

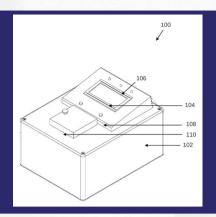






Granted IN430017

# Arsenic detection system, method, and test kit thereof



#### NEED

Detection of arsenic in groundwater requires high specificity and sensitivity without generating toxic by-products, addressing global health risks.

#### SOLUTION

The invention provides a bioelectronic test system and method for detecting arsenic levels in water samples using genetically modified bacteria.

#### INNOVATION

The use of genetically modified bacteria, specifically E. coli DH5apJSKV51, in a bioelectronic test system offers a novel approach to detecting arsenic levels in water samples with high accuracy and sensitivity.

## **MARKET ANALYSIS**

Market: Environmental monitoring and public health sectors.

CAGR: The water quality monitoring market is growing at a CAGR of around 5.5% globally. Potential Indian Clients: Central Pollution Control Board (CPCB), State Water Authorities, NGOs focusing on water quality.

## WHY INVEST?

Arsenic detection
Genetically modified bacteria
Fluorescent protein
Analog-to-digital converter (ADC)













# AT A GLANCE

- Current TRL NA
- Funded by NA
- IPC C120
- Domain
   Environmental technology, specifically water quality monitoring.



Prof. S. K.Verma, Prof. V. K. Chaubey, Subash Chandra Bose, G Rajahari

Department of, Biological Sciences
BITS Pilani, Pilani Campus

