

SUMMIT SYSTEMS LTD. RC340449

ENGINEERING, AUTOMATION AND CONTROLS

Corporate Profile

COMPANY PROFILE

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INTRODUCTION

We are industry leaders, expert collaborators, renowned engineers and contractors.

We believe foresight is important and it enables us to think differently, vividly and intelligently at every level. It guides our business practices, strategy and vision. It minimizes surprises, cost overruns and above all, it helps our clients reach their highest expectations.

It is this kind of perspective that continues to build our reputation over the years in business.

Summit Systems Limited [®] (CAC Registration Number RC340449) was duly registered in Nigerian in 1998 as an electrical engineering company.

The company has grown over the years diversifying her activities in areas of industrial automation, access control systems, security and fire protection systems, solar / renewable energy, and engineering consultancy services.

At Summit Systems Limited, customer satisfaction is our focus. So whether it's designing, engineering, servicing or maintaining your systems and facility, our priorities are always to render quality services timely and to acceptable trade standards and customer satisfaction.

Summit Systems has rendered quality services to government parastatals, manufacturing industries, oil and gas companies, hotels etc.

At Summit Systems Limited, we promise to:

- Exhibit integrity in everything we do.
- Listen, identify and respond to customer needs.
- Provide quality services, on schedule, at a competitive price.
- Respect, challenge and recognize each employee.
- Ensure a safe working environment.

COMPANY INFORMATION

CONTACT DETAILS

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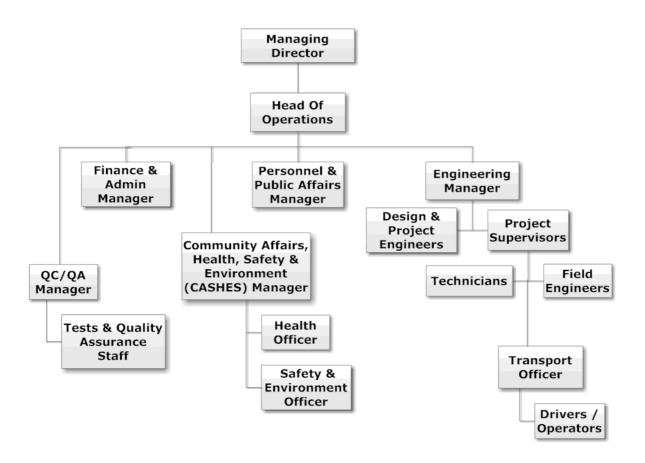
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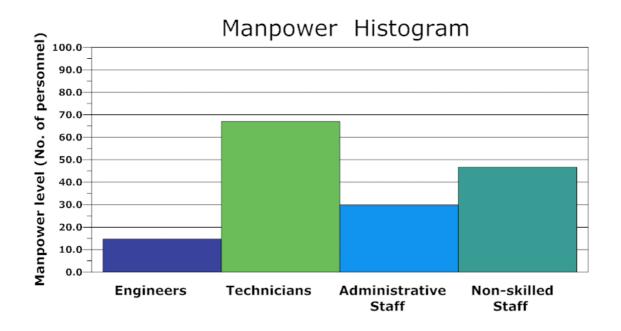
COMPANY INFORMATION

ORGANISATIONAL CHART



COMPANY INFORMATION

MANPOWER HISTOGRAM



Manpower Classification

The above manpower histogram specified the current state of Summit Systems Ltd work force for various classification of manpower. The number of personnel for each manpower category is variable depending on the labour and staff requirement and number of projects being handled at a particular time.

COMPANY INFORMATION

DETAILS OF KEY PERSONNEL

1. Engr. Uzochukwu Anozie Ngoka

B.Eng. 1991, MNSE.

With a Bachelors of Engineering (B.Eng.) in Electrical and Electronics Engineering from the Federal University of Technology Owerri, he has handled various engineering projects with different companies as a design engineer involved in the design and construction of control panels, electrical power sub-station, generators, and transformers. He is a corporate member of the Nigerian society of engineers (NSE) and the founder / Chief Executive Officer of Summit Systems Ltd.

- 2. Mr. Jean Claveranne. Director
- 3. Mr. Chuks C. Ngoka Director

MANAGEMENT TEAM

The Board of Directors of Summit Systems Ltd is the highest decision taking body in the company. The Managing Director overseas the activities and day to day running of the company and is responsible to the Board of Directors.

Other persons in the management of the company include:

- 1. **Mr. Remy Nwogu** Head, Finance & Accounts.
- 2. Mr. Martins Irechukwu Head, Services
- 3. Mr. Nduisi Akalonu Head, Logistics, Planning & Public Relations
- 4. **Mr. Okey Eboh** Head Projects Management & Supervision

PRODUCTS & SERVICES

INDUSTRIAL ENGINEERING

OIL AND GAS INSTRUMENTATION

Summit Systems Ltd offers a wide range of high quality instrumentation services streamlined for the oil and gas industry. This includes installation, repairs and maintenance of RTD and thermocouple sensor, temperature transmitters, flow meters, pressure sensors, liquid level indicators, etc. In the production of gases from natural gas wells, we install safety instrumented systems (SIS) that protect critical piping and dehydration processes from high pressures.



We also handle Remote Monitoring Systems, Gas Pressure Regulators, Gas Turbine Meter, Automatic Meter Reading, Relief Valve, Electronic Volume Correctors, Data loggers, Controllers, Gas Detectors, Flame Detectors, Fire & Gas Safety Systems, Oil-in-Water Alarms and Monitors, etc.

TRANSFORMER RECTIFIERS

Transformer rectifiers are AC (alternating current) -powered electrical equipment that provide direct current for impressed current cathodic protection systems. Transformer rectifier units are often custom manufactured and equipped with a variety of features, including oil cooling, automatic output adjustment, various types of electrical enclosures, AC electrical outlet, selectable AC input setting, single or three phase AC input.



Summit Systems Ltd in partnership with Cena Technical Ltd, a corrosion control company manufactures transformer rectifiers of various sizes and specifications.

We also handle repairs, maintenance, upgrade and total refurbishing of old and written off units, bringing them back to life with a warranty as new.

Studies confirm that the average service life at failure for transformer rectifiers is less than 20 years - but with a proper condition assessment and maintenance program, transformer rectifiers can continue to perform well beyond 40 or even 50 years. We are able to handle any make, type, model and size of transformer rectifier and our upgrade services include addition of previously non-existent features such as electronic stepless control (replacement for obsolete tap adjustment types), permanent reference electrode connection, remote monitoring, remote output adjustment, etc.

PRODUCTS & SERVICES

INDUSTRIAL ENGINEERING

AUTOMATIC VOLTAGE REGULATOR

Automatic voltage regulators (AVRs) are used in electric power generating sets to control and regulate the output voltage so that the applied load will not cause voltage fluctuation and damage to appliances. AVRs control the output voltage of the generator by regulating the excitation current of brushless alternators.

Thus it controls the output reactive power of the generator. Different Generating sets come with in-built AVRs designed to suit the alternator design.

Summit Systems Ltd has over the years studied different brushless alternator designs and developed a universal (general purpose) AVR that fits into virtually all types of modern generating sets using brushless alternators. The Regmaster (REG 6) model is already in the market and offers reliable and cost effective replacement for popular makes like Serial 4, Serial 6, Leroy Somer, Pirelli etc. REG 6 can be conveniently installed in power generating sets of 10-1000KVA ratings.



Electronic Ignition Systems are widely used to ignite fuel in petrol engines, furnaces, boilers, flares, etc.

Summit Systems Ltd. designs and installs ignition systems for application in industrial boilers, flares and furnaces.

Summit Systems Ltd in partnership with Elyxxon Engineering and Construction Company Ltd, a mechanical engineering company has manufactured and installed electronic spark ignition systems that are extensively used in Nigerian oil and gas companies for flare and crude oil heater treater ignition.



Our ignition systems can either be used to directly ignite main burner or ignite a pilot which in turn ignites the main burner and can be connected to flame detectors and safety shutdown systems to disable gas flow in an event of delayed ignition. Our products include high tension low energy systems as well as low tension high energy systems using weather proof semiconductor spark plugs.

PRODUCTS & SERVICES

INDUSTRIAL ENGINEERING

FACTORY REHABILITATION AND UPGRADE

Summit Systems Itd designs, engineers and builds turnkey factory automation equipment, custom machines, and production lines that include welding systems, retrofit/rebuilding services, marking systems, assembly systems, testing systems, and custom built automation equipment. We handle all aspects of development and construction from land analysis and acquisition assistance through completion of construction. Our highly skilled engineering staff and 12 years experience designing, engineering, and assembling custom manufacturing equipment and



complete assembly solutions enable us to reduce your risk, increase your throughput, and ensure your product quality.

We undertake factory equipment refurbishing and upgrade as well as relocation and startup. We redesign obsolete parts to fit into existing facility and will hardly recommend scrapping of existing facility because we can always find upgrade options thereby saving cost for the client. We have handled several jobs in agricultural and food processing industry, petrochemical plants, ceramic and paper industries, plastics production, etc.

PRODUCTS & SERVICES

ACCESS CONTROL SYSTEM

AUTOMATIC SLIDING DOORS

A sliding door operator (or sliding door opener or automatic sliding door operator) is a device that operates a sliding door for pedestrian use. It opens the door automatically, waits, then closes it. Sliding door operators are typically used on the outside doors of large retail businesses (supermarkets), hotels, offices, airports, and other establishments where space may be a premium and convenience a necessity.



Summit Systems Ltd has gained reputation for outstanding attention to detail and delivering automated door solutions that are rugged and durable. It is important to note that automated doors may be operating almost constantly throughout the entire day, and that anything less than the most rigorously tested and reliable door system represents a risk.

Our systems have in-built battery for extended hours of use when electric power fails. Choosing Summit Systems Ltd to install, service and maintain your automatic entrances means you can be confident of efficient and reliable operation of your doors, as well as optimum convenience and safety for those using them. Equipped with the right parts and knowledge, our technicians can maintain, upgrade and service systems we install as well as any type or make installed by others. With vast experience and reliable diagnostic tools we can provide world-class service in all of the markets we serve, ensuring safe operation and helping to protect your investment and extend the life of your automatic entrances. We can use Service Upgrade Kit for sliding door operators to refit your existing operator with the latest technology to meet the safety, performance and efficiency requirements of your automated entrance. It allows our certified technicians to replace the drive unit, control unit and transmission components while retaining the original mechanical parts, support beam and cover, resulting in considerable savings compared to the purchase of a new operator.

We also handle other types of automatic doors including automatic swing door openers, revolving doors, bank entrance doors, etc.

AUTOMATIC GATES

The many advantages of automated gates and barriers are now widely recognized for private, public and commercial premises and estates. They bring security against intruders, all-weather ease of operation and prestige. Users can conveniently open and close gates from the comfort of their cars even in adverse weather conditions.



Some successful or attempted assassination take place at gates due to associated delays in manually opening gates.

Summit Systems Ltd supplies and installs the very best in automatic gate equipment. We have a commitment to safety; all our products come with essential safety features as standard, to ensure all users will be safe at all times.

PRODUCTS & SERVICES

ACCESS CONTROL SYSTEM

The advantages of the systems we market include:

- System uses electricity and in-built battery backup for prolonged use during power outages.
- Family and pets will be safe and secure.
- Increased personal security with gates operated from the safety of your car.
- Gatehouse control is available for gate keepers to operate gate for visitors.
- Manual changeover / control is available as a bypass during maintenance and possible fault condition.
- Increased privacy no uninvited visitors.
- Ease of operation, greater convenience and improved quality of life.
- Safety devices as standard.
- Various control options.
- Expert advice and technical support / back up.

AUTOMATIC BARRIER

The key role of barriers is to prevent unauthorized access whilst providing minimum inconvenience to those who have authorization. An automatic barrier enables full control over who is allowed access through any controlled point at any time of the day. Not only an efficient and effective way of increasing security at premises, barriers can also double up as a way of monitoring the number of vehicles or persons passing through the control point. They are weather proof (can be installed for use in any weather condition) and suitable for large and small

premises, car park and road entry points.

Summit Systems Itd installs barriers perfect for low and high volumes of traffic, providing maximum flow capacity, whilst causing minimal disruption. Our barriers are supplied complete and are ready to accept power and data connections. Boom arms are available in a number of different lengths to suit various road widths. The barriers can be interfaced with identification (ID) card readers, installed access control or ticketing systems to grant access to staff, residents of premises, booked in visitors, etc. Each barrier mechanism is individually adjusted

to meet your needs, ensuring exceptional durability and delivering longer lasting, problem-free operation.

We also design and install specialized barriers and barricades that can be raised or lowered at particular times of the day depending on what types of vehicles that should be allowed access at certain periods of the day. Other designs permit certain weights of vehicles and disallow others. When integrated properly into a total security system, including fences, lights, alarms, and other security components, barriers are a key measure in preventing threats to sensitive resources. From car park security to stopping vehicle access at refineries, there are a variety of suitable barricades available. We also handle repairs and maintenance of automated barriers.





PRODUCTS & SERVICES

ACCESS CONTROL SYSTEM

METAL DETECTORS AND SCANNERS

Metal detectors and scanners are generally used for the detection of weapons such as knives and guns, especially in airport security posts, banks, prisons, schools, nightclubs, retail outlets, warehouses, conferences, and other security priority areas. Metal detectors are routinely used for police searches, crowd control, and package inspection. The ability to detect weapons and other dangerous metal objects increases security for all concerned. Handheld detectors help safeguard establishments and can be used for any special event.

They are also applied in de-mining (the detection of land mines) activities and in the construction industry to detect steel reinforcing bars in concrete and pipes and wires buried in walls and floors.

Summit Systems Ltd markets, installs and maintains handheld, walkthrough types, and baggage scanners widely employed in security posts for detection of dangerous weapons. Our products include a range of lightweight handheld metal detectors suitable for tough environments and constant use. The detectors can find both ferrous and non ferrous metal and are available with increasing levels of sensitivity and both audio and visual alarms.

Our walk-through metal detectors, conform to all International Security
Standards. They are manufactured in compliance with ISO 9001 quality
procedures using the most advanced electronic technology. The unique
patented gate design is compact utilizing minimal amounts of space. The
exterior polymer coating is extremely durable and water-resistant preventing damage to internal
components. The aesthetics of our metal detectors makes them the ideal solution for the most
demanding architectural environments. The control units are integrated into the structures of the gates
and are characterized by high reliability and immunity to electromagnetic interference and can be

All metal detectors play important ancillary function. It is not intended to replace vigilance. Nothing replaces a well thought-out and implemented system for safety. Metal detectors help detect items that may go unnoticed by even the most careful professional.

integrated with cameras to take and record images of persons suspected of possessing weapons.







PRODUCTS & SERVICES

ACCESS CONTROL SYSTEM

HOTEL SMART CARD LOCK

These are hotel locks that operate with programmable cards. There are basically two types, the card insertion and card proximity types.

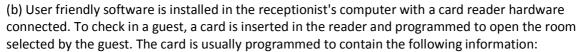
Summit Systems Ltd markets and installs latest versions using card proximity reading rather than insertion. Proximity types are more recent and have an advantage over the insertion types because they work faster and are more efficient.

A guest probably drunk, tipsy, in a hurry or trying to escape from danger doesn't have to struggle with locating the card slit on the door lock to insert the card. All he or she has to do is bring the card close (about 20mm) to the lock to gain entry.



(a) Locks are powered by use finger size (AA) batteries, which can last for up to 18 months, but warns during the last 3 months for the user to replace the batteries.

Battery replacement is very simple, can be done by virtually anyone and does not require any special skills. If the battery replacement warning is carelessly ignored or if any unit becomes faulty, the locks have conventional keys that can be used to bypass the card access so that the lock can at the interim, function as an ordinary lock.



- Name of customer.
- Duration of stay: Access to the room ceases at the expiration of programmed duration of stay.
- Room data, check in and checkout times and dates.
- (c) The smart card used for the locks also operates the card switch / energy saver which replaces the conventional wall switch for operating the room light. Energy Saving Card Switch can be installed in rooms to disable power from selected equipment in the room in a case where the guest is not in the room. Refrigerators for example are expected to be on when the guest is absent, while air conditioners and room lights should be off. Also this card switch disables the selected equipment when the duration paid for expires.
- (d) Hotel management and staff identity cards can be selectively programmed to have access to some or all rooms for clean up, laundry, room service or other purposes. Lock system keeps information of all entrances into rooms which can be retrieved to know who entered the rooms and at what time.





PRODUCTS & SERVICES

ACCESS CONTROL SYSTEM

(e) User friendly and easy-to-use desktop computer software has the following features:

- Gives information on rooms in use and free rooms.
- Gives information on used rooms that require clean up and preparation for subsequent use.
- Keeps full data of all guests.
- Can enable or disable any card from having access to any room.
- (f) The locks can easily be used to replace existing conventional door locks without any major structural adjustments.

OFFICE ACCESS CONTROL AND ATTENDANCE SYSTEM

Companies of all sizes use time and attendance processes to gather information about the amount of time employees spend on the job. The most common tracking is the capture of an accurate time each employee reports to work and the actual hours they spend on the job. Other companies track detailed information on each work task or job that is performed during the day. Time tracking devices were invented many years ago to help ease the burden of manually recording time and attendance data on paper.

Automated Time & Attendance Systems provide an alternative to mechanical time clock systems or paper-based timesheets. The employee swipes an ID badge through the reader or places a finger on a fingerprint scanner, at the beginning and end of the work period. The badge/fingerprint reader data is copied regularly to a PC running a Time Attendance Software application that will automatically create timesheets for each employee.





Time & Attendance Software allows companies to track and evaluate the performance and work activities of employees using a single software application. It enables employers to store, track and organize the most important employee time related information in one place. Everything needed to track and monitor employee activities and management processes is available on a computer. This is invaluable for ensuring regulatory compliance with working regulations and proof of attendance.

Various users and markets have different needs, requirement, and standards to comply with. Summit Systems Ltd offers solutions that are tailored to and cater for these versatile requirements.

PRODUCTS & SERVICES

ACCESS CONTROL SYSTEM

At Summit Systems Ltd, a range of solutions is produced either according to customers' specific needs, or in order to comply with certain needs identified or visualized as future prospect. Up to 15 times faster than equivalent swipe card technology, smart cards are the clocking solution for the 21st century. Fingerprint recognition systems are also available to compliment the smart cards, providing a two-fold identification process for added security. These provide irrefutable identification of an employee.

Time and attendance systems are often integrated with access control barriers and pedestals to determine the exact time an employee arrives the workplace.

PRODUCTS & SERVICES

BURGLARY & FIRE PROTECTION SYSTEM

CLOSED CIRCUIT TV SYSTEMS

Closed-Circuit Television (CCTV) Systems allow operators to monitor and record television images for a variety of purposes, including security, surveillance, and safety. CCTV involves the use of video cameras to produce images for display on a limited number of screens/ monitors. CCTV systems integrated with alarm and perimeter protection systems, form a complete intrusion detection system. CCTV is becoming more and more common in our everyday lives because it is a highly-effective tool for safety and in the fight against crime. It is employed by prisons, banks, urban police forces, airports, military organizations, utilities, large corporations, various other organizations, and individuals.

Specific CCTV uses include:

- Remote viewing of dangerous industrial processes that are unsafe for human viewing.

Perimeter security around homes, offices, power plants, military installations, warehouses, police stations, and other defended facilities. Intrusion or theft monitoring of secure spaces, whether indoors (halls, lobbies, specific doors and rooms, etc.) or outdoors (parking lots, automatic teller machines, loading docks, etc.).

- Monitoring of vehicular traffic for traffic-control purposes or detection of illegal activity (speeding, smuggling, etc.).
- Identity-checking of persons desiring entry into a building.
- Computerized recognition of individual faces, with possible identification of "wanted" persons.

Summit Systems Ltd designs and implements CCTV systems that can be streamlined or tailored to any specific application. Wireless models are available for ease of installation especially in an existing building structure to avoid wall braking and conduit cabling. We also handle repairs, maintenance and upgrade of any CCTV network and associated perimeter protection systems.

PRODUCTS & SERVICES

BURGLARY & FIRE PROTECTION SYSTEM

INTERNET PROTOCOL (IP) CAMERA SYSTEMS

IP cameras are Closed-circuit television (CCTV) cameras that use Internet Protocol to transmit image data and control signals over a Fast Ethernet link. As such, IP cameras are also commonly referred to as network cameras. IP cameras are primarily used for surveillance in the same manner as analog closed-circuit television. A number of IP cameras are normally deployed together with a digital video recorder (DVR) or a network video recorder (NVR) to form a video surveillance system. Major advantage of IP cameras over analog CCTV systems is that they allow homeowners and businesses to view their camera(s) through any internet connection available through a computer or a 3G phone.



Surveillance with analog CCTVs can only be done at the point where the CCTV monitors are located while IP systems enable surveillance from anywhere in the world via internet. An IP system user can view home and property while abroad as long as he has access to internet. Network access allows for deployment of wireless cameras, eliminating the cost of expensive land lines. Connection with 3G cellular phones allows for a mobile surveillance system in the palm of your hand. Other IP system advantages include:

- Integration of video surveillance with other systems and functions such as access control, alarm systems, building management, traffic management, etc.
- Remote configuration, diagnostics, and maintenance.

Summit Systems Ltd installs IP surveillance systems that deliver superior-quality, crystal-clear video for professional surveillance applications such as monitoring banks, airports, parking lots, traffic control, etc. With the systems we install, multiple authorized parties can simultaneously view real-time video and audio anytime, anywhere from the same camera through web browsers. Intelligent functions embedded in surveillance equipment can detect, identify, and track objects in real-time reducing false alarms.

We also offer repairs, maintenance and upgrade services as well as a wide range of products for professional IP video surveillance to secure the safety of people and places, or to remotely monitor property and facilities.

PRODUCTS & SERVICES

BURGLARY & FIRE PROTECTION SYSTEM

BURGLARY AND INTRUSION ALARM SYSTEMS.

Burglar (or intrusion) alarms are electronic alarms designed to alert the user to a specific intrusion danger. Sensors are connected to a control unit via low-voltage wiring or a narrowband RF signal which is used to interact with a response device. The most common security sensors are used to indicate the opening of a door or window or detect motion via passive infrared (PIR). Burglar alarm systems are predominately hardwired for economy. Retrofit

installations often use wireless systems for a faster, more economical installation. Combination systems are available to provide both fire and intrusion protection. Burglar alarm systems range from small, self-contained noisemakers, to complicated, multi-zoned systems with color-coded computer monitor outputs.

Burglar alarms are basically of two types: home burglar alarms and industrial burglar and perimeter intrusion detection.





Summit Systems Itd designs and installs various types of burglar alarm systems for specific applications. Our industrial alarm systems are designed as an integration of several sensor systems. For big facilities, we use perimeter protection systems involving installation of sensors on the outer fence. It would detect the intruders before they reach the building itself. We also employ buried perimeter sensors that can be put on top of a wall or buried underground to create a hidden defense line. For the building itself, we use infrared, ultrasonic, microwave, vibration and magnetic door sensors to detect movement around restricted areas. Our alarm monitors use encoders programmed to indicate which specific sensor was triggered, and can show the physical location (or "zone") of the sensor on a list or even a map of the protected premises, which can make the resulting response more effective.

Internet protocol (IP) systems are available for monitoring intrusion over the internet.

Our experience over the years enables us make good choice of quality materials to avoid issues like false alarms and failures. Systems we install also have added features that automatically dial (and send SMS to) preset numbers once intrusion is detected. The systems can be programmed during installation to dial the police or security agents as well as other numbers selected by user.

We also handle repairs, maintenance and upgrade of existing systems.

PRODUCTS & SERVICES

BURGLARY & FIRE PROTECTION SYSTEM

FIRE ALARM AND PROTECTION SYSTEMS

An automatic fire alarm system is designed to detect the unwanted presence of fire by monitoring environmental changes associated with combustion. In general, a fire alarm system is either classified as automatically actuated, manually actuated, or both. Automatic fire alarm systems can be used to notify people to evacuate in the event of a fire or other emergency, to summon emergency services, and to prepare the structure and associated systems to control the spread of fire and smoke.



There are many types of fire alarm systems each suited to different building types and applications. A fire alarm system can vary dramatically in both price and complexity, from a single panel with a detector and sounder in a small commercial property to an addressable fire alarm system in a multi-occupancy building. Systems have to protect both buildings and occupants.

Summit Systems Ltd has earned a reputation in fire safety engineering.

Our designs employ detailed components, arrangements and interfaces to meet and exceed the minimum levels of protection mandated by appropriate model building code, insurance agencies and other authorities.

Design equipment specifically manufactured for fire engineering are selected and standardized installation methods are anticipated during the design. Secondary (backup) Power supplies consisting of sealed lead-acid storage batteries are used to supply energy in the event of a primary (electric) power



failure. Specific industrial designs are available that allow the fire alarm system to control aspects of the built environment and to prepare the building for fire and to control the spread of smoke fumes and fire by influencing air movement, lighting, process control, human transport and exit.

Manually actuated devices such as break glass switches, buttons and manual pull stations are installed to be readily visible and located near the exits for identification and operation. Sensors we use include heat detectors, smoke detectors, flame detectors, carbon monoxide detectors depending on the location and environment protected. Newest innovations use cameras and computer algorithms to analyze the visible effects of fire and movement in applications inappropriate for or hostile to other detection methods.

Alarms and alerts include audible, visible, tactile, textual or even olfactory stimuli (odorizer) installed to alert the occupants and configured to avoid confusion with other signals using similar sounding appliances.

In some designs, active fire protection (AFP) is an integral part of fire protection and involves the use of fire suppression and extinguishing devices triggered automatically by fire detection.

PRODUCTS & SERVICES

BURGLARY & FIRE PROTECTION SYSTEM

AFP often employs automatic water sprinkler system, gaseous clean agent, or fire fighting foam system usually found in large commercial kitchens, petrochemical plants and or other high-risk areas. AFP works alongside modern architectural designs and construction materials and fire safety education to prevent, retard, and suppress structural fire.

Manual fire fighting equipment such as fire extinguishers (stored pressure, cartridge-operated, handheld, cart-mounted/wheeled types) and Standpipe (hydrant hose reel) systems are available. Cart-mounted/wheeled models are most commonly used in construction sites, airport runways, heliports, docks and marinas.

Internet protocol (IP) fire alarm and protection systems are available for monitoring and controlling fire incidents over the internet.

Our experience over the years enables us make good choice of quality materials to avoid issues like false alarms and failures. Systems we install also have added features that automatically dial (and send SMS to) preset numbers once fire is detected. The systems can be programmed during installation to dial the fire stations and authority as well as other numbers selected by user.

We also handle repairs, maintenance and upgrade of existing systems.

PRODUCTS & SERVICES

SOLAR / RENEWABLE ENERGY SYSTEMS

SOLAR STREET LIGHTS

Solar street lights are recently used for commercial lighting systems, residential walkway lights, parking lots and security lighting.

The applications for solar powered outdoor lighting systems are endless. These units can be used for security and safety lighting, rural area lighting, dock lights, park lighting, parking lot lighting,

parkway lighting, walkway lighting, street lighting, transit lighting, outdoor area lighting, military and civil security and so on. The costs of trenching and

installing underground wiring often make a solar street lighting system an economically feasible lower cost option.

Summit Systems Itd, designs and installs reliable solar street lights using high quality accessories including mono- and poly- crystalline panels, deep cycle batteries, solar charge controllers, long lasting (8 years and above) LED and induction lamps resulting in efficient lighting systems with up to 10 years of life expectancy.



DOMESTIC AND INDUSTRIAL SOLAR POWER SYSTEMS

Solar power system generates electricity from sunlight. Although they may look complicated, solar systems have very few moving parts and require little or no maintenance. They make no noise and no pollution – just clean, reliable electricity directly from the sun. A home solar system is comprised of solar panels, the racks for putting the panels on the roof, electrical wiring, and an inverter. Solar panels are roof-mounted and wired together.



Summit Systems Ltd designs and installs residential and industrial solar power systems. Our residential systems can be either off-grid or grid tied (on-grid). Off-grid systems provide power only from sunlight, while on-grid systems provide hybrid supply from both sunlight and grid (National Electric Power) supply and are relatively cheaper than off-grid type. We study and survey specific residential power demands and recommend type of system that is most suitable.

Our industrial solar power systems are designed for specific applications such as telecommunication equipment, cathodic protection systems, etc.

PRODUCTS & SERVICES

SOLAR / RENEWABLE ENERGY SYSTEMS

SOLAR POWERED TRAFFIC LIGHTS

Solar traffic lights are providing a reliable, inexpensive, affordable and environmentally friendly source for modern traffic management systems. These systems also help reduce electricity usage. It is interesting to note that a set of traditional traffic lights consumes as much electricity as a three bedrooms residence occupied by a family of four.

With no trenching, and minimal wiring or electrical work required, solar powered traffic lights are perfect for road safety and traffic control applications. Existing conventional traffic lights can be easily retrofitted to operate on solar energy. Solar powered traffic lights can also be used in temporary settings where a traffic signal is only needed for a set period of time. These temporary solar traffic signals can be supported on a post, trailer mounted, secured momentarily and placed quickly at traffic intersections.

Summit Systems Ltd designs, installs and maintains solar traffic lights no matter the complexity of the road network. Our repair, maintenance and upgrade ability is not limited to any make, model or systems we install. Our Solar traffic Lighting is produced by arrays of extra bright LEDs (Light Emitting Diodes) that are much brighter than bulbs. LEDs last for about 10 years and are very energy efficient. On simple and stand-alone solar traffic lights, computerized controller/sequencer controls the lighting sequence at pre-determined fixed intervals. We also install systems that can be activated by radar sensors so that lighting sequence is skipped when vehicles are not available in a particular line of traffic. Solar powered traffic lights and solar traffic signs are becoming more and more widespread around the world because they are portable, easily deployable, energy efficient, good for the environment, and require minimum maintenance. One of the biggest problems in developing countries is power outages. An obvious advantage of solar traffic lights is that they will continue working as their main purpose is to keep traffic flowing without depending on electricity availability.

PRODUCTS & SERVICES

SOLAR / RENEWABLE ENERGY SYSTEMS

SPECIAL APPLICATION SOLAR ENERGY SYSTEMS

Some industrial activities especially oil and gas exploration usually take place in remote areas, far from the nearest utility lines. When power is required in these remote locations, solar energy is often the most reliable and economical source. Remote monitoring of gas and oil lines is now reliably achieved.

Cathodic Protection, a great way to protect investment in equipment can be powered by solar energy. The communications aspects of oil and gas exploration, especially Remote Telemetry Units (RTU's) and Supervisory Control and Data Acquisition (SCADA) equipment, are also excellent applications of solar power. These systems require low power, usually at remote locations, so solar energy is often the most efficient source.

Summit Systems Ltd in partnership with Cena Technical Ltd, a corrosion control company has designed and successfully installed several solar power systems for oil & gas applications in Nigeria.

We also handle repairs, maintenance and upgrade of existing industrial solar power systems no matter the type, make, model or application. Our industrial solar-powered systems designs are suitable for use in the following applications:

- RTU/SCADA.
- Flow Monitoring.
- Telemetry.
- Drilling Meters.
- Cathodic Protection.
- Natural Gas Automation.
- Gas Flow Measurement.
- Data Recording.
- Control Valves.
- Process Control Equipment.
- Lighting.



PRODUCTS & SERVICES

MECHANICAL ENGINEERING SERVICES

Summit Systems mechanical engineering services cover the following areas of activities.

- Petrochemical plants and refineries (gas treatment plants, gathering centers and pumping stations)
- Bulk crude handling and storage facilities, prefabrication of piping spools, pipe supports and structural assemblies, oil loading and off-loading terminals, fabrication of platforms for off-shore facilities.



- Turnkey construction of Onshore and Offshore Oil & Gas projects including Jetties, Storage Tanks, Columns, Evaporators, Heaters, Packaged Equipment, Pipe coating, Pipe laying, and related items.
- Pilot plant studies, from initial feasibility study to full turnkey plant installation and planned maintenance.
- Plant / Process refurbishment and overhaul with full technical support and after sales service.
- Sand-blasting and painting of tanks and steel structures.
- Inspection, and Corrosion Engineering Services.

SAFETY AND QUALITY ASSURANCE

SAFETY

At Summit Systems Ltd, from the bottom of the ladder to the very top, the responsibility of having a safe working environment applies to everyone and we believe that without the proper rules, guidelines and culture to support it, there is the potential of it being overlooked. Although we are forward thinkers, we would never get ahead of ourselves when it comes to safety.

We ensure that:

- All safety program rules and guidelines are compliant with trade standards, federal, state and client regulations.
- An aggressive Transitional Duty Program is in place to help injured employees return to work.
- "Partners in Safety" program is in place that allows each employee to take responsibility for safety on the jobsite.
- Safety training classes are organized for every new employee.
- Monthly safety meetings are held, featuring topics such as ladder use, fall safety and electrical safety, among others.

QUALITY ASSURANCE

Summit Systems Ltd believes in quality assurance, a process of verifying or determining whether products or services meet or exceed customer expectations. Quality assurance is a process-driven approach with specific steps to help define and attain goals. This process considers design, development, production, and service. The most popular tool used to determine quality assurance is the Shewhart Cycle, developed by Dr. W. Edwards Deming. This cycle for quality assurance consists of four steps: Plan, Do, Check, and Act. These steps are commonly abbreviated as PDCA. The four quality assurance steps within the PDCA model stand for:

- Plan: Establish objectives and processes required to deliver the desired results.
- **Do:** Implement the process developed.
- **Check:** Monitor and evaluate the implemented process by testing the results against the predetermined objectives.
- **Act:** Apply actions necessary for improvement if the results require changes.

PDCA is an effective method for monitoring quality assurance because it analyzes existing conditions and methods used to provide the product or service customers. The goal is to ensure that excellence is inherent in every component of the process.

Quality assurance also helps us to determine whether the steps used to provide the product or service are appropriate for the time and conditions. In addition, the PDCA cycle is repeated throughout the lifetime of a product or service, and it helps us improve our efficiency.

At Summit Systems Ltd, quality control verifies that any product or service, regardless if it is new or evolved, is produced and offered with the best possible materials, in the most comprehensive way and with the highest standards. The goal is to meet up or exceed industry standards and customer expectations.

TECHNICAL SUPPORT

Summit Systems Ltd offers engineering and technical support. We are able to promptly answer support related email and phone calls and identify, correct and advise client on operational issues in systems and equipment.

Email us at uzngoka@yahoo.co.uk, or info@summitsystems.com and we will be glad to assist, or call us / send SMS call us / send SMS at +234(0)7068621902 or +234(0)8036309694 to speak with someone immediately.

Our experienced team has vast technical knowledge on every aspect of our industry and we are happy to help you in any way we can.

We also provide training and assistance to help clients learn how to use equipment and products. We partner with client to identify the right personnel for a project. Summit Systems has professionals specializing in a wide range of industries and duties, and can supply as-needed staffing for virtually any operation.

PARTNERS AND JOBS

Local Partners

Summit Systems Ltd is in partnership with the following Nigerian companies.

(1) El-ethel Technical Company Ltd.

Summit Systems Ltd have been offering technical support in the maintenance of automatic sliding doors in Shell Petroleum Development Company industrial area (IA) Port Harcourt Nigeria since 2002. The contract was awarded to El-ethel Technical Company Ltd (electrical engineering company) and involves repairs, maintenance and upgrade of automatic sliding doors in management building blocks B3 and B4. Based on good performance by Elethel Technical Company, the contract has been renewed several times and is running till date.

(2) Cena Technical Ltd.

Summit Systems Ltd in partnership with Cena Technical Ltd (corrosion control company) has been involved in manufacturing, repairs and upgrade of Transformer rectifiers used for cathodic protection of pipelines and facilities for Nigerian oil and gas companies since 2003.

(3) Elyxxon Engineering and Construction Company Ltd.

Summit Systems Ltd in partnership with Elyxxon Engineering and Construction Company Ltd (mechanical engineering company) has designed and developed Electronic ignition systems for ignition of gas flares and crude oil heater treater. These systems have been tested and installed in some Nigerian oil and gas locations including Addax petroleum Development Company Izombe Flow Station in Imo State Nigeria.

(4) Eclipse Engineering Ltd.

Summit Systems Ltd has been in partnership with Eclipse Engineering Ltd (electrical engineering company) since 1998. We have designed and developed several systems and equipment including laboratory equipments such as magnetic stirrers, incubators and ovens, digesters, water baths, heating mantles etc. These laboratory equipment have been extensively marketed in Nigeria and West Africa. We have also handled repairs, rehabilitation and upgrade of factory equipment as follows:

- Rehabilitation of electrolysis equipment and immersion tank at Imo State government owned Aluminum Extrusion plant (ALEX) at Inyishi in Imo State Nigeria.
- Redesigning and rehabilitation of steam boiler and 12,000 birds per day capacity Chicken Processing Plant at Imo State government owned Imo Modern Poultry at Avutu Obowo, Imo State Nigeria.
- Repairs and upgrade of 400,000 eggs capacity poultry incubators and hatchery at Imo State government owned Imo Modern Poultry at Avutu Obowo, Imo State Nigeria.

PARTNERS AND JOBS

Foreign Partners

Our performance in some of the highly specialized jobs we do is enhanced by technical cooperation between us and our foreign partners. Summit Systems Ltd has technical pact with the following foreign consultants and companies:

- (1) Summit Systems Enterprises (UK) Limited 29 Petiver Close Frampton Park Road London, E9 7PA United Kingdom
- (2) Technosoft computing & Consulting. 19430 Tahoka Springs Drive, Katy, TX. 77449 Houston, Texas, USA
- (3) EngineerAid.Moffat Centre219 Colinton RoadEdinburgh, Scotland, EH14 1DJ. United Kingdom.

PROJECT REPORT

SUMMIT SYSTEMS LTD PROJECT REPORT FOR 1998 - 2010

DATE	PROJECT TITLE	JOB DESCRIPTION	CLIENT
17/11/1998 – 22/12/1998	Design and Installation of traffic lights and upgrade of existing systems.	Design, procurement of materials and installation of traffic control systems (traffic lights) in Owerri metropolis in preparation for Imo 98 national sports festival.	Imo State Government , Nigeria/ Imo 98 sports festival trust fund.
03/05/1999 – 17/08/1999	Rehabilitation of fire alarm system at NNPC Zonal Head Quarters Moscow Road, Port Harcourt.	Replacement of control panel, smoke detectors, and glass switches, and configuration of fire alarm system.	International Consolidated Ltd/ NNPC
04/10/1999 - 15/02/2000	Rehabilitation of Aluminum Profile Anodizing Equipment.	Rehabilitation of electrolysis equipment and immersion tank at Imo State government owned Aluminum Extrusion plant (ALEX) at Inyishi in Imo State Nigeria.	Imo State Government, Nigeria / ALEX
05/06/2000 – 13/02/2001	Research and Development of Automatic Voltage Regulators for Power generating sets.	Design, materials purchase, PCB production, installation tests, initial market trials.	Summit Systems Ltd
20/08/2001 – 27/11/2001	Design and Installation of fire alarm and fire fighting equipment. Supply and installation of access control systems.	Design of fire alarm system, procurement and installation of control panel, smoke detectors, and glass switches, and configuration of fire alarm system. Supply of walk through metal detectors, baggage scanner and closed circuit television system.	Beverly Hills Hotel , Nnewi, Anambra State
12/08/02- 18/09/02	Design/fabrication and supply of Solar Unit. Location: Agbara PRMS.	Design/ fabrication and supply of Cathodic Protection Solar Powered DC Unit. Size: 10V, 5A	Cena Technical Ltd / Wilbros-SNG

COMPANY PROFILE

PROJECT REPORT

DATE	PROJECT TITLE	JOB DESCRIPTION	CLIENT
15/08/2002 – 07/11/2002	Design and Installation of fire alarm and fire fighting equipment. Supply and installation of access control systems.	Design of fire alarm system, procurement and installation of control panel, smoke detectors, and glass switches, and configuration of fire alarm system. Supply of walk through metal detectors, baggage scanner and closed circuit television system.	Beverly Hills Hotel , Woji Road GRA Phase2 Port Harcourt
20/08/2002 - Date	Maintenance of Auto doors in B3 and B4	Maintenance of automatic sliding doors in Shell Petroleum Development Company industrial area (IA) Port Harcourt Nigeria. Involves repairs, maintenance and upgrade of automatic sliding doors in management building blocks B3 and B4.	El-ethel Technical Company / S.P.D.C
20/03/03 - 15/04/03	Design/fabrication and supply of TRR	Design/ fabrication and supply of Transformer Rectifier Unit. Size: 50V, 50A.	Cena Technical Ltd / Wilbros-SNG
02/07/2003 – 16/09/2003	Design and Installation of fire alarm and fire fighting equipment. Supply and installation of access control systems.	Design of fire alarm system, procurement and installation of control panel, smoke detectors, and glass switches, and configuration of fire alarm system. Supply of walk through metal detectors, baggage scanner and closed circuit television system.	Beverly Hills Hotel , Wuse Zone 2 Abuja
13/10/2003 – 21/01/2004	Design and installation of fire alarm and central audio system in VIP lounge of Imo Airport	Design and installation of fire alarm system and public address system in VIP lounge of Imo Airport	Modutrol Nig. Ltd / OK 2000

COMPANY PROFILE

PROJECT REPORT

DATE	PROJECT TITLE	JOB DESCRIPTION	CLIENT
04/02/2004 - Date	Design and Installation of fire alarm and fire fighting equipment. Supply and installation of access control systems.	Design of fire alarm system, procurement and installation of control panel, smoke detectors, and glass switches, and configuration of fire alarm system. Supply of and installation of walk through metal detectors, baggage scanner, automatic sliding doors, smart card locks, and closed circuit television system.	Brick Rock Hotel s, Ada George Road, Port Harcourt.
13/04/2004 – 15/02/2005	Repairs and overhaul of transformer rectifiers for cathodic protection (corrosion control) of oil and gas pipelines in SPDC locations east (SLE).	Troubleshooting, replacement of faulty parts and overhaul of transformer rectifiers for cathodic protection (corrosion control) of oil and gas pipelines in Shell Petroleum Development Company locations east (SLE).	Chedeyo Ventures Ltd / SPDC
19/05/04- 17/06/04	Design/fabrication and supply of TRR	Design/ fabrication and supply of 2 Transformer Rectifier Units. Sizes: 100V, 100A and 75V, 50A.	Cena Technical Ltd / NOAS-ELF
11/10/04 – 20/09/05	Cathodic Protection System Rehabilitation & Upgrade in Land locations	Sacrificial Anode Installation, Construction of Deepwell Groundbed, Casing installation, Transformer Rectifier installation, replacement and overhaul, Solar Station cleaning and maintenance.	Cena Technical Ltd / PINL – SPDC EAST

COMPANY PROFILE

PROJECT REPORT

DATE	PROJECT TITLE	JOB DESCRIPTION	CLIENT
10/11/04 - 13/12/04	Design/fabrication and supply of TRR	Design/ fabrication and supply of one Transformer Rectifier Unit. Size: 50V, 50A.	Cena Technical Ltd BONNEDO-SPDC EAST
09/08/2005 – 05/07/2006	Redesigning and electrical restructuring of old NISCO fabrication yard	Rewiring of existing buildings, Installation of power transformer, electrical switchboard, feeder Pillars, Caterpillar generating sets and automatic changeover.	Cobiex Ltd,/ Someni / Hyundai Heavy Industries (HHI).
06/09/2006 – 10/07/2007	Rehabilitation of Imo Modern Poultry Ltd	Redesigning and rehabilitation of steam boiler and 12,000 birds per day capacity Chicken Processing Plant. Repairs and upgrade of 400,000 eggs capacity poultry incubators and hatchery	Imo State government / Imo Modern Poultry, Imo State Nigeria.
06/07/2006 – 19/09/2006	Design and Installation of fire alarm and fire fighting equipment. Supply and installation of access control systems.	Design of fire alarm system, procurement and installation of control panel, smoke detectors, and glass switches, and configuration of fire alarm system. Supply of walk through metal detectors, baggage scanner and closed circuit television system.	Sasun Hotels Ltd, Trans Amadi Port Harcourt
12/04/2007 – 09/11/2007	Supply and installation of access control systems.	Supply and installation of hotel rooms smart card locks and Energy saving card switch.	Sagbama Hotels and Resorts, Sagbama, Bayelsa State.
22/04/2008 – 13/11/2008	Upgrade of Train 1 and Train 2 of PE Plant	Installation of Programmable Logic Controllers (PLCs) and Distributed Control Systems (DCS) for control of polyethelene production (PE) plant (Train 1 and 2).	Servnet Ltd / Eleme Petrochemical Plant (EPCL/ Indorama) Port Harcourt.

PROJECT REPORT

DATE	PROJECT TITLE	JOB DESCRIPTION	CLIENT
17/06/2008 - Date	Electrical and Solar Installation	Design and Installation of solar powered street lights, building solar power system and entire electrical installations in 260 housing units estate at Kaffe Abuja.	Shelter Concept Ltd, Abuja.
11/02/2010 – 15/03/2010	Installation of automatic sliding door.	Design, supply and installation of automatic sliding doors.	FEIMA Investments Itd, Trans Amadi, Port Harcourt

Please note that report above does not cover some sensitive jobs and projects that do not require disclosure of client details. These projects include security, intrusion detection and access control devices installed for certain clients.

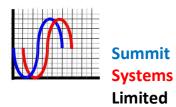
MANAGEMENT

Summit Systems Limited

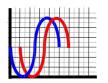
COMPANY PROFILE

SITE PHOTOS

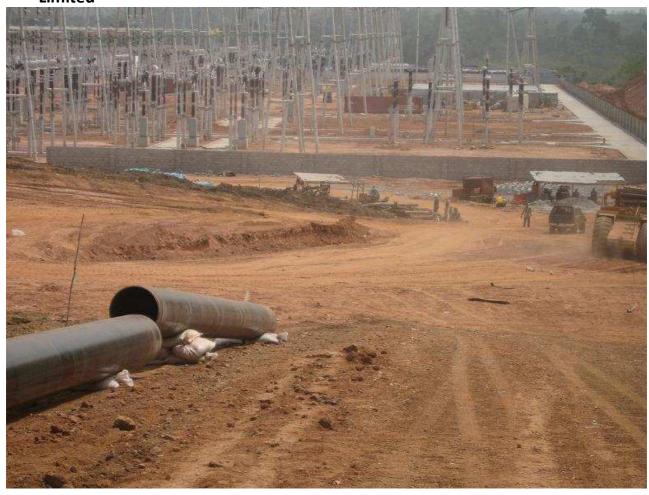


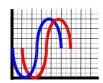






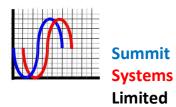
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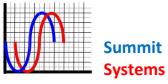


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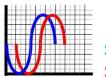






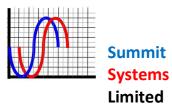
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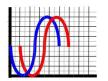


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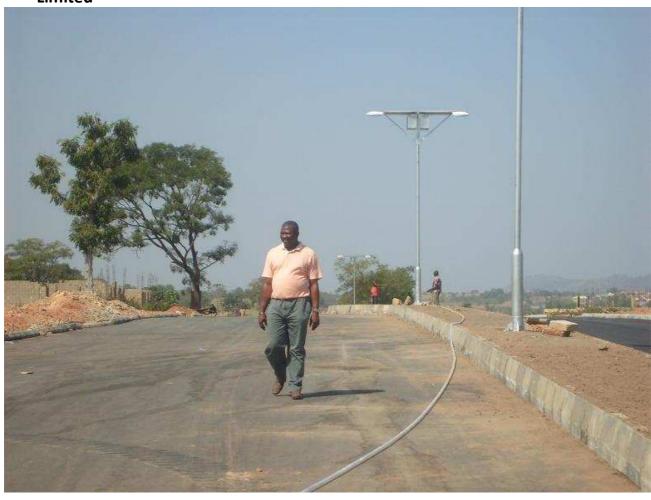


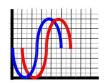






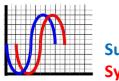
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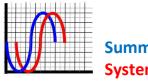
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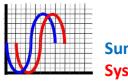
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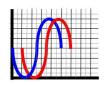
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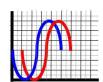
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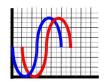
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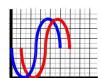
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Summit Systems Limited





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COMPANY PROFILE

ENGINEERING AND INSTRUMENT WORKSHOP / TOOLS





