About Citizengage

Citizengage is an early-stage tech startup based out of Bangalore focused on solving challenges in waste to resource management.

We are building technology and platforms for Total Waste Control by segregating at source, connecting with responsible collectors and processors, and tracking all your waste streams to ensure they stay away from the landfill.

As a young startup, we have already:

• Diverted 60 tons of waste, and continue to divert at least 1.5 tons per day, from the landfill to composting facilities and biogas plants
• Trained more than 1000 people to be expert waste segregators in 3 months

We believe that we are on the cusp of something truly remarkable and we need your skills and talent in making this small drop into an ocean.

This summer, we are opening our time, space, and hearts to engage with young minds from all over the world. We would like to work with people who are passionate about using their innate skills to address the problem of waste.

We are looking for people who believe that smart tech and accessible design combined with the right data can solve wicked civic challenges.

To apply for any of the opportunities listed below, email info@citizengage.co with your resume and project of interest by April 15th. Internships will be offered on a rolling basis.

Looking forward to hearing from you!

Team Citizengage
INTERNSHIP OPPORTUNITIES 2016

DESIGN

**Service experience research:** Understanding behaviors, motivations, needs, and pain-points of our users and designing new service experiences which make waste segregation effortless, easy, and fun.

**Audio-Visual interfaces:** Designing new and innovative audio-visual interfaces for semi and low literate users which help them leverage technology better.

**IOT/ Wearables:** Designing propositions which help make the technology invisible in our services.

**Data design:** Using data as a medium to create immersive and rich experiences.

**Print/ Communication design:** Design solutions to create awareness and mobilize citizens and businesses via offline and online media.

**Photography, Film, and Animation:** Produce compelling media (photo essays, videos and animations) which help us spread the story of the company, its customers, its values and its impact.

**Game / New media design:** Build compelling experiences using digital media and storytelling to create rich and new experiences (video games, interactive installations, virtual reality) around the theme of civic engagement.
**MANUFACTURING & PRODUCTION**

**Materials research:** Research and innovate on repurposing reject wastes. Requires understanding the synthesis, processing, and properties from the microscale to the bulk.

**Fabrication:** Design and manufacturing of repurposed waste materials.

**Production:** Design efficient production processes for repurposing reject wastes with a focus on manufacturing management, materials management, production planning, and operations research.

**TECHNOLOGY**

**Build IoT Projects** Environment Sensing, Bots (AI), Data Visualization and Communication for better optimization and efficiency

**Data analytics** and machine learning, image processing, cognitive computing applications for effective dashboards

Delving into **optimization problems**, especially with regard to routing, Traveling Salesman problems, and related areas of multivariate modeling and statistics

**Visual 3-D mapping** of physical urban spaces and infrastructure

**Build intelligent systems** that can compute, direct, monitor and help make the right decisions
Connect to various dumb machines in a factory, recycle plant, bio gas plants etc., and gather information that can help track, control and monitor important work flow needed to produce business critical data and usable resources.

Work with distinct layers of the value cycle and supply chain within the waste management ecosystem and construct a real time market-place and trading platforms.

Develop real time monitoring tools from tracking vehicles, dispatching intelligent tasks to creating smart computing applications.

Build task management systems that are smart, autonomous, and platform agnostic to solve operational problems.

Build financial, loyalty, feedback systems, and billing solutions for a large industry.

**ROBOTICS/ INDUSTRIAL PRODUCTION/ MECHATRONICS**

Portable compacting machine for dry waste.

Smart tools and machines that facilitate waste management (forklift, weighing scales, wearables etc.)

Material handling devices.
BUSINESS AND OPERATIONS

**Economics for waste-to-value streams:** analyze cost-benefits of recycling or repurposing waste material into new products

Real-time **supply chain management** and operational support

**Customer training campaigns** and support throughout Sales, Onboarding, and Coaching phases

Development of **rating systems and gamification** across behaviour, compliance, and environmental impact

**Policy and government** affairs projects to guide white papers, policy drafts, and associated legislative strategy

Research **waste management models globally** and develop strategic city plans

Research **business sustainability and financing options** for waste management micro-entrepreneurs

Research **financing mechanisms** for projects and programs including grants, micro-finance, crowdfunding etc.
ENVIRONMENTAL ENGINEERING/ IMPACT ASSESSMENT

Environmental risk assessment and management

Life cycle assessment and environmental management systems

Environmental chemicals - Chemical speciation

Atmospheric chemistry: structure of atmosphere, chemical and photochemical reactions in the atmosphere - Greenhouse effect/global warming, greenhouse gases, effects, CO2 emissions

Statistical Methods and sampling distributions

Linear Programming Methods

Components and methods for environmental impact assessment matrices

Socio-economic impact assessment

Instrumental monitoring of the environment

Remote sensing and GIS application in environmental engineering