



Research Unit
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Smart e-Toilets: Revolutionizing Urban Sanitation Across India

Powered by Swachh Bharat Mission, tech-driven toilets elevate public hygiene and convenience

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India's quest for universal sanitation coverage has witnessed remarkable transformations, driven by innovative solutions that blend hygiene with cutting-edge technology. Since the launch of the Swachh Bharat Mission on 2nd October 2014, the country has been moving toward cleaner, safer, and more accessible public sanitation facilities. To support India's ever-growing and aspirational urban population, the Swachh Bharat Mission has integrated 6.36 lakh community and public toilets across cities, enhancing the country's sanitation infrastructure.

As the Swachh Bharat Mission completes a decade and the '*Swachhata Hi Seva*' campaign celebrates its seventh year under the theme "*Swabhav Swachhata, Sanskar Swachhata*," the focus on tech-enabled, user-friendly sanitation solutions has gained momentum. Among the key developments in this journey is the rise of Smart e-Toilets, offering advanced features that not only meet hygiene standards but also elevate user experience in urban spaces.



Hyderabad has added its own unique twist to the smart toilet revolution with the creation of Loo-cafes. These innovative facilities combine a public toilet and a café, providing not only a place for people to freshen up but also a relaxing environment to grab a bite. The washroom is located at the back, with a café in front, making it a convenient solution for people on the move. Aesthetically

appealing and designed to be luxurious, Loocafes invite people to experience public sanitation in a completely new way, combining comfort with utility.

Maharashtra's Pimpri Chinchwad has followed suit, constructing aspirational toilets at 26 locations across the city through a Public-Private Partnership (PPP) model. These smart toilets are equipped with modern amenities and electronic systems that simplify maintenance and enhance usability. With features such as automatic flushing activated by the opening of the door, separate rooms for men and women, voice assistants, power backup, and automated flushing sensors, these facilities set a new benchmark for public sanitation.



In Nagpur, smart e-toilets in distinct pink and blue colors for women and men reflect a focus on gender-sensitive infrastructure. These facilities are equipped with automatic flushing, are disinfected by EV rays, and operate with coin-based access, ensuring hygiene and accessibility. Puri's Malatipatpur bus stand has taken things a step further with AI-based smart toilets, which feature UV lights to ensure virus- and bacteria-free environments. This pay-to-use facility is among the first of its kind in Eastern India, setting a new standard for sanitation technology in the region.

Other cities, such as Thiruvananthapuram, have installed smart e-toilets like the Smart She Toilet at its zoo, offering much-needed convenience for families and mothers with young children. These facilities are unmanned, prefabricated with steel, and come with modern conveniences like a sanitary napkin vending machine, incinerator, baby feeding station, and more.



Across India, smart e-toilets are reshaping the public sanitation landscape, ensuring hygiene, safety, and comfort. Whether through Pimpri Chinchwad's aspirational toilets, Hyderabad's Loocafes, or AI-based innovations in Puri, the future of urban sanitation is both smart and inclusive. These initiatives reflect a new era in public infrastructure, where advanced technology meets the everyday needs of urban populations, ensuring that sanitation facilities are not only functional but also a source of pride and convenience.

References:

- <https://www.myscheme.gov.in/schemes/sbm-g-i>
- <https://sbmurban.org/new-age-toilets>
- <https://sbmurban.org/swachh-toilets>

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