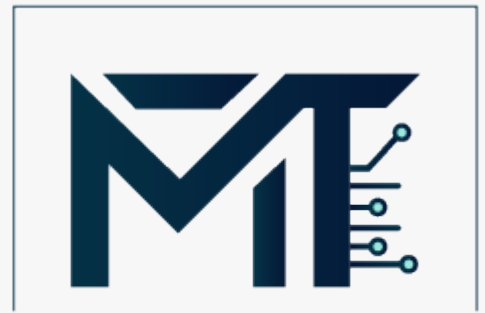




Musa Technologies Ltd.

Innovate • Connect • Inspire

MUSA Technologies Limited

www.musatechnologiesltd.com

About Us

MUSA Technologies Ltd is a Bangladeshi technological company working with different information technology related sectors and giving different hardware and software services throughout the whole country and abroad.

We deliver end-to-end application development, quality assurance and support solutions, consultancy to clients ranging from Fortune enterprise companies to startups in all stages.

MUSA Technologies Ltd is the premier full-service Development and Quality Assurance partner, specializing in the development of time-sensitive and innovative Web applications, SaaS, mobile apps, IoT solutions and on-premises solutions. To every project, we bring a combination of domain expertise, exceptional engineering talent, rigorous best practices, commitment to the protection of client's IP, and accountability of a global company.

We have perfected a clean, economical approach for entering and exiting development and QA processes at the right time, using the right resources. Our research-based approach has equipped us with the ability to provide rapid, cost-effective solutions that blend seamlessly with the product and business strategy, infrastructure analysis, architecture, UX design, rapid development, functional QA, or QA automation – or all of the above.

What We Do,

IoT Development

IoT Software
IoT Hardware



Software Development

Mobile Apps,
Custom Software,
Website, Web Application

Cyber Security

Cyber Security Audit
Cyber Security Deployment



Our IoT Solutions,

The Internet of Things (IoT) describes physical objects (or groups of such objects), that are embedded with sensors, processing ability, software, and other technologies, and that connect and exchange data with other devices and systems over the Internet or other communications networks.

IoT Solutions:

- Biometric Attendance Device (Facial recognition & Fingerprint)
- Sense-It (Universal Data Logger)
- Soil Quality Analyzer
- Gas detector and alarm system
- Warehouse Management system- UHF RFID Based Asset tracking

Sense-it Introduction

Sense-it is a highly versatile environment monitoring system which is applicable for various industrial warehouses, cold storages, green house, agriculture and fisheries. It allows users to remotely monitor environmental conditions and act accordingly. This product constantly monitors different environment conditions and records with timestamp. It sends real time data to the server from where the user can monitor parameters from all the similar devices. The sensors are all industrial grade and provide highly accurate data.

Sense-it Device Features

- Easy sensor installation with one button presses auto finds sync
- Easy web panel control for user.
- Maximum 4 sensors can be integrated within one mother box
- Real Time clock included
- Data backup feature (up to- 7 days)
- Long range wire transmission (rs-485)
- GSM & Wi-Fi both available for networking with web
- Real time monitoring via web panel
- Alert generation: both in web & device (Buzzer) & SMS
- On-board graphical display shows real time data
- Report generation (hourly, daily, weekly, monthly, yearly)
- LED network indicator

Device Application

This device can be used in warehouses like food, medicine and seed storages where strict temperature regulation is needed. Sometimes poisonous gases like ammonia are released from machineries or the stored content which can be detected with our devices. This is also applicable in poultry farms where ammonia raise in temperature often causes many losses. The hatch-lings are more sensitive to temperature.

Furthermore, this device is necessary for bio floc and RAS systems where water quality is very essential. Our device can accurately measure water pH, DO, TDS, Salinity and NH3. If one of these parameters get off balance then there is a high chance of fish loss. In our web panel clients can set their desired parameter threshold and they will get notification whenever any parameter reaches the threshold. In case of network disconnection there is also an on board display available to monitor in person.

Device Sensor list

As of right now there are 11 sensors available with this product. These are listed below:

<i>Sensor type</i>	<i>Sensor name</i>
Air Sensor (All RS-485)	• Temp, RH (relative Humidity) • Dust, Smoke (PM2.5, PM10) • Air NH3 • CH4 • CO2
Soil Sensor (All RS-485)	• Soil v1(T, EC, PH, M, N, P, K)
Water Sensors	• Water NH3 • TDS, Salinity, EC • Dissolved Oxygen • pH, ORP, Temperature
Other Sensors	• Door Sensor



Sense-it (Model- SIT201)



Sense-it (Model- SIT201)
On an Operational Warehouse

Sense-it Data-logger Specification (Model: SIT-201)

Operating Voltage	5V DC, Low Power Consumption
GSM / GPRS Network	Quad-band 850/900/1800/1900 MHz
GPRS	Single
GPRS mobile station class	Class B
Sim Card	Standard
Wi-Fi	Available
LED Network Indicator	Available
Sensor network interface	RS-485
Display	Graphical
Sensor Connectivity	3 Sensor at a time
Built in RTC	Time stamp

Cold-Storage application Sensor Specification:

1.1 Temperature& Humidity transmitter (Model: JXB-3001TH):

This product adopts high sensitivity photosensitive probe, the signal is stable and the precision is high. It has the characteristics of wide measurement range, good linear degree, good waterproof performance, convenient use, easy installation and long transmission distance.

1.1 Primary Parameters

PARAMETERS	TECHNICAL SPECIFICATIONS
POWER SUPPLY	12-24V DC
OUTPUT SIGNAL	RS485
RESPONSE TIME	≤15S
LONG-TERM STABLE TEMPERATURE	≤0.1°C/year
LONG-TERM STABILITY OF HUMIDITY	≤1%/y
TEMPERATURE RANGE	-40°C to 80°C
HUMIDITY RANGE	0-100%RH
TEMPERATURE RESOLUTION	0.1°C
HUMIDITY RESOLUTION	0.1%RH
POWER CONSUMPTION	≤0.15W(@12V DC , 25°C)
WORKING PRESSURE RANGE	0.9-1.1atm
POWER	0.4W

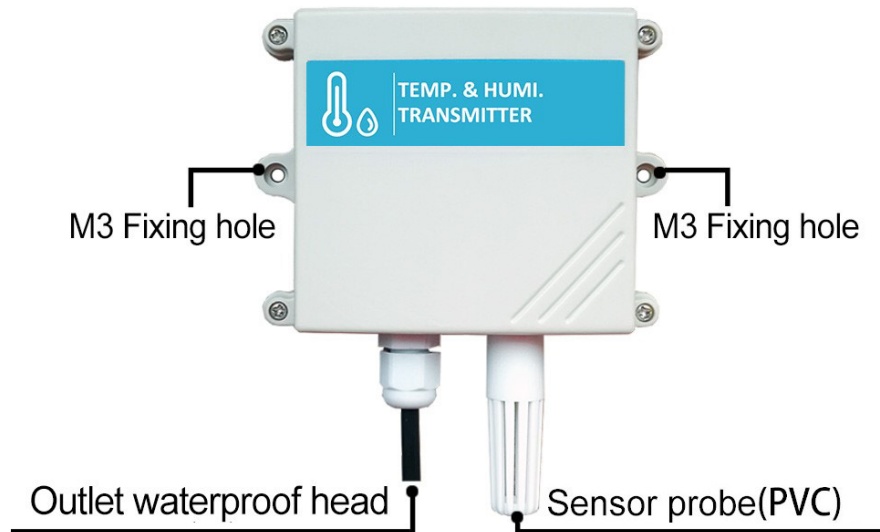


Figure: Temperature & Humidity Transmitter (JXB-3001TH)

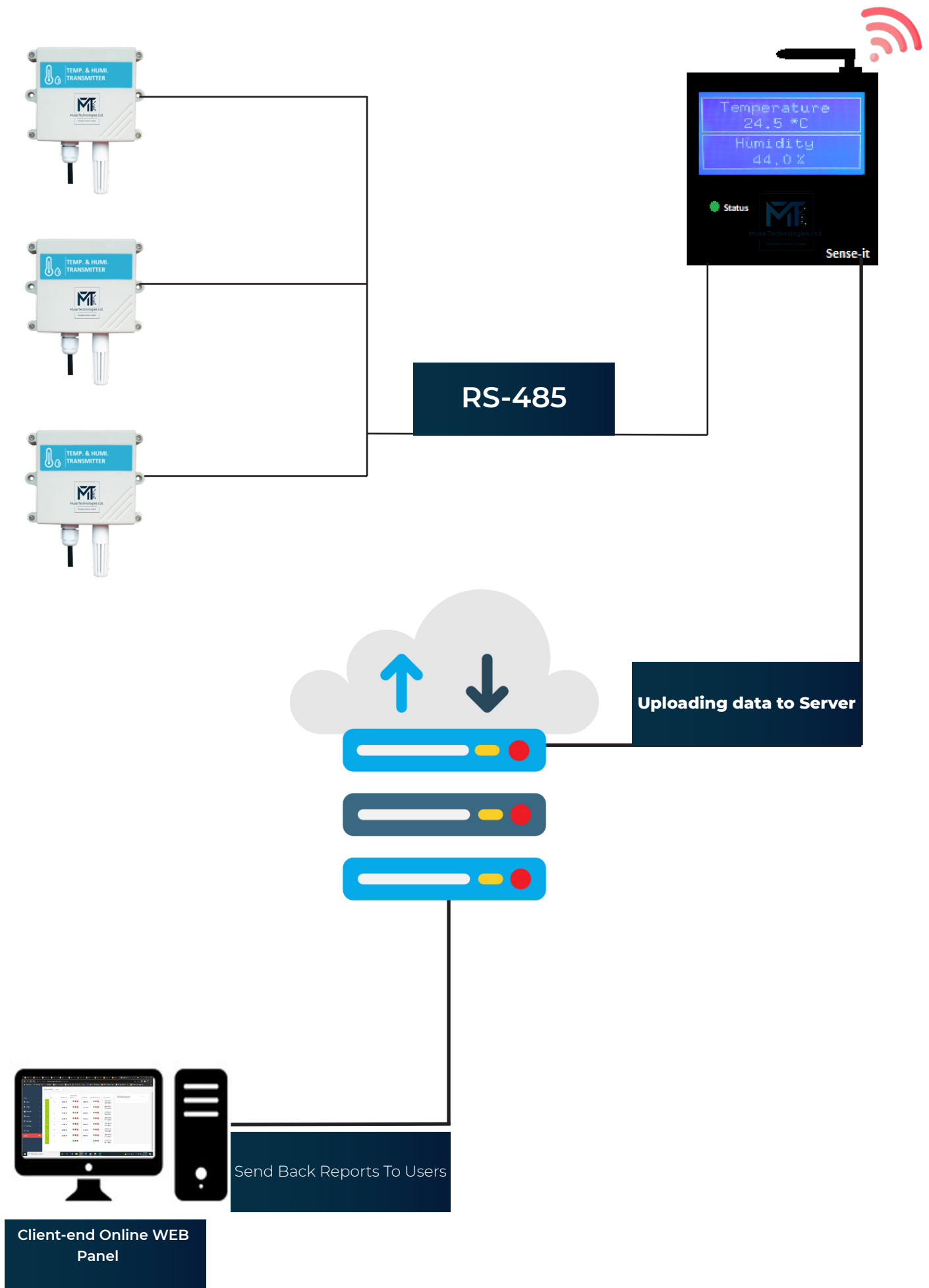
Complete System hardware communication is based on rs-485 MODBUS, which provides reliable long wire range and low signal loss data transmission. Our temperature and humidity transmitter provides high accuracy and high sensitivity which covers large area, perfect for cold storage monitoring.

1.2 Door Sensor:

A magnetic reed door sensor provides us the door status of the cold-storage which can be monitored real-time via on-line monitoring web panel. This sensor is connected to the main data logger via rs-485 too.



1.2 Door Sensor:



Biometric Attendance Device

Our biometric facial recognition, fingerprint, and RFID card reader based system is used for access control, attendance track and key-less entry/exit. It is easy to use and our web based control panel makes it easy to monitor even remotely.

Device Features:



Facial Recognition System



Fingerprint Recognition System



RFID Card Recognition



GSM, Ethernet or WiFi Connectivity



On Device LED Status Display



Web Based Control Panel



Cloud Data Backup

Soil Quality Analyzer Device

Available Soil Data:

- Nitrogen
- Phosphorus
- Potassium
- Ph
- Temperature
- Moisture
- Electric Conductivity
- Salinity

Device Features:

- Online and off-line Device
- Mobile App Provides Easy Integration of Phones with devices
- Survey Equipment + Real Time Monitoring
- Integrated Database
- Mobile to Device Connection Via Bluetooth
- Portable and Handheld Device
- Battery Backup Up to 9 Hour
- Rechargeable Battery
- On Board Display
- Cloud Based Admin Control Panel

Benefits of using Soil Quality Analyzer

Soil test reports will generally provide you with appropriate fertilizer application recommendations for nitrogen, phosphorus, potassium and limestone. Soil testing also allows for determining the micro-nutrient requirements of your crop. If you apply too little fertilizer, your crop yields and returns will be lower. Too much fertilizer will waste time and money and risk environmental damage due to nutrient runoff. Consequently, soil testing provides a farm management tool with a potential benefit to the farmer of increased yields, reduced operating costs and superior environmental risk management. Additional benefits include; improved crop maturity and quality, higher tolerance to disease and pest damage, and increased growth.

Gas Monitoring, Detection and Alarm Systems

LPG gas cylinder monitoring and leakage detection,
This system comes with three versions.

Cylinder Monitoring: (For Industrial & Commercial Usage)

- Cylinder Monitoring (LPG Level, Cylinder Tracking- Only for Supplier) for Both End Users and Suppliers
- Online Monitoring System/Mobile Application & Web Panel
- Activity Record Database
- UHF Based Easy Tracking of Cylinders
- Consumption Report Generation with Demand Prediction

Leakage Detection-Premium: (For House-hold usage, Safety device)

- Mobile Application
- Online and Off-line Alarm
- Battery Backup Up to 12 Hour
- SMS & Push Notification Alert Generation
- Exhaust Fan Control

Leakage Detection-Basic: (For House-hold usage, Safety device)

- On-board Alarm- High Pitch Buzzer
- High Detection Range

Warehouse Management System UHF RFID Based Asset Tracking

Warehouse Management System(WMS) Features

- Smart Asset Tracking
- Product Entry and Exit Monitoring
- Inventory Management Software
- Smart Attendance and Time Tracking
- UHF Base IoT Device
- Package Size Measurement
- Security Bridge Alarm
- Fire Hazard Alarm
- Web Based Admin Control Panel
- Highly Customizable and Scaleable Solution

List Of Our Softwares,

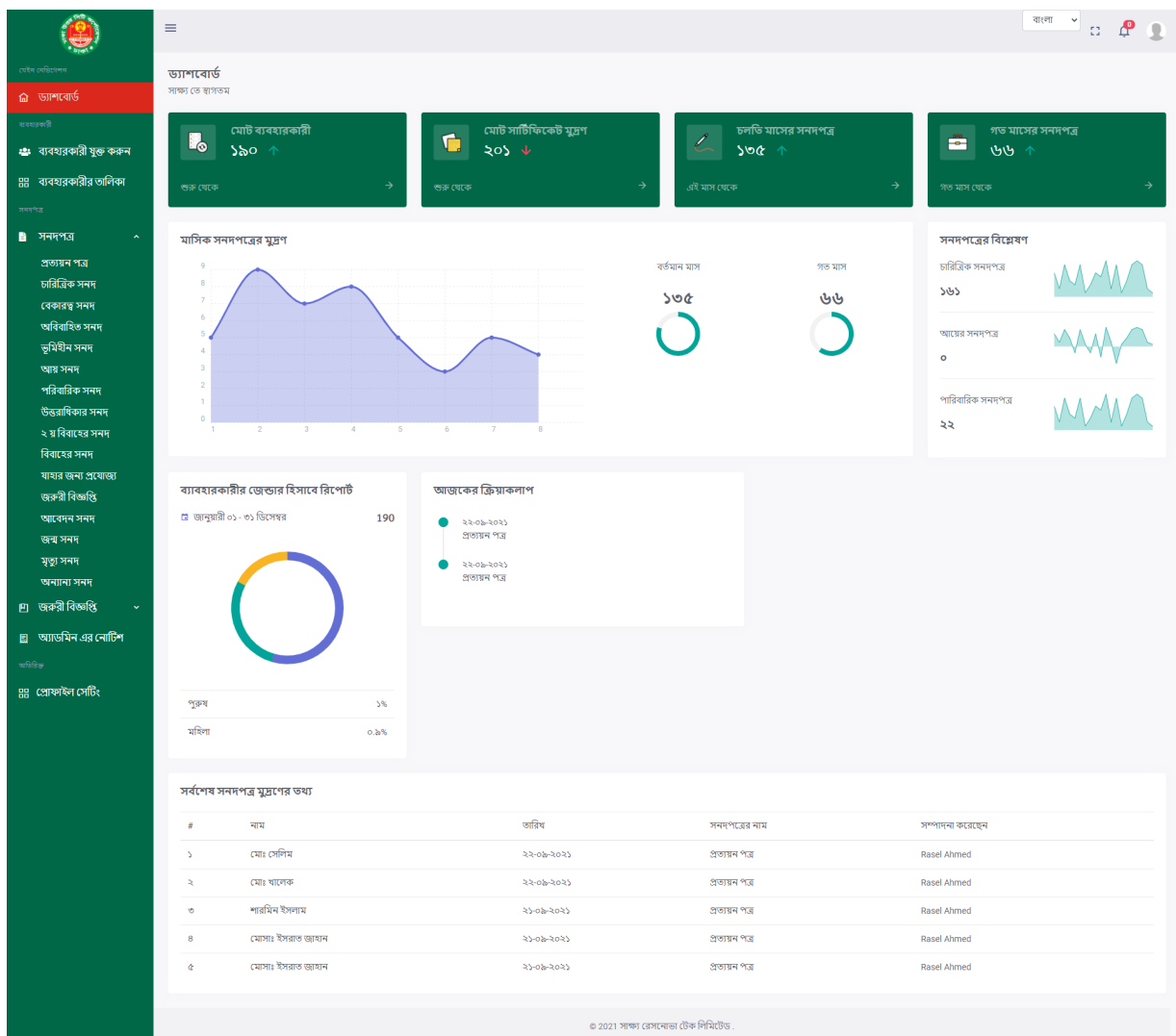
Our Ready to deploy Cloud-based solutions:

- Education Management System
- Library Management System
- Inventory Management System
- Accounts Management System
- Human Resource Management System
- Document Management System
- Certificate Management System
- Restaurant Management System
- Vehicle Fleet Management System
- Point of Sale (POS)

Our Softwares,

Electronic Certificate Management System

An electronic certificate management system(e-CMS). It is a cloud-based software program that manages the creation, store, management, and control of certificates electronically. The primary function of e-CMS is manage electronic information of a regulatory agency's certification workflow. e-CMS doses include certificate, document management, workflow, text retrieval, record keeping and management features. Our system has 17 different certificates template, e.g.; Trade license, Protoyon Potrro, Character Certificate, Inheritance Certificate, Landless Certificate, Family Certificate, Road Cutting Permission Certificate etc. Apart from these certificates, our system can generate any kind of Other Dynamic Certificates.



Electronic Certificate Management System

e-CMS Features

- Cloud Software
- Device Independent
- Easy To Use
- 17 Different Certificates Templates
- Create Any Certificate Dynamically
- Individual Uses Profile and History
- Dual Language (Bengali & English) Certificate Print Simultaneously
- Roles and Permission Based User Access

e-CMS Users

- City Corporation Office
- Ward Councilor Office
- District Chairman Office
- Sub-district Chairman Office
- Any Civic Certification Regulatory Authority

EDUCATION MANAGEMENT SYSTEM (EMS)

Our Education Management system is a real-time management solution for School, College, University and Training Institutes. Our advance system will increase your organizations efficiency And reduce operation cost. EMS is a complete solution for all education organization requirements And can be customized as per need.

HOW IT WORKS:

Students

Students enter the school with Proximity Card/ Fingerprint and automatic SMS sent to parent mobile phones. Students exit the school with Proximity Card/ Fingerprint and automatic SMS sent to parent mobile phones. Students can access download course materials, submit assignments 24/7 Online etc.

Teachers

Teachers manage subjects, class routine, exam / semester listing, marks (edit/ update) And attendance exam, class & student wise, exam grades, class routine etc.

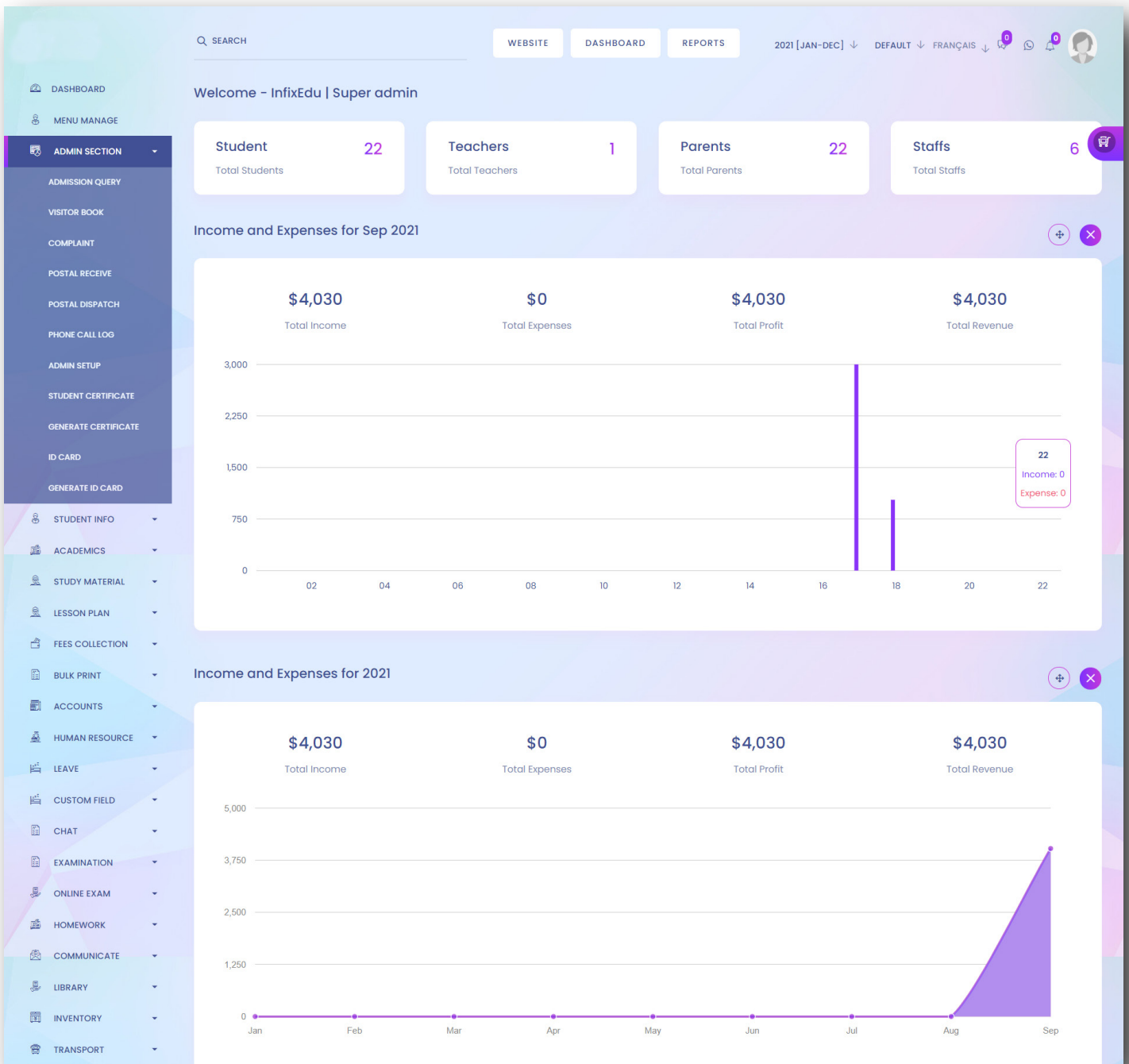
Parents

Parents can review teacher profiles, view progress reports, mark sheets of students etc.

Staffs

Staff manage payment for students, manage library, manage transportation, manage hostel, manage notice board of school etc.

EDUCATION MANAGEMENT SYSTEM (EMS)



EMS Dashboard

EDUCATION MANAGEMENT SYSTEM (EMS) FEATURES

User management

- Add / edit / delete unlimited users
- View user profile
- Role-wise user authentication (Student, Teacher, Staff, Parent)
- Managing role capabilities
- Custom user role
- Custom profile fields

Academic Management

- Manage student admission
- Manage courses and batches
- Time-table & Event Calendar
- Manage examination setting (grade, mark, schedule, attendance)
- Manage class routine & syllabus
- Assign student & teacher to group, shift, section and class
- Manage Notice board
- Manage student promotion

Result management

- Group, shift, section and class wise exam result generate
- Results based on total marks with merit position and GPA
- Set percentage (%) for pass mark
- Custom grading point table
- Print result sheet of class/section and individual student
- Manage Progress Card

Attendance Management

- Real time attendance tracking with Proximity Card/ Fingerprint
- Student's daily in & exit time SMS to parent mobile phones

EDUCATION MANAGEMENT SYSTEM (EMS) FEATURES

Notification Management

- Notification to Student/ Class/ Section.
- Notification to group/ role of parent/ teacher/ staff.
- Review notification report.
- English/ Bengali long SMS support
- All mobile operator Masking SMS support

Library Management

- Systematic information of all books.
- Book lending information.
- Book purchase information.

Employee Management

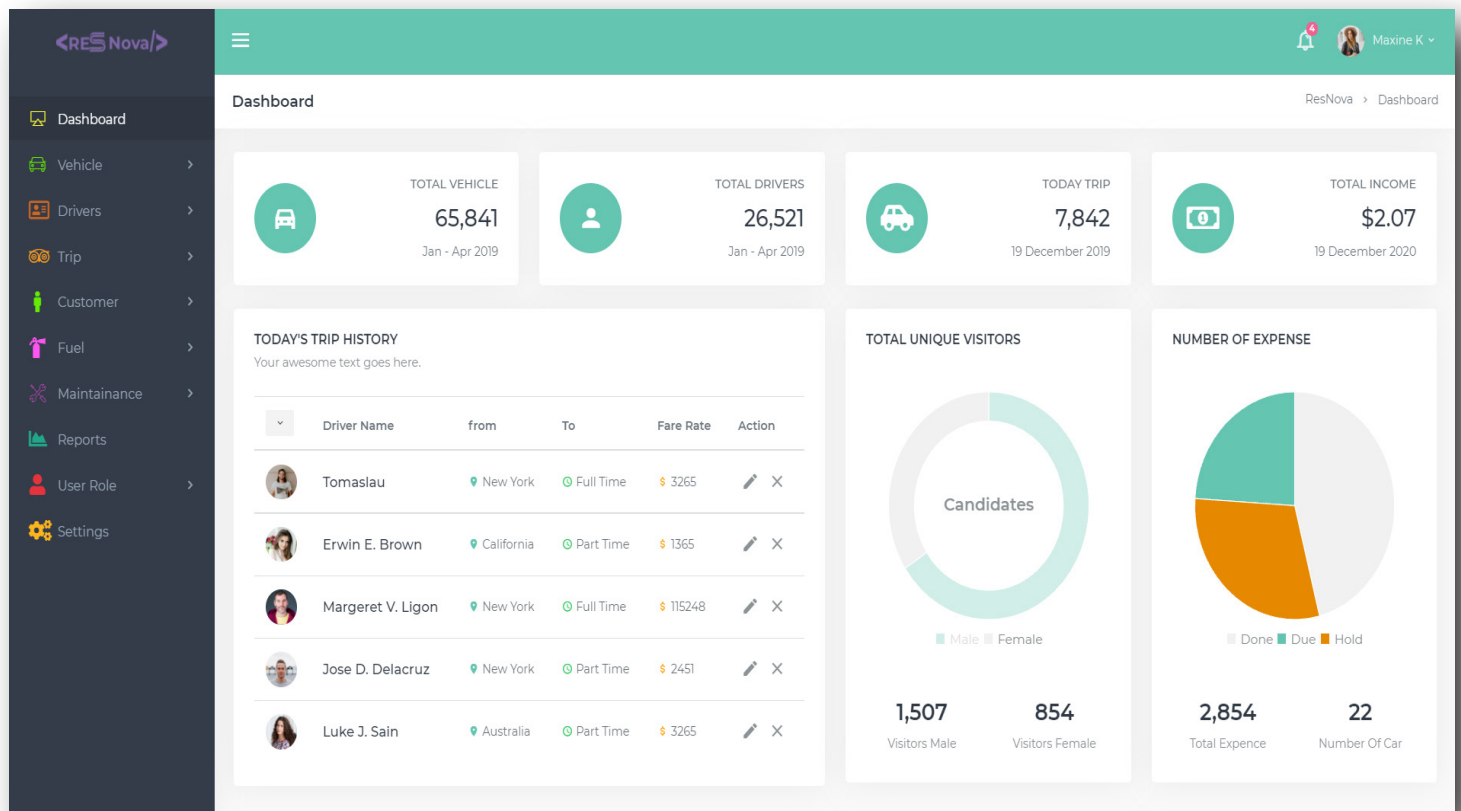
- Manage Teacher/staff HR information.
- Manage Teacher/staff payroll.
- Manage Teacher/staff leave.
- Manage Teacher/staff attendance.

Financial Management

- Manage student payments.
- General Accounts (Journal Entries, Payment Entries, Account Summary, General Ledger etc.).
- Manage multiple accounts (cash, bank, bkaash etc.).
- Print invoice and send SMS for each transaction.
- Manage class-wise balance sheet.
- Manage overdue list.

Vehicle Fleet management System

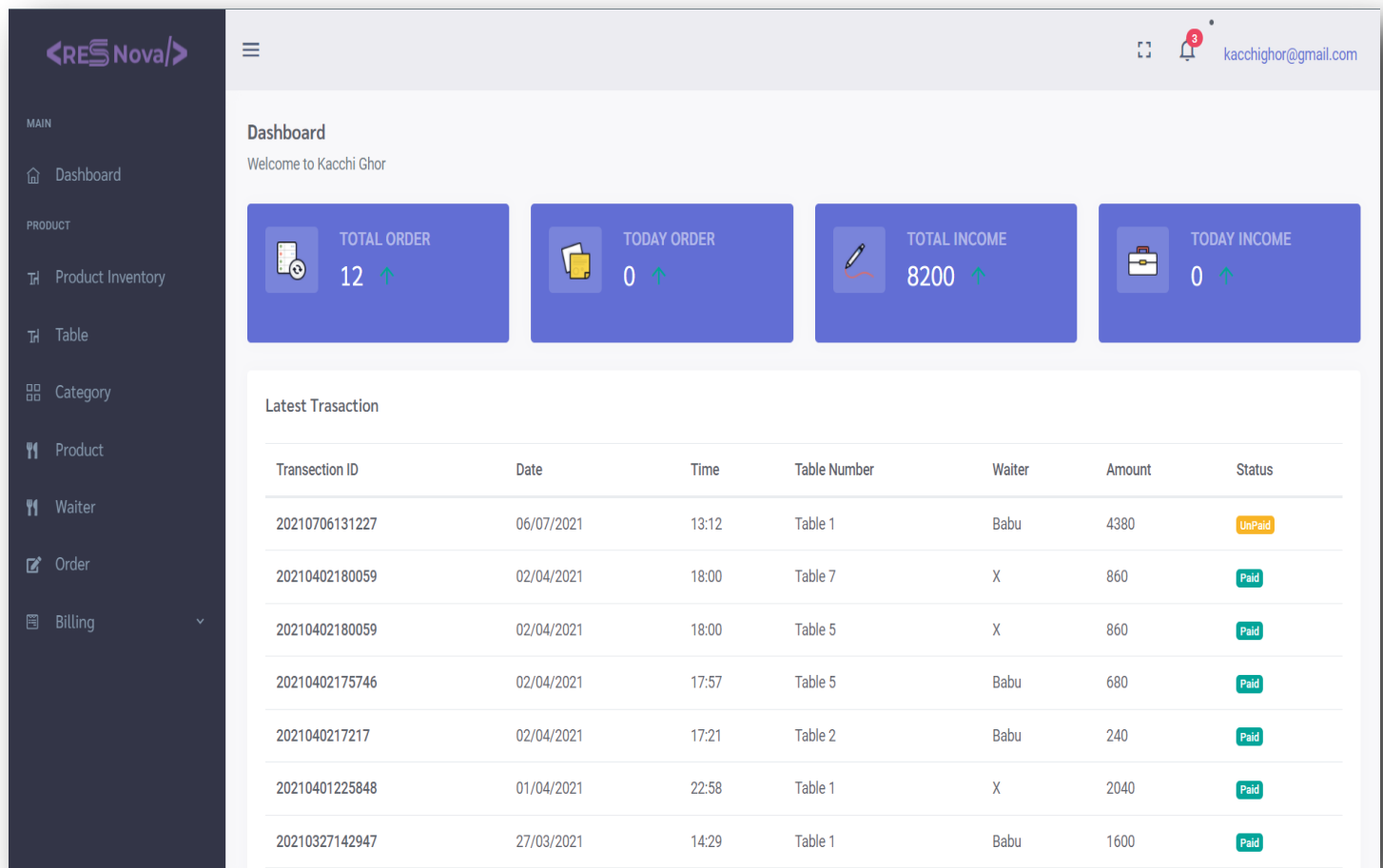
Vehicle Fleet management System refers to the overall actions that take place to keep a fleet running efficiently, on time, and within budget. ... It helps companies ensure compliance, improve efficiency, and reduce costs. This fleet management definition applies to any organization that uses five or more vehicles.



Restaurant management system

A restaurant management system is a collective term for software that helps streamline food business operations. Namely, restaurants, bakeries, cafes or delivery businesses.

It combines all things that are good about the traditional POS (Point of Sale) systems, with tools that manage your phone calls, take table reservations, streamline inventory management, handle billing, provide actionable analytics, and also help with marketing activities such as CRM, loyalty programs and building an Online presence.

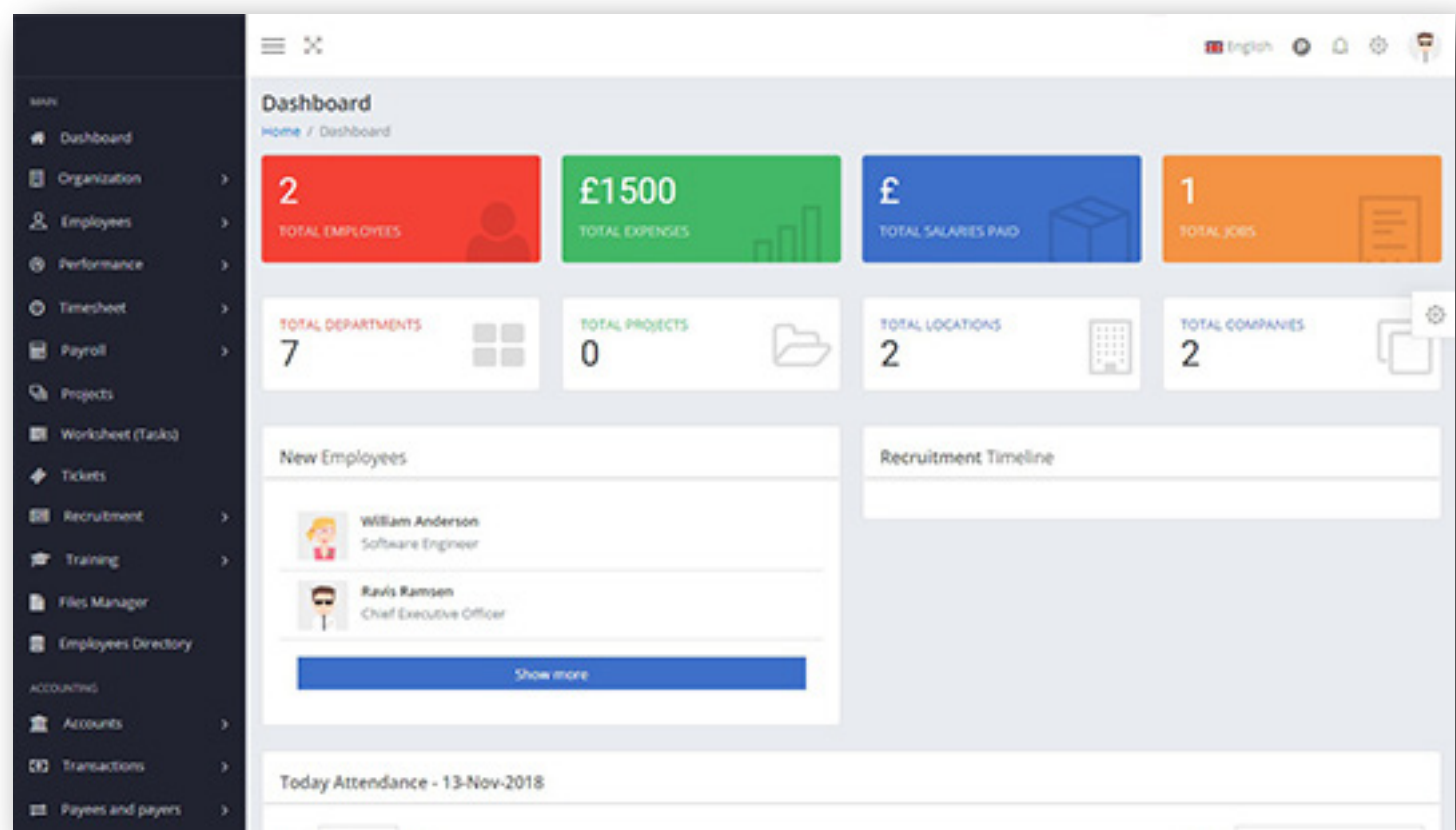


The screenshot shows the RES Nova dashboard. The left sidebar contains a navigation menu with the following items: MAIN (Dashboard), PRODUCT (Product Inventory, Table, Category), and other options like Product, Waiter, Order, and Billing. The main content area is titled 'Dashboard' and includes a welcome message 'Welcome to Kacchi Ghor'. It features four summary cards: TOTAL ORDER (12), TODAY ORDER (0), TOTAL INCOME (8200), and TODAY INCOME (0). Below these cards is a table titled 'Latest Trasaction' (sic) showing transaction details.

Transection ID	Date	Time	Table Number	Waiter	Amount	Status
20210706131227	06/07/2021	13:12	Table 1	Babu	4380	UnPaid
20210402180059	02/04/2021	18:00	Table 7	X	860	Paid
20210402180059	02/04/2021	18:00	Table 5	X	860	Paid
20210402175746	02/04/2021	17:57	Table 5	Babu	680	Paid
2021040217217	02/04/2021	17:21	Table 2	Babu	240	Paid
20210401225848	01/04/2021	22:58	Table 1	X	2040	Paid
20210327142947	27/03/2021	14:29	Table 1	Babu	1600	Paid

Human resource management system

An HRMS, or human resources management system, is a suite of software applications used to manage human resources and related processes throughout the employee life-cycle. An HRMS enables a company to fully understand its workforce while staying compliant with changing tax laws and labor regulations.



Our Cyber Security Services,

Cyber Security Audit

A cyber security audit is a systematic and independent examination of an organization's cyber security. An audit ensures that the proper security controls, policies, and procedures are in place and working effectively.

Your organization has a number of cyber security policies in place. The purpose of a cyber security audit is to provide a 'checklist' in order to validate your controls are working properly. In short, it allows you to inspect what you expect from your security policies.

The objective of a cyber security audit is to provide an organization's management, vendors, and customers, with an assessment of an organization's security posture.

Audits play a critical role in helping organizations avoid cyber threats. They identify and test your security in order to highlight any weaknesses or vulnerabilities that could be exploited by a potential bad actor.

Cyber Security Audit

Cybersecurity and secure software deployment are issues that cut across multiple sectors aerospace, defense, energy, critical infrastructure, industrial automation, medical devices, telecommunications, and more. What these disparate sectors have in common is that a malicious, network-borne intrusion can cause untold damage, whether financial or physical, and even threaten human safety. Fortunately, there are security-strengthening techniques and solutions for cybersecurity research that can apply in all of these areas. This paper explains why creating and testing security solutions is more effectively performed using virtual hardware and system simulation technology, rather than using the live systems that are being subjected to attacks.



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