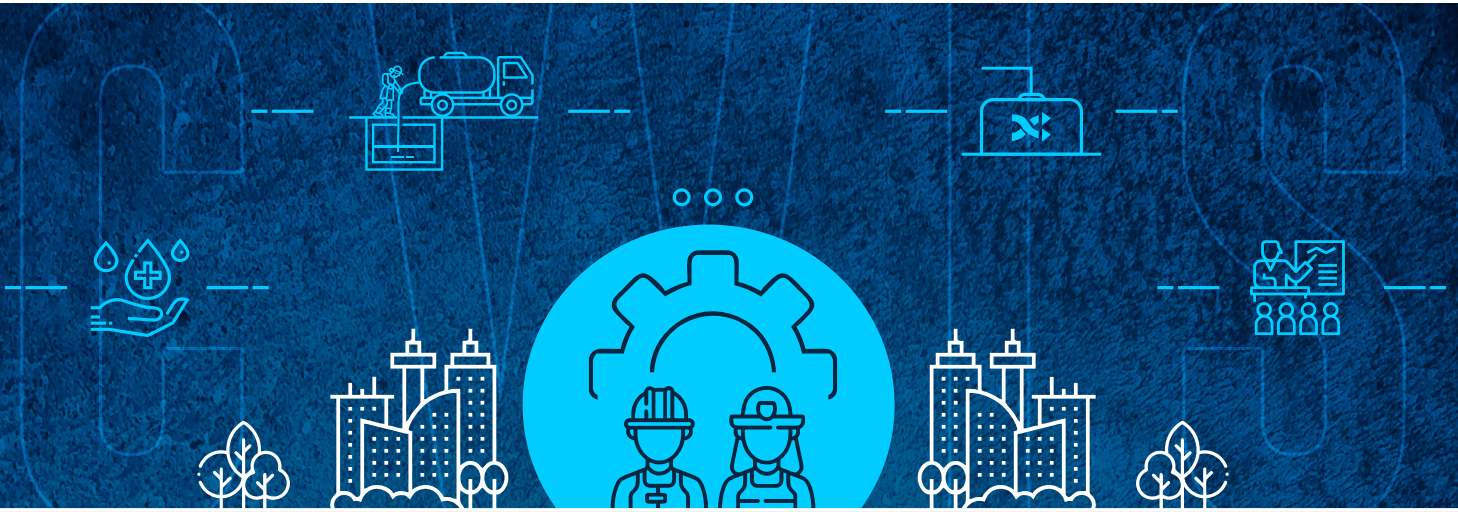




Administrative Staff College of India  
Leadership through Learning



Online Certification Course on  
**LEADERSHIP DEVELOPMENT FOR**

# **CITY-WIDE INCLUSIVE SANITATION**

Advancing the achievement of sanitation goals  
under SDG 6, SBM & AMRUT goals

**COHORT - 2 | 30 JUNE - 21 AUGUST 2021**

Course Booklet



# COHORT-2



## About the Course

Lack of proper sanitation is a long-running development issue that remains stubbornly difficult to resolve. Cities in South Asia face a large burden of untreated faecal waste entering the environment causing public health and environmental risks.

City-wide inclusive sanitation (CWIS) looks to shift the urban sanitation paradigm and prioritizes equity, public and environmental health, and co-existence of a range of solutions – sewered and non-sewered, centralized and decentralized - tailored to the requirements of the cities. CWIS focuses on service provision and its enabling environment, and not on building infrastructure alone.

This ASCI-ADBI-i.school course aimed to develop skilled urban professionals equipped with a practical and comprehensive understanding of CWIS by amalgamating global knowledge and best practices with on-field implementation experiences in South Asia. It provided a step-by-step approach to the safe, inclusive, and sustainable management of sanitation in South Asian cities. The course was particularly helpful for professionals working towards achieving sanitation goals under SDG 6, SBM 2.0 and AMRUT 2.0.



## Core Objective of the Course



The main objective of the course was to equip urban practitioners with knowledge and skills to contribute to the practice and research in city-wide inclusive sanitation. It aimed to build a cadre of sanitation professionals to take a leadership role in the sector.

## Course Outcomes



Evaluate the complexity of urban sanitation and its impact on health, the environment, people, and economy



Critically examine policy and regulatory frameworks for achieving universal, pro-poor, and gender inclusive sanitation in urban areas, with a focus on non-sewered/faecal sludge and septage management



Describe the principles of city-wide inclusive sanitation and pathways for implementation



Demonstrate knowledge of faecal sludge and septage management technologies across the sanitation value chain



Apply tools and frameworks for sustainable sanitation planning, funding, implementation, and monitoring



Create a practical action plan for city-wide inclusive sanitation in urban areas of varying size and nature



Ideate and formalize innovations and social enterprises to support city-wide inclusive sanitation implementation at scale





# Course Coverage

The course covered the following modules:

## MODULE 1

### Overview of Urban Sanitation and Introduction to FSSM



- Overview of urban sanitation: context and challenges
- Sustainable Development Goals linked to sanitation and their implications on India
- Importance of Faecal Sludge and Septage Management (FSSM) and Non-sewer sanitation (NSS)
- Sustainable Development Goals linked to sanitation and their implications on India

## MODULE 2

### City-Wide Inclusive Sanitation (CWIS) for achieving Urban Sanitation SDGs



- Understanding the principles of City-Wide Inclusive Sanitation (CWIS)
- Review of national and international best practices in CWIS

## MODULE 3

### Environmental Standards and Strategies for Compliance



- Environmental laws, regulations, and discharge standards related to wastewater & faecal sludge
- Characteristics of faecal sludge
- Sampling and laboratory methods for waste characterization



## MODULE 4

### Integrating a Gender Perspective in Sustainable Sanitation



- Integration gender in sanitation policy and implementation
- Institutional mechanisms for gender equity in sanitation access, decision making and service delivery
- Designing gender inclusive sanitation facilities
- Sanitation livelihoods and entrepreneurship for women

## MODULE 5

### Frameworks and Tools for Sanitation Planning



- FSSM Planning Framework
- FSSM Toolbox
- Shit Flow Diagram: Mapping Sanitation situation
- Sanitation Risk Assessment

## MODULE 6

### Designing Onsite Sanitation Systems – Containment



- Safe on-site containment systems: Design guidelines
- Integration of toilet containment in building permission regulations
- Low cost sanitation systems - Small bore sewer system, Shallow sewer system, Re-invent toilet etc.
- Science and technology for wastewater management (black water and grey water, pollution load, pollution load reduction planning, eutrophication and counter measures, on-site wastewater treatment technology for pollution load reduction and measures against eutrophication, etc.)
- Onsite wastewater treatment systems (Johkasou and similar on-site wastewater treatment systems)

## MODULE 7

### Designing Onsite Sanitation Systems – Emptying and Transportation



- Regulations & Monitoring of desludging activities
- Mechanical desludging processes
- Safety and wellbeing of sanitation work force
- Importance and economics of Scheduled desludging



## MODULE 8

### I.school Workshop on Social Business Enterprise Development



- Development of social business for FSM reuse

## MODULE 9

### Design and Selection of Processing and Treatment Technologies



- Technology options for treating Faecal sludge: Standalone plants, co-treatment of septage in STPs
- Design approach
- Technology selection
- Environmental permits & discharge norms
- Operations & Maintenance of Treatment plant
- Reuse market of treated biosolids and wastewater
- Best Practices and Implementation experiences

## MODULE 10

### Art and Science of Affecting Sanitation Behaviors



- Developing Behavior Change Communication strategy and implementation plan
- Case studies of BCC campaigns roll out
- Impact Assessment of Communication campaigns

## MODULE 11

### Protocols for Monitoring, Evaluating and Benchmarking to Promote Learning



- Sanitation monitoring frameworks - Global and national
- MLE tools
- CWIS monitoring dashboard
- Developing an FSSM Action plan for a city

## MODULE 12

### Strategic Approaches and Sources for Financing FSSM



- Estimating life cycle cost of FSSM
- Tools for financial planning
- Financing models
- Public Private Partnership Models in FSSM





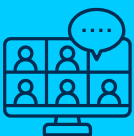
## Pedagogy

The course was delivered online using a combination of pedagogical approaches comprising:



**Self-study of course materials requiring approximately  
4 hours per week**

The course materials comprised policy notes, best practice videos, handbooks, and a slide deck for every module. Weblinks to other relevant literature were provided for additional reading.



**Experience sharing and direct interaction series  
for 2 hours duration every week**

The participants would benefit from listening to lectures and panel discussions by experts on topics of global relevance every week, usually on a Saturday. The participants interacted with the experts, shared their experiences and has extensive discussions during questions and answers slot after every session. A range of technology tools (mentimeter, slido etc) were used to make the sessions participative.



## Social Innovation Workshops by i.school



The participants learned about establishing a social business for FSSM through a unique innovation education program started in 2009 at The University of Tokyo by i.school. The i.school's innovation workshop methodology was a useful skill for capacity building and supporting the ongoing initiatives of social issue problem-solving. It mainly used analogical thinking and cognitive techniques to develop the right mindset and skillset. The participants enjoyed the process and it helped them to think in a different way to confidently come up with new ideas. The structured discussions served to change the mindset of participants and contributed to changing the way of engaging with these problems. Two workshops of 3-hour duration each were conducted with a focus on learning the process of ideating and implementing innovative solutions for social issues with a human-centered approach. The online workshops were conducted using Zoom and APISNOTE, a WEB tool for digital sticky notes.

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## Discussion forums



A discussion forum was active for the entire duration of the course to facilitate detailed discussions, doubts clarification, and interaction between participants and the course instructors. Additionally, topical discussion forums were created by the participants for detailed exchanges on specific topics of interest. Topics ranged from technology to softer aspects such as leadership skills, time management, team building, stakeholder management, media management, negotiations etc.

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## Group interactions & Peer learning



Breakout rooms were made available for small group interactions on specific areas of interest. These were guided by the course coordinator. The breakout rooms were useful for discussing various CWIS initiatives, implementation challenges, and problem solving.

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## Case study development



Each participant developed a real-life case study on the aspects of CWIS as per the guidelines provided. Participants were given feedback by their peers and course directors to refine the case study.



# Participant Profile

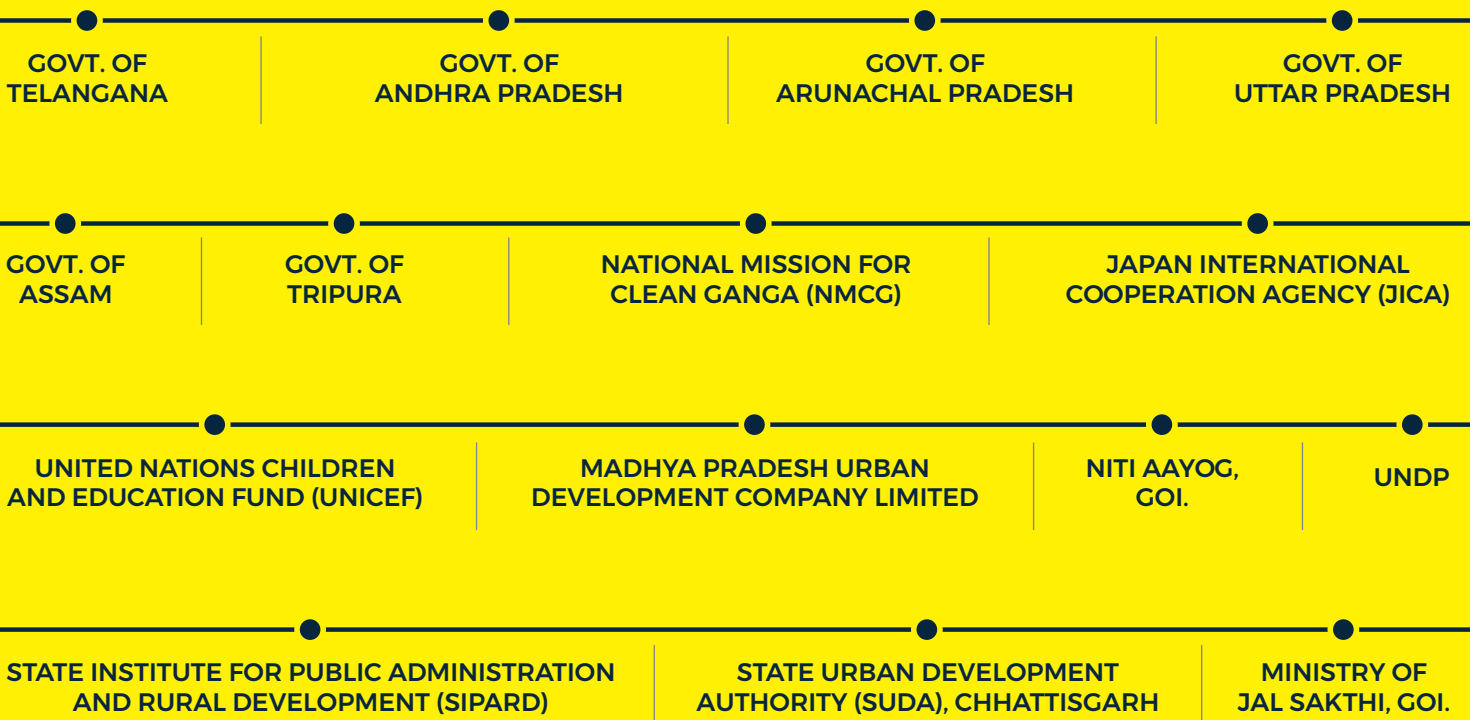
This course was a part of the ASCI – ADBI - i.school partnership to build a cadre of sanitation professionals to take up a leadership role in the sector. The first cohort of this course was held from November 2020 to February 2021 with a group of 45 participants from the states of Andhra Pradesh, Telangana, Uttar Pradesh, and Delhi. The course was successful in building change champions who can bring impact and contribute substantially to the sector. Motivated by this success, the second cohort of this program was announced in the month of April 2021. The course again received a phenomenal response and was oversubscribed with applications from 200+ city, state & national level representatives and urban researchers and practitioners. Detailed interviews were held with the applicants to understand their motivation for applying, expectations from the course, and willingness to devote time and actively participate over the entire duration of the course. The free-flowing conversations also helped in assessing the applicants' current and intended involvement in driving positive change in sanitation service delivery in India.

The stringent screening process led to the selection of **103 candidates** who are sure to emerge as sanitation change champions. These participants forming Cohort-II of this online certificate course have expressed tremendous commitment to join the course despite their busy schedules.

The participant profile of **Cohort-II** is as below:

## Representation of the participants

Our participants majorly included city, state, and national level representatives from different parts of India (as shown in the figure below) and four overseas participants from Bangladesh and Nepal. The participant affiliations are given below.







## Work experience and Roles of the participants

The participants included officers from the central, state & city level, urban practitioners from the private sector and researchers from academic institutions. Mixed representation was seen in terms of their role and experience levels. About 70% of the participants are senior-level professionals with more than 5 years of experience. Senior-level officials included GoI representatives; State-level coordinators, engineers & advisors; city commissioners; and senior WASH consultants, etc. Middle-level staff includes city engineers and executive officers. All the participants are directly or indirectly involved in sanitation and their specific role composition is given in the figure below.

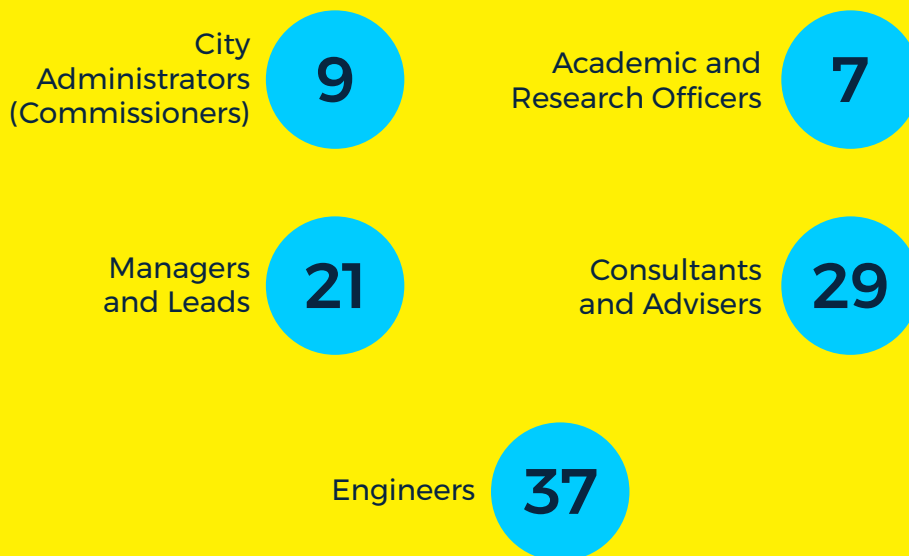




### Years of Work Experience



### Designations & No: of Participants



All the participants in the cohort are directly involved in sanitation sector. Most of them head the sanitation department or activities which include planning, execution, monitoring to supervision and coordination between the departments and officials. Some of the participants are also involved in maintaining and monitoring the Management Information Systems (MIS) portals and conducting Information Education and Communication (IEC) programs and behavior change communication campaigns.

We are proud of our CWIS change champions and look forward to learning about their initiatives and progress towards safe, equitable and sustainable sanitation.

# Course Directors



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**Dr.Y.Malini Reddy**

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**Dr.K.E.Seetha Ram**

Senior Consulting Specialist  
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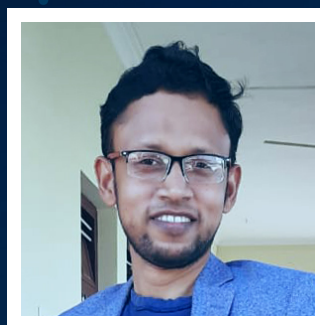


# Course Coordinators



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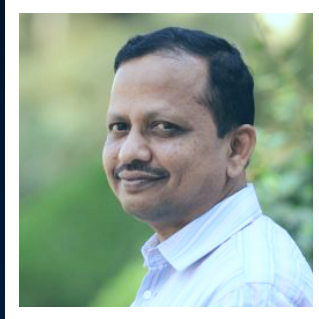
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# Resource Persons Page-1



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**Dr. Rajarshi Banerjee**

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**Mr. Matsuoka Hideaki**

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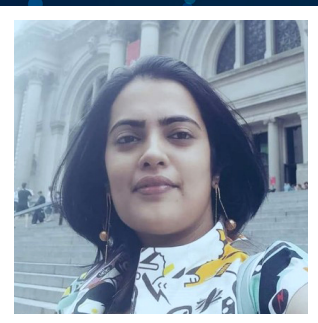
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**Mr. Ramkrishna Paul**

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**Ms. Reethira Kumar**

Senior Project Manager,  
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Lead Expert-Urban Sanitation,  
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**Mr. Bhithush Luthra**

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# Resource Persons Page-2



**Mr. Dorai Narayana**

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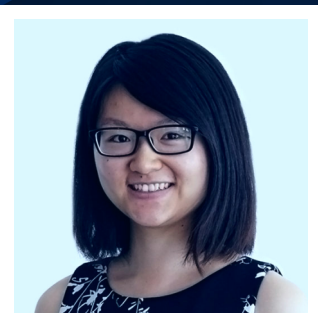
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# Resource Persons Page-3



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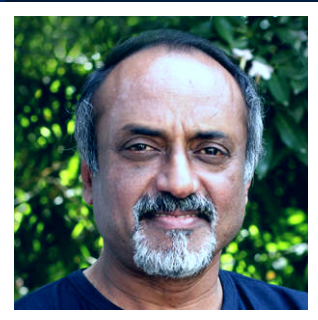
**Dr. Hideyuki Horii**

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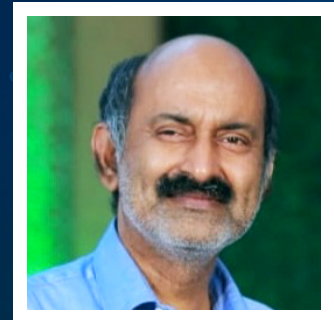
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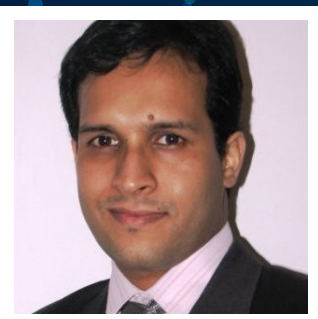
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**Mr.Bamang Sanjay**

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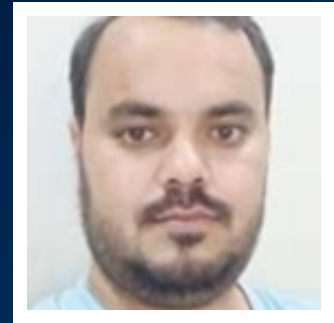
**Mr.Kul Kamal Singh Yadav**

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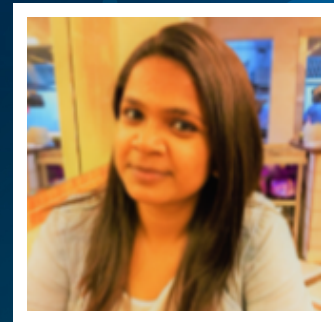
**Mr.Jagan Mohan Patnaik**

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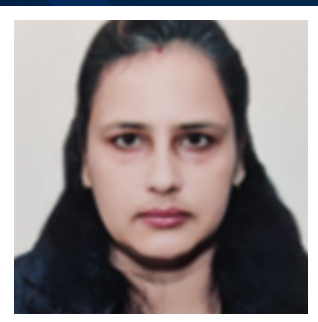
**Dr.Hema Patel**

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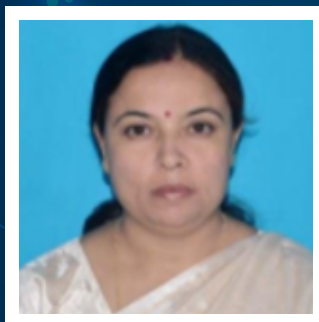
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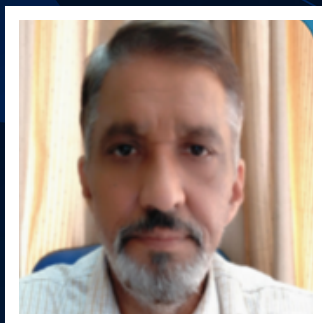
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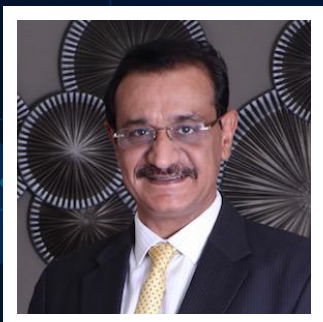
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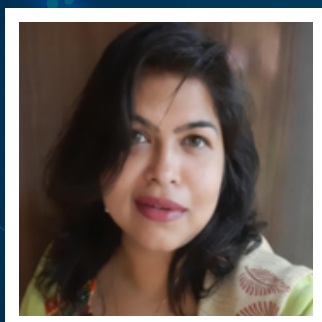
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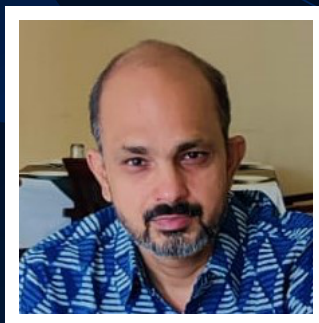


# Participants Page-4



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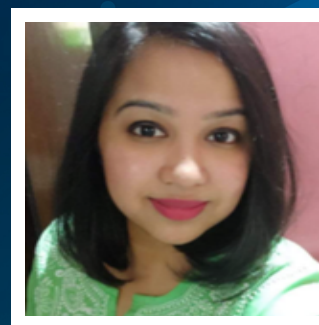
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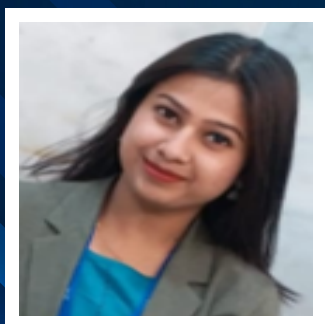
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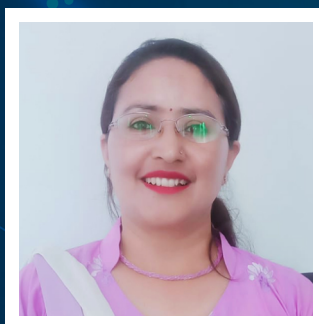
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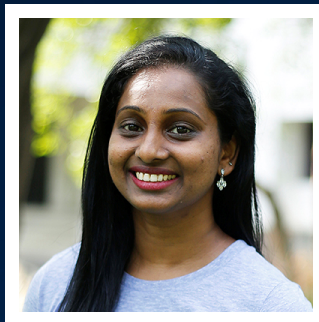
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**Ms. Pala Lakshmi Prasanna**

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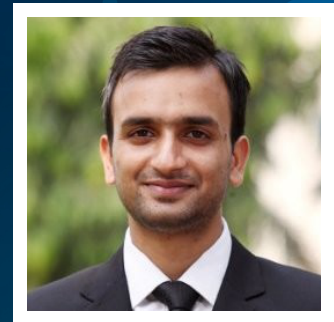
**Mr. Maharishi Upadhyay**

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**Mr. Vikas Singh**

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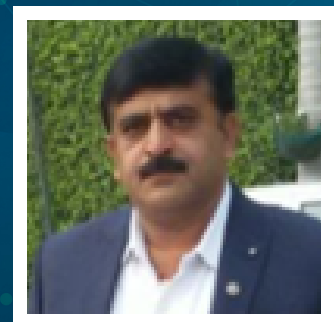
**Ms. Sweta Patnaik**

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# Participants Page-6



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**Mr. Devvrat Singh**

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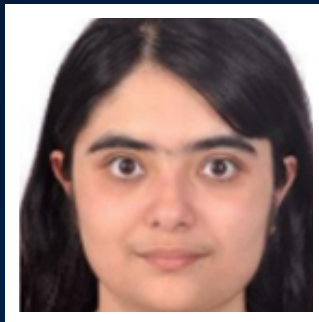
**Mr. Krishna Kumar Rana**

State Consultant,  
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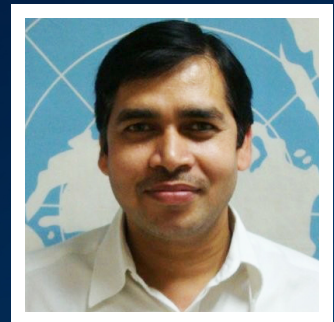
**Mr. Sujoy Mojumdar**

WASH Specialist,  
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**Ms. Koushiki Banerjee**

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**Mr. Kumar Premchand**

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UNICEF, Jharkhand



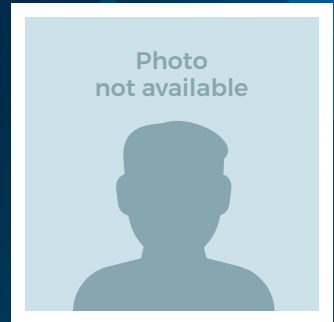
**Ms. Biraja Kabi Satapathy**

WASH Officer,  
UNICEF, Chhattisgarh



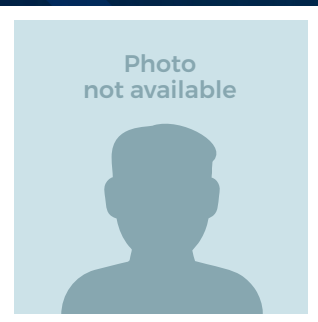
**Mr. Jayanth Kumar Reddy**

Commissioner,  
Ibrahimpnam



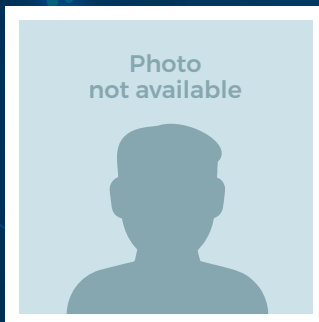
**Mr. KVRR Raju**

Zonal Commissioner,  
Vijayawada, Andhra Pradesh



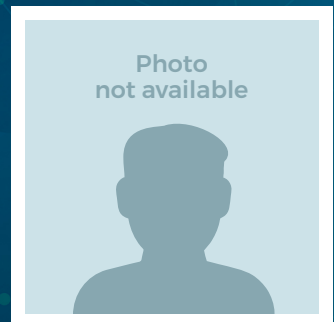
**Er. Sonam Sahay**

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**Mr. Ravi Kumar**

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