



## JAIN TECH SHOWCASE

flow monitoring solutions  
for your business

JAIN Technology develops the innovative and reliable monitoring systems. It serves customers with the best solution.

### Innovative Technology

JAIN Technology has developed the world's first and only "**sewer flow monitoring system**" to measure sewer water flow. Even in the atrocious monitoring conditions of the sewer line, the system measures the flow continuously with accuracy.

### Certified Solution

JAIN Technology was included in the final cohort of the Water Tech Challenge by the **Water Council, Milwaukee, USA** on December 24, 2021. The solution was also published on the **ADB's** knowledge sharing platform, **Development Asia** in March 2022.

### Saving The World

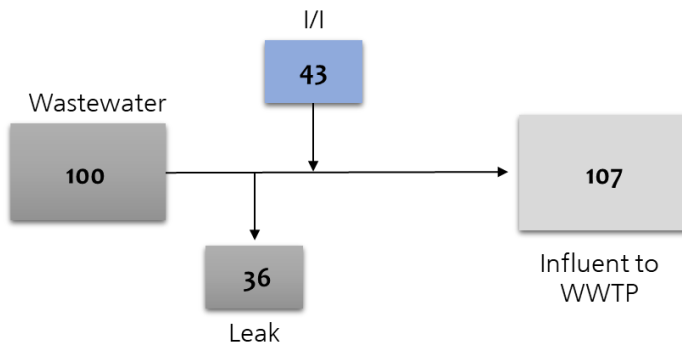
India could save about \$250 per \$1 spent on protection to lessen the average frequency of floods. ([WRI, 2020](#)) **Urban flood protection** starts from water flow monitoring in sewer lines and drainage systems. JAIN Technology's solution leaves no drop behind in monitoring sewer lines.

\* I/I (Infiltration/Inflow): Excess groundwater and stormwater flowing into sewer pipes

### Creating Customer Value

The mitigation of I/I in a sewer system, rehabilitation and inflow source removal, combined with an on-going operation and maintenance program, is essential to protect the environment and the significant capital investment in sewers and treatment facilities (MassDEP, 2017). Accurate and continuous monitoring of water flow in the sewer system is the first step to control I/I. Optimized design of treatment processes based on the monitored information can reduce energy and resource consumptions. Thus, the flow monitoring system helps mitigate **climate change** and achieve **carbon neutrality**.





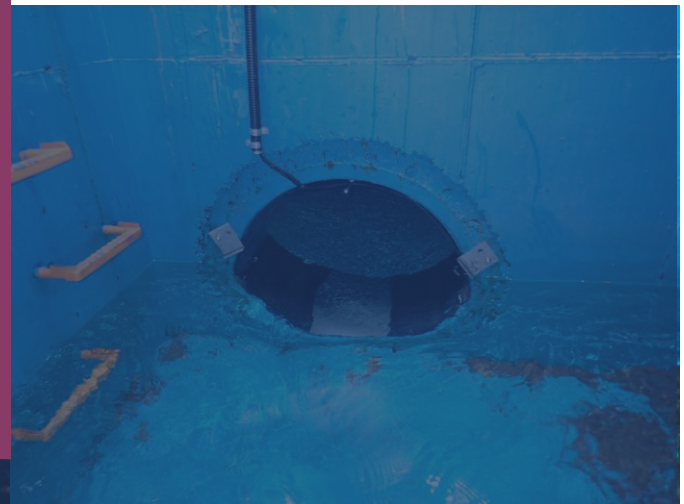
I/I has been one of the major challenges to overcome for the efficient and sustainable operation of sewer systems.

**Infiltration** enters sewer pipes through holes, cracks, joint failures, or defective manholes. It could occur easily when sewer lines and manholes deteriorate over time as well as when sewer lines are poorly designed and constructed.

**Inflow** normally occurs when rainfall enters the sewer system through drains, catch basins, roof leaders, manhole covers, and flows from sump pumps connected to the sewer. (MassDEP, 2017).

“

I/I takes 40.2% of wastewater inflow to the wastewater treatment plant. (WWTP)



*New products help make your infrastructures more secure.*

I/I can cause sewer system overloads. The real water flow and quality are quite different from the parameters used for the capacity design of a treatment plant. (Choi and Chung, 2019)

The solution was published on the **ADB's** (Asia Development Bank) knowledge-sharing platform, **Development Asia**, in March 2022.

(<https://development.asia/explainer/system-monitoring-extreme-sewer-flow-conditions>).

We are happy to share the solution with all the 66 member countries of ADB.

**Contact:**

Sunny Kwon, [skwon@jain.co.kr](mailto:skwon@jain.co.kr)

Kevin Young-june Choi, [ujchoi@jain.co.kr](mailto:ujchoi@jain.co.kr)

**[References]**

- MassDEP, 2017, Guidelines for performing Infiltration/Inflow analyses and sewer system evaluation surveys, Department of Environmental Protection, Commonwealth of Massachusetts
- World Resources Institute, 2020, RELEASE: New Data Shows Millions of People, Trillions in Property at Risk from Flooding — But Infrastructure Investments Now Can Significantly Lower Flood Risk, April 23, 2020, <https://www.wri.org/news/release-new-data-shows-millions-people-trillions-property-risk-flooding-infrastructure>