

NIGERIAN INSTITUTE OF TRANSPORT TECHNOLOGY (NITT), ZARIA

CNG TRAINING Programs & CONSULTANCY SERVICES



**Training for efficient
Transport Industry**

Introduction

About the Institute:

The Nigerian Institute of Transportation Technology (NITT) is a parastatal of the Federal Ministry of Transportation saddled with the responsibility of leading the advancement, application, adaptation and domestication of transport technologies in Nigeria as enshrined in its Act "The Institute's mandate is to *provide equipment and facilities for the encouragement, promotion and conduct of research in all modes of transport and Logistics* and to *drive innovations through development of new technologies to meet the demands of the transport and logistics Industry*".

The Institute observed the underlisted as the main challenges that will eventually slowdown the process of migration from petrol to either LPG or CNG through conversion or more preferable installation of appropriate kits in the vehicle. These challenges are:

1. Lack of adequate Awareness of the pros and cons of the conversion amongst stakeholders.
2. Lack of uniform standard across the country with regards to the conversion kits, processes and facilities.
3. Lack of adequate technical skill for the conversion, repair and maintenance of the converted vehicles and equipment across the country.

In view of the above, the Institute developed three categories of training programs with a view to create awareness as well as to promote the provision of Technical Manpower Training and Conversion Facilities across the country. These programs are:

1. **CNG Conversion Awareness Course:** For Senior Managers and Administrative Officers
2. **Basic CNG Conversion Course:** For Technical and Operation Officers
3. **NSQ CNG Conversion Certification Course:** For Career Development and National Certification
4. **Entrepreneurship Program for Compressed Natural Gas (CNG) Conversion Center (EPCCC):**
For Investors in CNG Value Chain
5. **CNG Value Chain Development Consultancy Services:** For Investors in CNG Value Chain
6. **CNG Conversion Technician Certification:** For technicians with acquired skills



CNG Conversion Awareness Course

Rationale:

This Course provides the basic knowledge of the entire value chain of Natural Gas (CNG) in Nigeria. This awareness course will help senior managers and other administration officers in decision making, supervision, contracting and advising on matters relating to CNG value chain.

Furthermore, the course will equip the Participants of the requirements for establishing conversion centers, dispensing stations as well as understand the Health, Safety and Environment (HSE) issues associated with the entire value chain of CNG in Nigeria.

Objective:

At the end of the program, Participants will be able to understand:

- The landscape of Nigeria's Natural Gas Resources.
- The Basic Requirements for Conversion.
- Conversion Kits Component Value Chain and OEMs.
- Requirements for Establishing Conversion Center and Dispensing (Daughter) Station.
- The Economics of Conversion.

Contents:

- Introduction to Nigeria's Natural Gas Resources.
- Basics of Conversion Requirements
- Conversion Kits Components and OEMs
- Relevant National Standards (ISO) on CNG Value Chain.
- Operation and Administration of Converted Vehicles.
- HSE of CNG Conversion.
- Establishing CNG Conversion Center and Daughter Station.
- The Economics of CNG Conversion
- Policy and environmental Issues



Target Participant

Senior Managers, Public Relation Officers, Human Recourse Managers, Procurement Officers and Other Administrative Officers

Duration/Date: Two Days

Venue: Negotiable

Fee: N100,000.00

Basic CNG Conversion Course

Rationale:

This Course provides the instruction and comprehensive practical learning necessary to understand and install CNG fuel systems in vehicles that will comply with all applicable safety codes and standards.

The training is aimed at teaching participants about all CNG fuel system components and their functions, as well as how to treat CNG cylinders during the fuel system installation process, and how to assess potential damage that may occur prior to or during installation. Special emphasis is placed on properly understanding and applying the codes and standards governing CNG fuel system installation.

The training will run in two different mode vis;

1. 2-days classroom lecture to acquaint the Participants with the theoretical aspect of the CNG value chain as well as Safety and other related issues.
2. 8-days practical work where the Participants will be subjected to rigorous physical training on components installation, testing, calibration and quality certification.

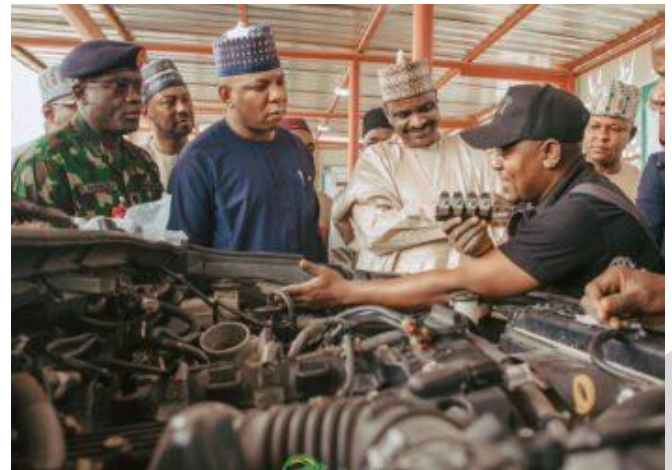
Objective:

At the end of the program the Participant will be able to:

- Understand the basic requirements for CNG conversion.
- Describe Conversion Kits Components and their Functions
- Install Conversion Kits Components in Vehicle
- Inspect, Test and Calibrate Converted Vehicle
- Maintain and Repair Converted Vehicle

Contents:

- Introduction to Autogas (CNG/LPG); Science, Theories and Regulations
- Introduction to Occupational Health and Safety Requirements in Autogas Environment;
- Communication System in a Work Environment
- Introduction to TEAMWORK
- General Workshop Practice
- Autogas Conversion Tools and Equipment
- Understanding Conversion Kits Components
- Autogas Conversion Processes
- Autogas (CNG/LPG) Tank Installation
- Autogas (CNG/LPG) Engine Compartment Component Installation
- Electrical Harness Routing and Connection
- Installation Inspection and checks
- Fundamentals of Calibrations and Diagnoses
- Practicals by the Trainee



Target Participant

Inspection/Supervising Technical Officers and Technicians working in the conversion centers as well as dispensing stations.

Duration/Date: Two Weeks

Venue: Negotiable

Fee: N800,000.00

NSQ CNG Conversion Certification Course

Rationale:

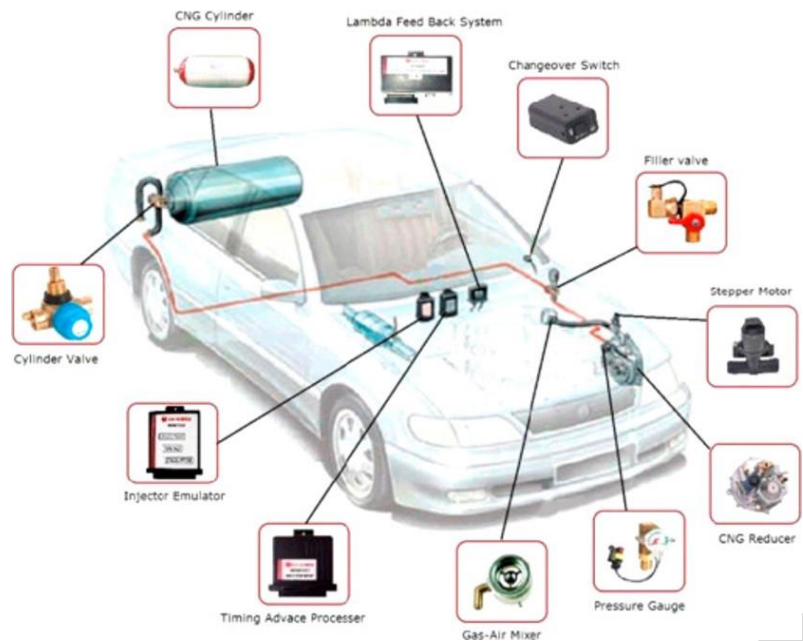
This course has been developed to provide foundation and other necessary requirements for the pursue of the NSQF which is a system for the development, classification and recognition of skills, knowledge, understanding and competencies acquired by individuals, irrespective of where and how the training or skill was acquired.

The training will guide Participant in a clear statement of what they must know or be able to do with respect to CNG Conversion according to the National Skills Qualifications (NSQs) on Autogas (CNG) Conversion.

Furthermore, Participant will be assessed and certify by the awarding body according the National Occupation Standard (NOS) provisions.

Contents:

- The content of the this programs reflects the National Occupation Standard (NOS) and the Level(s) or Unit(s) based on which the participant or learners are to be assessed.



Objective:

The programs is aimed at:

- promoting lifelong learning and continued skill acquisition in the field of CNG Conversion.
- providing quality assurance and recognition amongst Conversion technicians

Target Participant

Technical Officers and Technician with or without Knowledge and Skills of Conversion

Duration/Date: Three Months

Venue: Zaria

Fee: N500,000.00

Entrepreneurship Program for Compressed Natural Gas (CNG) Conversion Center (EPCCC)

Rationale:

With the rampage of investment in the establishment of conversion and training centers across the country, there is the need to develop systems/processes that will guide, furnish and equip investors with requisite knowledge and requirements on CNG value chain. The provision of training and consultancy services to the investors would be key to achieving the desired and sustainable conversion and training centers. Hence, this proposed entrepreneurship program (EPCCC) is developed for the established and would-be establish conversion and training centers.

Objective:

The programs is aimed at stimulating capable and would-be investors and entrepreneurs interested in understanding and setting up CNG conversion centers and any other opportunity in the value chain.

Contents:

- Understanding the CNG Value Chain
- Identifying the investment opportunities in the value chain
- Understanding the layouts, designs, types and models of Conversion centres.
- Economics of Conversion centers.
- Regulatory permits and licenses.
- Personnel Training and Selection
- Equipment and Tools
- Techno-commercial Business Plan with ROI



Target Participant

Prospective investors in all CNG Value Chain – Setting up Conversion/Training Center, Daughter Station, Kits Supply etc

Duration/Date: 1 week

Venue: Negotiable

Fee: ₦250,000.00

Consultancy and Implementation Support Program

Rationale:

establishing or developing a CNG conversion and training center and setting up of refilling (daughter stations) requires the expertise of technical competent hand that will guide the investor and also provide consultancy services which will and hold the would-be investors through the process of implementation to achieve the first conversion.

.Hence, this proposed consultancy service under the entrepreneurship program (EPCCC) is developed for the established and would-be establish conversion and training centers and daughter stations.

Objective:

The programs is aimed at Supporting Investor with Consultancy Services that enable them to:

- Make informed technical and commercial decisions on establishment of CNG conversion and training centers.
- Setup CNG refilling daughter stations either alongside with conversion center or in isolation focusing on establishment, necessary accessories and regulatory provisions.

Strategy & Area of Support:

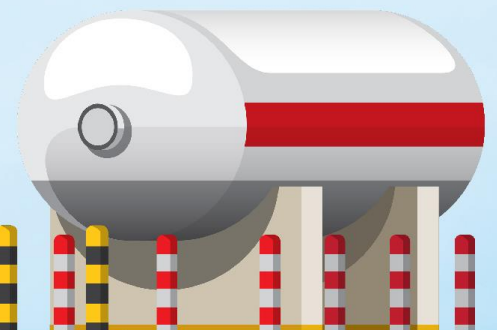
- Engineering/Design
- Construction
- Procurement of Equipment & kits.
- Installation of Equipment
- Commissioning
- Supply of Manpower for Operations.
- Support to become accredited conversion centre by PCNGi, NADDC, NITT and SON.
- Training and Retraining.

Target Participant

Prospective investors in all CNG Value Chain – Setting up Conversion/Training Center, Daughter Station, Kits Supply etc

Duration/Date: 1 Month

Fee: N3,500,000.00



CNG Conversion Technician Certification

Rationale:

This Certification Course for skilled technician with pre-qualified skills in Compressed Natural Gas (CNG) conversion is a structured process to ensure that technician meet both the technical and safety standards necessary for high-quality and safe conversions. This certification process ensures that CNG conversion technicians possess the technical skills, practical experience, and safety knowledge needed for high-quality, compliant CNG installations. Regular updates to training materials and assessments are recommended to keep certifications aligned with evolving industry standards and technologies

Objective:

The objective of the program are:

1. Validate Technical Competency in CNG Systems
2. Ensure Compliance with Safety Standards and Protocols
3. Assess Proficiency in Diagnostic and Troubleshooting Skills
4. Evaluate Knowledge in Maintenance and Servicing of CNG Systems
5. Ensure Familiarity with Quality Assurance Practices
6. Equip with Advanced Knowledge of Emerging CNG Technologies
7. Build a Foundation for Professional and Ethical Standards

Area of Assessment:

• Technical Knowledge Assessment
• Practical Skills Verification
• Safety Standards and Compliance
• Customer Communication and Soft Skills

Method

Step 1: Application and Documentation Review

- Applicant apply through the Institute portal (cng.nitt.gov.ng) or through written application.

Step 2: Written Examination (Knowledge Test)

- Test foundational knowledge in CNG systems, safety protocols, component functions, and regulatory requirements through a Multiple-choice, short-answer questions, and scenario-based problems.

Step 3: Hands-On Skills Assessment (Practical Test)

- Assign a vehicle for the technician to perform a full CNG conversion, under observation by a certified assessor.
- Present the technician with a simulated issue (e.g., minor leaks or faulty calibration) to assess their problem-solving skills.

Step 4: Safety and Compliance Simulation

- Observe the technician's response to a simulated emergency, such as a gas leak.

Duration/Date: Five-days

Fee: N100,000.00

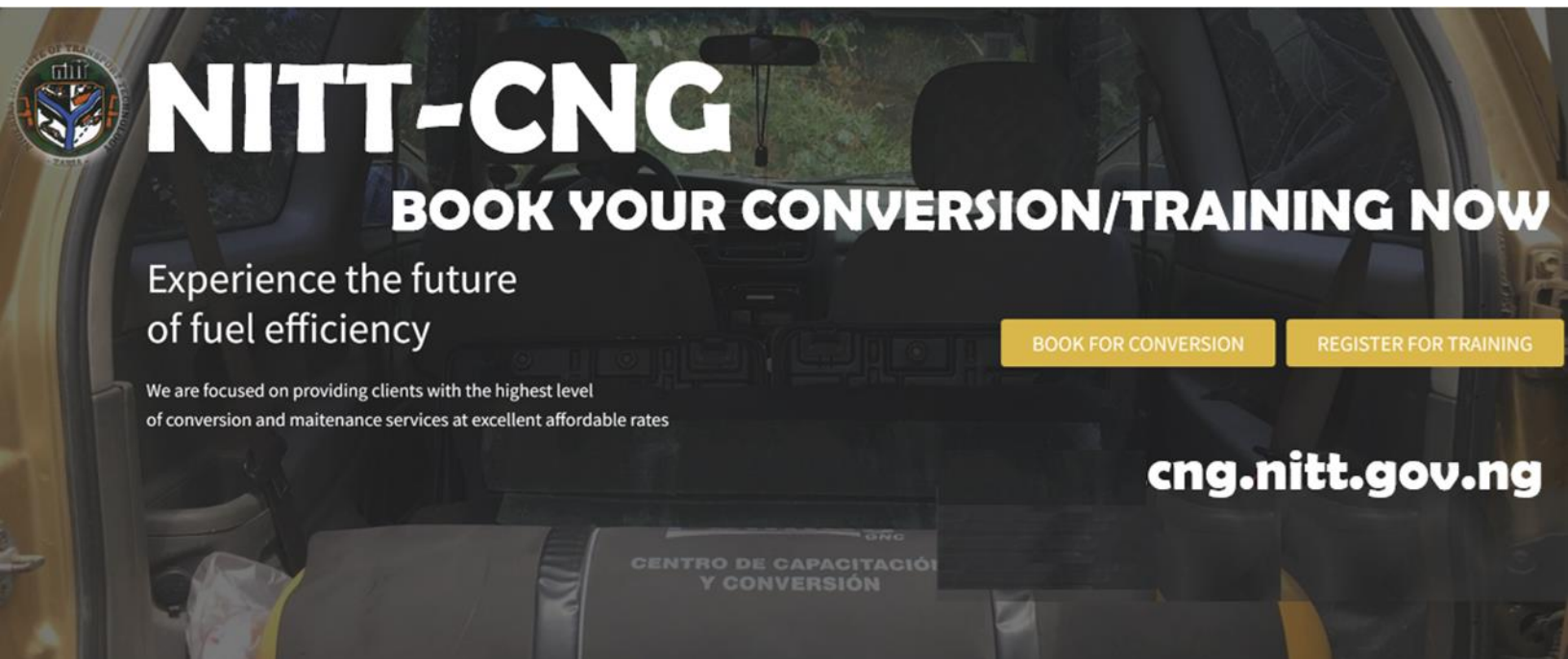
Venue: Institute Facility


Note: The fee will vary if the assessment will be conducted at the clients facility



E-BOOKING & REGISTRATION

- Visit cng.nitt.gov.ng
- Select one of the programs
 - Conversion of Vehicle
 - Registration for Training
 - Establishment of Conversion Center
 - Establishment of Daughter Station
 - Other value Chains
- Sign up first before login
- Login with the sign up details
- Continue your journey with NITT-CNG



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BOOK YOUR CONVERSION/TRAINING NOW

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of conversion and maintenance services at excellent affordable rates

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CENTRO DE CAPACITACIÓN
Y CONVERSIÓN



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