

*Bio Projects  
EPC Services*



[www.unitechtrading.com](http://www.unitechtrading.com)

 **UNITECH**<sup>TM</sup>  
Projects With Purpose



# UNITECH EPC (M & E) CONTRACTING SERVICES

MECHANICAL

ELECTRIAL

INSTRUMENTATION

- Design & Engineering
- Procurement
- Construction
- Testing & Commissioning
- Project Management
- Document Management
- HSE & QA/QC Management
- Maintenance Management

## Industrial Projects

You can rely on UNITECH's wide range of (EPC) Engineering, Procurement and Construction Services. We are specialized in:

- Plant Construction
- Testing and Commissioning
- Maintenance & Revamping Services
- Revamping and De-Bottlenecking of Electrical, Instrumentation & Analyzer Systems for Process Plants.

## Global Construction

The Technical Support Division of Unitech guarantees effective and efficient world class service to Oil & Gas, Refinery, Petrochemical, Fertilizer, Mining and Utility Industry.

**Plant Discipline Concept :** Mech. – Stationary Mech. HVAC – Rotating equipments, Electricals, Instrumentations, Analyzers, SCADA Field Instrumentations. Material Management Product Handling, Warehouse Management, Plant Logistics, Plant Inspection Services Plant Shutdown Services. Core Plant Area (Distillation, Hydro treating, Conversion Unit, Sulphur Treatment Facility, Aromatic Unit, etc) Offsite & Utility Refinery Tank Farm Pipeline & Offsite Facility.

**Mechanical Equipment :** Heat Exchanger Cleaning / Repair Column / Inspection Fin Fan Cooler Repair / Replacement MOV / Valve Repair (Removal & Reinstall) Sea Water Basin Jobs PSV (Removal, Trans. & Reinstallation) Product Handling Equipment. Overhauling and Inspection of the following types of rotating equipment: Turbines Compressors Pumps & Agitators Gear Boxes & all other major equipments.

**Electrical & Instrumentation :** Maintenance of PCC & MCC, Maintenance of Transformers, Motors (HV, MV, LV) Maintenance of UPS & Batteries Generators Protection Relays – Testing & Calibration Maintenance of Fire Alarm & Security Systems etc. Field Instruments (Pressure, Flow, Temp, Level Transmitters) Control Valves Revamp / Modification & Maintenance of DCS / ESD / PLC System

## Analytical Project

Unitech has been credited for its timely and successful completion of various analytical installations and post turnover maintenance contracts with respected names in the petrochemical, oil and gas industries.

We focus on the following areas of solutions:

- Analytical
- Instrumentation
- Safety, Health and Environment
- Hazardous Gas Detection Systems, Portable Gas Detection, Portable Environment Monitoring instruments Environmental Consultation and Rehabilitation Services.

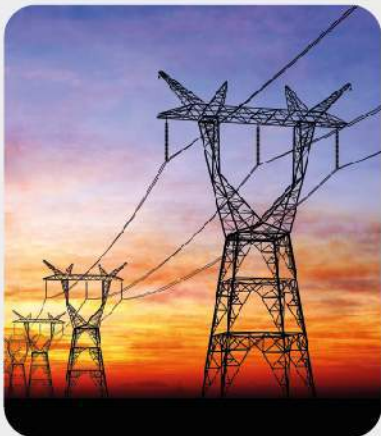


# Energy Automation

The division's primary objective is to meet the growing demands of the local market. It specializes in the integration of SCADA and telemetry systems with substation control and protection systems. It has also expanded its business to include SCADA systems for the Oil & Gas industry, specializing in Pipeline and Wellhead monitoring and control systems. Its solutions are facilitated by strategic agreements with a range of designers, protection vendors and installation contractors, which ensure Unitech services' direct access to world class technology products.



## Our Business Covers The Following Areas:



### SCADA Solutions

RTU, SOE, DFR, DSM Energy Management Systems  
Distribution Management Systems Communication Systems

### Power Quality Solutions

Capacitor Bank Solutions, Harmonic Studies & Filter Design,  
Power Quality & Management Monitoring.

### Monitoring & Diagnostic Solutions

Online Dissolved Gas Analysis Services Substation, Power Plant Testing  
& Commissioning Industrial Testing & Commissioning, Training Services.

## Domains Covered

Waste-to-Energy

Water & Waste  
Water

District Cooling

Green Power

Power Plant

Oil & Gas

Metals

Energy  
Management

Infrastructure

Automotive

Manufacturing

Custom software



## Maintenance & Shutdown

**UNITECH** is known for providing professional services with technically qualified manpower to various clients to handle maintenance & operation related to Petrochemicals, Chemicals, Fertilizers, Oil & Gas industries, and Power sector, Community, Industrial and Economic Cities.

**UNITECH** can provide these services as a complete package or on hourly/ monthly basis. Our Engineering and Project Management Team consists of Local and International Resources.

Different Model/ Approach for Maintenance & Operation Services:

Facility Management Services as a total responsibility contractor –Maintenance, Planning, Supervising, Operation on long term basis  
Plant operation and Logistical Management Plant Maintenance as a full responsibility Contractor Professional Manpower supply for Plant Maintenance and Operation.

## Feasibility Study

The category of supplied professional team for Maintenance and Operation include but not limited to Maintenance Engineers (Static, Rotating, Electrical, Instrument and Analyzer) Maintenance Supervisor and Technicians (Millwright, Civil, Electrical, Instrument, Analyzer, Machinist, Refractory, Welders and Fabricators etc.) Shift Supervisors, Process Operators etc.

## Industrial Client Support



The Support Services, which consist of multi-skilled and highly competent workforces being sourced from the different parts of the world, have the capabilities to manage complicated technical projects with a high degree of professionalism.

The offered services range from but not limited to: Project Management Services, Plant Engineering Services, Plant Maintenance Services, Plant Inspection Services, Plant Operations Services, & Plant Shutdown Services.

**UNITECH** can mobilize manpower as per client requirements related to Plant Engineering & Project Management, Plant Maintenance, Plant Operation and Plant Inspection and Reliability for various industrial sectors such as Oil & Gas, Refineries, Petrochemical, Fertilizer and Power & Utility Industries.

**UNITECH's** services are available on modular type requirements and can provide tailor-made solutions attuned to the needs of each individual client. The company offers in-depth competence and expertise in handling outsized projects while ensuring that every minute detail are attended with efficiency.





# UNITECH BUILDING MANAGEMENT SERVICES

Unitech design is based on the criteria of innovation, integrity and reliability. Our team comprises of highly qualified people, all proven professionals selected from a host of international markets. Constant growth and sustainability, proof of concept and leadership spurs us to go beyond geographical boundaries, making a niche in the market with single-minded dedication and commitment to our business partners and customers.

## Our Services:

- Telecom Projects and Maintenance Solutions
- FO cable networking Solutions
- UPS system and integration solutions.
- Infrastructure IP CCTV Solutions
- Gas & Oil Pipeline Monitoring Solution
- Power Generator Monitoring Solution
- Smart Grid Transformer Monitoring Solutions
- Street lights real-time monitoring system solution
- Office Access Control Solution
- Property Management Access Control Solution

## Telecom Projects and Maintenance

Unitech is known for providing professional services with technically qualified manpower to various clients to handle all the utility Telecom projects & its maintenance works related to Buildings, Infrastructures, Petrochemicals, Oil & Gas industries and Power sector, Community, Industrial and Economic Cities.

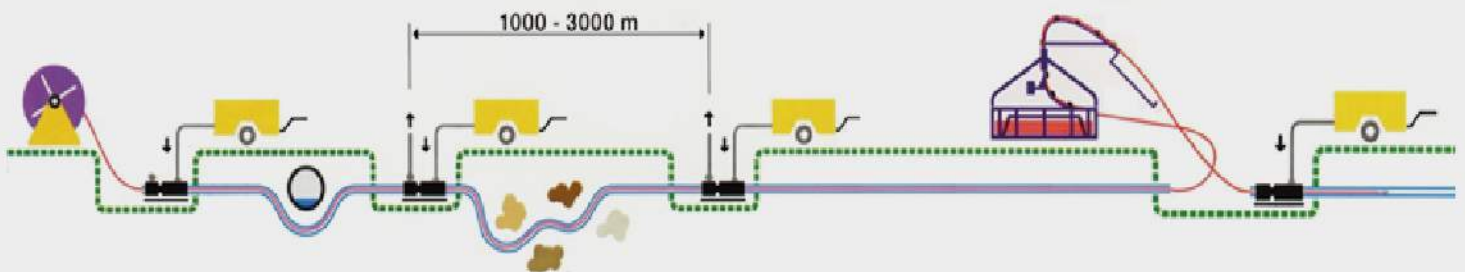
## Our Model and Approach

Our Telecom Team of responsibility contractor –Maintenance, Planning, Supervising, Operation on long term basis. Plant Maintenance as a full responsibility Contractor Professional Manpower supply for Plant Maintenance and Operation.

Our Managed Services model is a non-invasive approach to outsourcing, providing skills and competencies, with support tailored to customer requirements and the flexibility to implement and manage key projects as part of ongoing operations. This model provides our customers the best of both worlds - control and flexibility over their information systems without the pain or cost of maintenance.

## Feasibility Study

The category of supplied professional team for Maintenance include but not limited to Maintenance Engineers (Telecom Engineers, Telecom Technicians, Fiber Optical Splicers with tools, special tools, networking) Maintenance Supervisor and Technicians (Instrument switches, Jointing, testing etc.) Shift Supervisors, Process Operators etc.



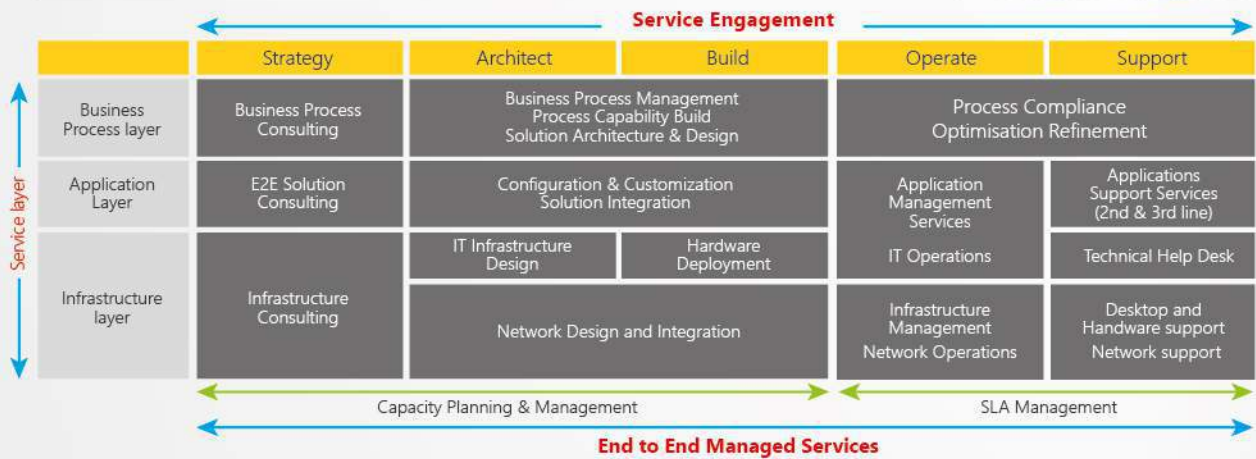
**UNITECH** Support Services, which consist of multi-skilled and highly competent workforces being sourced from the different parts of the world, have the capabilities to manage complicated technical projects with a high degree of professionalism.

**UNITECH** can mobilize manpower as per client requirements related to Plant Engineering & Project Management, Plant Maintenance, Plant Operation and Plant Inspection and Reliability for various industrial sectors such as Oil & Gas, Refineries, Petrochemical, Fertilizer and Power & Utility Industries.

**UNITECH's** services are available on modular type requirements and can provide tailor-made solutions attuned to the needs of each individual client. The company offers in-depth competence and expertise in handling outsized projects while ensuring that every minute detail are attended with efficiency.



# COMPREHENSIVE FIBRE OPTIC CABLE SERVICES



## Engineering:

- Conduct a Site Survey
- Surveying Existing Networks
- Engineered on FO Cable towards Minimum Bend Radius
- Develop a Cable Pulling Plan
- Engineered on FO Cable towards Maximum Recommended Load
- Save the Extra Cable

**Supply:** Since we design; we supply major materials of the system as required for the telecom industry

**Installations:** Services we offer for Fiber Optic Cabling:

- Cabling (Fibre/Copper /Coax), Cat 5, Cat 6
- Cable recovery Heavy/Light
- Blown fibre
- Sub Duct Installation
- Exchange reclamation
- MDU installations
- Emergency Callout
- Sensing Fibre (Direct Bury)
- Fibre Optic Installations
- Fibre Splicing

## Testing & Commissioning:

- Fusion Splicing
- Insertion Loss Measurement Testing (ILM)
- Optical Time Domain Reflectometer (OTDR) Testing
- Optical Return Loss
- Fiber Optic Cabling
- Terminating, Jointing and Fibre Splicing

Fiber Optic Cables - due to Unitech quality and excellent performance - have become quite a subject in the Cable Laying business. Laying fiber optic cables is a demanding task. You need low pull forces, installation of many kilometers of cable with no cuts and, above all, safety and reliability with high performance.

The "no-pull" Cable jet blowing-in system meets all conditions even if the requirements are unusual hence the right machines can greatly enhance rational working and working convenience.



# UNITECH BIO SERVICES

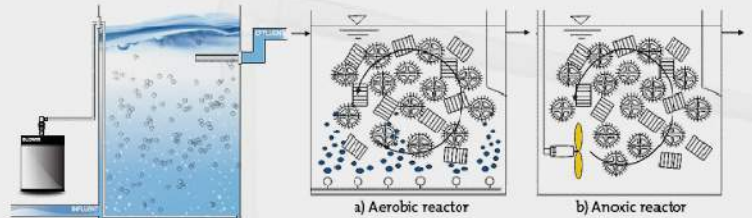
## Integrated Solution For Water & Waste Water System

New System Design and Built Units  
 Re-design, Retrofit and Re-commission  
 O & M, Spare Parts Services  
 Survey, Audit and Consulting  
 Water Treatment Chemicals

IWSS (Integrated Water Solution and Services)

### Moving Bed Biofilm Reactor (MBR / MBBR) Unitech Technology:

UNITECH MBBR processes improve reliability, simplify operation, and require less space than traditional wastewater treatment systems. Each individual bio-carrier increases productivity through providing protected surface area to support the growth of heterotrophic and autotrophic bacteria within its cells.



Unitech Bio Service provides cost-effective treatment with minimal maintenance Process Benefits, Compact Design, Expandable, easily upgraded, Single Pass Process, Zero return activated sludge stream, Load Responsive and Minimal Maintenance.

### Media We Use:



### Benefits for Biochemical Oxygen Demand (BOD) Reduction by Unitech includes:

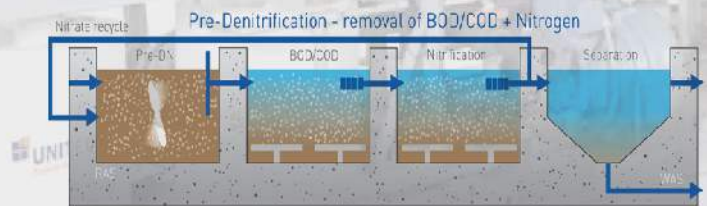
- High Land-Use Efficiency.
- Unattended operation.
- Expandable by simple addition of biofilm carriers and air by volume.
- Lagoon elimination

### Typical applications of Unitech systems:

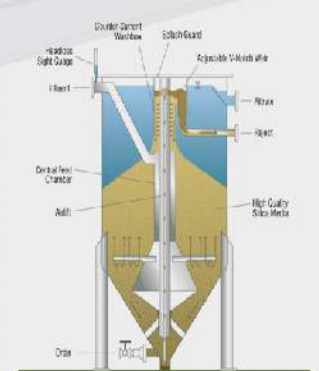
- Industrial wastewater treatment to reduce BOD to below 250 mg/L.
- Groundwater treatment to reduce phenol levels to less than 1 mg/L.
- Municipal wastewater treatment to achieve < 10 mg/L of BOD.

### Unitech Nitrification Process:

Nitrification: Nitrifying bacteria have relatively slower growth rates and are strongly influenced by water temperature. Unitech enables the biological process to sustain a high density population of nitrifying bacteria without relying on increased solids retention time (SRT) or mixed-liquor suspended solids (MLSS). Nitrifying bacteria are sustained in the protected cells of every MBBR bio-carrier within the process.



Tertiary Filtration: The Unitech GSF, Gravity Sand Filter, is an up flow, continuous back wash, granular media filter that efficiently removes suspended and colloidal solids while providing a continuous supply of filtered water. The GSF is available in various circular and rectangular models for different flows and applications and is Reuse Water certified.



### The Unitech GSF can be installed in both municipal and industrial applications, such as:

#### Applications

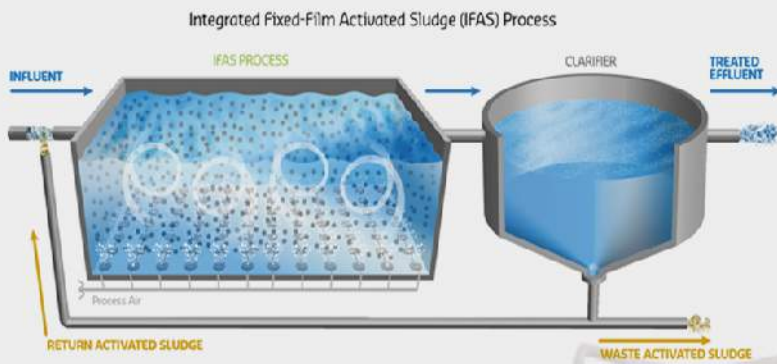
- Water Reuse.
- Phosphorus Removal.
- Continuous Operation.
- No Internal Moving Parts.
- Surface Water and much more.

#### Features

- Single Media
- Continuous Backwash
- No Internal Moving Parts
- High Loading Capacities
- Continuous Operation
- Low Pressure Drop



## Integrated Fixed-Film Activated Sludge (IFAS) Process



Unitech Bio Service provides IFAS upgrade offer with an extremely cost-effective retrofit solution to municipal wastewater plant expansion, taking full advantage of existing systems, equipment, process knowledge, training, and operator skills. The technology is compatible with plug flow and complete mix configurations; IFAS hybrid processes are designed for complete compatibility with fine bubble aeration systems, providing demonstrated long-term operational cost savings.

### Unitech Bio Service Process Advantages End-User Benefits:

- Cost-Effective, Short Payback Period Investment
- Significant Performance Enhancement
- Future-Proof Technology.
- Enhanced Process Reliability.
- Intuitive Process Operation.
- Reduced Clarifier Loading.
- Expandable.
- Stability.
- Excellent Nitrification.
- Effective During Temperature.
- Improved Sludge Quality.
- Small Footprint.
- Low Maintenance
- Cost-Effective.

### O & M, Spare Parts Services

Unitech Bio Service Solutions to Your Plant's Challenges who improves the performance of your existing plant without adding expensive clarifiers or aeration basin volume.

Save Space

Save Money

Save Time

Save Efforts

### We Offer IWSS (Integrated Water Solution and Services)

Unitech Bio Service sets the standard for compact, low lifecycle cost, high performance wastewater treatment equipment within the industries.

- Primary Solids Removal.
- Unitech Bio DAF Systems.
- Tertiary Filtration Systems.
- Effluent Treatment Discharge Systems.
- Solids Handling Systems.
- Ultra-Violet Disinfection Systems.
- Compact Wastewater Treatment Plants.
- Biological Nutrient Removal Systems.
- Unitech Grey Water Systems.



### Survey, audit and consulting

#### Increase Your Current Design Capacity

The process enhancement and low-cost retrofit capabilities, Dramatic treatment performance improvements, economic alternatives to conventional upgrade options, and ongoing support form the basis of each of the performance enhancement and MBR/MBBR plant upgrade packages.

Upgrading to an MBBR or IFAS process can be completed in a cost-effective and timely manner without major civil engineering requirements. PLC based control systems optimize IFAS/MBBR process performance by minimizing energy and chemical cost.

### We Offer All Range of Chemicals for Water & Waste Water Segment:

We provide wide range of chemicals & services to all our clients on AMC/Non AMC basis to optimise the operational cost and the process with enhancement for the longevity of equipments by reducing the over all cost of O & M.

#### Unitech Bio Service provides

- MBBR Upgrades
- MBBR Performance Enhancement
- Wastewater Reuse System



## OUR PARTNERS & PRODUCTS WE TRADE

We as Unitech Trading, customize the solution offer to all our clients with unique systems as required by the client by applying our expertise engineering skills. We offer multi-fractional micro integrated solutions to make cost effective, energy safe, reliable, efficient and productive for the Energy & Infrastructure, water & waste water Industry, Buildings and Residential using standard product from the international market. A few partners listed below for reference and many more with us.



**ABB**


**SIEMENS**




Crompton Greaves, ABB, SIEMENS, Schneider & L&T switchgear products and accessories which enable utility and industry customers to improve their performance while lowering environmental impact.


## WE REPRESENT


We as UNITECH Trading provide advanced technology solutions, customized systems by using the Premium brands which are synonymous with outstanding service, reliability and expertise Engineering skills with worldwide system integrators/Manufacturers for long term relation clients.

 We provide wide range of chemicals & services includes: Pre-Treatment & Boiler chemicals, Antiscalants, Evaporative inhibitors, Potable & waste water chemicals spare parts supply, operation and maintenance contracts, technical audits, leased water treatment system for Water Waste Water segments.

 **Kejriwal CASTINGS LIMITED**  
Kejriwal Casting Ltd.: We as Unitech exclusive represent KCL who is one of the pioneers manufacturer in India, in the field of Ductile Iron / Cast Iron Products, Pipes, Fittings, Valves, Specials and general castings in CI, DI, CS, Valves, Pipes & Fittings consistently on schedule to the best satisfaction of all our clients.

 **MICROVISION GROUP**  
We as Unitech exclusive represent Microvision who is expertise and is one of the leading players in consultancy, designing, water & waste water treatment plants, air pollution control plants, equipment and incineration system. We also manufacture Cationic Coagulants, Flocculants, Dispersants and other Water Soluble Polymers.

 **SWME**  
**Balaji Industries**  
We are in manufacturing high quality valves and fittings required for instrumentation and process industries. Instrumentation tubes and pipe fittings, valves, valve manifolds, air headers, condensate pots, syphons and other instrumentation items are manufactured under our brand.

 **ROSTFREI STEELS**  
STORAGE TANKS  
Rostfrei is one of the most renowned and trusted Liquid Storage Tanks and Grain Storage Silos manufacturers.

 **LS Cable**  
**ELSEWEDY CABLES**

 **QICC**  
a Nexans company

 **Liban Cables**

 **Finolex Cables Limited**  
AN IS/ISO 9001 COMPANY

 **PRYSMIAN**


 **Draka**

Cables & Accessories, power, instrumentation, communication cables and any other special cables required for the construction industries.

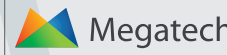
## WE TRADE

Cable Glands, Lugs, Termination Kits, Junction Boxes, Instruments, Switches, Sockets, Ferrules, Double Compression Glands, Pumps, dewatering Systems, UPS systems, Battery Banks, Metals, Nuts, Bolts, Washers, Bearings, Bushings, Shrouds, High Voltage Accessories and etc.



 **CEPIC**  
Anticorrosion since 1958

- Corrosion resistant centrifugal pumps to transfer your most corrosive liquids. Produced in graphite or plastics (PP, HDPE, PVDF, PTFE).
- CEPIC designs, manufactures and sells corrosion resistant process equipment.

 **Megatech**

We specialize in solutions to control, monitor and optimize discrete and process industry applications. We offer turnkey project execution, engineering services, field support in modular fashion to accommodate different customer needs.





#### Our Branch

##### Dubai

Tel.: +971 4 236 8090  
Fax: +971 4 236 8090  
Office No.: 205, 2nd Floor  
Al Garhoud, Dubai - U.A.E.

##### Sharjah

Tel.: +971 6 544 8882  
Fax: +971 6 544 8882  
Saif Zone, P.O. Box : 8047  
Sharjah - U.A.E.

##### India

**Unitech Contracting  
& Engineering Services LLP**  
Empire Estate, Door No: 802,  
Plot No: 41, 42, Sector -20,  
Kharghar, Navi Mumbai: 410-210.  
Tel.: +91-900-439-6447  
E-mail: info@unitechtrading.com

#### Our Overseas Agency

##### Oman

**Silver Star Oil & Gas Solutions L.L.C.**  
P.O Box : 1667 , Sultanate of Oman  
Tel: +968 2 2005088  
Fax: +968 2 2005089  
Email: info@unitechtrading.com

##### Nigeria

**Narim Multiventures Nigeria Limited**  
15, Saji Ayangade Street, Anthony Village,  
Lagos, Federal Republic of Nigeria.  
Tel: +234(0)814 836 8909  
Fax: +234(0)18244750  
Email: info@unitechtrading.com

##### Sri Lanka Agency

**Lanka Development Network (Pvt) Ltd.**  
No.60 S De S Jayasinghe Mawatha  
Kohuwala, Sri Lanka.  
Tel: +94 (11) 2824775 - 6, 2825553 - 5  
Fax: +94 (11) 2825256, 2822034  
Email: info@unitechtrading.com