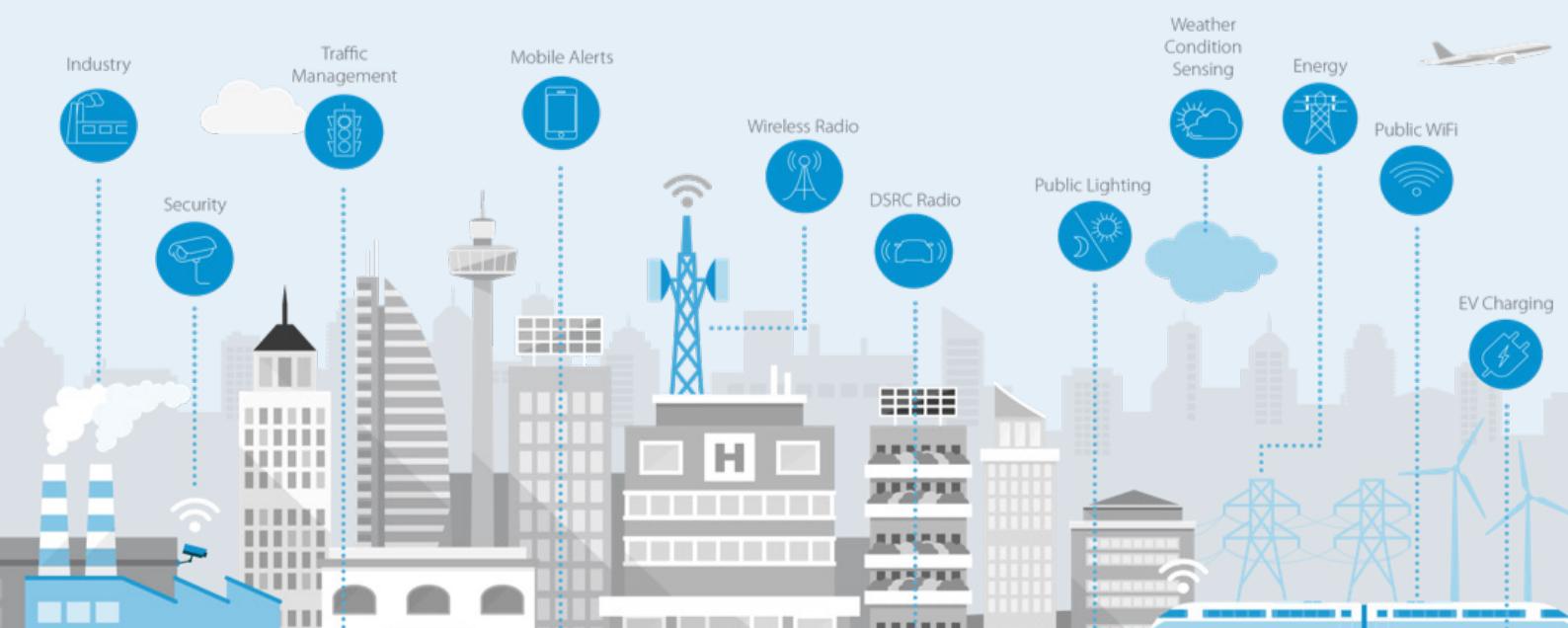




SMART CITIES & ACADEMIA

Towards Action and Research

Peer Learning Workshop held on
4 March, 2022



1. Background to the workshop

The National Institute of Urban Affairs (NIUA) in collaboration with the Ministry of Housing and Urban Affairs, and 15 premier Planning and Architecture Institutions, has launched the Smart Cities and Academia Towards Action and Research (SAAR) programme. The aim of this programme is to develop a compendium of 75 landmark urban projects implemented by the Smart Cities Mission.

The purpose of this collaboration is to broaden the area of expertise for NIUA with academic fields, and create a niche for young students and researchers to foster innovative ideas for a new urban India. The expected outcomes from the compendium will provide trends, critical insights, and prospects for development in the areas of urbanisation, urban information systems, water and sanitation, and solid waste management, climate change and resilience, and inclusivity and sustainability among others. The compendium will act as a first point of reference for future research in the field of urban development, help disseminate learnings from projects under the Smart Cities Mission, act as a repository for innovative urban projects, and contribute to dissemination of best practices and peer-to-peer learning.

The Peer Learning Workshop is a part of the workflow of SAAR programme. The purpose of the workshop was to showcase a few Smart Cities Mission projects implemented by the Smart Cities for the benefit of participating students and faculties. There were six projects selected from the Smart Cities—Kochi, Srinagar, Bhopal, Surat, Indore, and Dharamshala—for the purpose of the workshop.

2. Discussion points from the workshop

The discussions from the workshop have been summarized below.

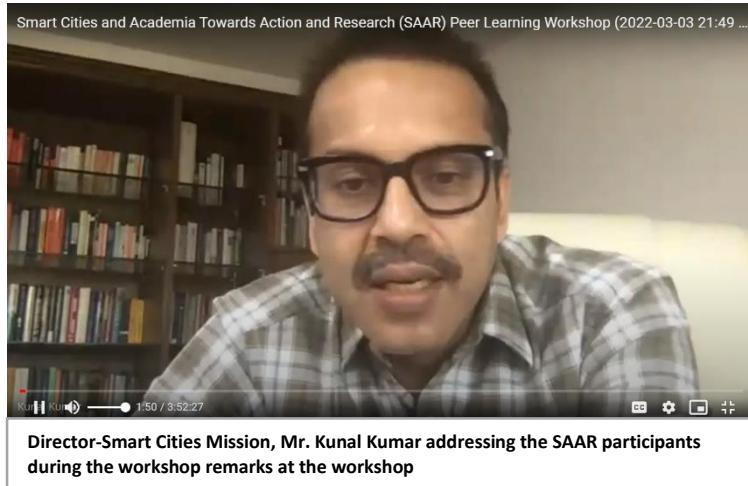
a. Welcome note and background to the workshop

The welcome note was addressed by the **Director-NIUA, Hitesh Vaidya**. He welcomed the officials from the Smart Cities, and the SAAR participants including the students and faculties. At the outset, Mr. Vaidya appreciated the **Smart Cities Mission-Director, Kunal Kumar** for conceptualising and initiating the SAAR programme. He highlighted that the purpose of preparing this compendium is to give students from Planning Institutes hands-on experience to learn about implementation of projects. He explained that this compendium also holds significance for the Smart Cities projects as the projects will be reviewed by the academic institutions. The feedback from review would be helpful in planning for better urban policies and projects for the cities.

A brief presentation on *Overview of 108 Smart Cities Projects under SAAR* was made by **Dr. Purva Sharma from NIUA**. She gave an overview on the progress of the SAAR activities. During the presentation, she requested the institutes to upload the SAAR project information for their respective projects on SAAR website (<https://niua.in/saar/compendium/>). It was highlighted that the 108 Smart

Cities projects selected under SAAR have been broadly categorized into three themes—climate change and resilient cities, information and technology in urban management, and physical and social infrastructure.

After the presentation, **Smart Cities Mission-Director, Mr. Kunal Kumar** addressed the students and faculties. He highlighted that the SAAR programme will make a huge impact on the interventions and future planning of the Smart Cities. There has been a lot of enthusiasm from the students to work on ground-level projects and gain an understanding about project planning and management.



After the remarks, Mr. Kunal Kumar had an open session with the students, and CEO Smart Cities. Some of the important points are summarized below:

1. **CEO-Kochi Smart City, Mr. Shanavas Shamsuddin** highlighted that people's participation is important to implement the projects, and in assessing the impact of the projects. He gave examples of a few Smart Cities projects from Kochi where citizens gave their feedback on the projects.
2. **Dr. Priyanjali, Associate Professor-College of Engineering Trivandrum**, gave a brief about the site visits in Kochi. She applauded that the students receive a good support from the nodal officers from Kochi Smart City.
3. **Prof. Nand Kumar, MNIT-Jaipur** highlighted that the MNIT Planning students are working on the Smart Roads Project for Jaipur. He discussed that the initial analysis from the project showed that although the project is in the implementation stage, there is a lack of awareness among the officials from the Jaipur Smart City on the full project cycle and implementation of this project.
4. **Mr. Soura Manna, student from SPA-Bhopal**, highlighted that the students faced the issues with the officials and citizens in Bhopal city during the site visits and field surveys. While the official letters from the Ministry and NIUA have been issued regarding the SAAR programme but, there were resistance from the local officials and citizens with regards to the identity cards of the students from SPA-Bhopal.

**5. Dr. Haimanti Banerjee,
Associate Professor-IIT**

Kharagpur, gave briefing about the site visits and stakeholder consultations in Bhubaneswar. She remarked that the responses from the officials of different organisations in Bhubaneswar was phenomenal.



Dr. Haimanti Banerjee, Professor-IIT Kharagpur briefing about Bhubaneswar site visit during the workshop



Dr. Rahul Tiwari, Associate Professor, MANIT-Bhopal briefing about Bhopal site visit during the workshop



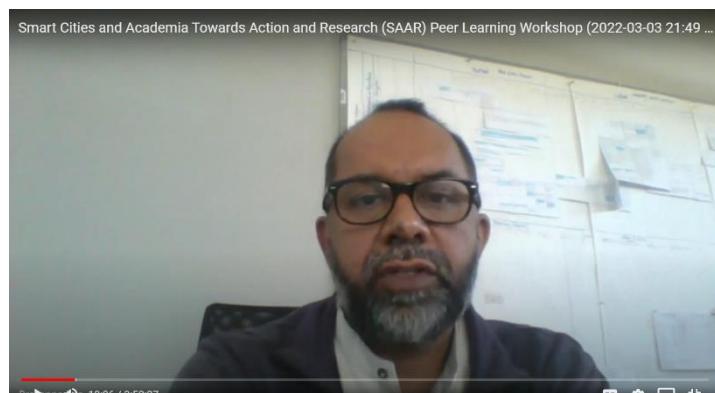
Mr. Aniruddha Shahpure briefing about the students site visit to Pune from College of Engineering Pune

6. Dr. Rahul Tiwari, MANIT-Bhopal, gave briefing about land monetization project in Bhopal Smart City. He updated that the visit to Indore is pending.

7. Mr. Aniruddha Shahpure, Pune Smart City, briefed about the site visits by the students from College of Engineering Pune. He applauded that the students showed enthusiasm and were keen on learning more about the three Smart City Projects which have been implemented in Pune.

8. Dr. Prasanna Rao, Professor-RVCA

Bangalore, discussed that the students have collated secondary information for the projects selected by RVCA in Bangalore, Belgavi, and Davengere. He also highlighted that the students are also doing two-months internship along with the SAAR initiative to gain a deeper understanding of the urban development field.



Prof. Prasanna Rao, RVCA-Bangalore briefing about the data collection for the projects in Karnataka

During the interactive session with the students, faculties, and Smart City officials, **Mr. Kunal Kumar** made the following remarks:

1. The compendium on SAAR will be shared as a best practice with other cities. Therefore, the documentation of case studies is important. A manuscript formatting instruction has been shared with all the institutions to follow a proper mythology for documentation.
2. It was requested that the Smart City officials and the Nodal officers for the selected projects should give recognition to the SAAR participants. There should be minimal gap in data sharing by the officials to the students and faculties. The Detailed Project Reports, Request for Proposals, presentations, and other secondary or primary sources are important for the students for documenting the case study and understanding the project implementation process.
3. Learnings from the documentation of SAAR case studies is important to plan for Smart Cities Mission in future as well.
4. The Ministry has received request from 10 Planning and Architecture institutions to become part of the SAAR programme. As a way forward, these institutions might be considered as well.

b. Presentations on the selected Smart City Projects

The session-II included the following presentations from the six Smart Cities.

Theme: Urban infrastructure (10 minutes per city presentation)

- Marine Drive Walkway, Kochi – Mr. Shanavas Shamsuddin, CEO, Kochi Smart City
- Heritage Restoration and Redevelopment of St. Lukes Church, Srinagar – Mr. Iftikhaar Kakroo, Chief Engineer, Srinagar Smart City

Theme: Data and Technology (10 minutes per city presentation)

- Integrated Command Control Centre in Bhopal – Ms. Divya Pillai, Consultant-PwC, Bhopal Smart City
- Integrated Command Control Centre in Surat – Mr. Jigar Patel, Surat Smart City

Theme: Climate Change and Resilient Cities (10 minutes per city presentation)

- Carbon-credit Aggregator model, Indore – Mr. Rishav Gupta, CEO, Indore Smart City
- Green-future solutions Roof-top in Dharamshala – Mr. Sanjeev Saini, General Manager, Dharamshala Smart City

Few snapshots of the presentations from the Smart Cities is as follows:

The slide displays a screenshot of a command and control center interface titled "Command and Control Center Operations". The interface includes a green button labeled "Bus Operations" and a logo for "Smart Cities and Academia Towards Action and Research (SAAR) Peer Learning Workshop (2022-03-03 21:49 ...)".

The main screen shows two horizontal timelines for bus routes. Each timeline displays bus stops, current location, and status (e.g., Abnormal, On Track, Delayed). The top timeline is for route 11, and the bottom timeline is for route 12. Each route has a corresponding legend for bus types and colors.

Below the timelines, there are sections for "Real Time Bus operations" and "Bus Monitoring". The "Bus Monitoring" section includes tabs for "Bus Health", "Bus Schedule Adherence", "Bus Route Status", "Bus Alert", and "Bus Log".

A large video window on the right side of the slide shows a person in a blue shirt sitting at a desk in a control room, monitoring the system. The video window has a caption that reads "Formation Systems Smart City Center".

A screenshot of a video player showing a presentation slide. The slide features a large image of a modern residential complex with multiple apartment buildings and a paved walkway. To the right of the image is the CSML logo, which consists of a stylized orange and yellow graphic above the letters "CSML". Below the logo is the text "CITY SCIENCE & MANAGEMENT LEARNER'S LEADERSHIP". In the bottom right corner of the slide, there is a small video window showing a man with glasses and a beard, wearing a light-colored shirt, looking towards the camera. The video player interface at the bottom includes a play button, volume icon, time indicator (48:40 / 3:52:27), and other control icons.

Smart Cities and Academia Towards Action and Research (SAAR) Peer Learning Workshop (2022-03-03 21:49 ...

ICCC Revenue Generation Model

Way Forward Plan

Integrated Command and Control Center Components to be utilized as Revenue Generating Resources

Common Cloud and Server Infrastructure	City Application Integration to ICCC IoT Platform	City Application Development and Hosting at ICCC	ICCC Infrastructure Optimum Usage	ICCC as a Service
<ul style="list-style-type: none"> Hosting of City Applications on Local Server Infrastructure - Provisioning of services conforming to relevant security standards - Adoption of IaaS (Infrastructure as a Service) Model 	<ul style="list-style-type: none"> AI and Sensor based Monitoring Analytics (Dashboard Information) Surveillance and observe - Command and Control by the concerned Authorities Provision of Supervisory Mobile App for field liaison offices 	<ul style="list-style-type: none"> Web / Mobile Application development - Cloud/Server Hosting - Security Standards - Data Analytics - Reporting 	<ul style="list-style-type: none"> - Helpdesk Setup - Standard Operating Procedures and Manuals - Capacity Building 	<p>ICCC can be utilized for Central Surveillance and Monitoring of gatherings and events such as Bhojpuri, Raja, Mela, Pongal, Booths during Elections etc.</p>
<p>End to end management for leveraging the Integrated Command and Control Center for delivering infrastructure and services while adopting well defined standards and procedures</p> <p>Managing Public Safety in your areas View details Site</p>				

II 1:09:22 / 3:52:27

Speaker: Dr. Shyamala Rani

A screenshot of a Microsoft PowerPoint presentation titled "BSCDCL". The slide features a large graphic on the left composed of overlapping geometric shapes in grey, green, purple, yellow, and blue. To the right of the graphic, the text "BHOPAL SMART CITY DEVELOPMENT CORPORATION LIMITED (BSCDCL)" is displayed in white. Below this, the section "Project Details" is visible. The top of the slide shows the Microsoft ribbon menu and various presentation tools. The taskbar at the bottom includes icons for File, Home, Insert, Design, Animations, Slide Show, Review, and Help, along with the Windows Start button and other pinned application icons.

CARBON CREDITS – OPPORTUNITIES AND BENEFITS

- Additional Source of Revenue with no additional Capital Investments
- Carbon Credits proceeds act as Carbon Financing to the Projects (that contribute to emission reductions) which can be used to reduce the net project costs.
- Source of Earning Foreign Exchange
- Improve goodwill and international reputation for pursuing innovative initiatives that contribute to cleaner planet

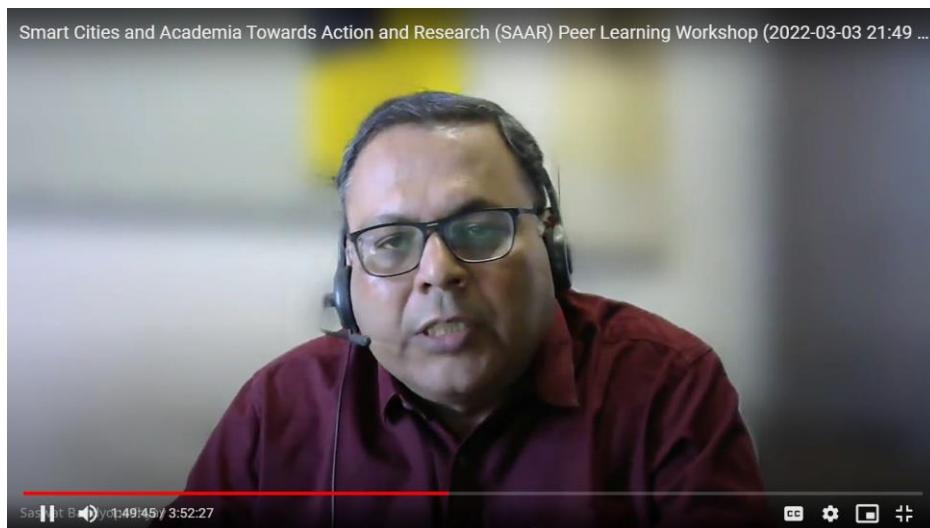
INDORE
Smart City

INDORE SMART CITY DEVELOPMENT LIMITED
Smart City is tomorrow, and today is now

1:24:28 / 3:52:27

c. Discussion with CEO Smart Cities and SAAR League (Institutes and Students) moderated by Prof. Saswat Bandopadhyay, CEPT University

The last session of the workshop was an interactive session with the Chief Executive Officers and Officials from the Smart Cities and SAAR participants. The session was moderated by **Prof. Saswat Bandopadhyay from CEPT University.**



Prof. Saswat Bandopadhyay, CEPT University, Ahmedabad explaining about the session during the workshop

The discussion in this session was based on the following questions:

1. What are the three most unique features of your SMART City project? And why do you consider this project as "unique"?
2. What do you think are the key Impacts (such as Physical/Social/economic/ecological/cultural or any other) of your project?
3. If you are to do this project again, which are the 2-3 main areas you would like to improve or modify?
4. Your comments on SAAR- what are the key advantages of this initiative and your message for the SAAR participants?

A video thumbnail showing a person in a meeting room with a wooden wall and a sign that says "INDORE Smart City". The video player interface at the bottom shows a progress bar at 1:53:03 / 3:52:27, volume controls, and other video controls. A message at the top left says "meet.google.com is sharing your screen. Stop sharing".

The discussion from the participants has been summarized in the following points as given below:

1. **Mr. Rishav Gupta** discussed that the Smart Cities Mission is a boon for urban development in India. The three unique features of this project includes: the Area-Based Development (ABD) approach for the cities, the untied funding structure of the Mission, and less interference from the higher-level officials in the Mission projects. Indore has done commendable work under the Smart Cities Mission. There are other projects such as Rajwada Heritage Restoration and Redevelopment, Redevelopment of Chappan-Dukan, Smart Traffic, Solid Waste Management in Indore in which commendable work has been done.
2. **Dr. Rahul Tiwari** highlighted that the Integrated Command Control Centres (ICCC) are important projects especially in the case of Madhya Pradesh. Hence, the ICCCs in the state require awareness generation in relation to their unique features, applications, and revenue generation model. In continuation to the ICCCs, **Dr. Priyanjali** stressed upon developing a revenue generation model from the ICCCs.
3. One of the students from Jamia Millia Islamia University-Delhi, briefed upon their site visit to Chandigarh Smart City. The students shared their field experience of working on the bike-sharing project in Chandigarh. **Mr. Arun, Nodal Officer** for the project from **Chandigarh Smart City** highlighted upon the challenges related to the bike-sharing project. He discussed that this particular project is a PPP project. However, the project is facing the issues of financing especially due to COVID. At present, Chandigarh Smart City is looking into other channels of funding for the bike-sharing project.
4. **Dr. Nisar Khan, Associate Professor, Jamia Millia Islamia-New Delhi**, discussed about the site visit of the students from Jamia Millia Islamia to Srinagar. He highlighted upon the authenticity of the St. Lukes Church project in Srinagar Smart City. Mr. Iftikhaar Kakroo from Srinagar Smart City remarked that the project has been restored with a focus upon the native architectural design of the city.
5. **Dr. Yogesh Bhardwaj, Associate Professor, Jamia Millia Islamia-New Delhi**, discussed about the legacy of e-waste project in Chandigarh Smart City. He highlighted upon managing the water contamination around the city due to the project. It was discussed that a leachate treatment plant has been set-up in the city to treat the wastewater and ensure that the surrounding areas are not polluted.
6. **Dr. Hina Zia, Professor, Jamia Millia Islamia-New Delhi**, discussed about the capacity building initiatives undertaken for the stakeholders involved in ICC projects. She highlighted that ICCCs are cloud-based system hence data security issues need to be handled, and there is a need to now develop a revenue generation model from the ICC projects under Smart Cities.

After the discussion, **Prof. Saswat Bandopadhyay** briefly summarized the discussion points. He remarked that the presentations in the workshop presented a unique learnings for the students. He concluded that ICCCs are significant projects under the Smart Cities Mission. It is important to ensure

that data security issues in the projects, and generating awareness and building the capacities of the officials for ICCCs is important for the efficient working of the ICCC. Heritage conservation is an integral part to restore the culture of the city; it is important to bring together the efforts from heritage conservation under the SAAR programme.

As the way forward, SAAR will continue to host similar Peer to Peer learning workshops and expert input lectures for the participants of the programme. The proposed SAAR lecture series would thrive to host some of the eminent urban practitioners from various fields to share their views and experiences.

The meeting ended with a vote of thanks by Dr. Purva Sharma, NIUA.