

# Inogators [Invention + Integration]

## **IOT Devices**

**City Wide Application** 

**Integrated Central Command Center** 

**Web Applications** 

**Mobile Applications** 

AI / BI / Edge

**Industrial Automation** 











1. Transport	Bus Depot	Bus Station	Buses	Drivers & Citizens	
2. Water	Pump Station	Water Tankers	Home Meter	Citizens & Officials	
3. Waste	Energy Conversion	Dump yards	Collection Vehicles	Door to Door Waste	Citizens & Officials
4. Parking	Parking Lot	Indoor Parking	Outdoor Parking	Citizens & Officials	
5. Education	School	College	Campus	Parents & Officials	a jeevi
6. HealthCare	Clinic	Hospital	Patients & Doctors	Medical Professionals	SmartCity Innogators
7. Energy	Single Phase Meter A.CD.C.	Three Phase Meter A.C-D.C.	Energy Moni. A.C- D.C.	SOLAR Light Pole	Residents & Officials
8. Agriculture	Crops	Soil	Weather	Water & Energy	Farmers & Officials
9. Environment	CO2 CO	Nitrogen	Oxygen	Sulphur Light & Ambiance	Noise Residents & Officials
10.Governance	Asset Incider Mgmt. Mgmt.	Document Mgr	nt. ERP Log	jistic Mobile App.	HRMS Society CCC









GPS

**GPRS** 

Handheld RFID

Bin Level Sensor

Energy Monitor(A.C / D.C)

Environment Sensor

Variable Messaging System

**Water Meter** 

RFID Tags/ UHF Reader Street Light [A.C. / D.C]

#### Technology

. ASP.NET, C#, XSLT, XML, ASP, VB, VC++, C, C++, VBA (MS Office), Java, JSP, Crystal Reports



#### **Modeling Tools**

•Rational Rose, Visio 2000



#### Databases

· Oracle, MS SQL Server



#### Architecture & Frameworks

· J2EE, Microsoft NET, COM/DCOM, Win DNA, Web-Services, SOA



#### **Application Servers**

•MTS, Windows 2000 with NET Framework, MQ Series, MSMQ, MS BizTalk



#### **Operating Systems**

Linux, Unix, Windows NT, Windows 2000



#### **Design Tools**

 Adobe Photoshop, Adobe Illustrator, Adobe Page Maker, Macromedia Flash, Fireworks, Dreamweaver, Director, 3D Studio Max, Corel Draw



#### **Quality Tool**

· Six Sigma, TQM, CCPM, Lean



#### Methodologies

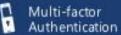
Light Weight : Agile, DSDM, SCRUM, XP, FDD Heavy Weight : V-Model, I-2, Prototyping

# Platform Services

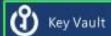
















### Compute Cloud Service

Services

Batch







Logic

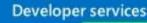
Analytics and IoT

**HDInsight** 

Stream

Analytics











SQL Database

Team

Data



SQL Data Warehouse

Search

#### Hybrid Operations





AD Privileged Identity Management



Backup



Operational Insights



Import/Export



Site Recovery



StorSimple

#### Integration



Hybrid Connections











Machine



7



0





## Media and CDN



Mobile

Apps

#### Infrastructure Services

#### Compute



■.







Storage













DNS 📤 Express 🗞 Traffic Manager

Networking







#### Legend

= In preview at Azure Stack GA









=





■.

















## SAMA Greater भारत इलेक्ट्रॉनिक्स BHARAT ELECTRONICS















3.Waste

4.Parking

5.Education

1.Transport















































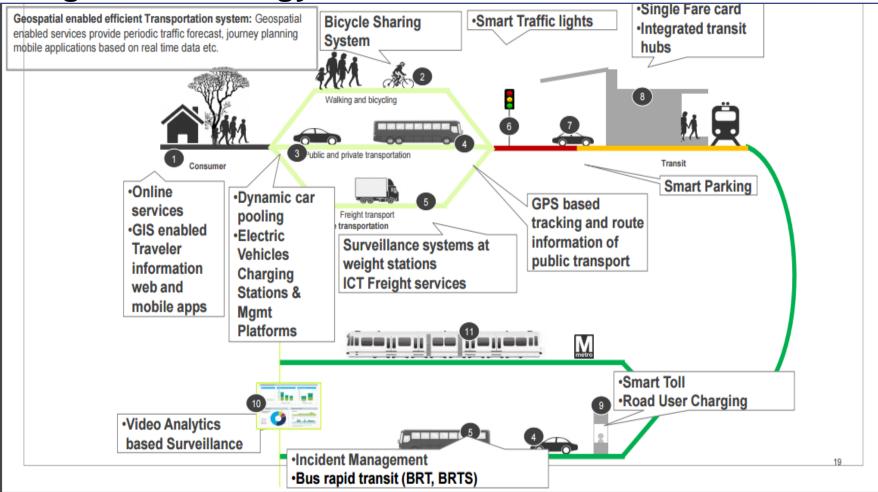








## **Digital Technology Provider**



#### **Bus Automation**

Real time Information inside and about Buses IP based Camera and GPS

Route Optimization , AVL Real time tracking of the bus, MEMO

Mobile Application for Drivers to report incident and breakdown

#### **Bus Stop Automation**

Real Time information at Bus stop, ETA to Bus stop

Variable Sign Boards, Kiosks using led or kiosk Stands

Mobile application telling bus stop and time to coming of Bus for Citizen

#### **Bus Depot Automation**

Incident, Accident, Breakdown, Court and challan

Driver Registration, Educational Check, Reference Check, Account Details

Driver Behavior Analysis Duty Assignment, Driver Penalty

Memo generation, Perform Fleet, Fleet Generation

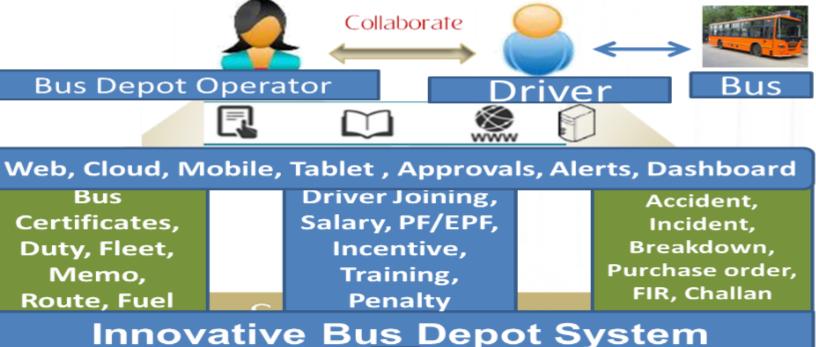
Purchase Order, GRN, Part Ident, Inventory, Part

## Architecture

GPRS, Card, Punch Metrics

읦

24 X 7, 7 days Support



Trip Disqualify Spare Parts, Route Wise Bus Details, Monthly / Daily Comparison,,

Daily Bus Lost KN Comparison Statement, Revenue Loss Actual/Miss Km, Miss Roaster, Route Email, Schedule

Training Videos, Documents in Word, PDF, Excel



## Architecture

## **Smart Bus Depot**

**Technology Provider** 

OT/BIO METRICS, RFID CARD,

Driver Mgmt.[license, Edu. Proof, Ref. checks]



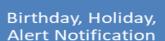
Depot Employee Mgmt.[Edu. Proof, Ref. Check]



Payroll/Leaves/ Attendance/Bio Metrics/PF/EPF



**Training** 



MEMO Eng./Hindi



Performa Fleet



Fleet, Vehicle/Duty Roaster



Break Downs,
Accidents



Miss Trips, Penalty

Part indent



GRN



**Gate Pass** 



**Purchase Order** 

Purchase Req.

**Accidental Estimate** 

Stock Assign



**Features** 



Driver License, Medical Certificate, Pollution, CNG, Bus Fitness

## RELIABLE ERP TO MANAGE LARGE & SECURE FLEETS

. . .

#### **OPERATIONS**

- Performa FLEET
- FLEET CREATION
- Memo Generation
- Vehicle Roaster
- Duty Roaster
- Reports...

#### MAINTENANCE

- Checklist
- JobCard Creation
- Purchase Order
- Fuel Average
- Court & Challan
- Reports...

#### WAREHOUSE

- Part Request
- Purchase Order
- Stock In
- Part Assignation
- Part Reorder
- · Reports...

#### **EMPLOYEE**

- Employee Pre-Registration
- Employee Registration
- Payslip
- Leave Holiday Policy
- Incentive Bonus
- Reports...



## <u>Implementations</u>



Burns the automation and services of an ERP software amount, one can excit use the desired exalts in numerous benefits to the introminion and efficient of organization, CRM software can provide all this in an interface with customers offering latest data, information and possible changes. All ortal sales and managing for the concurrent available options helps the enable traveler in escentaining their justimey or holiday. A PTD recognizes they petential advantage of the IT system. Without the help of a channel partner and Helpdiesk there can be more confusion than reserving the right to use resources from the division or thate end. Certifal use of automated software is optional converse to the functional benefit which is evident from state use of IT CPM or ERF. So we must

to implement modernised public transport management system in Delhi.

Fuel Management, Employee Management, Warehouse Management,



Primary Features of Product:

Operation Management, Maintenance Management

Artifacts and Reports generated:

Boom Barrier, CCTV Carnera, RFID UHFID Card,

Memo, Performa Reet, Reet, Checklist, Fuel Filling.



PREVENT POLLUTION



REVENUE







HOURS 18,000

BUSES registered under this system

JOURNEYS 6,35,100

Raj Ghat Bus Depot [115] Buses

Seems Puri

Bus Depot [

160] Buses

Sama Printer [ 450] Buses

Belagavi [150]

Buses

ystem has been running for over 2 years with Antony Road Transport Solutions P. Ltd. in a DIMTS depot itial growth in their revenue

Find all the vehicles currently on-duty, off-duty, fit or unfit. Get there locations, stopages, certificates and other details of vehicles at any time.

### 35%

SAVED

Know when it's the right time for re-fill and the correct amount to speed on fuel

FUEL

#### CLUTCHES

Know when to repair the clutches so as to avoid buying new clotches regular



#### TRYES

Get notified about when to retread the time on time and save on buying A DEW YEE

#### ANALYTICS

Reports of damages, waitings, revenue, fuel, penalties, employees, payments and much more are displayed in daily, weekly, monthly and annual basis for analys

Punchase Order

Integrated:



Mobile App enabling to Start and Stop the Motors

Mobile app for Over head Reservoirs or underground reservoirs

**Auto Shifting of Water Motors** 

Solenoid based Water Sensors

Real time info of Tank Filling

**Chlorine Mixing** 

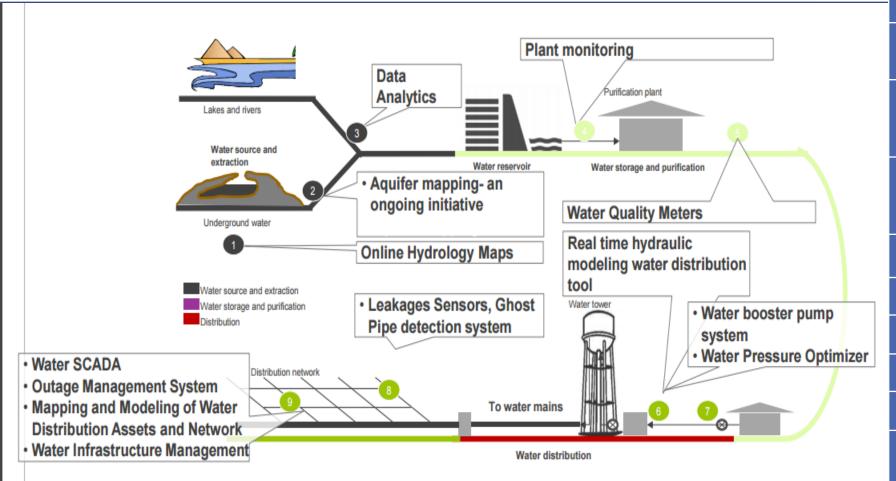
**DG Set Monitoring Check** 

Data Analysis

**Domestic Bill Generation** 

**Mobile Device** 

**Water Filling Levels** 



Flow Meter + Chlorine + TDS + PH + Domestic Water Meter

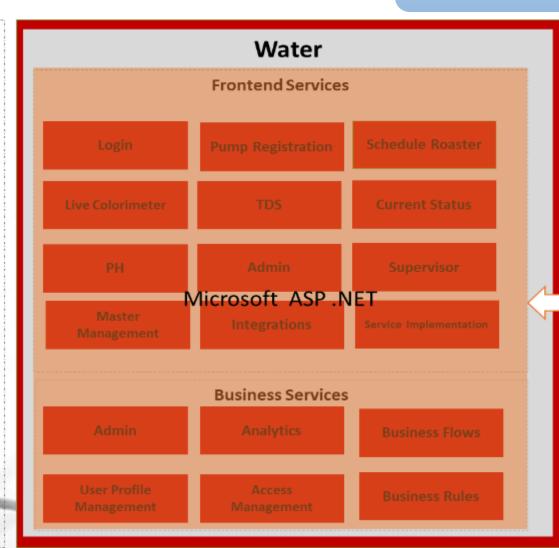


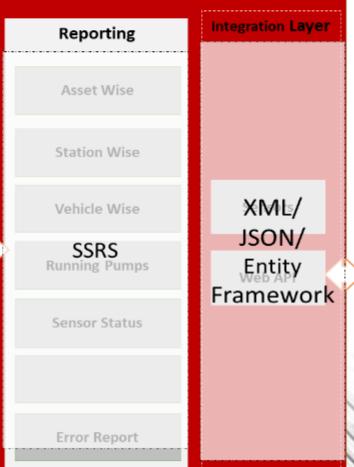
## Architecture

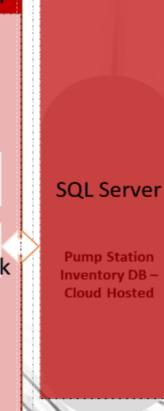


External

sers

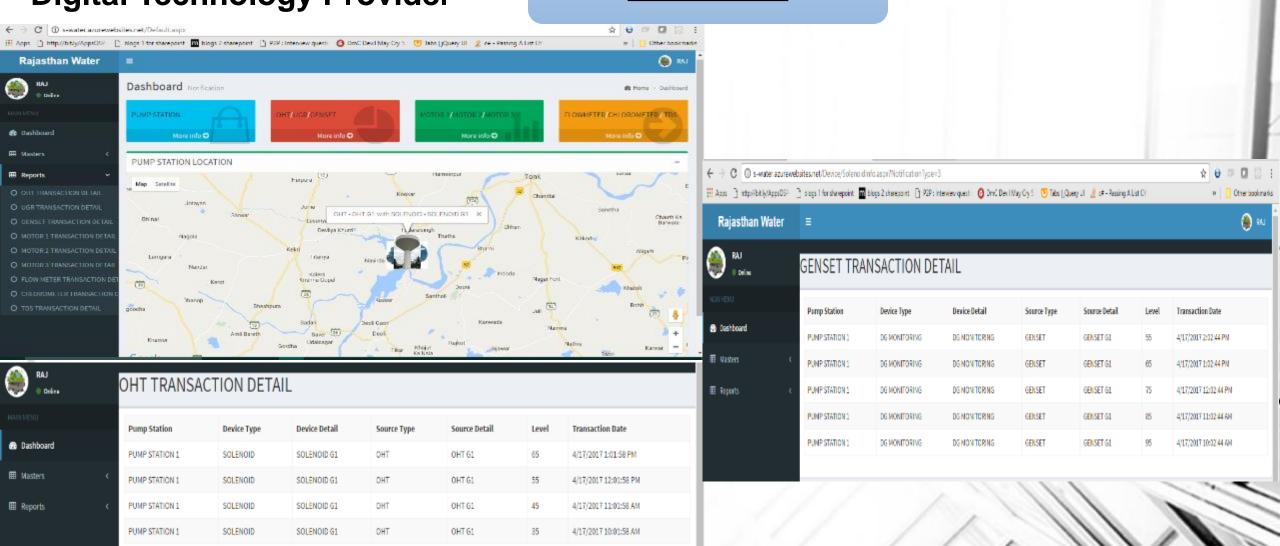








## **Features**





## <u>Implementations</u>





of water is saved daily in each tank. Tanks cover all of the city area of Noida and Greater Noida

total
456 water reservoirs

contact@ajeevi.com www.ajeevi.com +91-8375963034

SAVED

ONLY water supply management system for OVERHEAD AND UNDERGROUND TANKS IN WHOLE OF NOIDA REGION

2 IFARS OF TOP-NOTCH TECHNOLOGY WITH trust, experience, and innovation unchallenged leadership

[ OHT] 15

Greater Noida

Greater

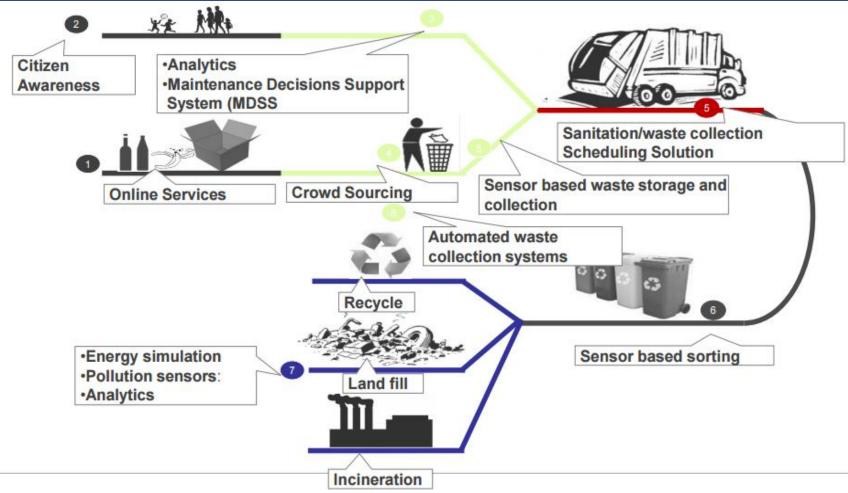
Noida[UGR]-

Belagavi

Timely availability of clean water at city or district level remains always a challenge for the civic bodies. We have analysed the problem in detail, and created an integrated solution named "Integrated Electronic System for Water Reservoir".



**Digital Technology Provider** 



Vehicle Monitoring

Manage Routes and Vehicle dynamically ,Monitoring and tracking of Vehicle

Vehicle Certificates , Registration, CNG, Fire,

Fitness

Real time Information inside and about Vehicle IP
based Camera and GPS

Route Optimization , AVL Real time tracking of the Vehicle

Mobile Application for Drivers to report incident and breakdown

Manage content on Truck Display Signboard

**Garbage Points** 

Real Time information of Missed Garbage Points

in Real Time based on speed and distance

Mobile application telling garbage points

**Waste Collection Bins** 

Monitoring and management of Waste Collection
Bins

RFID Readers , GPS Device Unit

Alert signal to City operation Center ,Volume sensing notifications

Handheld Reader + GPS + Weigh Bridge Integration + ICCC + Bdom parties + om keader



## Architecture

JHF Tag

**UHF** Tag

**UHF** Tag

**UHF** Tag

**GPS** 



Swachh Worker Collect Door to door waste

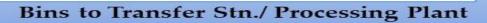




Collect from house and transfer to Ramp/ PP

UHF Reader Handheld









**Hotel Waste to Site Compactor** 



Waste

Waste







**UHF** Tag

Garden Waste to Waste Compactor





**UHF** Tag

**C&D Waste to Site Compactor** 



2. Efficient Operation

3. Citizen Satisfaction

4. Vehicle efficiency 5.Increase Efficiency. Reduction in Cost











Weigh Bridge









## Architecture





Mukkadam



Loader Boys



Managers



**SWD** 



Municipal Corporatio n Users Integrated Solid Waste Management
System

#### **Frontend Services**

Login

Ward Wise

Hotel

C&D

Garden

Transfer Station

Mechanical Composting Community Bin Waste Compactor

Semi Underground Bin

Ghantagadi

Crane

Landfill Site Weight Bridge/Energ y Plant Weight

Weight Bridge/Energ y Plant

#### **Business Services**

Admin

**User Profile** 

Management

Analytics

**Business** Flows

Access Management Business Rules

### Reporting

Periodical Report

**Summaries** 

**MIS Report** 

**Query Report** 

Status Report

Ward Wise Report

Error Report

Integration Layer

GIS

**VTMS** 

Weight Bridge

CCC

Sensor

BLS

Temperature Sensor

> Weight Sensor

CCC

New
Adaptive
Waste
Monitorin
g Control
System Db

Integration & Service Applicatio ns Db



## Architecture

Smart Waste Management

**Technology Provider** 

IOT/BIO METRICS, RFID CARD, GPS/GPRS/ Tablet, Computers

Driver Mgmt.[license, Edu. Proof, Ref. checks]

**Depot Employee** Mgmt.[Edu. Proof, Ref. Check]

Payroll/Leaves/ Attendance/ Bio Metrics/ PF/ EPF

**Training** 

Birthday, Holiday, **Alert Notification** 

MEMO Eng./Hindi

Performa Fleet

Fleet, Vehicle/Duty Roaster

> Break Downs, Accidents

Miss Trips, Penalty

Part indent

**GRN** 

**Gate Pass** 

**Purchase Order** 

Accidental Estimate

**Driver Complaint** 

Preventive Maint.

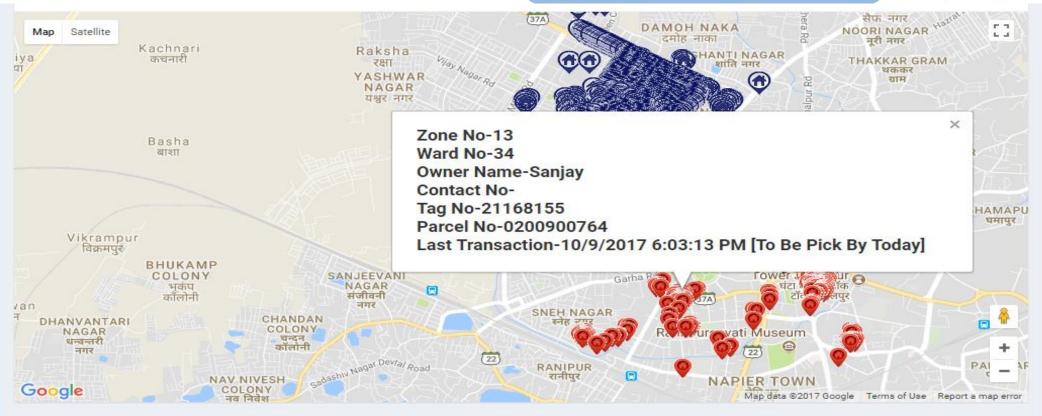
Route Mgmt.

Purchase Req.

Stock Assign



## <u>Implementations</u>



Jabalpur(2L76 Houses, 250 Bins), GIS, ICCC

Delhi(UHF Reader, Tags) Mobile & Web App

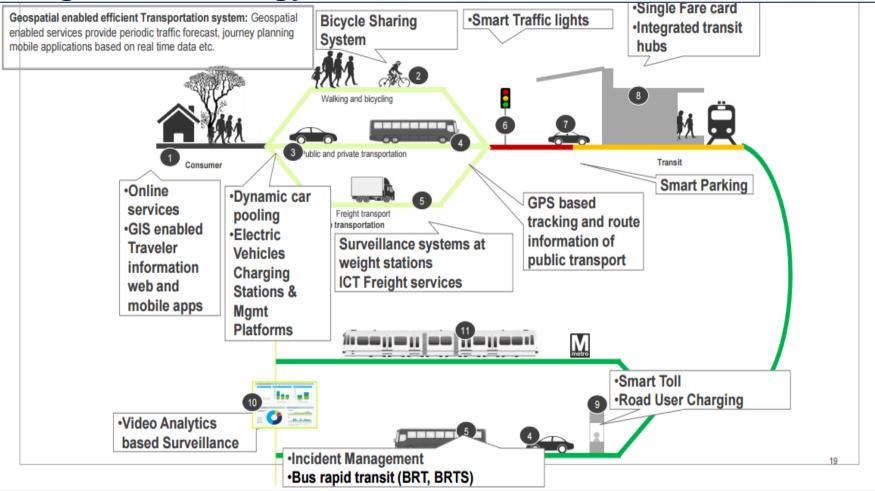
Maharashtra(UHF Reader, Tags) Mobile & Web App

53 Bins

50064 Houses **5185**Garbage
Points



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Bus Depot – Fleet Management System

Incident, Accident, Breakdown, Court and challan

Driver Registration, Educational Check, Reference Check, Account Details

Driver Behavior Analysis Duty Assignment, Driver Penalty

Memo generation, Perform Fleet, Fleet Generation

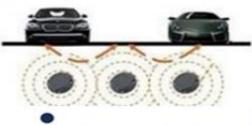
Purchase Order, GRN, Part Ident, Inventory, Part



## **Digital Technology Provider**

1
> The Low Power Sensors detects w

The Low Power Sensors detects weather parking space is occupied or vacant and transits the data to the central server



Jec M SmartCity Innogators

2 Data Centre

The central server process the data and make the data available over the mobile app for request of parking space by car owners





 Car owner search for parking space through mobile application and book the slot based on space availability in the nearest location



 QR Code will be generated and the same will displayed at gates for verification





> Payment for the parking spac made through the banking wallet or mobile wallet

#### **Smart Parking**



Option 1: The car owner of the car shows the mobile QR code to the watchman at the gate and he verifies the QR code and issues the ticket for parking







Option 2: The car owner of the car shows the mobile QR code at the automatic parking system installed at Gate and gets

Contactus@ajeevi.com,

9654323500

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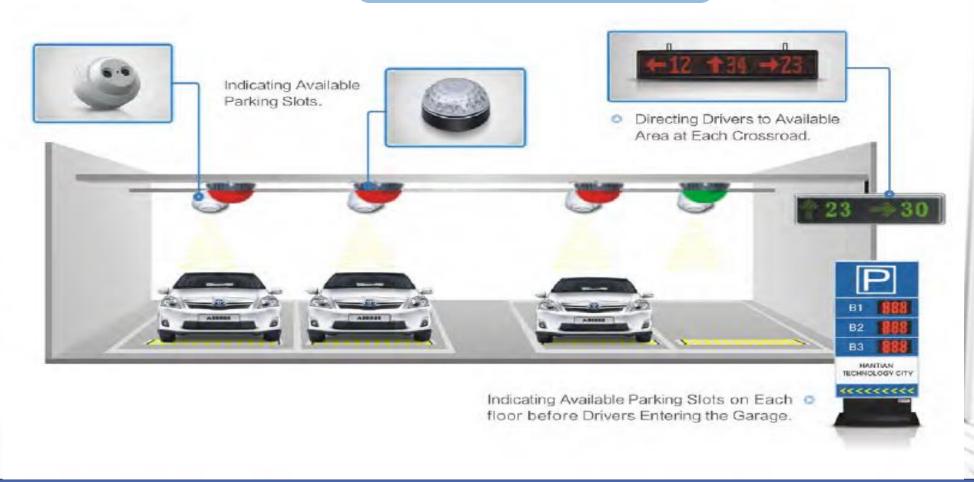
Memo generation, Perform Fleet, Fleet Generation

Purchase Order, GRN, Part Ident, Inventory, Part

П\_\_\_\_\_



## Architecture





## **Features**

Infosys		
TWO WHEELER PARKING	<b>2</b> A	XXX
LGF CAR PARK	2B, 2C, 2D	XXX
UGF CAR PARK	2E, 2F, 2G	XXX
SDB 1 : CAR PARK		XXX

SDB 1: TWO WHEELER

Infosys		
LGF - TWO WHEELER PARKING	1A	XXX
LGF - CAR PARK	1B , 1C	XXX
UGF - GENERAL PARKING	1D, 1F	XXX
UGF - RESERVED PARKING	1E	XXX
SDB 2 : CAR PARK		XXXX
SDB 2 : TWO WHEELER		XXX

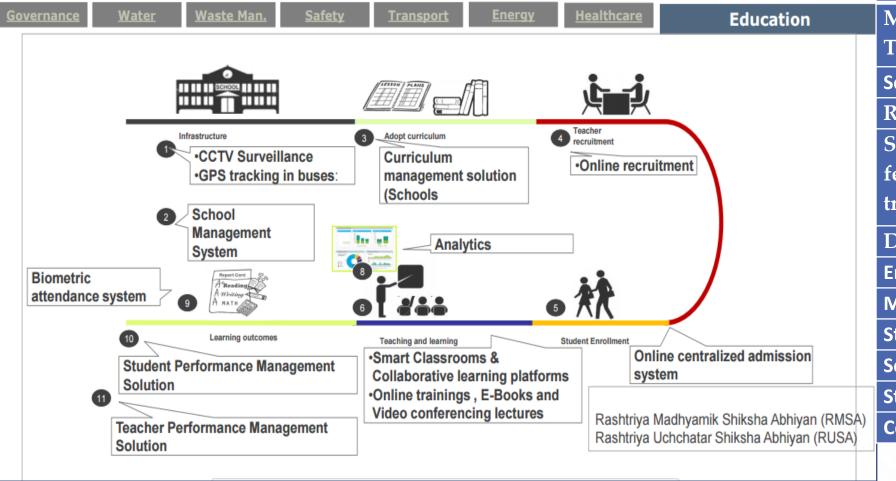
Indoor + Outdoor Parking (GPS, CAMERA, Boom Barrier, UHF Reader)

XXX



# 5.Smart Education

**Digital Technology Provider** 



Mobile App enabling to School Material Distribution

Mobile app for Parents School Teachers

**School Rating Portal** 

Review, Compare, apply for Schools

School Backed Process, Admission, fees Payment, registration, hostel, transport, library

**Data Analysis** 

**Embedded Web Server** 

**Mobile Device** 

**Student Safety Security** 

**School ERP** 

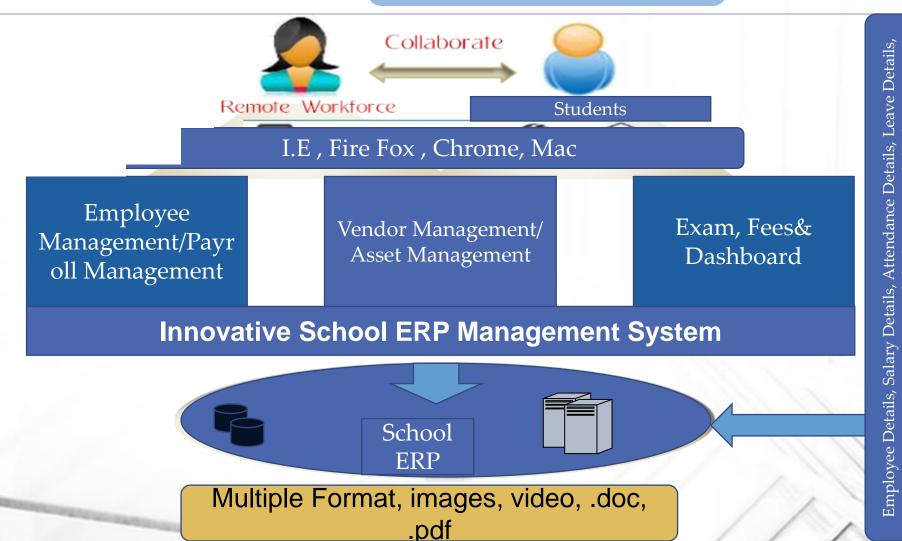
**Student Registration, Admission** 

Course Syllabus, Duty Roaster



# 5.Smart Education

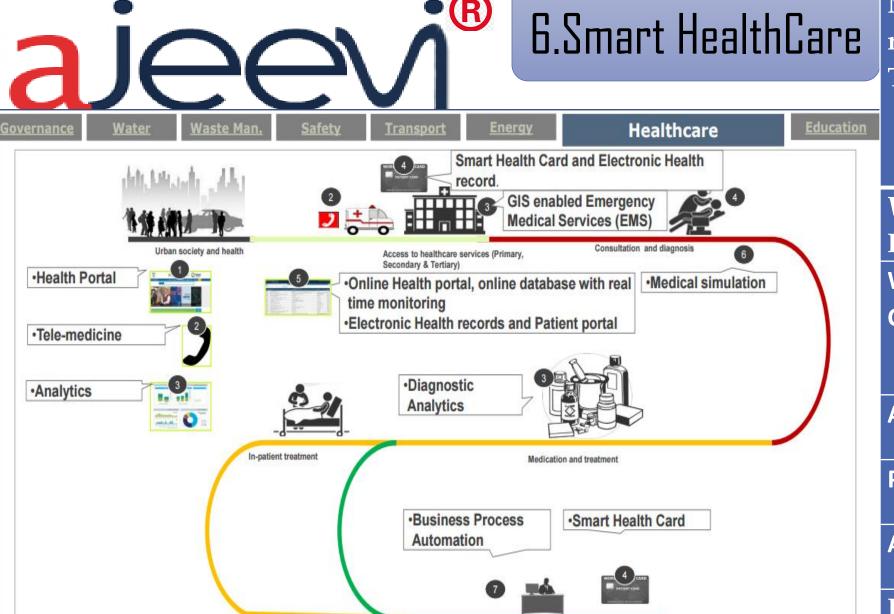
## Architecture



Rich Interface

Bonus & Incentive Calculation, email, SMS

Details, Attendance



Mobile App enabling registration and Booking of Test

Web application-ERP for Hospitals

Web Application for Health Care Centers

**Attendance Management** 

**Patient Management** 

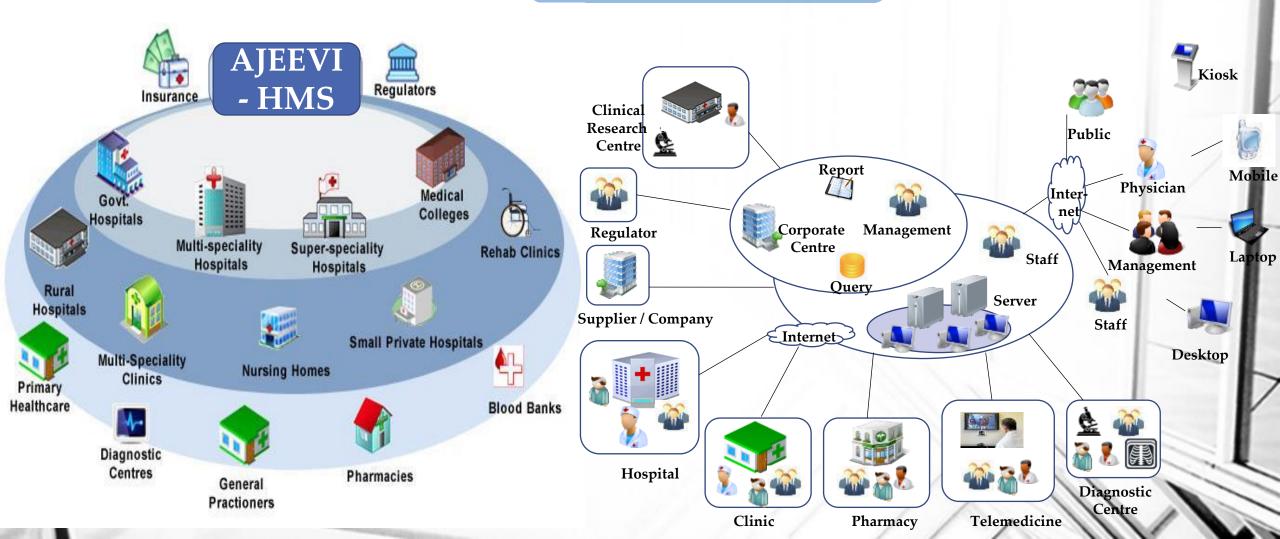
**Appointment Booking** 

**Data Analysis** 



## 6.Smart HealthCare

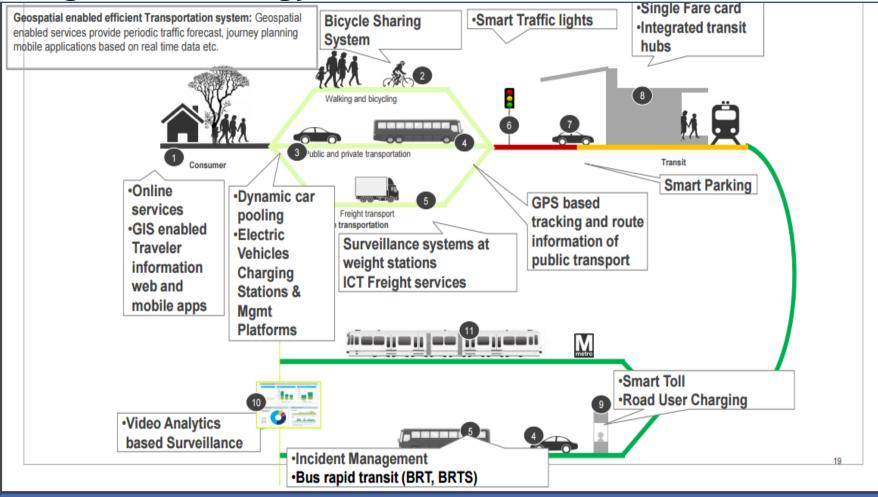
## Architecture





# 7.Smart Energy

## **Digital Technology Provider**



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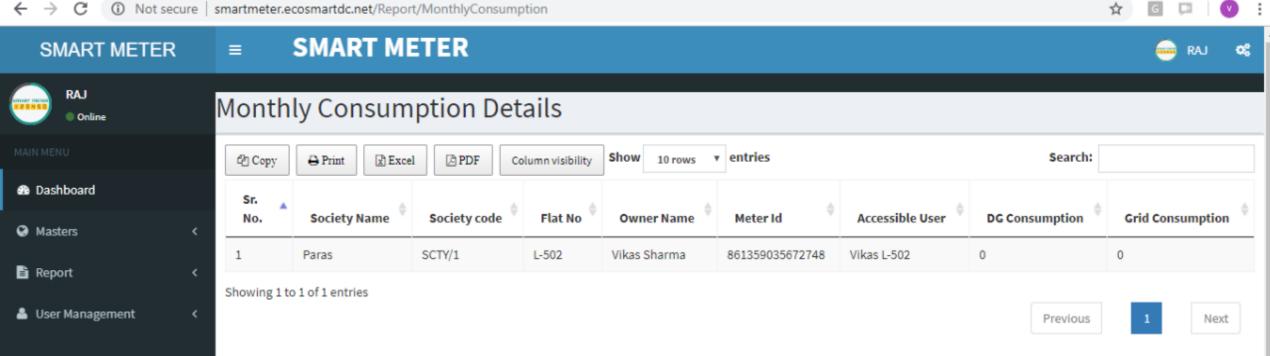
Purchase Order, GRN, Part Ident, Inventory, Part



7.Smart Energy

A.C. Monitoring







# 7.Smart Energy-Light

## **Features**

Smart Light Management



- Minimize Energy /usage
- Operate Street Lights in Three States[Dual Dim/ Bright/ Off]
- Automated Control make adjustment based on condition such as occupancy
- Policy driven central control mechanism
- Real Time Tracking and Management
- LED base smart Lightening to support automated Light and sensing
- Individual outdoor led light
- Detect Failure of LED Bulbs
- Infrastructure Solution
- LED base Smart Lighting fixture and Fittings
- Smart Controller Mechanism



# 8.Smart Agriculture

**Digital Technology Provider** 

Crop

Soil

Soil
Sensor
[Soil
Environment
Sensor
[Weather
Prediction]

Solar Water Pump

Irrigation

Energy

Three Phase/Single Phase Energy Monitoring

> GPRS/ WIFI/ LORA

IOT Devices

GPS

SOIL Sensor

Water Pump Monitoring

Energy Monitoring DC/ AC

RFID Tags and Reader

Mobile App enabling Farmer to know:

1.Water Details

2.Crop Details

3. Pesticide Details

4.Weather Details

Review, Compare, apply for Crops

**Data Analysis** 

**Embedded Web Server** 

**Field Safety Security** 

Start
Water
Pump as
per
moisture

Level]

Mobile App for Suggestion and expert comments

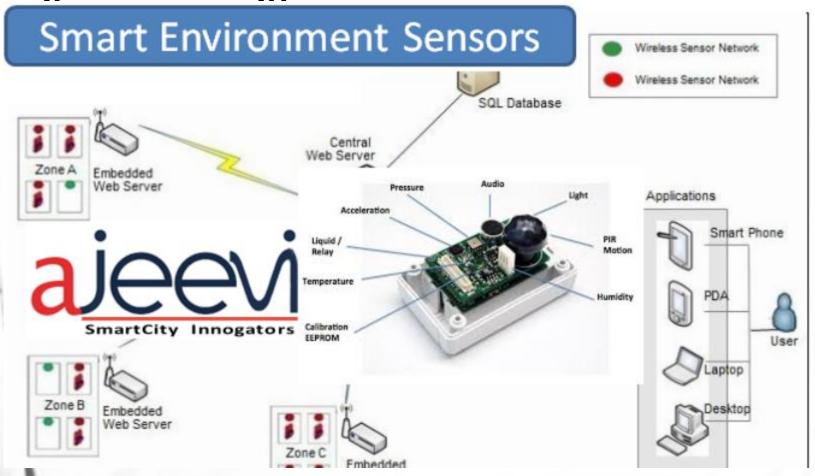
Artificial intelligence Irrigation

IN 1D Tags and Reac



## 9.Smart Environment

### **Digital Technology Provider**



Wireless Environmental
Sensor

Collect Sensor Data

Send recorded information to Central System

**Central System** 

Receive information from environmental sensor

Display information on realtime basis

Send information to mobile phone application

Save information in SQL Database

Mobile Device for Drivers

**Connect to Central Webserver** 

Receive information from central system

Alarm Management

Digital display Unit

Receive information from Central Application



## 10.Governance

## Mobile App for Citizen

One window e-Registration Activity

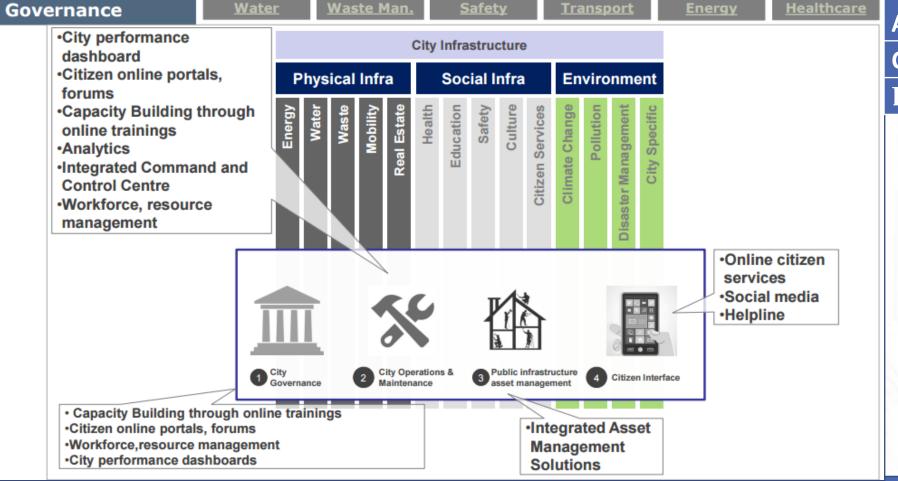
**Field Tracking Apps** 

**Public Government Distribution** 

App

**City Surveillance** 

**Data Analysis** 





# 10.Smart Governance

# Logistic Architecture



Head office User



Depot User



User



External Users

### **Smart Supply Chain Logistics**

Frontend Services

Login Item Registration

**Packaging List** 

Notifications

**Consignee Type** 

**Depot Dispatch** 

**Location Upload** 

**Box Type** 

**Depot Intake** 

Distribution to Location

Distribution within Location

**Undelivered Item** 

**Business Services** 

Admin

**Analytics** 

**Business Flows** 

User Profile Management

Access Management

**Business Rules** 

Reporting

**Box Packaging** 

Dispatch

Distribution

End-Point Distribution

**Status Report** 

**Item Consumption** 

**Error Report** 

**Integration Layer** 

UHFID

**GSM** 

SMS Gateway Box Inventory DB – Cloud Hosted

Local Box Inventory DB – Depot Hosted



# 10.Smart Governance

# Logistic Architecture



Head office User



Depot User



Field User



**Smart Supply Chain Logistics** 

Frontena Service

Item Registration

Packaging Lis

Consignee

Depot Dispatch

Location Upload

Box Type

Depot Intake

Microsoft ASP .NET/C#/jQuery/Angular Js

Distribution with Location

Undelivered Item

Business Service

lmin

usiness Flows

r Profile Ac agement Mana

Business Rules

Reporting

Box Packaging

Dispatch

Distribution

Schoo**SSRS** ution

Status Report

tem Consumption

Error Report

Integration Layer

work

XML/
JSON/
Entity
Frame

DB - Cloud
Hosted
SQL Server

Local Box Inventory DB -Depot Hosted



# 10.Smart Governance

Logistic Features

Assigns Unique Id to each Books/Box



1.Less Manual Work



H/O Supervisor

H/O Superviso

Assigns Unique UHFID Tag to each Box/Book







Loader Boys

Load the Box to Vehicle



at Head Office







Loader Boys

Unload the Box From Vehicle



at Depot



4.Fast Location of Boxes



Delivery Boys



Delivery Boys **Takes the Boxes from Depot** 



**EndPoint** 



5.Improve efficiency



**Deliver the Boxes to Schools & Take Confirmation** 



Real Time Monitoring Using UHFID



# AJEEVI Training

# Methodology

Digital	Technology F	Provider	Metriou	<u>ology</u>		
_	Develop Training Plan	Develop Training Materials	Prepare for Testing	Testing	Train Users	Go Live Support
Activities	<ul> <li>Determine training needs by audience</li> <li>Document training development and approval process</li> <li>Define module outline and module structure</li> <li>Determine roll-out plan</li> <li>Conduct module walkthrough</li> <li>Identify Business Training Liaisons, Super Users and trainers</li> </ul>	<ul> <li>Design test case exercises</li> <li>Construct training schedule</li> <li>Develop process training materials</li> <li>Conduct training for Business Training Liaisons and Super Users on high level processes</li> <li>Plan logistics for training</li> </ul>	<ul> <li>Conduct training for pilot team and other "Instructors" on high- level processes and screens required to execute parallel testing/pilot training</li> </ul>	<ul> <li>Pilot team and other         "Instructors" participate in         parallel testing/pilot         training</li> <li>Prepare trainers</li> </ul>	<ul> <li>Incorporate lessons learned from pilot training presentation and exercises</li> <li>Produce training support materials</li> <li>Finalize training modules for End Users</li> <li>Conduct training for End Users</li> <li>Survey End Users on course content and facility</li> </ul>	<ul> <li>Validate effectiveness of training program</li> <li>Follow-up training, as needed</li> </ul>
Deliverables	<ul> <li>End User Training Strategy and Plan</li> <li>Process module outline and structure</li> </ul>	<ul> <li>Presentations on high-level process flows</li> <li>Exercises on test cases, where applicable</li> <li>Training schedule</li> <li>Training support materials</li> <li>Logistics Plan</li> </ul>	<ul> <li>High-level processes and system training delivered</li> </ul>	<ul> <li>Lessons learned through parallel testing/pilot training documented to be incorporated into overall training materials</li> </ul>	<ul> <li>Detailed processes and system training delivered</li> <li>End User course evaluations</li> </ul>	<ul> <li>Go Live and post-Go Live support (FAQs, quick reference materials, etc.)</li> <li>Business performance results</li> <li>Feedback on system, processes and</li> <li>training from End Users</li> </ul>





\* ISO 9001, 27001 / MSME

\* CE Certified Products

\*In existence More than 5 Yrs.

Aadhar Enabled Bio Metric Attendance System — [AJV-AEBMAS-001]

- Aadhaar Certified Fingerprint and Iris scan
- Gray scale finger image data may be stored, recorded, or transmitted in uncompressed – bit packed form.
- resolution of the image data formatted and recorded for interchange should be the scan resolution of the image
- Each record shall pertain to a single Aadhaar entry and shall contain an image record (consisting of single view) for each of one or more fingers/ iris scans; multiple fingers/iris scans (single image records).
- Live-scan plain Finger Impression type should be used
- Except the scanner driver, there should not be any requirement for loading any software/ license while plugging the scanner
- scanner driver should be API enabled to ensure compatibility with any application
- Should have inbuilt battery backup
- Data retention should be provisioned in case of power failure
- Should be able to mark time (hours) against the attendance of the worker





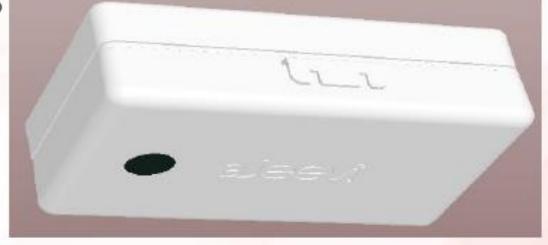


\* ISO 9001, 27001 / MSME \* CE Certified Products \*In existence More than 5 Yrs.

## Smart Bin Level Sensor-[AJV-BLS-001]

#### OVERVIEW OF THE SYSTEM

- QR This device is fixed waste bin in garbage collection point.
- BIN ID with geo location can be sent to server on Realtime basis.
- This device is powered by Li-polymer 6000 MAh battery with 3.7 v, easily charged by any mobile charger Three to Five Years Battery backup when once charged with a regular mobile charger
- This device will automatically push encrypted data into a secure server.
- Data analytics tools of garbage collection
- LED indicator :- GPS, Sensor, GSM & Power
- IP65 enclosure to sustain in harsh environment
- Micro SIM and MicroSD card Support
- Alert/regular SMS or email can be sent to Garbage col-



lection team.





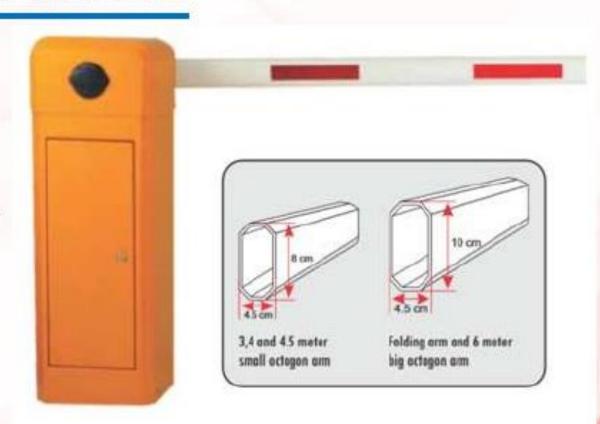
\* ISO 9001, 27001 / MSME

\* CE Certified Products

\*In existence More than 5 Yrs.

## **Smart BOOM Barrier**

- Boom Barrier is used to pass the authorize vehicles
- Vehicle is affixed with the windshield tag
- The boom barrier comes along with the remote
- This boom barrier will automatically opens as the vehicle with authorized tag comes.
- The device comes along with electromechanical & hydraulic combination
- LED indicator :- GPS, GSM & Power
- IP65 enclosure to sustain in harsh environment
- Micro SIM and MicroSD card Support
- Alert/regular SMS or email can be sent





Smart Solid Waste Management Municipal Corporations/MNCs Asset Monitoring/Logistics



### Smart Data Transmission Device—[AJV-DTR-001]

- This device is installed on base Device.
- Device ID with geo location can be sent to server on Real-time basis.
- This device is powered by Li-polymer battery with 3.7 v, easily charged by any mobile charger
- This device will automatically push encrypted data into a secure server, 736
   Bytes, 200 MW Max.
- Data analytics tools
- LED indicator :- GSM & Power
- IP65 enclosure to sustain in harsh environment
- Micro SIM and MicroSD card Support
- Alert/regular SMS or email can be sent.





\* ISO 9001, 27001 / MSME

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\*In existence More than 5 Yrs.

## Smart Fuel Level Sensor—[AJV-FLS-001]

- This device is fixed fuel tank in any vehicle and DG GENSET or any industrial fuel machine.
- Fuel tank ID with geo location can be sent to server on Real-time basis.
- Smart fuel level sensor works with our GPS tracking device to send live fuel monitoring data to our server. So that you can do real time monitoring of fuel volume and fleet tracking with increasing fuel costs, tracking fuel data is becoming a critical component of any cost saving exercise.
- Monitoring fuel level in tank online.
- The smart fuel sensor device is Gives notification you 24/7 access to fuel consumption.
- This device will automatically push encrypted data into a secure server.
- Data analytics tools of garbage collection
- LED indicator :- GPS, Sensor, GSM & Power
- IP65 enclosure to sustain in harsh environment
- Micro SIM and MicroSD card Support
- Alert/regular SMS or email can be sent to fuel monitoring team.





Smart Solid Waste Management Municipal Corporations/MNCs Asset Monitoring/Logistics



# Smart VTS/GPS-[AJV-GPS-001]

- Ruggedized GPS Device
- Easy to Place, Unique Device ID, Proximity to know exact location
- GPS Device are placed on vehicles, any asset or Waste Bins
- Can be mounted with screws or can be pasted
- GPS along with GPRS
- Employee swaps the Reader & Tag data with time stamp is sent to Cloud
- This device works with the vehicle battery or its own battery
- The data is decrypted and displayed in analytics software tools using this analytics software







\* ISO 9001, 27001 / MSME \* CE Certified Products \*In existence More than 5 Yrs.

### Smart Handheld RFID Reader —[AJV-HHR-001]

- This device is carried by door to door garbage collection person.
- Tag ID with geo location can be sent to server on Real-time basis.
- This device is powered by Li-polymer 5000 MAh battery with 3.7 v, easily charged by any mobile charger
- This device will automatically push encrypted data into a secure server, 736 Bytes, 200 MW Max.
- Data analytics tools of garbage collection
- LED indicator :- GPS, RFID GSM & Power
- IP65 enclosure to sustain in harsh environment
- Micro SIM and MicroSD card Support
- Alert/regular SMS or email can be sent to Garbage collection team.





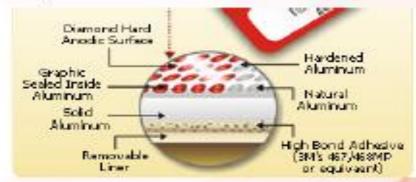


- \* ISO 9001, 27001 / MSME
- \* CE Certified Products
- \*In existence More than 5 Yrs.

### Smart QR Code-[AJV-QRC-001]

- QR code (abbreviated from Quick Response Code) is the trademark for a type of matrix barcode (or two-dimensional barcode).
- QR code uses four standardized encoding modes (numeric, alphanumeric, byte/binary, and kanji) to efficiently store data;
- QR code consists of black squares arranged in a square grid on a white background, can be read by an imaging device such as a camera, and processed using Reed—Solomon error correction until the image can be appropriately interpreted.
- The required data is extracted from patterns that are present in both horizontal and vertical components of the image.
- The QR Code is ruggedized and on metal plate to sustain harsh operational environment.
- Swachh worker scans the QR Code on the dustbins via QR Code Reader
- The QR Code data is pushed via GSM to Server







Smart Solid Waste Management Municipal Corporations/MNCs Asset Monitoring/Logistics



Smart RHF Tag-[AJV-RHF-001]

- Ruggedized RHF TAG
- Easy to Place
- Unique Device Number
- Readers are placed in Hand, or any asset
- Can be mounted with screws or can be pasted
- Asset/Employee swaps the tag the data with time stamp is sent to Cloud
- Tamper Proof
- The data is decrypted and displayed in analytics software tools using this analytics software.





Smart Solid Waste Management Municipal Corporations/MNCs Asset Monitoring/Logistics



### Smart UHF Tag — [AJV-UHT-001]

#### OVERVIEW OF THE SYSTEM

- Ruggedized UHF TAG
- Easy to Place
- Unique Device Number
- Readers are placed on vehicles, any asset
- Can be mounted with screws or can be pasted
- Asset/Employee swaps the tag the data with time stamp is sent to Cloud
- Tamper Proof
- The data is decrypted and displayed in analytics software tools using this analytics software.





#### DEVICE SPECIFICATION

Sr. No	Parameter	Value
1.	Reading/Detection Range	5 Mtr. / 15 Mtr.
2.	Protocol	ISO18000-6B, ISO18000-6C (EPC GEN2)
3.	Frequency Range	Standard ISM 902~928MHz or ISM 865~868MHz, 860-960 MHz
4.	GSM / GPRS multi slot Class/mobile station	Class12, class B, Low power consumption.
5.	Operation Mode	FHSS or fixed frequency (set by software)



Smart Solid Waste Management Municipal Corporations/MNCs Asset Monitoring/Logistics

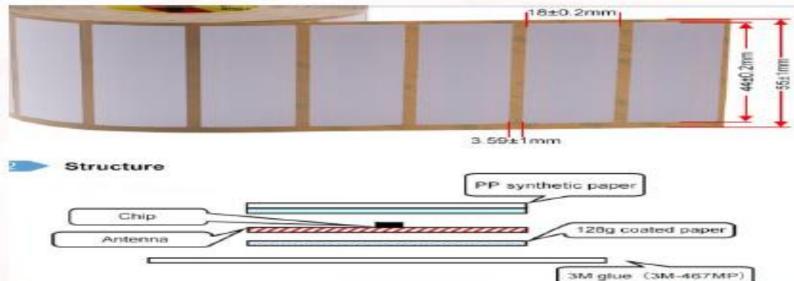
OVERVIEW OF THE SYSTEM



### Smart Wind Shield Tag-[AJV-WST-001]

#### Ruggedized UHF TAG

- Easy to Place
- Unique Device Number
- Readers are placed on vehicles, any asset
- Can be mounted with screws or can be pasted
- Asset/Employee swaps the tag the data with time stamp is sent to Cloud
- Tamper Proof
- The data is decrypted and displayed in analytics software tools using this analytics software.



#### DEVICE SPECIFICATION

Sr. No	Parameter	Value
1.	Reading Range	5 Mtr. / 15 Mtr.
2.	Protocol	ISO18000-6B, ISO18000-6C (EPC GEN2)
3.	Frequency Range	Standard ISM 902~928MHz or ISM 865~868MHz,other frequency available
4.	GSM / GPRS multi slot Class/mobile station	Class12, class B, Low power consumption.





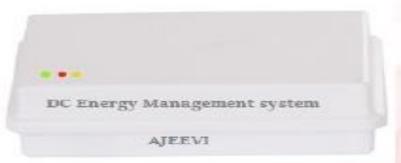
\* ISO 9001, 27001 / MSME

\* CE Certified Products

\*In existence More than 5 Yrs.

DC Energy Management Systems -[AJV-DCM-001]

- AJEEVI has designed the complete solution of DC monitoring system of Smart DC Solar energy that can be as simple as automating a
  light, so that it can be controlled by a Bluetooth remote control device.
- AJEEVI DC energy management can be used for monitoring and controlling in DC systems.
  These meters can measure a wide range of parameters such as voltage, current, power
  and energy (Battery as well as Solar). It supports bi-directional current measurement, digital inputs for switch monitoring and outputs for Bluetooth remote controlling as well as an
  over-range alarming feature for voltage and current. Large signals, such as voltage and
  current can be converted to smaller signal using analog output. All data in the meter is
  accessible Bluetooth using mobile App.
- DC Monitoring is a unique solution with add-on communication facilities for local & remote interfacing with Control/Data Center in its class.
- The device has wide range of Direct Current (multi-channel) & Voltage measurement and Various Electrical parameters like Power/Energy/Demand available to display & store into it.
- DC Energy monitoring also control Daylight Diming controls the artificial light depending on the available daylight. When enough daylight is available, the artificial light dims down according to how much light is available.
- In AJEEVI Smart solar light system connected Wireless Bluetooth control system, all street light are connected in a wireless Bluetooth network allowing them to be controlled from remote controls, pole switches or internet connected devices.











\* ISO 9001, 27001 / MSME

\* CE Certified Products

\*In existence More than 5 Yrs.

Smart Solar Light -[AJV-SSL-001]

#### OVERVIEW OF THE SYSTEM

- AJEEVI has designed the complete solution of lighting system of Smart Solar light that can be as simple as automating a light, so that it
  can be controlled by a Bluetooth remote control device.
- Daylight Diming controls the artificial light depending on the available daylight. When enough daylight is available, the artificial light dims down according to how much light is available.
- AJEEVI designed Occupancy sensors / presence detectors type of motion sensors. It automatically turns lights on when a object is occupied and off when a object is vacant.
- In AJEEVI Smart solar light system connected Wireless Bluetooth control system, all street light are connected in a wireless Bluetooth network allowing them to be controlled from remote controls, pole switches or internet connected devices.

#### Device specification

Sr. No	Parameter	Value
1.	Microcontroller	32bit Microcontroller,64kb Program memory 20kb RAM.
2.	I/O pins	Total 48 pins, 37 I/O pins  Low power consumption 3.7V.
3.	GSM/GPRS Band	Quad band class A(1w@1800/1900mhz), class 4(2w@850/900mhz), Antenna signal 5db.





- \* ISO 9001, 27001 / MSME
- \* CE Certified Products
- \*In existence More than 5 Yrs.

### Smart Vehicle Mounted Reader—[AJV-VMR-001]

#### OVERVIEW OF THE SYSTEM

- Ruggedized UHF Reader
- Easy to Place
- Unique Device Number
- Proximity to know exact location
- Readers are placed on vehicles, any asset
- · Can be mounted with screws or can be pasted
- · Asset/Employee swaps the tag the data with time stamp is sent to Cloud
- This device contains no battery
- The data is decrypted and displayed in analytics software tools using this analytics software.



#### DEVICE SPECIFICATION

Sr. No	Parameter	Value
1.	Reading Range	5 Mtr. / 15 Mtr.
2.	Protocol	ISO18000-6B, ISO18000-6C (EPC GEN2), IP 68
3.	Frequency Range	Standard ISM 902~928MHz or ISM 860~868MHz,other frequency available
3.		i i





- \* ISO 9001, 27001 / MSME
- CE Certified Products
- \*In existence More than 5 Yrs.

#### AJEEVI ICCC -[AJV-CCC-001]

AJEEVI Command & Control Center

#### OVERVIEW OF THE SYSTEM

 AJEEVI Smart Cities Framework enables Cities to Build a City Level Digital Platform that can integrate City Data from various connected systems - City Vehicle, Sensors from City Roadside Infrastructure and City Buildings and store the data in a manner that can be easily consumed by various City Applications and Citizen.

- Ajeevi has established centralized control command centre to The City
  Level Digital Platform harness advances in Digital Technologies Social,
  Mobile, Analytics, Cloud and IoT in an integrated manner and transform
  the way citizen services is delivered across key perspective Livability, Security, Mobility and Sustainability.
- Central control centre have an audio video conferencing unit in order to directly communicate for complain monitoring.
- smart waste collection, intelligent transport system, disaster management, parking management system and city surveillance are connected on the single-platform established in the ICCC.
- Display are capable of outfield with a wide array of inputs & outputs, including 4 HDMI ports, 3 USB ports, 1 Ethernet port, 1 RF input,
   Digital Audio output, RJ45, & RS232C Serial interface.

#### AJEEVI ICCC Smart City Solution



AJEEVI ICCC Software Solution For Navigating through big data, multiple IP or Analog Video Stream.





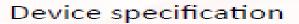
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\*In existence More than 5 Yrs.

Smart 3Ø Energy Meter-[AJV-SEM-001]

- AJEEVI Smart meter is electrical measuring device that is used to record electrical energy consumed over a specified period of time in terms of units.
- AJEEVI Smart Three Phase Energy Meter is widely acknowledged by our clients for easy installation, capacity to withstand adverse power and negligible maintenance.
- AJEEVI Smart three Phase energy meter is Web Server and mobile apps based aided prepaid energy meter and post-paid energy meter which notified to amount of energy consumed ,bill payment status, and records correct energy with same accuracy.
- Latest ASIC and Microcontroller based digital Display technology with Low power consumption less than 1 watt. Meter works accurately under earth load condition. LED's indication for current reversal and earth load tampering. Immune to effects of external magnetic field as per IS: 13779.
- Both Side IP65 enclosure to sustain in the harsh environment.
- Micro SIM and Micro SD card Support.
- This device will automatically push encrypted data into a secure server.
- Data analytical tools of energy monitoring team.



Sr. No	Parameter	Value
1.	Microcontroller	32bit Microcontroller,64kb Program memory 20kb RAM.
2.	I/O pins	Total 48 pins, 37 I/O pins
		Low power consumption 3.7V.







\* ISO 9001, 27001 / MSME

\* CE Certified Products

\*In existence More than 5 Yrs.

Smart 1Ø Energy Mataer-[AJV-SEM-001]

- AJEEVI Smart meter is electrical measuring device that is used to record electrical energy consumed over a specified period of time in terms of units.
- AJEEVI Smart Single Phase Energy Meter is widely acknowledged by our clients for easy installation, capacity to withstand adverse power and negligible maintenance.
- AJEEVI Smart single Phase energy meter is Web Server and mobile apps based aided prepaid energy
  meter and post-paid energy meter which notified to amount of energy consumed ,bill payment status,
  and records correct energy with same accuracy.
- Latest ASIC and Microcontroller based digital Display technology with Low power consumption less than 1 watt. Meter works accurately under earth load condition. LED's indication for current reversal and earth load tampering. Immune to effects of external magnetic field as per IS: 13779.
- Both Side IP65 enclosure to sustain in the harsh environment
- Micro SIM and Micro SD card Support.
- This device will automatically push encrypted data into a secure server.
- Data analytical tools of energy monitoring team.



Sr. No	Parameter	Value
1.	Microcontroller	32bit Microcontroller,64kb Program memory 20kb RAM.
2.	I/O pins	Total 48 pins, 37 I/O pins
		Low power consumption 3.7V.







\* ISO 9001, 27001 / MSME

\* CE Certified Products

\*In existence More than 5 Yrs.

Environmental Management System-[AJV-EVS-001]

- AJEEVI has designed environmental management system for monitor overall ambient air, temperature, CO2,
   CO, NO2, O3, SO2, noise quality, weather etc.
- Smart Environment Sensors gather data about pollution, ambient conditions (temperature and humidity), levels of gases in the city (pollution) and any other events on an hourly and subsequently daily basis.
- AJEEVI Smart Environment Sensors device able to communicate over Wi-Fi,
   GSM (3G & 4G) and on wired technology and easily access Third party for
   Raw data & Computed data.
- Device Measurement elements Temperature, Humidity, Light, Noise, CO, NO2, O3, SO2, pm2.5, pm10.CO2.UVa.UVb.





\* ISO 9001, 27001 / MSME \* CE Certified Products \*In existence More than 5 Yrs.

Smart ICT Solid Waste Mgmt. Software—[AJV-ICWMS-001]

- Ruggedized QR/RF/NFC TAG is placed at each house or Bins
- Swacch Worker or Vehicle reaches to each house or Bin with Vehicle mounted reader or hand held reader
- The tag is scanned and the data along time stamp is sent to web server
- Bin level sensor is placed in each Bin
- BLS identifies the level of the Bin, and send the alert to webserver
- The data is decrypted and displayed in analytics software tools using this analytics software.
- Integration with Weight Bridge
- Integration with Vehicle Tracking System
- Route Optimization
- Incident & Complaint Management
- SMS Gateway Integration
- GIS/GPS enabled Solid Waste Management System
- CCC Integration/ Citizen Complaint Management







\* ISO 9001, 27001 / MSME

\* CE Certified Products

\*In existence More than 5 Yrs.

Vehicle Tracking & Monitoring System [SWM]—[AJV-VTMS[SWM]-001]

#### OVERVIEW OF THE SYSTEM

- GPS tracking of the waste pick up vehicle for real time tracking
- Co-ordination between primary and secondary collection vehicles for transferring dump
- Route Optimization enables in reduction of trip time, fuel saving and serving more locations
- Record history of vehicle routes, attended sites and other details
- Monitoring & Reporting Application reports of vehicles, garbage collection status etc.
- Alert / Alarm management
- Real time management of missed garbage transfer
- Daily report of Door-Door Collection efficiency combined with complaints raised by Public
- Monitoring & Reporting Application reports of vehicles, garbage collection status etc.
- GIS Map Integration
- Garbage Collection Scheduling



#### SOFTWARE SPECIFICATION

Vehicle Tracking in Smart Waste Management System	Monitoring of the vehicles used for smart waste management system through a web application for real-time level information for route optimization integrated with the automatic warning system which notifies when community bins is about to get full.
Real Time Monitoring	GPS/GIS based Real-time monitoring of solid waste collection vehicles.
	Management System

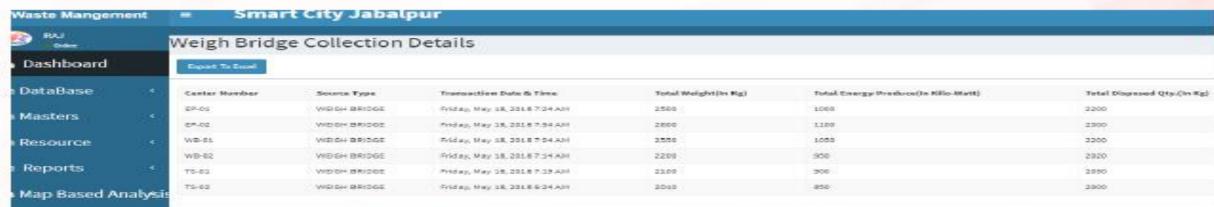




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Weigh Bridge Monitoring —[AJV-WBM-001]









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