Administrative Staff College of India
Leadership through Learning

ADBInstitute

school
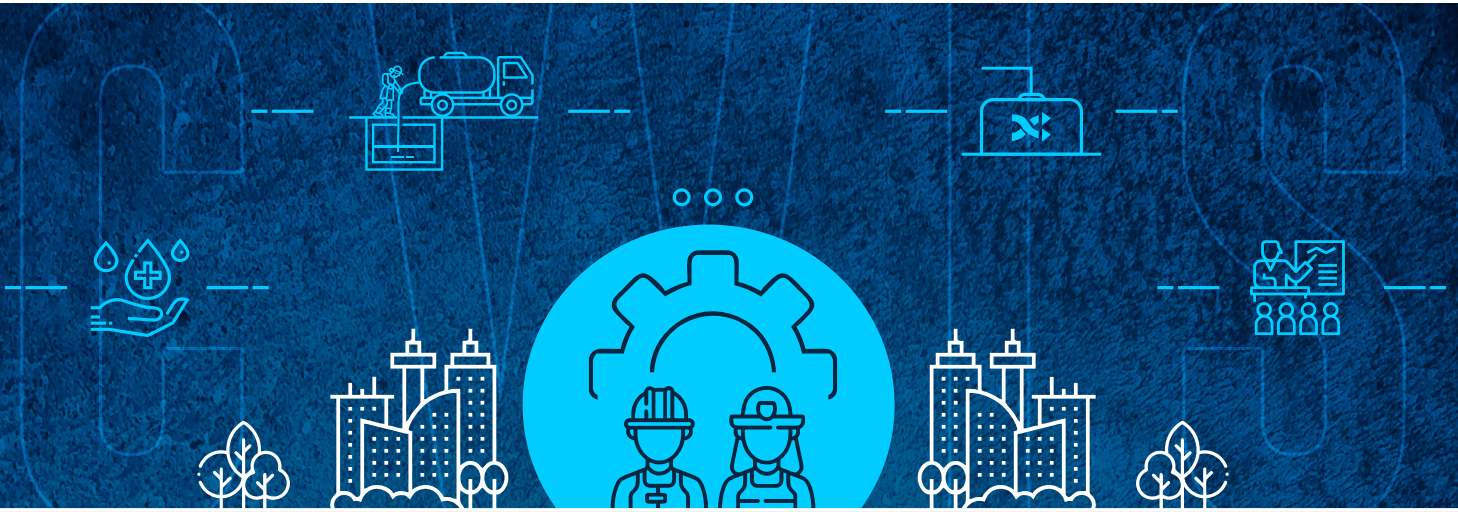
Online Certification Course on
LEADERSHIP DEVELOPMENT FOR

CITY-WIDE INCLUSIVE SANITATION

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

COHORT - 1 | 28 NOVEMBER 2020 - 6 FEBRUARY 2021

Course Booklet

COHORT-1

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.

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.

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.

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.
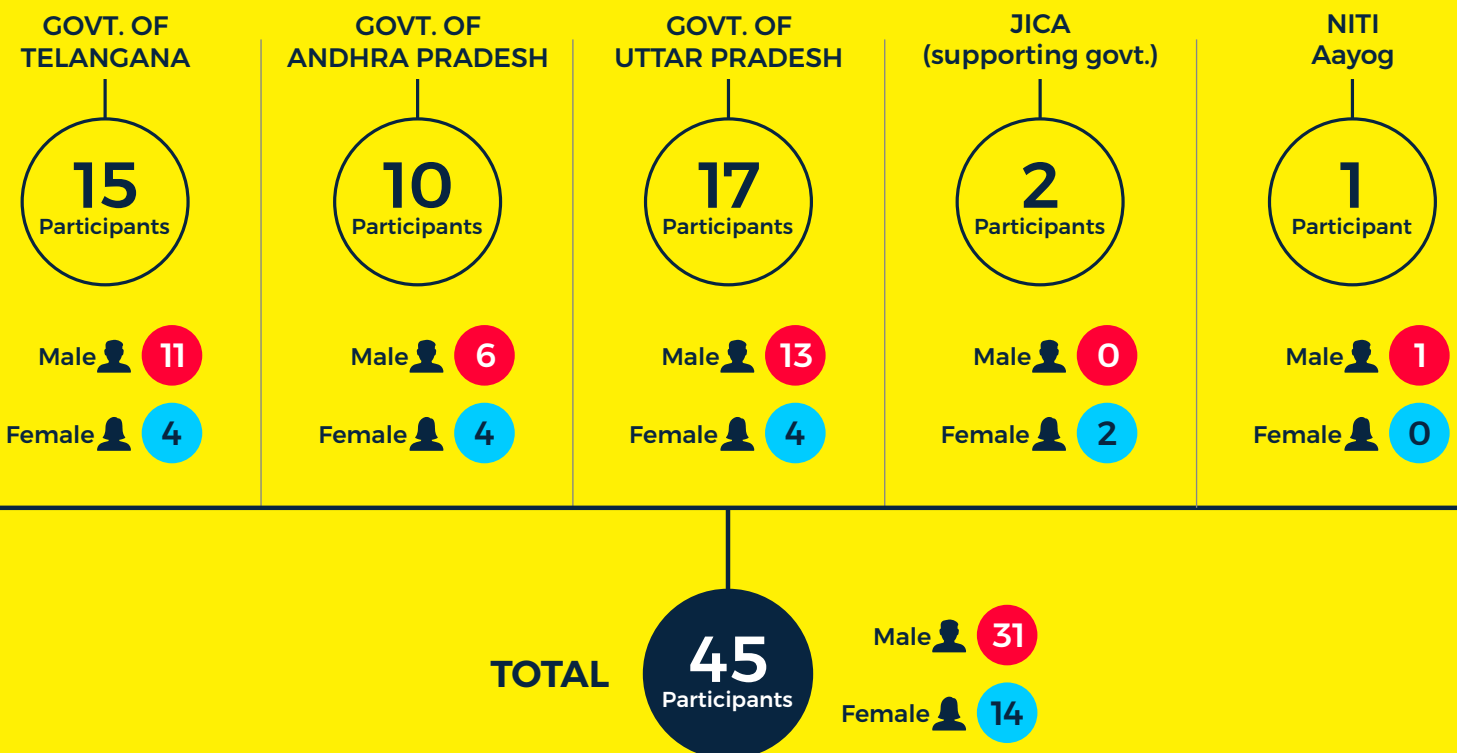
Participant Profile

The course that was announced in the month of October 2020 has received phenomenal response. A total of 220 applications were received comprising 200 city officials and 20 representatives from NGOs / academic and research organisations. 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 applicant's current and intended involvement in driving positive change in sanitation service delivery in India.

The stringent screening process led to the selection of **45 candidates** who are sure to emerge as sanitation change champions. These participants forming Cohort-I of this online certificate course offered jointly by ADBI-ASCI-i.school have expressed tremendous commitment to join the course despite their busy schedules.

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

Organization Affiliation and Gender Composition

GOVT. OF TELANGANA	GOVT. OF ANDHRA PRADESH	GOVT. OF UTTAR PRADESH	JICA (supporting govt.)	NITI Aayog
15 Participants	**10** Participants	**17** Participants	**2** Participants	**1** Participant
Male 11	Male 6	Male 13	Male 0	Male 1
Female 4	Female 4	Female 4	Female 2	Female 0

TOTAL **45** Participants

Male 31
Female 14

32% of the participants are women

39 cities are represented

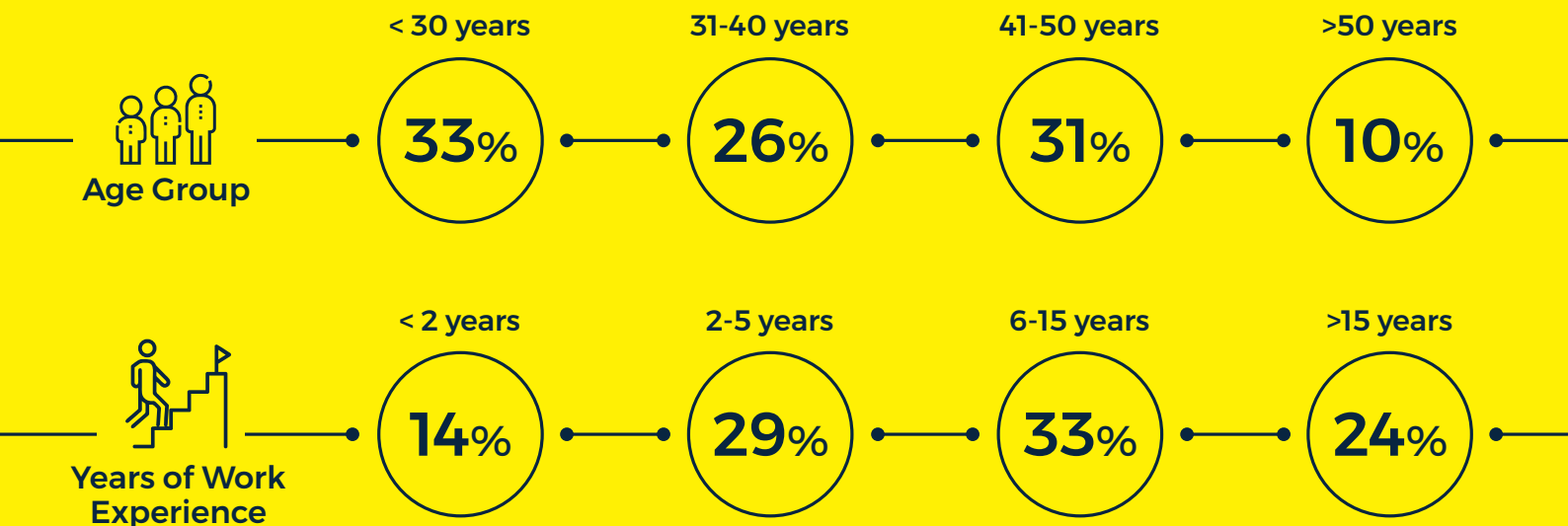**89%** of the participants are City Government officials

7% of the participants are State level Government officials

4% of the participants are professionals working at national level
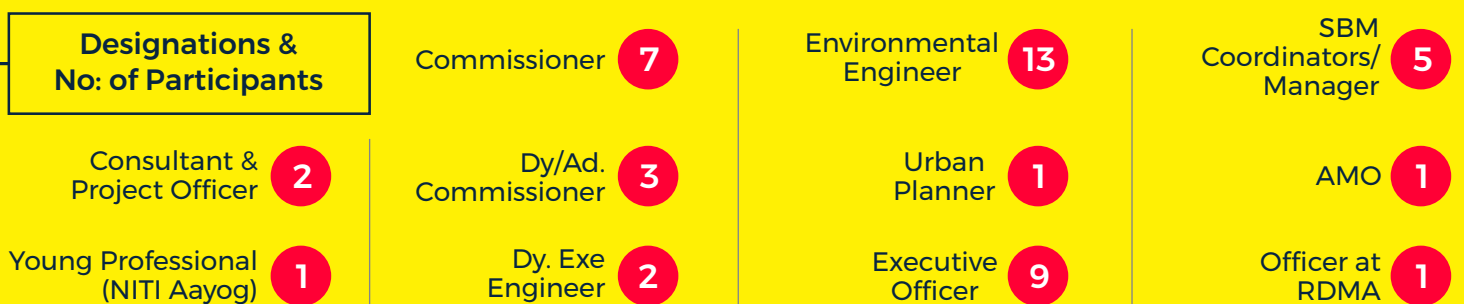
Age and Work Experience

There is a balanced representation from different age groups

- Majority **(64%)** of the participants are in the age group of 31-50 years.
- Young professionals (below 30 years of age) constitute **26%** of the cohort.
- **57%** of the participants have more than 5 years of experience in government sector
- **24%** of the participants have more than 15 years of work experience
- **43%** of the participants have up to 5 years of work experience

Age Group

< 30 years	31-40 years	41-50 years	>50 years
33%	**26%**	**31%**	**10%**

Years of Work Experience

< 2 years	2-5 years	6-15 years	>15 years
14%	**29%**	**33%**	**24%**

Roles and Designations

The participants include officers from the state level and city level. Regional Directors of Municipal Administration, Commissioners and Deputy Commissioners, and middle-level staff includes Environmental Engineers, Executive Officers and Assistant Medical Officers, State-level Swachh Bharat Mission coordinators, Young Professional (NITI Aayog) are also part of the cohort.

Designations & No: of Participants			
Commissioner **7**	Environmental Engineer **13**	SBM Coordinators/ Manager **5**	
Consultant & Project Officer **2**	Dy/Ad. Commissioner **3**	Urban Planner **1**	AMO **1**
Young Professional (NITI Aayog) **1**	Dy. Exe Engineer **2**	Executive Officer **9**	Officer at RDMA **1**

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

Prof.V.Srinivas Chary

Director,
Centre for Environment,
Urban Governance, and Infrastructure
Development (CEUG&ID), ASCI

Dr.Y.Malini Reddy

Professor,
Centre for Environment,
Urban Governance, and Infrastructure
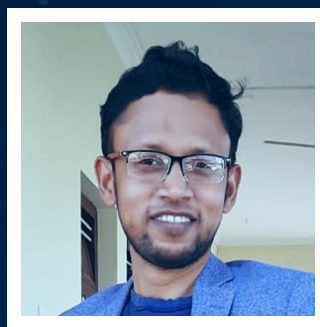Development (CEUG&ID), ASCI

Dr.K.E.Seetha Ram

Senior Consulting Specialist
for capacity building
and training projects,
ADBI

Course Coordinators

Ms.D.Jyothsna Devi

Senior Research Associate,
ASCI

Mr.A.S.Mohammed Shibl

Senior Research Associate,
ASCI

Ms.Ma.Laarni Revilla

Research Associate,
ADBI

Mr. Deepanshu Agarwal

Research Associate,
ADBI

Resource Persons

Ms.Alyse Schrecongost

Senior Program Officer-WSH
Bill & Melinda Gates Foundation
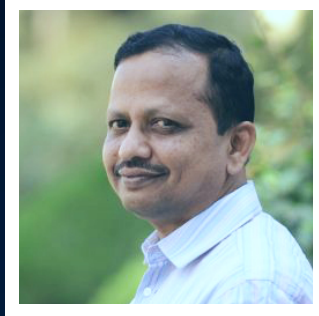
Prof.Bala Subramanyam

Professor,
ASCI

Dr.Rajarshi Banerjee

Assistant Professor,
ASCI

Mr.Sei Kondo

Senior Representative,
JICA

Mr.G.Mathi Vathanan, IAS

Principal Secretary,
Housing and Urban Development
Government of Odisha

Mr.Ramkrishna Paul

Senior Consultant,
Athena Infonomics

Dr.Christine L.Moe

Director,
Emory University
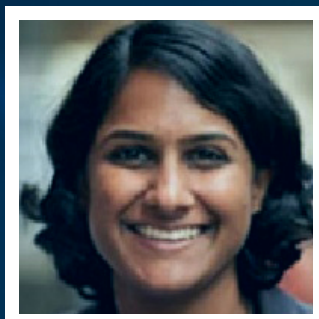
Ms.Suraja Jeyaraj

Associate Director,
Emory University

Mr.Bhithush Luthra

Lead Consultant-WASH,
Athena Infonomics

Resource Persons Page-2

Mr.Dorai Narayana

Consultant,
Former HoD, IWK

Dr.Ravi Kumar

National President,
DICCI
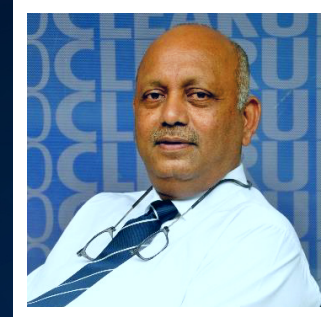
Mr.Manohar Krishna

MD,
Kam-Avida
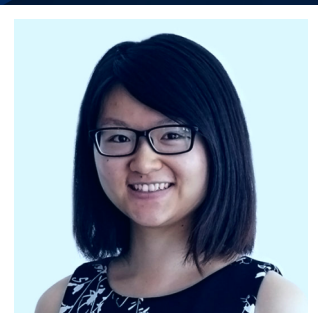
Ms.Kun Zhang

Lead Consultant-WASH
Athena Infonomics

Mr.Md.Tanvir Ahamed Chowdhury

Sanitation Business Advisor,
SNV, Bangladesh

Mr.Rohit Kakkar

Dy.Adviser (PHE),
CPHEEO

Dr.Kazushi Hashimoto

Adviser,
Japan Sanitation Consortium

Ms.Namita Banka

MD,
Banka BioLoo Limited

Dr.Abhinav Akhilesh

Director,
KPMG India

Resource Persons

Ms.Anisha Singh

Programme Director-WASH,
BBC Media Action

Dr.Hideyuki Horii

Executive Director,
i.school

Dr.Hiroko Miyakoshi

Project Manager,
i.school
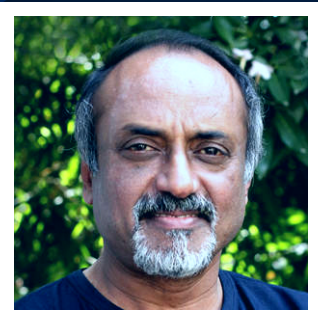
Dr.Srikanth Sundararajan

General Partner,
Ventureast

Mr.Ajeet Oak

Director, Primove Infrastructure
Development Consultants Private Limited
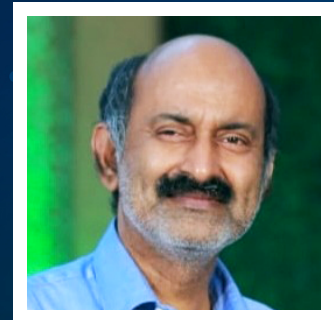
Mr.Sampath Kumar

Managing Director,
Tide Technocrats Private Limited

Mr.Manas Rath

Adviser,
BORDA
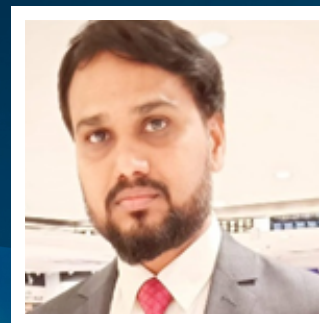
Mr.Srinivasa Rao

Director,
Meliorate Engineers Private Ltd

Participants Page-1

Mr.Kunwar Gaurav Singh

Executive Officer,
Kannauj, Uttar Pradesh

Mr.Dharmendra Kumar Satsangi

Assistant Engineer (Jal),
Hapur, Uttar Pradesh

Mr.Purushottam Kumar

Executive Engineer,
Prayagraj, Uttar Pradesh

Dr.Mani Bhushan Tiwari

Executive Officer,
Amroha, Uttar Pradesh

Mr.Vikas Kumar

Executive Officer,
Pilkhua, Uttar Pradesh

Mr.Vijay Kumar

Commissioner,
Firozabad, Uttar Pradesh

Mr.Vijendra Pal Singh

Executive Officer,
Gajraula, Uttar Pradesh

Mr.Vinay Kumar Mani Tripathi

Executive Officer,
Muzzafarnagar, Uttar Pradesh

Ms.Amita Varun

Executive Officer,
Bulandshahr-Jahangirabad, Uttar Pradesh

16

Participants

Mr.Arun Kumar Gupta

Additional Commissioner,
Aligarh, Uttar Pradesh

Mr.Praveen Kumar Singh

District Coordinator,
Unnao, Uttar Pradesh

Ms.Sucheta Arora

Executive Officer,
Chhatta, Uttar Pradesh

Ms.Shalini Gupta

Executive Officer,
Loni, Uttar Pradesh

Ms. Parul Goel

Senior Process Consultant,
NJS Engineers India Private Limited
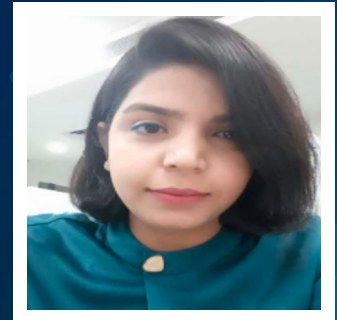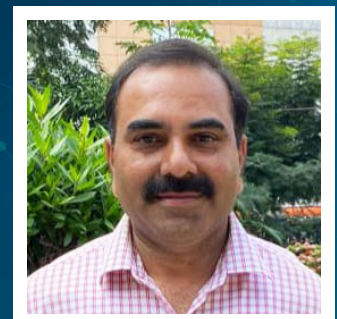
Ms.Mantrana Gola

Project Officer,
JICA

Mr.Dhiraj Santdasani

Young Professional,
NITI Aayog

Ms. M.V.K.Madhavi

Deputy Executive Engineer
Kakinada, Andhra Pradesh

Mr.P.Chandra Mouliswar Reddy

Deputy Municipal Commissioner,
Tirupati Municipal Corporation,
Andhra Pradesh

Participants Page-3

Dr.Jayaram.S
Commissioner,
Nandigama, Andhra Pradesh

Ms.Devika
Environmental Engineer,
Narsaraopet, Andhra Pradesh
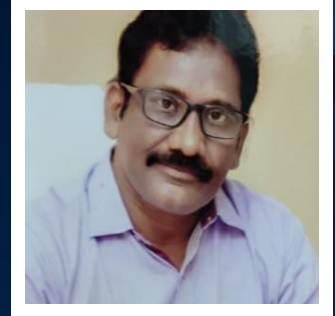
Dr.K.Dileep
Dy.Executive Engineer,
Vizianagaram, Andhra Pradesh

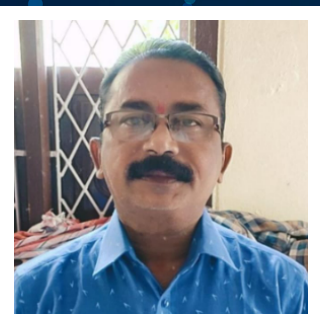**Mrs.A.Sujatha**
Commissioner,
Ameenpur, Telangana

Mrs.Spandana
Commissioner,
Andole Jogipet, Telangana

Mr.Ch Shiva Prasad
Environmental Engineer,
Suryapet, Telangana

Mr.Kommu Prasad
Environmental Engineer,
Nalgonda, Telangana

Mr.Sunil
Environmental Engineer,
Bhupalpally, Telangana

Mr.Raghu
Environmental Engineer,
Sircilla, Telangana

18

Participants

Ms.Premalatha

O/O REDMA,
Warangal, Telangana

Ms.Mani

Assistant Engineer (Environment)
Narsapur, Andhra Pradesh

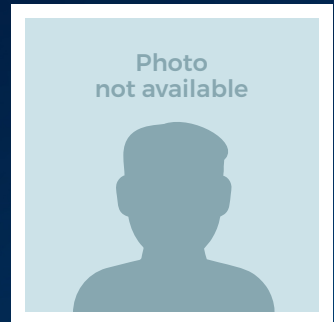**Ms.Haritha**

Urban Planner,
Miriyalguda, Telangana

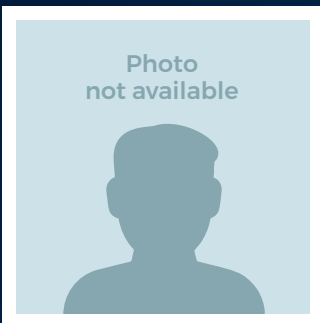**Mr.Praveen**

Environmental Engineer,
Pocharam Municipality, Telangana
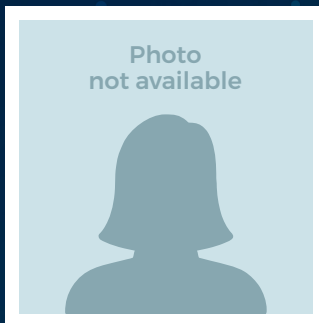
Mr.Shankar

Expert,
O/O CDMA, Telangana

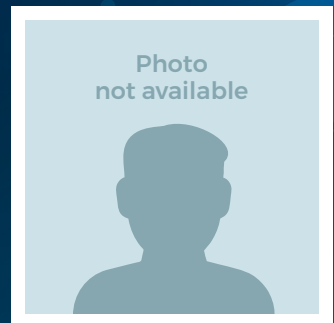**Mr.Anil Kandugula**

Environmental Engineer,
Gajwel Municipality

Mr.Dileep Reddy

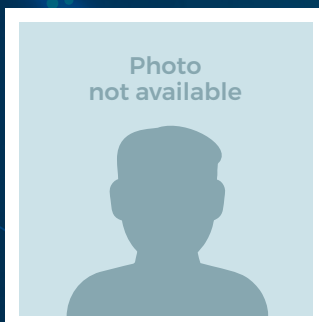Environmental Engineer,
Siddipet

Ms.Kalavathi

Assistant Engineer (Environment),
Nandiyal, Andhra Pradesh

Dr.G.Venkatesham

SWM Specialist,
CDMA Office, Telangana

Mr.Abhishek Rai

District Program Manager,
Unnao, Uttar Pradesh

Administrative Staff College of India
BellaVista, Raj Bhavan Road, Khairatabad,
Hyderabad – 500082, India.

🌐 www.cwis-asci.org.in

✉ cwis.asci@gmail.com   📞 +91 92486 30317