Ciyes Systems Pvt Ltd®

DEEP TECH PRODUCTS & SOLUTIONS

Revolutionizing Tomorrow


DEEP TECH SOLUTIONS
FOR A SMARTER FUTURE

OUR VISION

"Developing and applying technological solutions to the benefits of the society that will not affect the safety and living standards of our future generations."

OUR MISSION

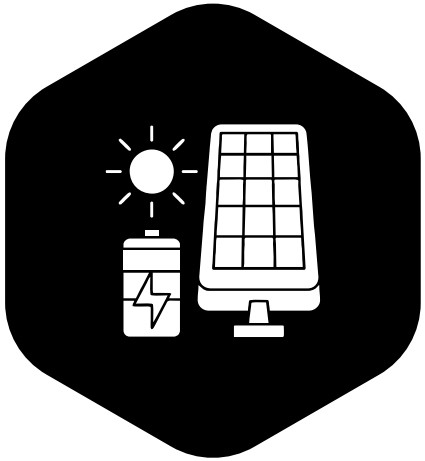
"Provide dependable solutions to the satisfaction of the customers through intensive R&D and proven quality control procedures using disciplined workforce."

OUR DEEP TECH PRODUCTS & SOLUTIONS

SMART AUTOMATION SOLUTIONS

- AMR
- Robotic Handlers
- Autonomous Drone Robot

CLEAN ENERGY AND EV SOLUTIONS



- Solar Smart Grid Tied Inverter
- 1.5kW Inverter / VFD
- Electric Vehicle Charging Solution (AC & DC)
- Hybrid EV Charger (AC + DC)
- Cogency
- PMSM Motor Controller
- Universal Solar Pump Controller

ELECTRAGUARD SYSTEMS

- 3 Phase Monitoring Relay
- Integrated Power Supply System
- Contactless Voltage Detector

OUR DEEP TECH PRODUCTS & SOLUTIONS

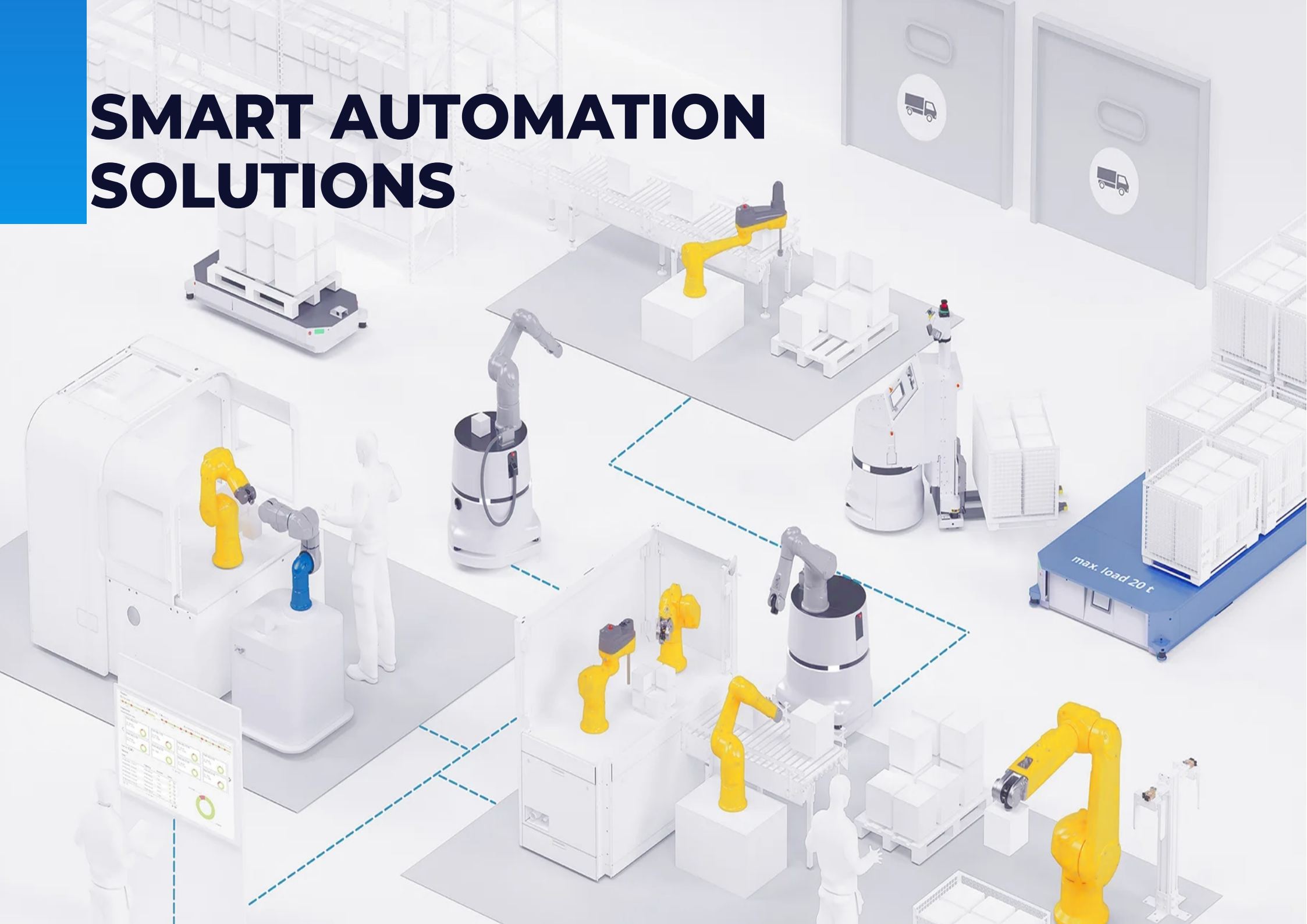
AI DRIVEN ANALYTICS

- KENVISION
- KEN-Edge Video Analytics
- AI based Remote Diagnostic Tool

INTELLIGENT HEALTH CARE

- MAXPRAN- Smart Ventilator

SMART AUTOMATION SOLUTIONS



AMR / AGV

Addressing the challenges in labor-intensive material handling with its Autonomous Mobile Robots (AMRs), Ciyes excels in the realm of mobile robotics technology, introducing innovative automation solutions for existing material transport operations. Our highly versatile Autonomous Mobile Robots (AMR) utilize cutting-edge machine learning and artificial intelligence algorithms along with robust navigation technologies like LiDAR , onboard camera with auto docking charging to adapt smartly to any environment, continuously improving performance without operator intervention. In a groundbreaking move, Ciyes focused to enhance operational efficiency and flexibility through the fusion of Autonomous Mobile Robots (AMR) and Automated Guided Vehicles (AGV). Ciyes solution include tailor-made solutions by blending AMRs and AGVs technologies, optimizing your shop floor layout, maximizing cost-effectiveness, and achieving unparalleled efficiency upgrades.

KEY FEATURES

- Carry up to 2 tonnes of material in one go
- Path planning
- Fast charging capability
- Effortlessly manage and monitor your fleet anytime, anywhere
- Multi sensor fusion
- Two LiDARs for 360 degree detection
- Dynamic obstacle avoidance

BENEFITS

- Auto toggle
- Infrastructure-free navigation
- Global safety compliance
- Value-creating work optimization
- Exceptional durability
- Easy integration
- Seamless deployment
- Easy battery swapping

APPLICATIONS

Manufacturing | Warehousing & Logistics | Distribution Centres | Cleaning & Disinfection | Hospitals & Healthcare | Hotels & Restaurants | Security & Surveillance

SMART AUTOMATION SOLUTIONS

ROBOTIC HANDLERS

Amid challenges in the workplace, including repetitive tasks traditionally performed by human workers, the need for automation is paramount. Ciyes's robotic handler emerges as an ideal solution, designed to efficiently automate these repetitive tasks while seamlessly sharing workspace with humans. This not only addresses the challenges of monotony and resource limitations but also ensures adaptability across diverse applications. Our commitment at Ciyes is to deliver high-quality and cost-effective robotic handlers, providing a solution that optimizes production efficiency and yields maximum return on investment.

TECHNOLOGIES

- Robotics and automation
- Sensors and vision systems
- Artificial Intelligence (AI) and Machine Learning
- Motion planning control systems
- Kinematics and manipulation
- Human-Machine Interface (HMI)
- Material science and engineering
- Internet of Things (IoT) integration
- Simulation and virtual prototyping

APPLICATIONS

- IC test handler robot
- 3D printing
- Manufacturing
- Assembly
- Packaging lines
- Logistics

DEVELOPMENT PROCESS

Needs Assessment → Research and Evaluation → Customization or Integration → Design Phase → Prototyping and Testing → Refinement and Optimization → Deployment and Maintenance

AUTONOMOUS DRONE ROBOT (ADR)

Ciyes is contributing to aerial operations with our Autonomous Drone Robot, overcoming limitations of traditional drone technology in remote or challenging locations. Empowered by proprietary AI, this drone offers unparalleled coverage and insights, making it is a game-changer in surveillance. Integrating cutting-edge technologies, including AI, Perception, Navigation, SLAM, Path Planning, Computer Vision, Autonomous Mapping, and Mission Planning. Equipped with advanced sensors such as GPS, IMU, LIDAR, and Cameras, our drone embodies efficiency, autonomy, and precision, ensuring transformative solutions for various industries.

KEY FEATURES

- AI-Driven decisions
- Proprietary anomaly detection
- Intelligent navigation
- Efficient mission planning
- Real-time video analytics
- Swarm intelligence collaboration

BENEFITS

- Enhanced Efficiency
- Reduced Human Intervention
- Accurate and Reliable Data Collection
- Versatile Applications (e.g., surveillance, delivery, agriculture)
- Adaptability to Conditions
- High-Quality Imaging and Sensing

APPLICATIONS

Agriculture	Mapping	Surveillance	Search & Rescue Operations	Perimeter Patrolling	Infrastructure Inspection	Rapid Aerial Assessments

CLEAN ENERGY AND EV SOLUTIONS

SOLAR SMART GRID TIED INVERTER

Ciyes's three-phase inverter, designed for commercial use, operates with low & medium voltage power input and addresses market needs for low-voltage inverters above 10 kW. Our inverter simplifies system configuration, reducing initial investment costs by avoiding the need for an expensive transformer, designed and developed as per Ministry of New and Renewable Energy (MNRE) standards. In addition to these features, we offer inverters ranging from 6kW/12kW, stackable up to 30kW/60kW. In the realm of green technology, our Solar Smart Grid Tied Inverter is a game-changer, maximizing solar energy utilization with smart technology and efficient power management. Specifically designed for Indian conditions. Perfect for commercial and industrial setups, effectively slashing grid power expenses.

Designed and developed for international grid integration standards:
VDE-AR-N 4105, EN 62109, EN 62000-6-1, EN 62000-6-3, Ul1741, IEEE 1547

SPECIFICATIONS

Technical Specifications	
Operating input voltage range	250-1000v
Rated output voltage	230V_{AC} / 400 V_{AC}, 5%, 3W+N+PE
MPPT voltage range	200V_{DC}- 850V_{DC}
Rated AC grid frequency	50 Hz
Max. efficiency	98.5%

KEY FEATURES

- Low Total Harmonic Distortion (THD) for high power quality
- High power generation for high return
- Built in MPPT Algorithm
- IP65 ingress protection
- String level monitoring

1.5 KW INVERTER / VFD

The 1.5 kW Inverter / VFD is a high-reliability power conversion solution designed to deliver stable and efficient 3-phase AC output from either DC battery sources or 3-phase AC input. Engineered for demanding industrial and railway applications, it ensures smooth motor control, consistent performance, and optimal energy efficiency under varying load conditions. Featuring advanced two-level inverter technology, automatic power source switching, and intelligent control capabilities, the system seamlessly adapts to changing power availability. Built-in comprehensive protection mechanisms and industry-standard MODBUS communication make it a robust, compact, and easily integrable solution for modern power management requirements.

KEY FEATURES

- Converts 110V DC or 3-phase 415V AC input to 3-phase 415V AC, 50Hz output
- Automatic source switching between mains and inverter supply
- Variable voltage (50–435V AC) & frequency (5–50Hz) control
- MODBUS RS485 communication for system integration
- Comprehensive protections: UV, OV, overload, short circuit, thermal & reverse polarity
- Compact, rugged design with quiet forced-air cooling

SPECIFICATIONS

Technical Specifications		Technical Specifications	
Rated Power	1.5 kW	Rated Output Current	2.6 A
Input Voltage (DC)	110V DC ±30% (77–145V DC)	Overload Capacity	110% for 1 minute
Input Voltage (AC)	3Ph, 415V AC, 50Hz ±10%	Communication	MODBUS Rs485
Output Voltage	3Ph, 415V AC (50–435V AC variable)	Cooling Forced Air (24 CFM)	Forced Air (24 CFM)
Output Frequency	5–50 Hz	Dimensions (L×W×H)	360 × 250 × 100 mm

ARAI CERTIFIED EV CHARGING SOLUTION (AC CHARGER)

Greenetic AC chargers provide a charging power range of 3.3kW, 7.4kW to 22kW, making them suitable for all types of electric vehicles. They are designed to be compact, so they fit easily in homes, offices and commercial parking areas. These chargers support national charging standards, ensuring compatibility with most EVs. With user authentication, only authorized users can access the charger, adding an extra layer of security. Installation is quick and straightforward, making Greenetic AC chargers a practical choice for both home use and commercial charging stations.

KEY FEATURES - AC CHARGER VARIANTS (3.3 KW / 7.4 KW / 22 KW)

- Power range between 3.3 kW to 22 kW for residential, commercial and fleet applications
- RFID authentication for secure user access
- OCPP-compliant with built-in network connectivity for remote monitoring and backend integration
- Energy-efficient operation with low standby power consumption
- Intuitive user interface with adjustable operating current
- Compact, robust design with wall-mount or stand installation options
- IP-rated enclosure suitable for indoor and outdoor installations

HARDWARE CAPABILITIES

Seamless residential & workplace charging

Efficient commercial AC charging

Eco-conscious charging station placement

Charges 2-wheelers & 4-wheelers concurrently

Easy to adjust operating current to complement available amperage at the site

Available plug and socket types - IEC62196-2 Type 2 and IEC 60309 D-57399

CLEAN ENERGY AND EV SOLUTIONS

ARAI CERTIFIED EV CHARGING SOLUTION (DC CHARGER)

Our DC chargers deliver power outputs ranging from 30 kW to 240 kW with high energy efficiency and a wide operating voltage range of 200 V to 1000 V. Designed for public and commercial applications, these fast chargers help reduce operating costs while maximizing performance. Their compact and scalable design makes them especially suitable for space-constrained installation sites, ensuring reliable and efficient high-power charging in any environment.

KEY FEATURES - DC CHARGER VARIANTS (30 KW/60 KW/120 KW/240 KW)

- 30 kW to 240 kW fast & ultra-fast DC charging
- Dual / multi-gun support with intelligent power sharing
- Wide voltage range (200–1000V DC), future-ready design
- Advanced thermal & electrical protection for 24×7 operation
- OCPP-compliant connectivity with real-time monitoring
- Rugged IP-rated enclosure for indoor and outdoor use

HARDWARE CAPABILITIES

High-power fast charging for commercial & highway locations

Designed for high-traffic EV charging stations

Rapid turnaround with reduced vehicle downtime

Supports wide voltage range EV platforms (200–1000V DC)

Intelligent power sharing for dual/multi-gun charging

Rugged outdoor-ready hardware for continuous 24×7 operation

HYBRID EV CHARGER (AC +DC)

The Hybrid EV Charger combines 30 kW DC fast charging and 22 kW AC charging in a single compact unit, delivering maximum flexibility for mixed-vehicle environments. Designed for commercial, fleet, and public charging locations, it enables both rapid DC charging and efficient AC charging from the same footprint.

With intelligent power management, wide vehicle compatibility, and seamless backend connectivity, the hybrid charger optimizes site utilization while reducing infrastructure complexity and installation costs. Its rugged, outdoor-ready design and advanced protection systems ensure reliable 24×7 operation across diverse operating conditions.

KEY FEATURES

- Dual (AC + DC) charging in one compact unit (30 kW DC + 22 kW AC)
- Supports CCS2 (DC) and Type 2 (AC) connectors for universal EV compatibility
- Intelligent power management for efficient AC and DC operation
- OCPP 1.6 / 2.0.1 compliant with remote monitoring and control
- RFID, QR & app-based authentication for secure user access
- Rugged IP-rated enclosure for reliable indoor and outdoor installation

HARDWARE CAPABILITIES

Simultaneous or prioritized AC & DC charging

Designed for commercial, fleet and public charging stations

Wide voltage compatibility

Compact, space-saving design for easy installation in constrained sites

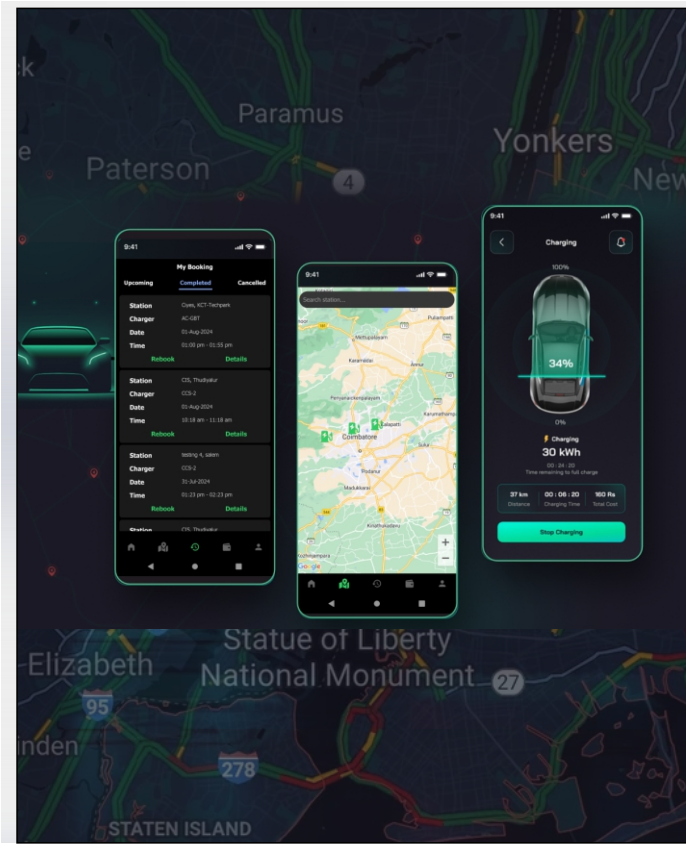
Advanced thermal & electrical protection for continuous 24×7 operation

CLEAN ENERGY AND EV SOLUTIONS

COGENCY

"COGENCY" is a comprehensive EV charging ecosystem built on a foundation of unwavering reliability. We develop and deploy charging station software with minimal downtime, ensuring your network is consistently operational when drivers need it most.

The **"COGENCY"** software platform, integrates end-to-end EV energy management. This includes Operations Management, Smart Energy Management, Billing, Driver Self-service Tools, and EV Fleet Management. By leveraging QR, RFID, and standard protocols, this integration minimizes costs, increases revenue, and enhances the EV charging experience for drivers and industry players alike.



KEY FEATURES & BENEFITS

- User Management
- Charging Session Management
- Billing and Payments
- Location and Availability
- Data Analytics and Reporting
- Remote Monitoring and Control
- Security and Compliance
- Integration with Renewable Energy Sources
- Sustainability Tracking
- User-Friendly Interface

APPLICATIONS

Apartments & Residential Complexes

Offices & Workplaces

Retail & Shopping Centers

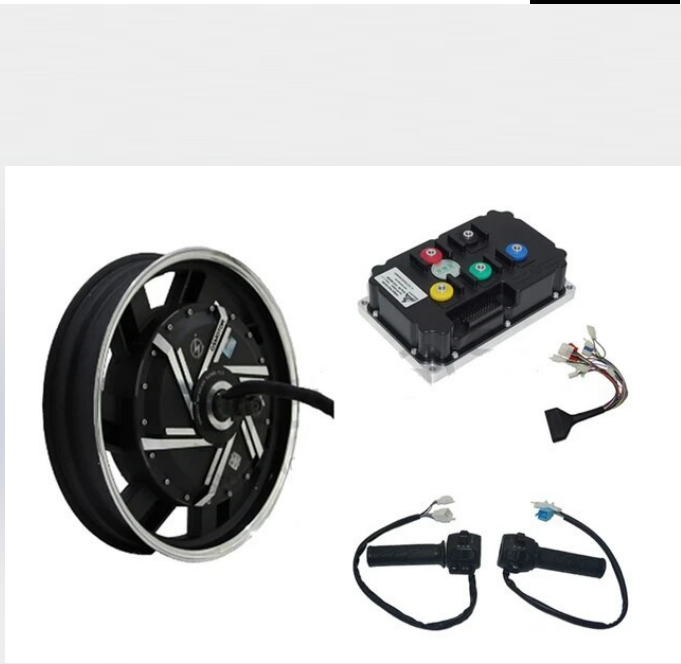
Parking Lots & Garages

Streets & Public Places

Fleets & Transportation Companies

PMSM MOTOR & EV MOTOR CONTROLLER

Permanent Magnet Synchronous Motors (PMSM) is a crucial trend in motor development, combining AC induction and brushless DC motor features with field excitation from permanent magnets. EV Motor Controller, a versatile and high-performance solution for electric vehicle (EV) applications. This controller is specially designed for hub motors, catering to a power range from 1.5kW to 3kW, primarily for two-wheeler (2W) vehicles. Its scalability makes it equally adept for both two-wheeler and four-wheeler (4W) vehicles, suitable for varied environments, from urban streets to rugged off-road terrains.



Key Features (EV Motor Controller)

- Advanced FOC and SVPWM algorithms enable dynamic control
- Precise torque and speed control
- Compatible with hub and mid-drive motors
- Automotive Grade Renesas MCU firmware
- Hall sensors used for precise rotor position sensing
- Robust communication interfaces with VCU

Key Features (PMSM Motor)

- High reliability and efficiency
- Higher torque density with smaller frame size
- Smooth Sine Back EMF design
- Less cogging torque
- Fast dynamic response
- Quiet operation over the whole speed range

APPLICATIONS

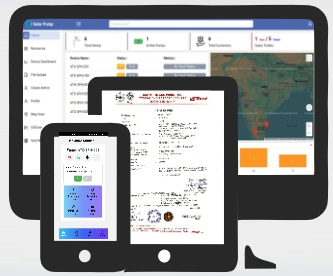
Electric & Hybrid Vehicles | Autonomous Vehicles | Industrial Automation | Renewable Energy Systems | Aerospace Applications | Charging Stations

CLEAN ENERGY AND EV SOLUTIONS

SOLAR PUMP CONTROLLER

Ciyes's cutting-edge Solar Pump Controller ensures reliability, efficiency, and sustainability, adhering to SECI and MNRE guidelines. Designed and developed in-house, it meets PM-KUSUM scheme criteria, seamlessly integrating with solar panels for optimal energy utilization. Tailored for Indian conditions, this user-friendly controller delivers consistent performance and longevity. Experience innovation with our MNRE compliant Solar Pump Controller, a greener and efficient solution for your pumping needs.

Our Variants: 3 hp, 5 hp, 7.5 hp,10 hp



SPECIFICATIONS

Technical Specifications	
Input drive operating voltage	$250V_{DC}$ to $800V_{DC}$
Input motor operating voltage	$460V_{DC}$ to $750V_{DC}$
Output voltage	$170V_{AC}$ to $440V_{AC}$, 3 Phase
MPPT voltage range	$250V_{DC}$ - $700V_{DC}$

KEY FEATURES

- Supports AC-IM, PMSM, SRM
- Built in MPPT algorithm
- Remote monitoring & control
- Scheduled ON/OFF control
- IP65 ingress protection
- Protection - Dry run, UV, OV, OL , SC, Reverse Polarity & Surge

APPLICATIONS

Groundwater Pumping as per PMKUSUM Scheme

Irrigation Systems (Drip, Sprinkler)

Industrial Applications (Process Water Pumping)

Wildlife Refuge Water Management

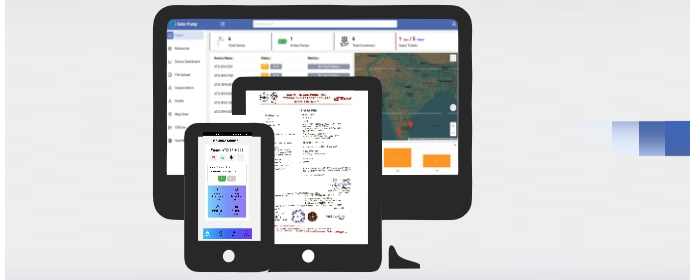
Rural Water Supply

Fountains

Tank / Cistern Filling irrigation system

UNIVERSAL SOLAR PUMP CONTROLLER

The Universal Solar Pump Controller is a transformer-less inverter , 3 Phase 415 AC output control system designed specifically for AC Induction motor. It transforms free solar energy in to reliable power for your water pumping system, Industrial motors and agrarian application such as Atta chakki, Cutter/Chaff, Deep-fridger/Cold storage and Wheat grinding machine which ensuring Maximum output with Zero electricity cost and promoting green living. It has a Comprehensive data logging, Fault diagnostics, Alert indications and report generation keep you informed and Proactive



SPECIFICATIONS

Technical Specifications	
Input Power	3.7kW/5kW
Input Voltage	250VDC to 900VDC
Min. Nom and Max (Voc)	788V, 835V and 881V
MPPT Efficiency	>97%

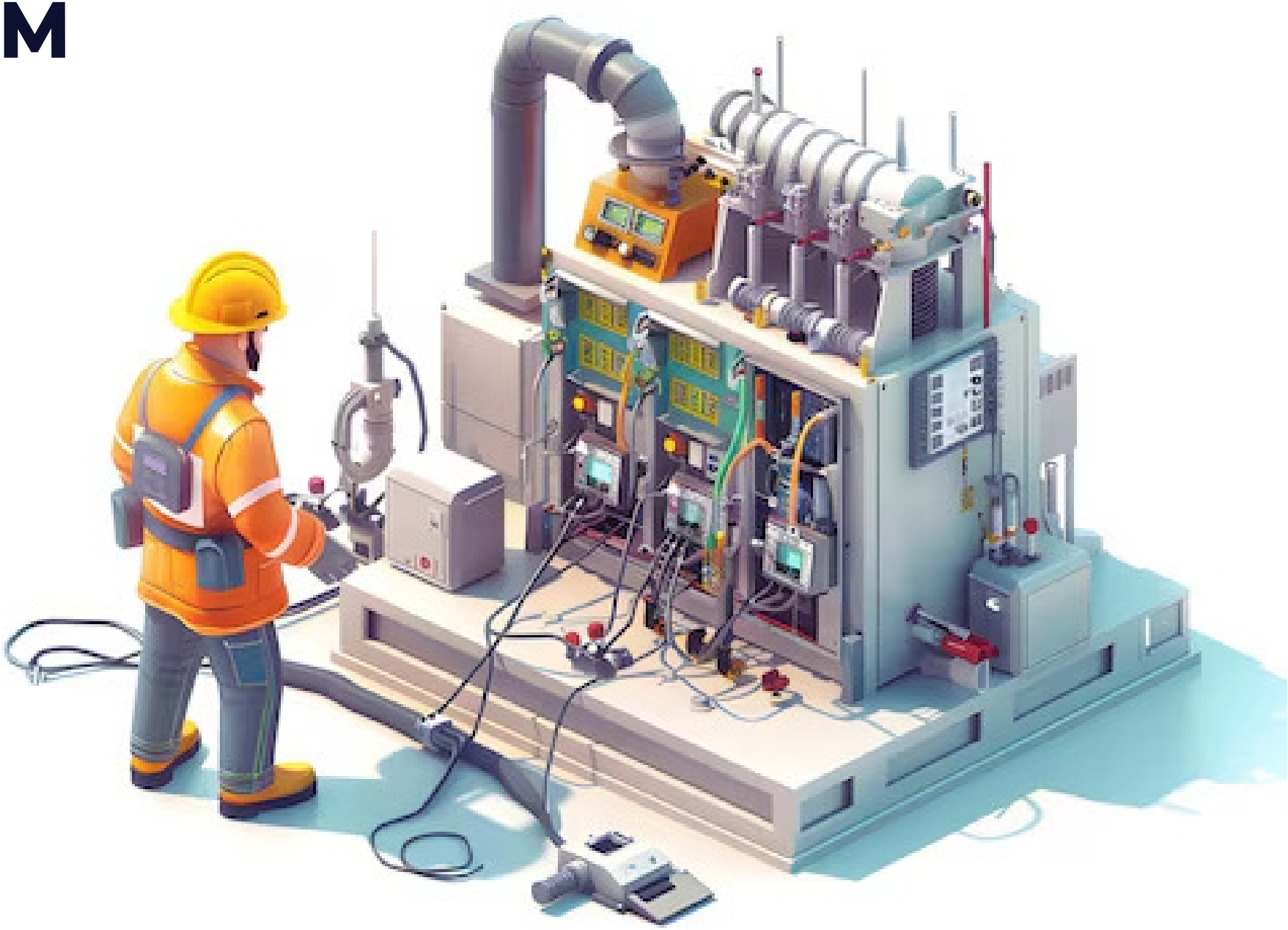
KEY FEATURES

- Supports AC-IM, PMSM, SRM
- Built in MPPT algorithm
- Remote monitoring & control
- Scheduled ON/OFF control
- IP65 ingress protection
- Protection - Dry run, UV, OV, OL , SC, Reverse Polarity & Surge

APPLICATIONS

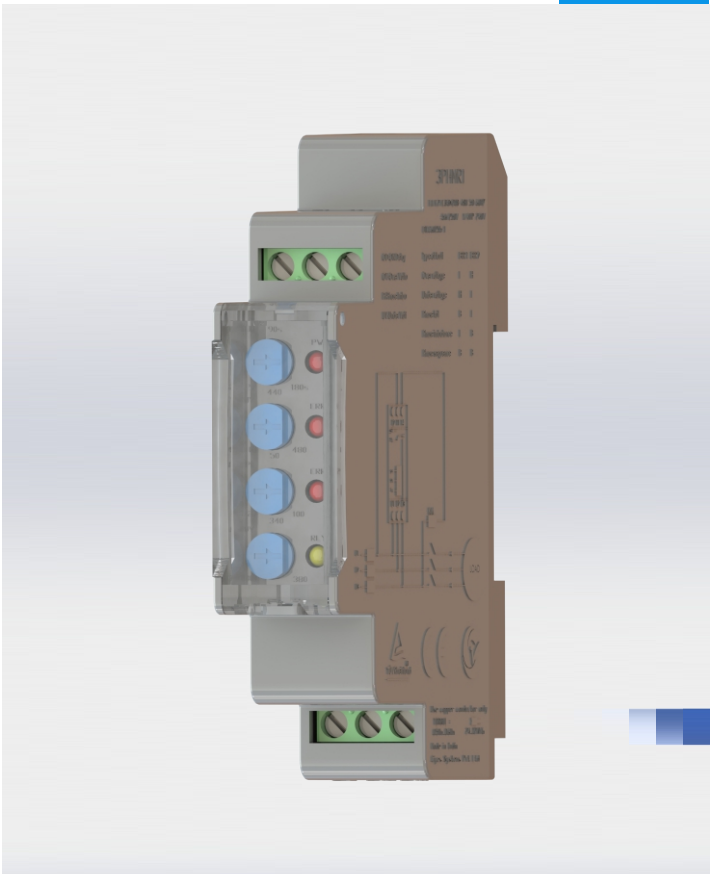
Atta Chakki Machine | Refrigeration | Milk Vending Machine | Chaff Cutter Machine | Water Pumping

ELECTRAGUARD SYSTEM



THREE PHASE MONITORING RELAY

In a three-phase system, uneven load distribution poses a common risk. Ciyes's 3 phase monitoring relays tackle this issue by detecting imbalances early, safeguarding the entire system from potential damage. Key features include continuous monitoring of all phases, customizable voltage ranges and dynamic protection against imbalances. Instant load cut off and LED indicators swiftly pinpoint faults, facilitating quick troubleshooting for efficient maintenance.



HOW IT WORKS

- **Phase Sequence Monitoring:**
  Relay remains close under normal conditions
  Instant trip on error detection
- **Asymmetry Monitoring:**
  Trip triggered upon reaching preset asymmetry level
- **Phase Failure Monitoring:**
  Instant relay open on complete phase failure to prevent system damage
- **Accuracy :** +/-3%
- **Response Time :** 0.5s - 2s

CERTIFICATION

As per IEC 60255-1 standards by TUV

TÜVRheinland®

CE

RoHS 2002/95/EC

MAKE IN INDIA

APPLICATIONS

Industrial equipment safety	Commercial power reliability	Utilities and infrastructure stability

ELECTRAGUARD SYSTEM

INTEGRATED POWER SUPPLY SYSTEM

Our Integrated Power Supply System is the comprehensive answer to your power management challenges. It eliminates disruptions from outages and protects equipment from voltage fluctuations, ensuring uninterrupted operations and extending asset lifespan. This innovative system significantly reduces maintenance costs compared to traditional setups while optimizing power usage for maximum operational efficiency. With simplified monitoring and troubleshooting, it offers a reliable, efficient and cost-effective solution that addresses all your critical power-related needs in one integrated package.

SPECIFICATIONS

AC Distribution Panel (ACDP):

- ♦ Inverters: 110V DC to 230V AC
- ♦ Automatic Voltage Regulator (AVR): 230V to 230V AC
- ♦ Transformers: 230V AC to 110V AC

SMPS-based Float cum Boost Charger (FRBC) Panel:

- ♦ FRBC module
- ♦ Distribution/Supervisory control/Alarm (DSA) unit

DC Distribution Panel (DCDP):

- ♦ DC-DC converters
- ♦ Common Digital Voltmeter for measurements

Battery System:

- ♦ Single 110V battery set
- ♦ Capacity: 200/300 AH

Efficiency:

- ♦ Overall system efficiency: 90%
- ♦ Power Factor: Better than 0.9

Power Source Compatibility:

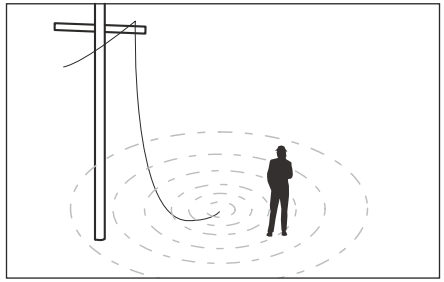
- ♦ Seamless integration with both solar and main power sources

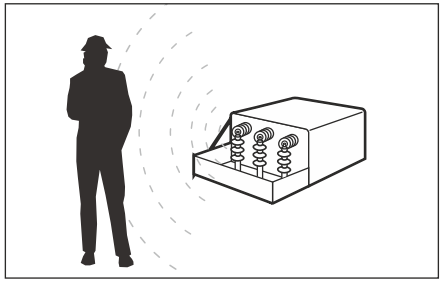
KEY FEATURES

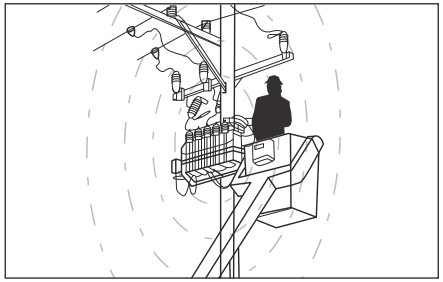
- Comprehensive integration of rechargeable battery backup, solar power, MPPT controller, DC-DC converter, inverter and voltage regulator
- Modular N+1 hot standby design ensures continuous operation with redundant modules and allows for easy expansion
- Remote monitoring and alarm system for proactive maintenance
- Provides stable AC and DC power against power outages and fluctuations
- Equipped with Surge Protection and Lightning Protection Devices
- Customizable to meet your specific power requirements

NON-CONTACTABLE VOLTAGE DETECTOR

The Non-Contactable Voltage Detector serves as a vital safety companion for electrical workers, helping prevent potentially fatal high-voltage shocks. When worn, this intelligent device continuously monitors the surrounding area. As the wearer approaches a high-voltage source, the detector activates both visual and audible alarms at a safe distance, calibrated to the specific voltage level detected. This early warning system allows workers to maintain a secure perimeter, enhancing workplace safety in high-risk electrical environments.







KEY FEATURES

- Compact & trendy safety device for electricians
- Detects voltage from 230V to 35000V
- Battery backup up to 10 months
- Dual alert system: Audio & LED indication
- Non-contact induction technology
- Easy to use voltage selector: 230V/10kV/35kV
- Optimized for overhead lines and unshielded cables

TECHNICAL PARAMETERS

Alarm Voltage Range	$230V_{AC}$ to $500KV_{AC}$
Working Frequency	50Hz/60Hz
Visual Indicator	LED light
Audible Buzzer	75 dB @ 1m
Operating Temperature	-10°C to 45°C
Dimensions (WxLXH)	50mm x 45mm x 20mm

AI DRIVEN ANALYTICS

KENVISION

Conventional security systems struggle with manual monitoring and false alarms due to overwhelming footage, necessitating an advanced solution. KENVISION's smart video analytic solutions are a key component of security and surveillance applications for both government and business, cutting false alarms down to near-zero and reducing the need for human oversight or video verification. Our proprietary AI analyses all the live-streaming video footage, detecting everything in your cameras' fields of view that matches your interests and needs. This eliminates the need for operators to watch millions of images daily and lets them stay on top of things. So they are ready to act fast and in real-time when it is needed.

ROI Achievable

- **99%** reduction in video footage transmission and storage
- **43%** more security assets covered with the same man power
- **67%** time saved in a typical operating station
- **90%** reduction of false alarms

SPECIFICATIONS

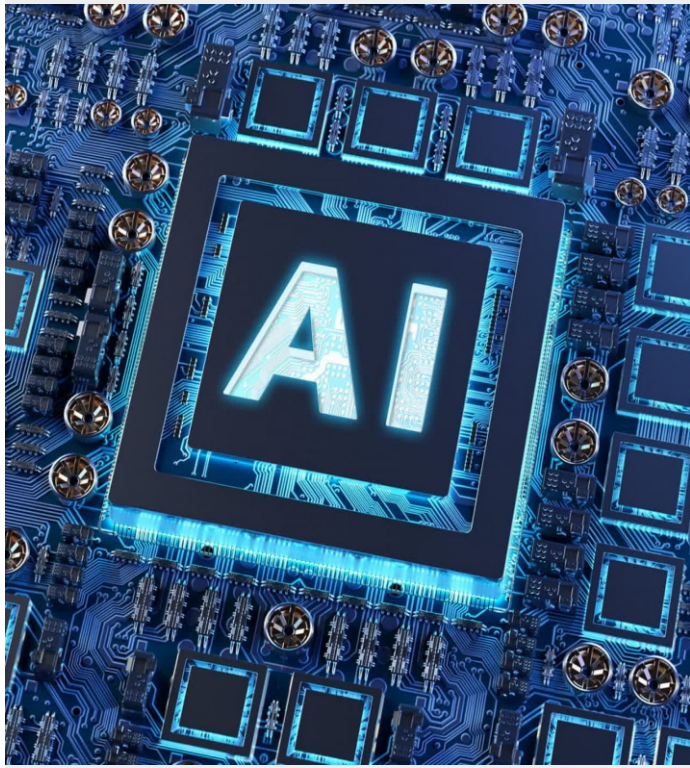
- Largest portfolio of intelligent video analytics on the market
- In-camera, on-premise or on-cloud for the most flexible solution to your security needs
- Fast, accurate detection and recognition for security and surveillance
- Real time alerts and centralized dashboard provide proactive insights without manual video review
- Highly efficient video analytics can run on a variety of cameras and platforms
- Adapts to existing or new video surveillance CCTV camera infrastructure
- Turnkey set-up, end-to-end network observability and camera health alerts

KEY FEATURES

- Anomaly Detection
- Footfall Analytics
- Face Recognition
- Safety Equipment Detection
- Trespassing, Fire, Fall, Fight Detection
- ANPR (Automatic Number Plate Recognition)
- Human Vehicle Zone Crossing
- Crowd Alert Detection
- Object Detection

KEN-EDGE VIDEO ANALYTICS

KEN-Edge Video Analytics utilizes cutting-edge technology for efficient computational power at the edge, ensuring privacy and reducing server costs drastically by 80% approx. The compact devices offer flexibility in installation and relocation, supporting up to 8 interfaces for multi-camera setups and USB camera compatibility. With 1Gb Ethernet and USB 3.0/2.0 interfaces, it provides versatile connectivity. The Edge AI processing minimizes reliance on cloud data transfer, conserving bandwidth and enabling autonomous operation without continuous internet connection, ensuring uninterrupted functionality in diverse scenarios.



KEY FEATURES

- Data privacy at the Edge
- Cost-effective computing
- Compact portability
- Versatile reconfigurability
- Diverse communication protocols
- Reliable functional verification
- Easy maintenance & energy saving

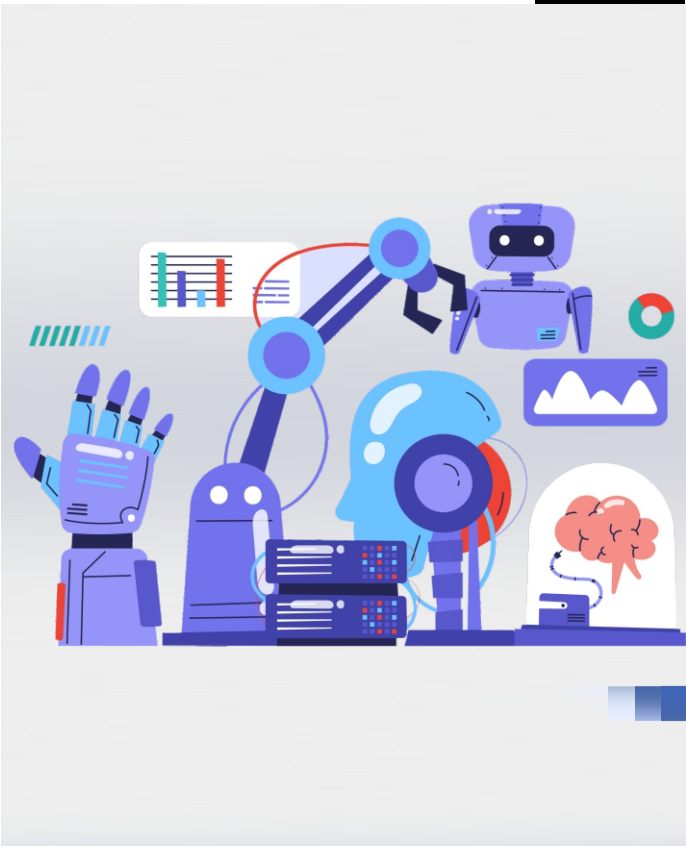
APPLICATIONS

Ciyes has done projects on Edge Video analytics involving ANPR, Face recognition, Object detection and identification, Object classification, Tracking, Counting, etc., which can be adopted in a range of sectors.

AI BASED REMOTE DIAGNOSTIC TOOL

In the modern world of technology, remote applications have become crucial for efficiently managing and maintaining machinery. Ciyes's proprietary Remote Diagnostic tool offer a simpler, more cost-effective alternative to traditional maintenance programs coupled with Artificial Intelligence. These solutions enhance the performance and reliability of your equipment, providing valuable insights at various levels, from individual parts to entire plants.

Our remote services include detailed data analysis, diagnostics and health reporting of machinery, all performed from our advanced diagnostic center. We leverage the latest technology for condition monitoring and asset management. This approach enables our engineers to deliver top-notch, cost-effective solutions, ensuring improved machinery health and overall performance quality.



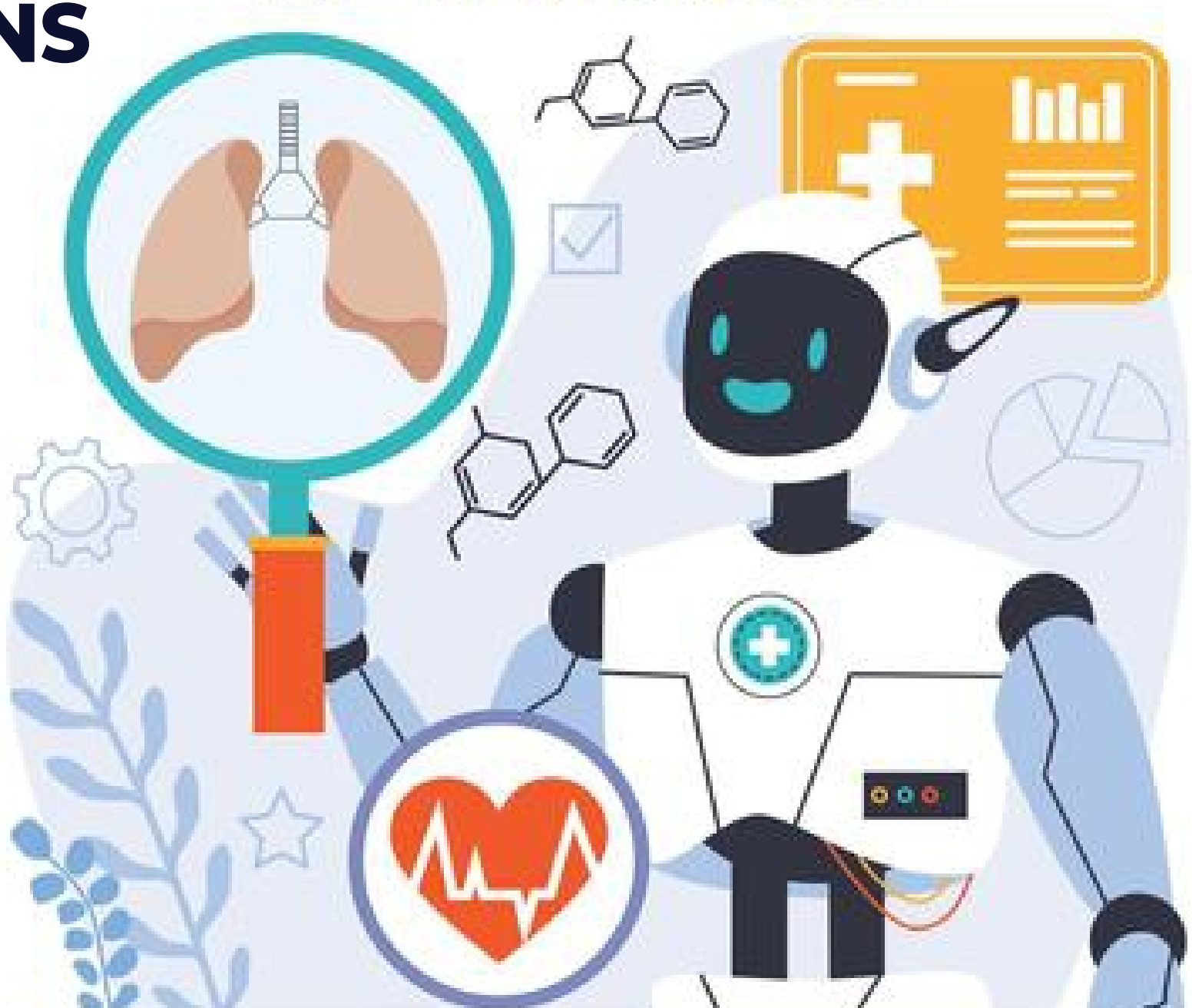
KEY FEATURES

- Vehicle preventive maintenance
- Real-time tracking
- Driver behaviour analysis
- Reducing OPEX & increasing productivity
- Environment-friendly
- Intelligent data processing system

APPLICATIONS

- Railways
- Manufacturing
- Healthcare
- Supply chain

INTELLIGENT HEALTHCARE SOLUTIONS



INTELLIGENT HEALTHCARE SYSTEM

MAXPRAN - SMART VENTILATOR

Engineered for broad clinical applications, MAXPRAN supports both invasive and non-invasive ventilation modes, catering to adult and pediatric patients. Its modular and portable design allows seamless integration into diverse critical care environments, delivering instant, reliable and cost-effective ventilation across a wide range of clinical scenarios.

MAXPRAN enables doctors and respiratory therapists to operate the ventilator across nine ventilation modes, ensuring flexibility to meet evolving patient needs and dynamic medical conditions.

VENTILATION MODES

INVASIVE MODES:

- Volume Controlled Ventilation (VCV/ VC- Assist)
- Pressure Controlled Ventilation (PCV/ PC- Assist)
- Volume Control - Synchronized Intermittent Mandatory Ventilation (VC- SIMV)
- Pressure Control - Synchronized Intermittent Mandatory Ventilation (PC- SIMV)
- Pressure Regulated Volume Control (PRVC)
- Invasive Continuous positive airway pressure (INV-CPAP)
- Lung Protective Ventilation (LPV)

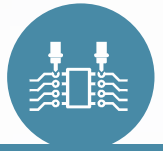
NON-INVASIVE MODES:

- Continuous Positive Airway Pressure (CPAP)
- Bilevel Positive Airway Pressure (BiPAP)

SPECIFICATIONS

Respiration Rate (RR)	1-120 BPM	Inspiratory Time (Ti)	0 - 6 sec
Tidal Volume (VT)	50-2000 mL	Inspiratory Flow rate	120 L/min
O2 Concentration (FiO2)	21-100%	Pressure Support	0 - 40 cm H2O
PEEP	0- 30 cm H2O	Maneuvers	Oxygen therapy, Oxygen Boost, Oxygen suction support, Inspiratory & Expiratory hold, Manual Breath
Peak Inspiratory Pressure	0 - 80 cm H2O	Screen	15.6" LCD Touch screen
I:E Ratio	1:6 to 6:1	Alarm Features	Color Coded alarms based on priority, Stores history of last 500 logs

OUR SILICON ENGINEERING SERVICES & SOLUTIONS



IC Testing / Post Silicon Validation

- Comprehensive chip testing services
- New Product Introduction (NPI) support
- Effective Bench to ATE correlation
- Prototype testing for Intellectual Properties (IPS)
- Modular and sustainable test assistance
- Onsite/offsite engineering support with an in-house development center
- Characterization and qualification services
- Cross-tester platform conversion
- Throughput enhancement, vector conversion, scripting and Test IPs development

Embedded System Services

- Requirement analysis to product development (Embedded, Power electronics, IoT & FPGA)
- End to end product realization software solutions (Bare metal programming, embedded firmware and system software, low level firmware, device drivers, IoT)
- Mechanical support for design and development of enclosure, CAD modelling and FEA
- Comprehensive thermal analysis services, including steady-state, transient, PCB-based, weight-based and heat transfer assessments
- FPGA design services, including Verilog, communication protocols, AI applications and proficiency in various FPGA families and design tools

OUR SILICON ENGINEERING SERVICES & SOLUTIONS

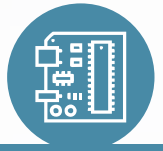
PCB DESIGN EXCELLENCE

- Specialized in High-Speed, High-Current and High-Voltage Designs
- Seamless integration across packages, PCBs and backplanes
- Versatile interfaces, from GPIO to 224G PAM4 SERDES
- Exclusive Library and CAM services
- Expertise in ATE boards, commercial boards, military boards and EVM boards

SI/PI SIMULATION

- Expertise in multiple interfaces GbE / PCIe / LPDDR / UFS / USB / narrow-band-RF
- End-to-End simulations for Die-model+Packages+PCB
- 3D Simulations for Sockets, Pogo pins, Probes/Needles, Connectors & more
- Design & circuit optimization/solutions for higher and better performance
- SI: Max speed 224G PAM4 // PI: Max current at 1640A

OUR SILICON ENGINEERING SERVICES & SOLUTIONS



IC PACKAGE DESIGN

- Wirebond, Flip chip and Chiplets based designs
- System in Packages (SiP / MCP / MCM)
- Organic MLO, ceramic MLC and thin film substrate designs
- Layer structures : 1-2-1 // 14-32-14
- Mixed signal designs : 80GHz RF, 100GbE, PCIe5 and more

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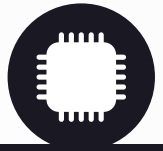

ASIC DESIGN

- End-to-end ASIC design services with proven expertise in FinFET, CMOS, BCD and SOI technologies
- Technology experience across 28nm, 16nm, 10nm and 7nm process nodes, optimized for power, performance and area
- Successful collaboration with leading semiconductor foundries across design, tape-out and silicon validation phases
- Multiple full-chip and IP-level tape-outs completed with first-pass silicon success
- Strong capabilities in low-power design, physical design, DFT integration and sign-off verification

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