



IP Toilet

INTELLIGENT PUBLIC SANITATION



Intelligent Public Sanitation

Provides wayside
Toilet facility

Star quality, super
hygienic Toilets

A most wanted fa-
cility to Travellers/
Tourists, especially
Women

Ever-increasing urbanization : Need of quality Public Toilets



Ever Increasing Urban Population:
590 million by 2030 (India)



Pointing towards the need of
providing Wayside Toilets by
Authorities



This leads to demand for self-maintaining IPtoilets

Growing Urban Population demands provisioning of -

One Public Toilet per 2,500-3,000 persons

One Public Toilet at every 300-500 meter on busy streets

One Public Toilet at every 750-1,000 meter in other streets



Intelligent Public Toilet Emerged (cont)

IPtoilets are designed for safe and hygienic sanitation meant for women, on-site workers, city commuters, travelers, campers, etc.



Functioning of IPtoilet

Door opens on Coin drop /
Button Push. Bolting from
inside is manual

On entering inside lights
operate automatically

Entry not allowed when
there is no power or water



How It Works

Self Management + Service Management



It indicates status of occupancy, warns 2 adult entry, and has an emergency exit option for occupant safety



Engages Pre-flush and Power-flush for effective cleaning using the minimum quantity of water resources



Easy clean design constitutes internal surface material, non-residual floor, hydrophobic coating



Intuitive efficient management of resources and triggers shut down before resources are totally depleted.



Periodical Power Spray cleaning at pre-fixed intervals



Communication of usage, resource status, service alerts to a dedicated server

IPtoilet- Concept

IPtoilet
resolves
operational
bottlenecks
faced in
Public Toilet
management

- Unique Floor Hygiene concept
- Online control and monitoring
- Proper maintenance with ISV
- Government approved Design
- Variant models for Men, Women, Disabled, etc.

IPtoilet – Concept (Cont.)

IPtoilet
resolves
operational
bottlenecks
faced in
Public Toilet
management

- Pre-flush mechanism
- Automated for minimum user contact
- Never Locked inside
- Provision for revenue generation
- Waste treatment options

IPtoilet – Concept (Cont.)

IPtoilet
resolves
operational
bottlenecks
faced in
Public Toilet
management

- Water conservation
- Very cost effective in operations
- Protection from vandalism
- Solar Power and other eco-friendly technologies

IPtoilet – Concept (Cont.)

IPtoilet - Optional Features

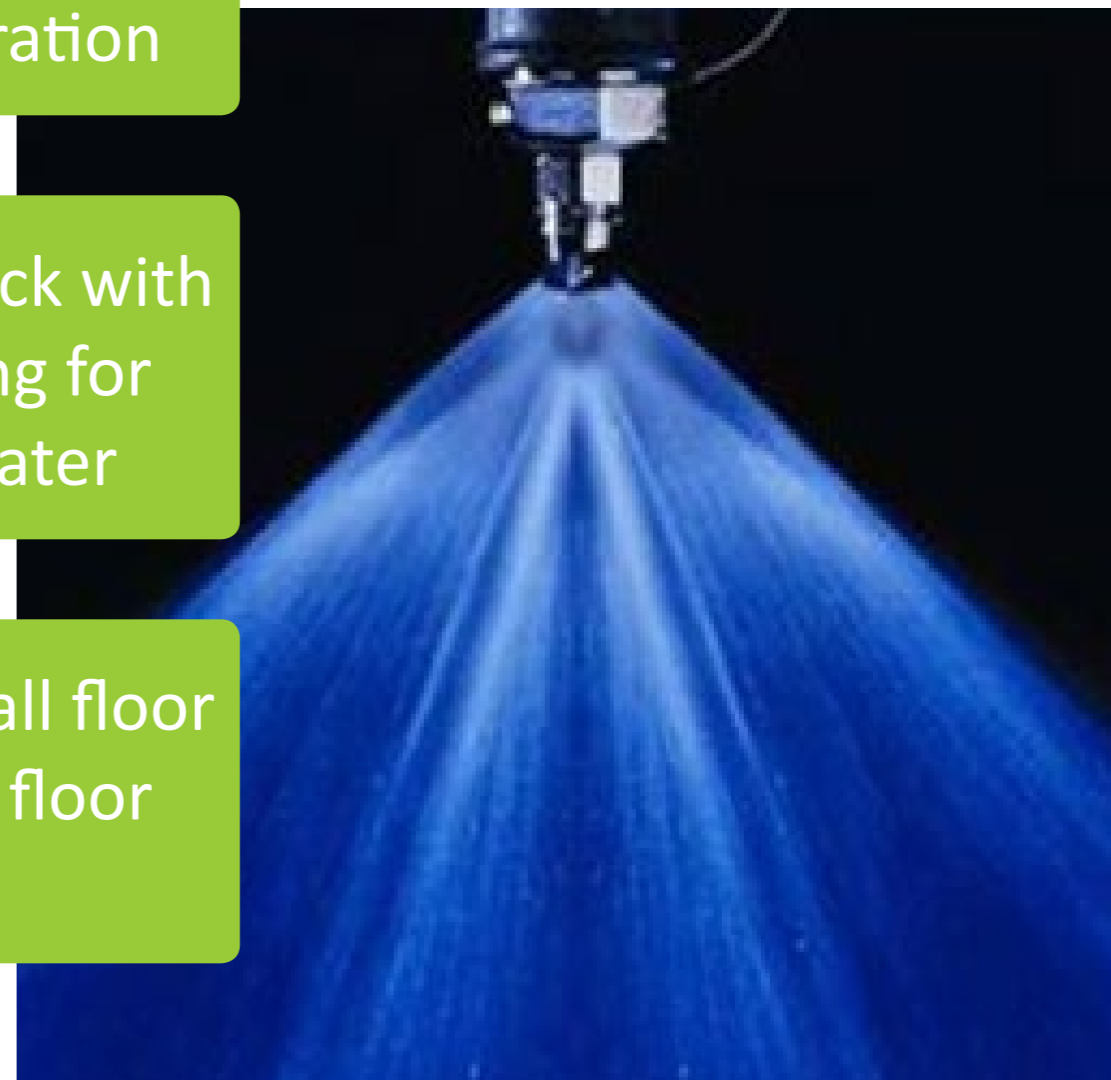
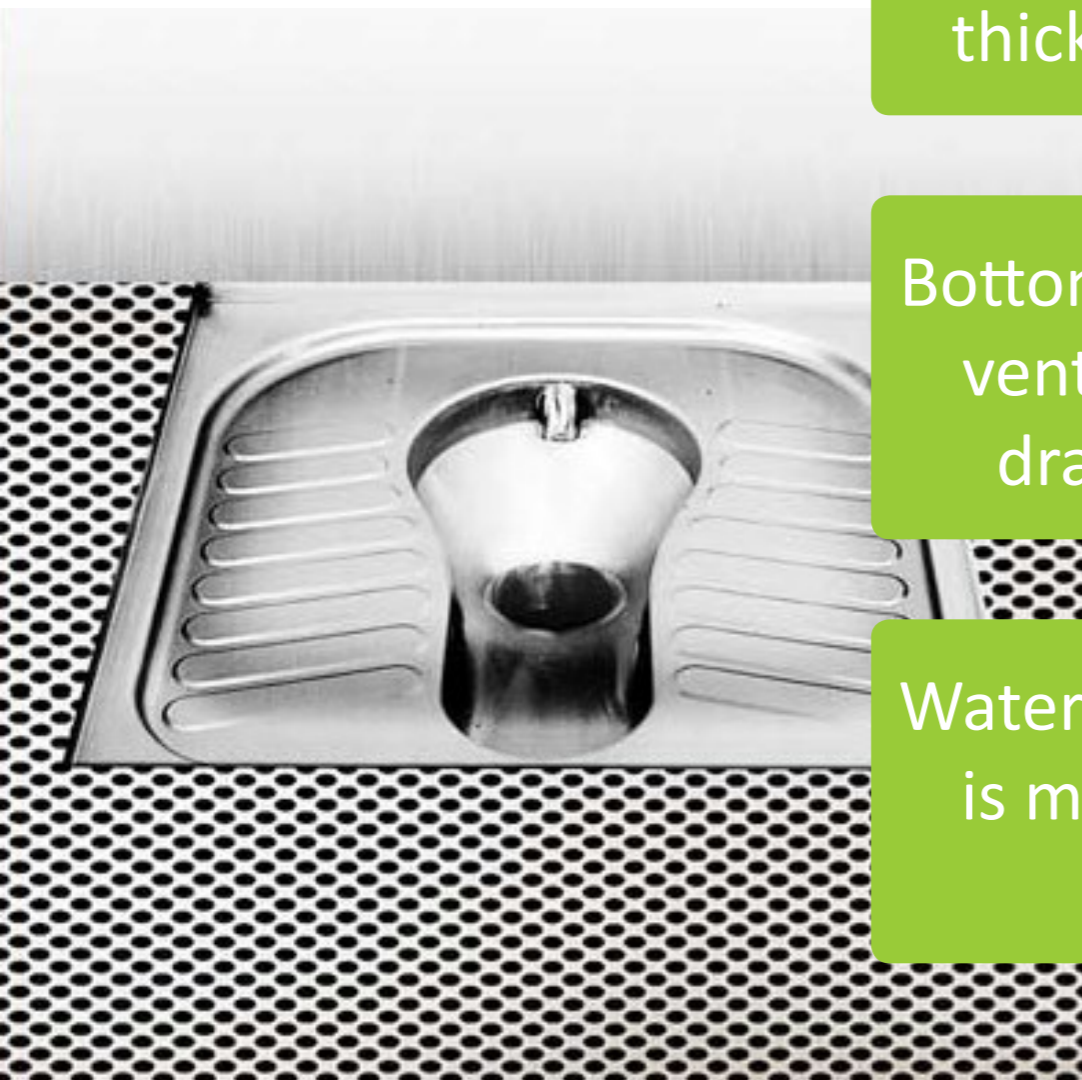
- Air Conditioner
- Solar Panels
- Bio-membrane tank
- Sewage Treatment Plant
- Napkin Incinerator
- Napkin Vending Machine

IPtoilet – Unique Floor Design Tech.

Two layered 316 grade Stainless Steel floor, top layer 3mm thick with 5mm perforation

Bottom layer 1.5mm thick with ventilation and slanting for drain out of waste water

Water Jet cleaning of wall floor is more effective with floor perforation



IPtoilet – Online control & monitoring

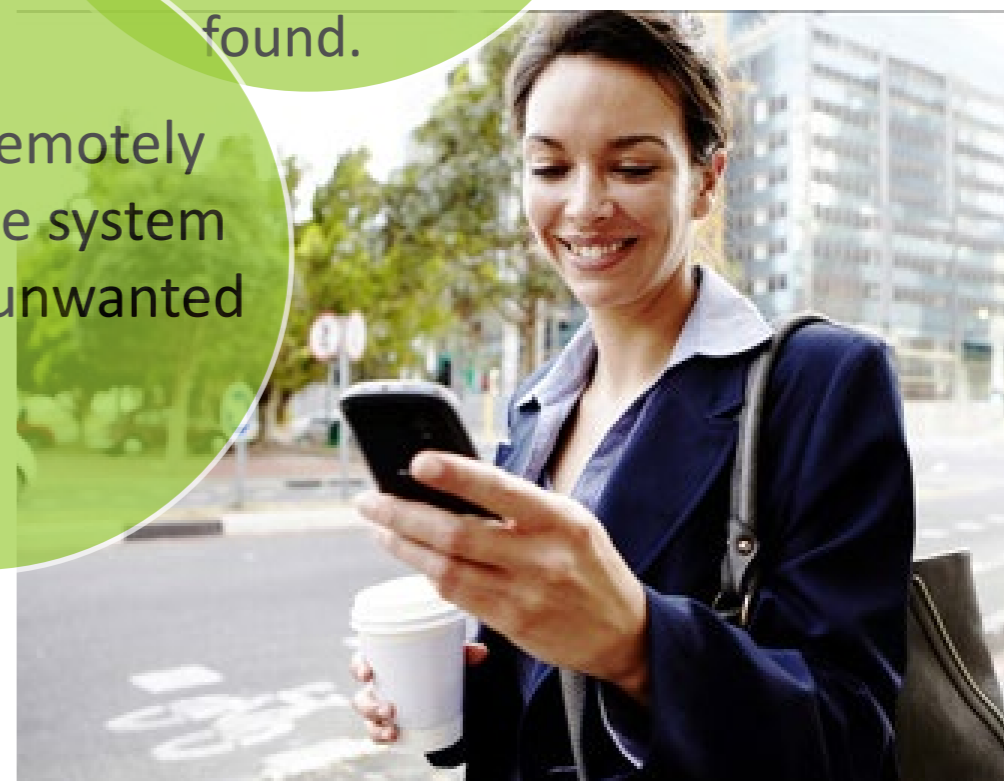
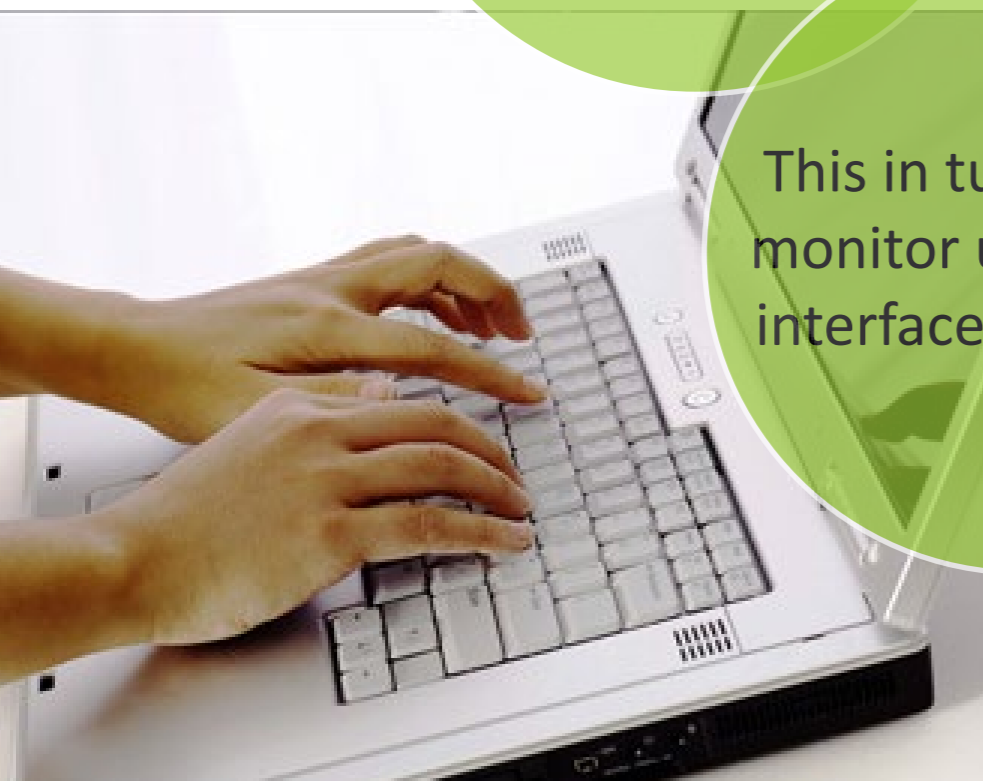
A GPRS system transmits data like its usage, cleaning, sensor status to a remote computer.

This can be used by supervisors or municipal authorities to ensure its proper operations.

Down-loadable mobile application for public to find out working toilets nearby and also can report any complaints found.

This in turn can monitor using web interface we provide.

They can remotely on or off the system to prevent unwanted usage.



IPtoilet – Maintenance with ISV

One or two service person can maintain a cluster of IPtoilets installed in and around a municipality.

ISV is equipped with :

- Uniformed service person
- Pressure cleaning jet
- Mobile incinerator
- Service parts required.

Takes 5 to 10 minutes to clean one IPtoilet



ISV – Intelligent Service Vehicle

ISV is the innovation brought by Altersoft for public toilet management to do one time daily cleaning



ISV– together with self cleaning toilets is a huge saving on maintenance cost to Municipalities




Using ISV, IPtoilets can give most uptime of operation and guarantees top class hygiene in public sanitation



IPtoilet – Govt approved Design



IPtoilets are currently supplied to Kerala Public Works Department, Government of Kerala.



Its unique civil design is done by Altersoft as per department instructions, considering general public and their behavior.

IPtoilet – Govt approved Design

IPtoilet is designed with variant models for men, women and disabled.



Ladies toilet features napkin vending machine, napkin incinerator, baby stations for changing diapers, etc.

Restricted entry by Coins in public places



IPtoilet – Made of Rugged & tamper proof material

Aluminum
Composite
Panel
outside

Stainless Steel
inside

This resists
stains and
ensures
tamper proof

Even
fasteners
used are SS
six segment
bolts



IPtoilet – Automated for minimum user contact

Generally in public toilets people tend to spoil the door handle, switches, tap knobs, or flush knobs by rough use. By automating these operations, there is minimum manual intervention and thus maximum hygiene.

IPtoilet – For revenue generation



The outer elevation of IPtoilet can be customized to offer advertisement, if requested.

Further there is coin collection which can be used as a revenue making system.

There is a possibility like a small utility shop or ATMs in areas where it requires.

IPtoilet – Waste treatment options

The waste is usually connected to the sewage line provided by the local authorities.

Alternatively bio-membrane tanks are provided, which can separate fecal matter into bio-waste and completely odorless grey water.

IPtoilet – Water Conservation

Use of high pressure water jet cleaning avoids use of any harmful cleaning solutions.

The pressure cleaning of 15 – 20 seconds ensures minimum use of water.



Sensor controlled taps and flush system also use less water.

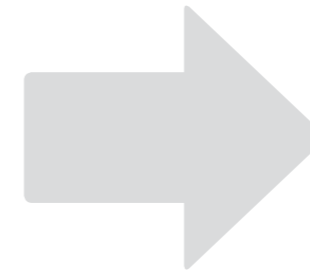
Water repellent coating inside toilet floor and walls also contributes for water conservation in public toilets.



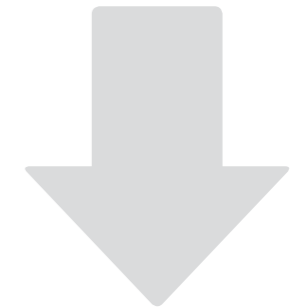
IPtoilet – Green Building Philosophy applied



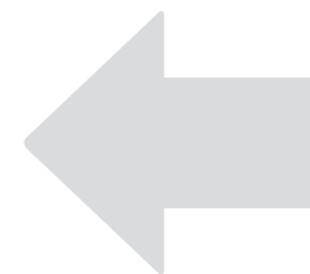
Water
conservation



Waste
treatment



Various other eco
friendly
technologies



Solar power

Thank You

IP Toilet

INTELLIGENT | SMART | GREEN



Altersoft
solutions for a better world

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