

Report

Webinar on

“Integrated Command Control Centre (ICCC) for efficient monitoring of resources” held on 03.06.2022 @02:30 PM via VC mode.

The webinar was chaired by Smt. Archana Agrawal, IAS, Chairperson, AMDA & Member Secretary, NCR Planning Board. It included three presentations on “Integrated Command Control Centre (ICCC) for efficient monitoring of resources”.

The list of speakers included:

- i. Dr. Sanjay Kolte, IAS, Chief Executive Officer, Pune Smart City Development Corporation Ltd. Pune, Maharashtra
- ii. Shri Devang Patel, General Manager, Surat Smart City Development Ltd. Surat, Gujarat
- iii. Shri Kamaljit Das, OAS, General Manager, Bhubaneswar Smart City Ltd. & Dy. Commissioner, Bhubaneswar Municipal Corporation, Bhubaneswar, Orissa

The Chairperson welcomed all the speakers and the other participants to the webinar and it was informed to all the participants that AMDA would be organizing at least one webinar/seminar in every month henceforth and in this connection a calendar of webinar has been prepared for the entire year of 2022-23.

2. Dr. Sanjay Kolte, IAS, CEO, Pune Smart City Development Corporation Ltd. shared that Pune would be a future ready city with urban model of liveability and sustainability aspiring to match global standards by fully deploying all 24 smart city features in a “future ready” manner. The ICCC at Pune is a centralized monitoring and decision making hub for managing equipment, devices, resources and assets for smart projects in response to incident /emergency situations on a day to day basis. It is equipped with one of the most advanced dashboards providing integrated overview of the various smart features with provision of highlighting key performance indicator, alert notification, situational awareness, incident management, integrated systems monitoring, data analytics. It is also equipped to provide insight to other existing surveillance centre, Police Dept. & Disaster Management teams. It helps in effective governance by aggregating various data feeds, alert & notifications in real-time.

2.1 Impact of ICCC, Pune - GIS integration with SCADA for 24*7 Water Supply monitoring and distribution, Smart Streetlight management and operation of the complex Network of Assets and Utilities via ICCC. It helped in Citizen collaboration using PMC Care and centralized city grievance management, addressing city traffic grievances, law and order using Police Care , Traffic monitoring with peak load and travel duration notification from point to point.

2.2 Emergency Call Boxes (ECB)- Deployed at 136 strategic locations across the city allows citizens to establish audio and video communication with the Smart City Command & Control Centre in case of any emergency. ECB device has an in-built camera and speaker facility. In case of an emergency, a citizen can press the red button in the ECB device.

2.3 My Thela Application: A digital intervention under smart cities vocal for local initiative. It helps in making street vendors’ tracking more accessible for citizens & administration while empowering the vendors in today’s larger competitive market by bringing them on digital platform.

3. Shri Devang Patel, General Manager, Surat Smart City Development Ltd shared that ICCC is also known as SMAC center at Surat. Services integrated and monitored through SMAC center includes Integrated Transit Management System, Automatic Fair Collection System, Monitoring of SWM activity, Complaint Management System, Monitoring city operations through CCTV network, Integration with GIS, VBD health surveillance system, monitoring of SMC vehicles, property tax collection, SBM complaints and services, challan issuance for throwing garbage or spitting on road, Air Quality monitoring.

3.1 Major focus was laid on BRTS system which has a network length of 110 km. There are 12 routes out of which one is express route. There are 169 bus stations/stops, 4 depots, 3 operators and 157 buses operating presently. It is one of the largest BRT network in India. The entire BRTS and City Bus operations are monitored by SMAC center. There is electronic ticketing system in place.

3.2 The second aspect upon which emphasis was given is Solid Waste Management sector. It was informed that smart SWM system has been installed. It includes tagging of GPS and RFID tagged SWM vehicles, at transfer stations integrated solutions like CCTV camera, RFID reader, biometric device have been installed. All the activities related to it are being monitored at SMAC center. A mobile application has also been developed which is being used by ward office, sanitary inspectors etc. to make sure that the SWM vehicles pertaining to their wards are performing the assigned tasks efficiently. Real time monitoring of SWM activities are being done activity which has further helped in improving the efficiency of the system.

3.3 CCTVs have been installed across the city at various locations. Such locations are also being monitored from the SMAC centre. Road repairing and marking activities are being monitored through SMAC Center. Encroachments, water logging, repairing of manhole/chambers etc are also being monitored.

3.4 The efficient monitoring system has helped in reducing the compliance of the complaints received from 82 hours in 2017 to 42 hours in 2021.

4. Shri Kamaljit Das, OAS, General Manager, Bhubaneswar Smart City Ltd. informed that the Intelligent City Operations & Management Centre includes Smart Response & Incident Management System, Smart Tracking System, Smart Traffic Management System, Smart Governance & Smart Connect, Smart Communication Network in Bhubaneswar City.

4.1 Smart Surveillance system at ICCC includes CCTV (Fixed), CCTV (PTZ), Video Management System. Mo Bus Application has been developed as a part of Smart Tracking Management System. The application includes Automatic Vehicle Location System, Passenger Information System, Fare Collection System with ETM and Transit Management System.

4.2 Smart Parking Management system has been developed for monitoring activities related to parking. It includes Parking Management System Central Application, On-Street Parking with Parking Sensors & POS Machines, Multi-Level Car Parking.

4.3 He further shared that components covered under Smart Governance and Smart Connect includes E Governance, E Office and Document Management System, Digital Kiosks, Solid Waste Management System, Education and Health Care Management

4.4 Smart communications network includes Fiber Optic Infrastructure including Network Electronics (FOINE), City Wide Wi-Fi, Environmental Monitoring System (EMS).

4.5 Smart Traffic Management System at ICCC, Bhubaneswar includes Traffic Violation Detection System (TVDS), Automatic Traffic Counter and Classifier (ATCC), Public Address System, Dynamic Message Sign, Traffic Accident Recording System, E-Challan System.

5. The presentations were followed by Question and Answer Session.

The Chairperson, AMDA enquired the following:

i. From CEO, Pune Smart City Development Corporation Ltd.:

- a. How does SCADA system work?
- b. How good are Environment Sensors? Do they reflect real time data?
- c. Are the Emergency Call Boxes connected with Dial 100? If there are 20 calls, what is the percentage of disposal?
- d. Further details on 'My Thela' Application was also pointed out.
- e. What is the Capex. [*Capital expenditure*] and Opex. [*Operational expenditure*] of ICCC?
- f. Whether a system automatically monitors Traffic system?

ii. From General Manager, Surat Smart City Development Ltd:

- a. What were the challenges related to BRTS? How does those challenges were overcome?
- b. SWM Software - How it was managed?
- c. What MIS inputs come daily at CEO level?

iii. From General Manager, Bhubaneswar Smart City Ltd.

- a. How did Fibre Optics network of 680 km was managed? What was the cost? How did they select the vendor? Opex. of it? Quality of it?
- b. Cost of Digital Kiosks? Ballpark cost?
- c. Can the facilities available at digital kiosks be accessed from home?

In response to the enquiries, the CEO, Pune Smart City Development Corporation Ltd. replied as below;

- Mera Thela Application – Customers can enter their details and credentials. GIS based tracking is available to know the location of the vendors. Vendors have been mapped as per their address. Only those vendors who are registered with ULB are considered. Digital payment facilities are linked with this application. This application has been developed by private vendor, for the organization. MoHUA has assigned the development and implementation part to the organization. Rs. 14 lakhs was the expenditure in developing it.
- Water 24/7 project is being done in collaboration with Pune Municipal Corporation. A total of 6 tenders are involved in it. More than Rs. 3000 Cr is the total outlay, out of this, Smart City shared Rs. 165 Crores. Major functions of the organization related to this project includes provision of smart meters and smart pipelines. SCADA would help in monitoring each water meter. SCADA would involve remote terminal units. Field sensors will be available to monitor the meters from remote locations. Real time information will be collected which will help in traceability of the faults, if any. Performance data of each instrument will also be checked through this so as to verify the quality aspects. This system would also lead to a decrease in the downtime.

Chairperson, AMDA requested CEO to share SLA (Service Level Agreement) related to SCADA with AMDA so that it may be shared with other organizations and further they may replicated in line with local needs.

- Establishment of ICCC was through smart city mission funds. 50% from GOI, 25% from State Government and 25% from local bodies. The total cost of this project was

Rs. 155 Cr. (approx.) Capex. was Rs. 61 Cr. and 91 Cr was the Opex. part. The Opex. period is for 5 years. 'L&T Smart world solutions' is the vendor.

- Environmental Sensors cost around Rs. 1.2 Lakhs each. The data is being monitored at ICCC. Example: Vaikunthdham at Pune – Difference in air quality was observed through efficient monitoring.
- EV is also another project which is going to be implemented shortly.
- ECB – Initially 1500 messages were received on an average per month. During Post Pandemic period 500-600 messages are being received per month.
- Vehicle detectors are available. It can sense the type and number of the vehicles on the road. In case of breakdown, VMDs detect the same. An integrated system is not yet available.

The General Manager, Surat Smart City Development Ltd, replied that for popularizing BRTS network, the following steps were helpful:

- For making the BRT network success, Town Planning Dept. / Schemes have helped as sufficient width was available to accommodate the BRT lanes along with regular vehicular traffic.
- The routes with highest potential were identified
- Along with BRT in 2014, IT based applications were also installed to ensure that the systems are effectively monitored.
- The Automatic Fare Collection system was implemented. To popularize this system , 'Surat Money Card' was introduced. It is a RuPay card. It is a pre paid card and it enables step in and step out process. Journey can be done through tap in and tap out process.
- Mobile applications are available for issuance of tickets. It helps in generating QR code based tickets.
- There is a single ticket system in place.
- Surat Money card can be used in BRT buses as well as city buses. It is an open loop RuPay based card. It can be used at malls, grocery shops etc. also. This card can also be used for library membership card. Hence, this single card can be used to avail various municipal services.

The tendering of SWM software was done. The cost of the solution including hardware was Rs. 1.20 Cr. The solution is quiet useful.

- In line with MIS information it is mainly about the pendency with regard to the officers, weekly monitoring of ongoing tasks and projects utilizing the project management system, monitoring of aspects related to Property Tax Collections is done.

The Chairperson, AMDA requested to share SLA (Service Line Agreement) related to SWM software so that it may be used by other organizations and further they may replicated in line with local needs

General Manager, Bhubaneswar Smart City Ltd., replied,

- For communication tracks, around Rs. 170 Cr was spent. Out of this, Rs. 149 Cr for Capex and Rs. 30 Cr. for Opex., which will span for 7 years. It took almost 18 months to lay 680 kms of optical fibre cables. Honeywell Automation India Ltd. implemented the OFC at site. Monitoring in relation to laying of fibre cables is done on monthly basis at GM level and at CEO level it is done after every 2 months. Monetizing of the system has been done. Last year around Rs. 6 Cr of income was generated. The Stakeholders include mainly cable operators, private operators and BSNL.
- For 75 Digital Kiosks about Rs. 8.5 Cr. was spent out of which Rs. 6.28 Cr. is spent on Capex. and Rs. 2.31 Cr. is meant for Opex.
- An application called 'Bhubaneswar ME' is available. It provides 100 services from 16 departments. This is a web based as well as mobile based application. Through this facility, people at Digital Kiosks can also be accessed.
- Bhubaneswar Municipal Corporation has collected Rs. 94 Cr. of holding tax during 2021-2022. Out of this, Rs. 64 Cr. were collected through online method.

Finally, Shri Mr. Rama Rao, from Kakinada Smart City has stated that – IUDX is a platform for urban data exchange. Tecsidel Company can monitor all the toll plazas and further provide data related to vehicles heat, height, weight of trucks etc. Such aspects should be integrated with ICCC. Such integration would help in reducing a lot of road accidents.

Chairperson instructed AMDA to contact with Mr. Rama Rao and get the details about Tecsidel Company who provide information/data related to logistics.

6. The webinar received good response with **participation of more than 50 officials** of Municipal Authorities, Development Authorities and officials from Smart Cities etc. from across India viz. officials from Greater Cochin Development Authority, Bangalore Development Authority, MMRDA, Bhagalpur Smart City, Patna Smart City, Indore Smart city, Kakinada Smart City, Nellor Municipal Corporation, Salem Municipal Corporation, Sangli Municipal Corporation, Chennai Metropolitan Development Authority, Rajpur Sonarpur Municipality, Rajkot Urban Development Authority, Ahmedabad Municipal Corporation, Chennai Smart City Ltd., Tiruppur Smart City, Trichy City Corporation, Ujjain Smart City, Haryana Shehri Vikas Pradhikaran, Pimpri Chinchwad Municipal Corporation etc. had attended.

The Chairperson, AMDA congratulated all the speakers for the excellent work they are being doing in their respective cities. She also suggested that sharing the copy of contract agreement and tender documents executed as part of the project may be shared with AMDA for dissemination to other municipalities and development authorities of other cities.

Director, AMDA ended the webinar with a formal Vote of Thanks.