntax. They will learn how to us codes to solve problems and also dive deep into learning modules, libraries and tools for python

LEARNING OUTCOME:

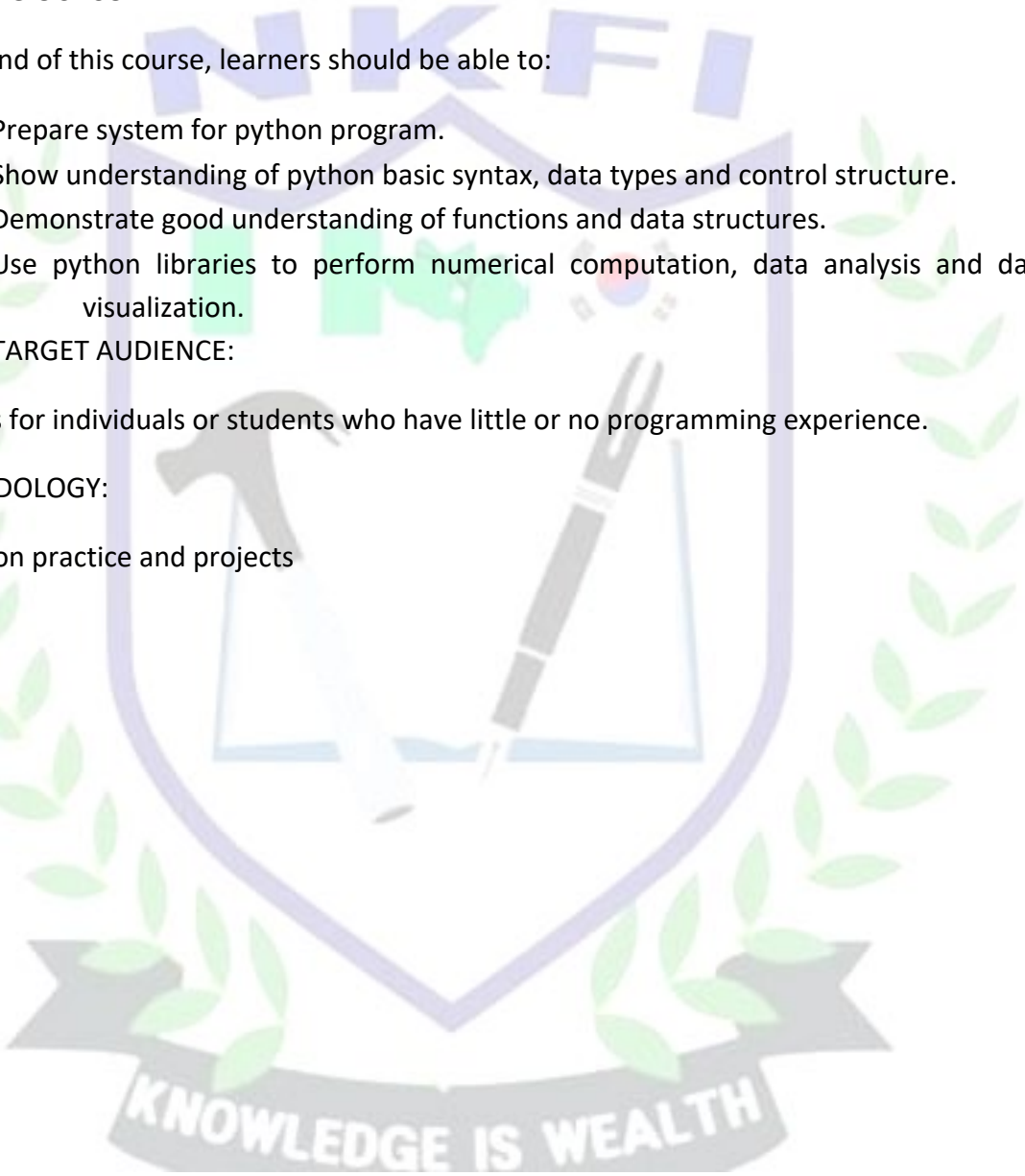At the end of this course, learners should be able to:

- Prepare system for python program.
- Show understanding of python basic syntax, data types and control structure.
- Demonstrate good understanding of functions and data structures.
- Use python libraries to perform numerical computation, data analysis and data visualization.
  TARGET AUDIENCE:

This is for individuals or students who have little or no programming experience.

METHODOLOGY:

Hands-on practice and projects

COMPUTER MAINTENANCE

PROGRAMME DESCRIPTION:

This explores the fundamentals of computers, the components that comprise them, how they work and basic troubleshooting tools and techniques.

LEARNING OUTCOME:

At the end of this course, learners should be able to:

- Identify basic cable types and their connectors, features, and purpose.
- Demonstrate knowledge of several types of memory and their installation.
- Categorize and install diverse types of storage devices.
- Explain and configure the central processing unit (CPU) and ad-on cards.
- Assemble and disassemble PC Components.
- Install diverse operating system on a PC.
- Troubleshoot pc faults and fix them.

Target Audience:

Computer users, and people who want to pursue a career in IT and Tech support.

Methodology:

Lectures and hands-on practice.
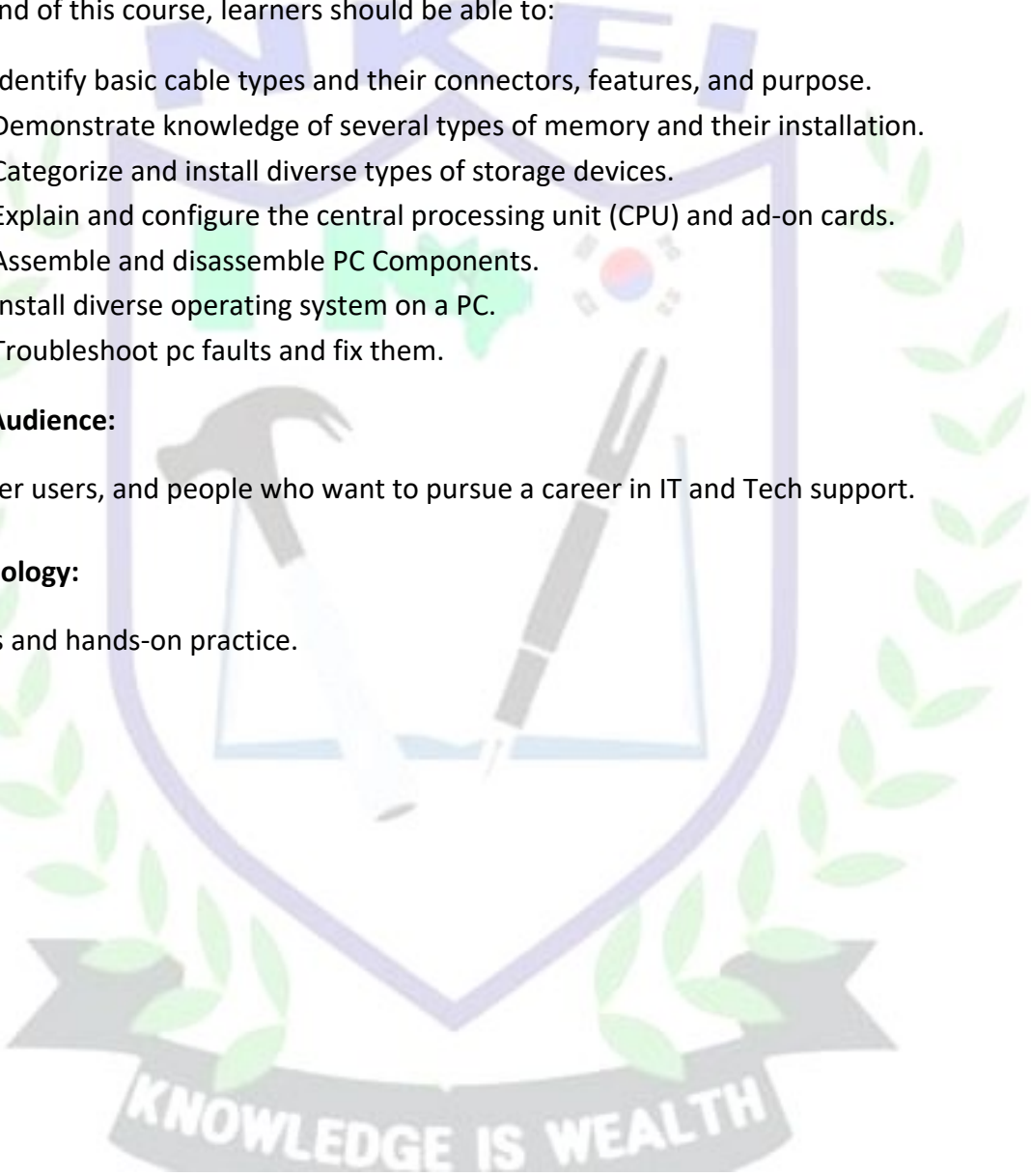
NETWORKING AND SYSTEM SECURITY DEPARTMENT

The Networking and System Security (NSS) department in NKFI is a department under the umbrella of ICT, it plays a crucial role in the overall information technology landscape of NKFI, our department offer both National Diploma Innovation (NID) and Short term professional programs.

Our Aims

To produce technically competent manpower to meet the National and International requirements in the areas of designing, installation, maintenance and management of local, wide area and wireless network environment with security measures.

Our Objectives

Our objectives revolve around creating a secure and robust network technology environment for an organization and these include:

◆ Set up and upgrade a computer network;
◆ Start a small and medium scale enterprise that would provide solutions to organizations' networks;
◆ Diagnose and correct faults on networks;
◆ Implement network security and handle back up and recovery;
◆ Install, configure and troubleshoot all types of network hardware devices;
◆ Update the performance and baseline of a network using network monitoring tools.

NID duration;

The duration of our NID program is two (2) years including SIWES and 1 year Industrial Training (IT) after graduation as required by NBTE

NID Core *course outline includes;*

Basic Computer Skills, Computer application packages, Introduction to networking, Network Operating System, Network design topology and Network protocols, Network Cabling, Introduction to Networking Devices, Introduction to WAN technology, Network Security,

Power and Network Management,Data security, Web Server Fundamentals, Fundamentals of WLANs, Computer hadrware, Graphics Design, Robotic/AI and Project Managements,

Our Short Term Courses and Duration

◆ CyberSecurity Essential (5 Months)

◆ Computer Hardware and Networking (4 Months)

◆ IT Support Specialist Lv1&2 (5 Months)

◆ Cisco Certification (CCNA, CCNP)

◆ Robotic Engineering and Artificial Intelligence

CYBER SECURITY

PROGRAMME DESCRIPTION:

In the age of the internet, organizations are heavily relying on IT infrastructure to keep them safe from cyber-attacks.

As more and more organizations are adopting digital transformation, the risk of cybercrime is increasing at a rapid rate; so is the importance of cyber security.

LEARNING OUTCOME.

This course will expose students/trainee to the following:

❖ System Security, the threats, Vulnerability of network software and devices.
❖ It equally introduce and expose student/trainee to Security governance and ethics
❖ It familiarize students with some Pen Test applications and platform
❖ It familiarize students Social engineering application and ethical hacking with password cracking.

TARGET AUDIENCE: This programme has no limit to any category of persons. It is designed for individual persons, private body, Non-governmental organization and Government organization,

METHODOLOGY:

Lectures, discussion, demonstration and Hands- on training

HARDWARE AND NETWORKING
PROGRAMME DESCRIPTION:

Computer networking has become an essential component of modern society, and plays a critical role in the functioning of business, governmentsand individuals alike. As technology continues to advance, computer networkingwill continue to evolve and play an increasing important role in our daily lives

LEARNING OUTCOME:

- ❖ This course will expose students/trainee to System repairs, Troubleshooting and maintenance.
- ❖ It equally introduce and expose student/trainee to system user management and cooperate application management
- ❖ It familiarize students with cooperate working tools and serviced.

TARGET AUDIENCE:

This programme has no limit to any category of persons Its designed for individual persons, private body, Non-governmental organization and Government organizations

METHODOLOGY:

Lectures, discussion, demonstration and Hands- on training
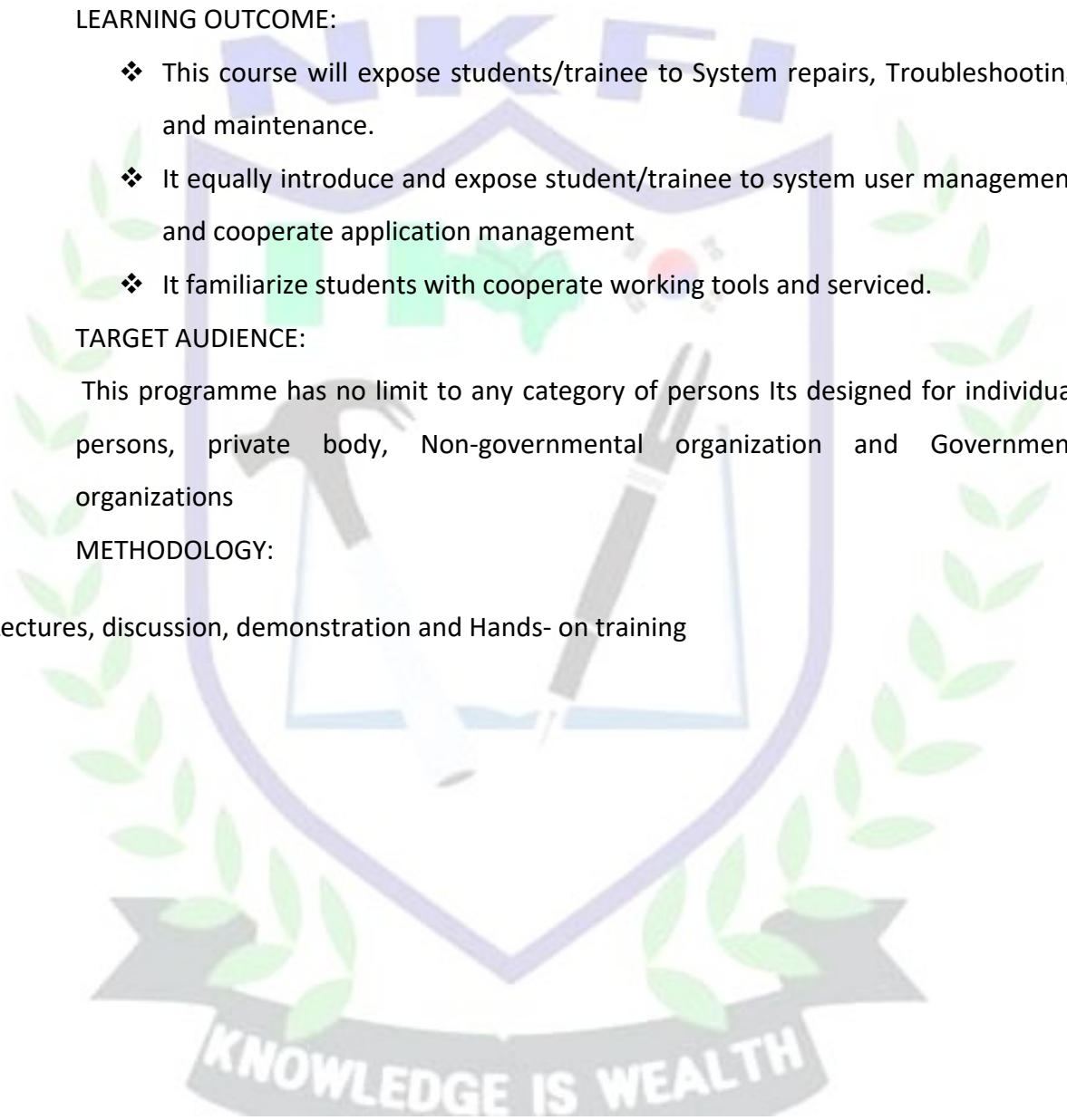
WELDING AND FABRICATION TECHNOLOGY

Lokoja, Nigeria

CONTENTS

1. Arc Welding
2. Gas Tungsten Arc Welding (GTAW) TIG
3. Metal Inert Gas (CO2) Welding
4. Plumbing and Fitting.

SHIELDED METAL ARC WELDING (ARC WELDING)

PROGRAM DESCRIPTION

The nature of SMAN mean that many materials of different thickness can be joined, producing parts that have applications essentials to everyday life.

Welding is involved in the construction of steel structures, fence, gates, vehicles, industrial fabrication for bridges and canopies. Without proper welding procedures most of these products that people benefit from would not function properly.

LEARNING OUTCOME.

At end of the training the participants should be able to:

- Operate and control arc welding machines
- Connect welding cables with welding machines and job.
- Use welding safety equipment.
- Identify the metal to weld by scratching or tapping process in the light of welding arc.
- To perform arc welding – MS welding of common welding joints in all position.

TARGET AUDIENCE.

Minimum of 18 years old, at least secondary school graduates, graduates of higher institution, experienced workers, and supervisors.

METHODOLGY: Lectures, discussion, demonstration and Hands- on training

GAS TUNGSTEN ARC WELDING (TIG)

PROGRAM DESCRIPTION

TIG welding is often considered the strongest weld since its produces extreme heat and the slow cooling rate results in high tensile strength and ductility. TIG welding is applicable in pipeline and pipe welding, it is however use in many industries such as aviation, aerospace and street metal industries.

TIG welding machine is that produces high quality welds without slag or spatter which appears professional and precise.

LEARNING OUTCOME

At the end of the course, the participants should be able to:

- Understand GTAW welding fundamentals and its processes
- Identify the major parts of the machine and the different equipment.

- Setup and shut down the GTAW equipment and know how to maintain the machine.
- Know and use major proper safety procedures and equipment in GTAW.
- Learn the different shield gases and the common types of GTAW electrodes and know the differences between them
- Know how to weld mild steel and stainless steel on square groove butt, lap,T-, edge and corner joint in different positions
- Make use of the common edge preparations and the different weld joint designs
- Identify problems and weld defects and know how to correct them.

TARGET AUDIENCE.

Minimum of 18 years old, at least secondary school graduates, graduates of higher institution, experienced workers, and supervisors.

METHODOLGY: Lectures, discussion, demonstration and Hands- on training

METAL INERT GAS (CO2)WELDING

PROGRAM DESCRIPTION

Co2 welding offer higher efficiency, lower welding cost and better economy. Co2 welding is a good choice for thicker materials and when a cost effective process is required.

Co2 welding is an efficient versatile cost effective and easy to clean welding method than be used for a range of manufacturing application. Using Co2 welding in manufacturing process to save time and money while producing high quality welds.

LEARNING OUTCOME

At the end of the course, the participants should be able to:

- Understand MIG welding fundamentals and its processes
- Identify the major parts of the machine and the different equipment.
- Setup and shut down the MIG equipment and know how to maintain the machine.
- Know and use major proper safety procedures and equipment in MIG.
- Know how to weld mild steel on square groove butt, lap,T-, edge and corner joint in different positions
- Make use of the common edge preparations and the different weld joint designs
- Identify problems and weld defects and know how to correct them.

TARGET AUDIENCE

Minimum of 18 years old, at least secondary school graduates, graduates of higher institution, experienced workers, and supervisors,

METHODOLGY: Lectures, discussion, demonstration and Hands- on training

PLUMBING AND FITTINGS.
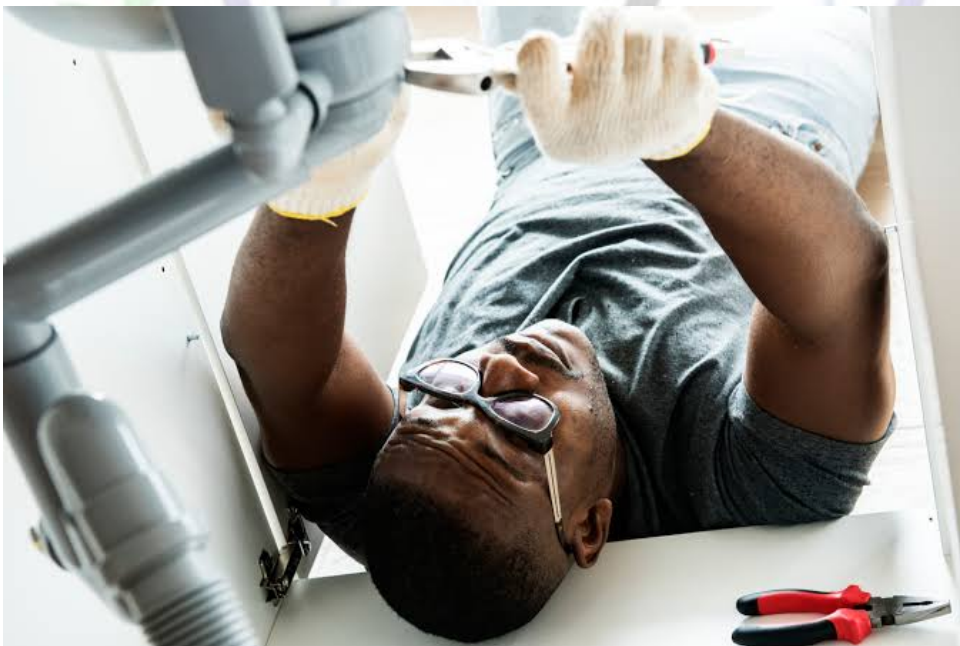
PROGRAMME DESCRIPTION.

Plumbing system protect the health, safety and comfort of the nation, It reduces the spread of diseases and improved sanitation.The man-made environment relies in plumbing because , it play an important roles in the society. It makes drinking water safe and pure.

LEARNING OUTCOME

At the end of the course, the participants should be able to:

- Calculate length of pipe systems using the metrics and inch system
- Identify typically used materials, tools and equipment in pipe fittings.
- Identify common fittings , valves, pressure gauges, flow meters
- Know common methods to fit pipes together
- Interpret drawings to fabricate pipe system
- Layout, cut thread and install pipes for water supply system
- Know different possibilities on how to bend pipes (hydraulic pipe bender and hot bending)
- Know the basics about installing a building water supply system (circular pump, different valves, flow meter, pressure guage….)
- Know the basics about PVC-Pipe processing.

TARGET AUDIENCE

Minimum of 18 years old, at least secondary school graduates, graduates of higher institution, experienced workers, and supervisors,

METHODOLGY: Lectures, discussion, demonstration and Hands- on training
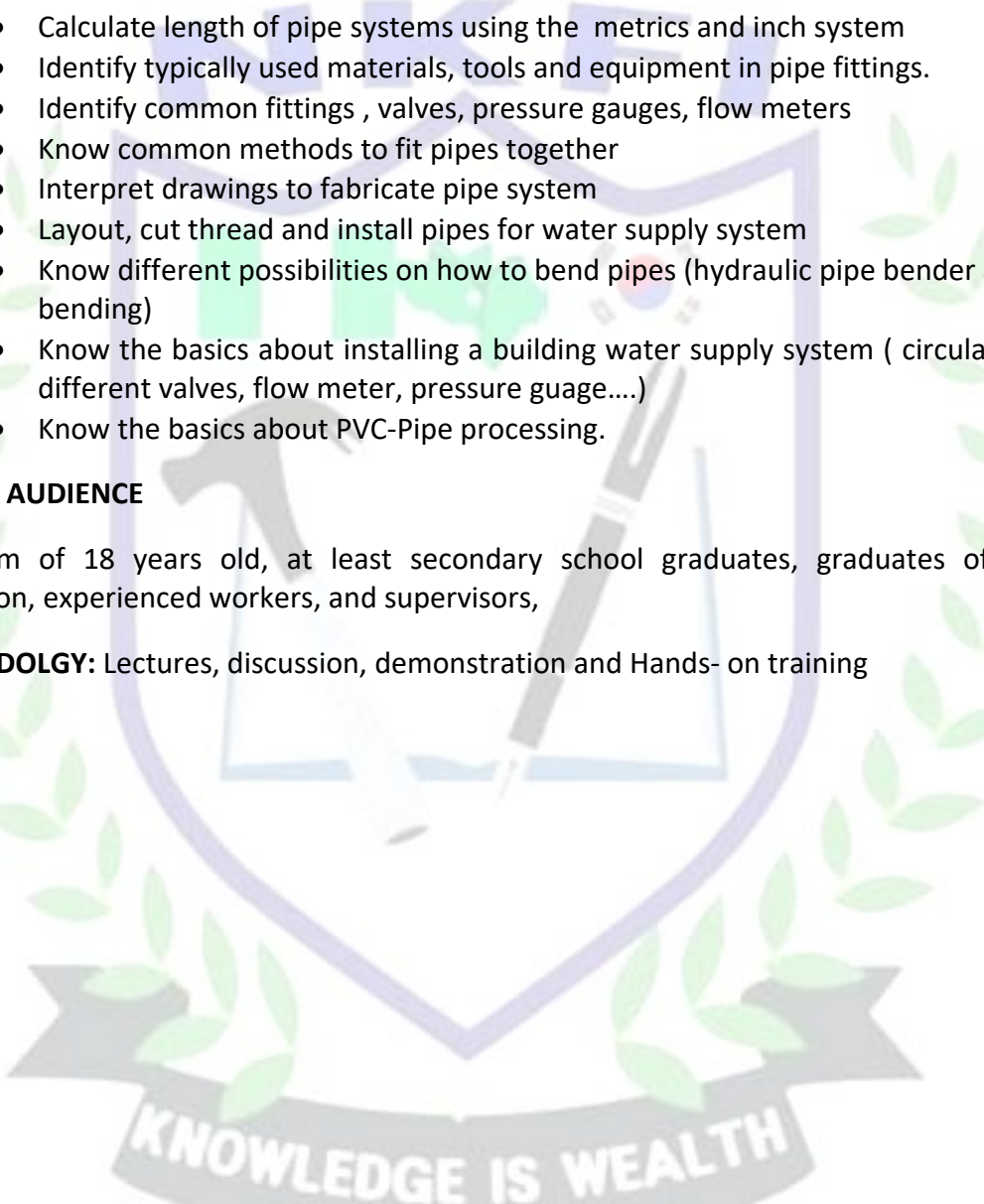
VOCATIONAL TRAINING

The Nigeria Korea Friendship Institute (NKFI) is an accredited institute for Vocational trainings. Our vocational training duration is 3- 12 months in nature depending on the demand. We provide the much needed skills for students who enroll into our institute with cutting edge technology and state-of-the-art equipments, by highly qualified and certified personal.

Below are list of the Vocational trainings we provide:
1. Electric Machine Practice and Construction.
2. Computer Hardware and Networking
3. Electrical / Electronic repairs and   Installation
4. CCTV Installation and Maintenance.
5. Fashion Design and Techniques
6. Plumbing and Fittings
7. Website Design and Development
8. Software Development, Business and Office Automation
9. Special and Arc Welding
10. Photography and Cinematography
11. Robotic Engineering and AI
12. Engine maintenance

ENTRY REQUIREMENT:
No entry requirement
INTREST is the entry requirement

METHOD OF ENTRY
Application form is N10,000 only

PROFESSIONAL PHOTOGRAPHY

PROGRAMME DESCRIPTION

Photographer are the storytellers of our lives, where we are like flowers that bloom a day and the next day we are gone, their work is multifaceted and plays a significant role in our society. Through their images, they document the world around in their own unique way, they evoke emotions, challenge our perspectives, and create a sense of connection between the viewer and the subject.

LEARNING OUTCOME

At the end of the training, the participant should be able to :

- Understand photography techniques
- Understand cinematography
- Understand photo editing
- Understand video editing

TARGET AUDIENCE.

At least secondary school graduates, graduates of higher institution, experienced workers, and supervisors,

METHODOLGY: Lectures, discussion, demonstration and Hands- on training

CONSULTANCY SERVICES

The institute has a consultancy unit – NKFI Consult. Its sole responsibility is providing professional products and services to the public using best cutting edge technologies.

PRODUCT AND SERVICES

◆ Curriculum development for Technical and Vocational Education

◆ Setting up a Technical and Vocational Education and Training (TVET) institute.

◆ Corporate and specialized training abroad.

◆ Design, Installations and Management of any type of Network for private/public Organization with security measures.

◆ Building and developing smart homes

◆ Outsourcing services of I.T Support specialist/officers

◆ Private/Public Data Archiving and Management with secured private data policy.

◆ Design, Installation and management of CCTV system for Local and Remote view with backup.

◆ Fabrication of Industrial machine equipments, household equipment.

◆ Gas pipeline welding

◆ Underwater welding

◆ Software development and office Automation.

◆ Web Design, Development and Maintenance

◆ Computer Desktop/Laptops Installation, Repair and Maintenance.

- ◆ Electronic wheel balancing and alignment
- ◆ Engine scanning, analysis and diagnosis.
- ◆ Painting of vehicle
- ◆ Brake and clutch work
- ◆ Brake speed regulation
- ◆ Side slip tester
- ◆ Lube services
- ◆ General car services, troubleshooting and repairs.

For more inquiries:
Tel: 07058872065
Email: williams.charles@nkfi.edu.ng

ADMISSION AND ENTRY REQUIRMENTS

Admission Requirement for National Innovative Diploma (NID)

5 O' Level Credits (including Mathematics and English)- With any other three Science or requisite credits including, Physics, Chemistry, Biology, Agric

Method of Entry

Application is through the Unified Tertiary Matriculation Examination (UTME) conducted by the Joint Admission and Matriculation Board (JAMB). In addition to attaining the general required standard, candidate must satisfy the general institutes' requirements as well as the specific departmental programme requirements.