

EXECUTIVE SUMMARY

SMART CITY JALANDHAR

Smart City

Learn more Connect

We Provide:

- Big Data**
- Automation**
- Smart Home**
- Internet Of Things**

The infographic features a central illustration of a smart city with various icons representing technology, infrastructure, and services. Below the illustration, there are four circular icons representing different smart city services: Big Data (bar charts), Automation (robot), Smart Home (house with smart devices), and Internet Of Things (globe with network lines). Each icon is accompanied by a title and a short paragraph of placeholder text.

ANNEXURE 3

CITY VISION:

“Healthy & Productive Jalandhar: The leading sports & manufacturing hub in Asia”

CITIZEN ENGAGEMENT:

Public Consultation	<ul style="list-style-type: none">▪ Citizen Participation: ~ 3,77,000 (~41% of the Jalandhar City Population)▪ Participation through Seminar/Workshop : ~ 39,482
Live Talk Shows	<ul style="list-style-type: none">• One live talk show at Doordarshan Channel• Road Shows – 10 in numbers• FM talks – 2. In addition there were regular announcements on FM radio channels to engage people in the decision making process.
Stakeholder Consultation	<ul style="list-style-type: none">• Focused Group discussions with Academia, architects, Hoteliers, Bar Associations, Builders, , Councillors, Sport Industrialists 117 Participants
MyGov	2693 + Suggestions and 93 Entries in city Logo competition. Jalandhar City Logo finalised
Suggestion via email	Directly to corporation – 81 e-mails
Social Media	<ul style="list-style-type: none">▪ Face Book Likes – 3469▪ You Tube – 1931
Written Suggestions	50,000+ Suggestion Forms circulated among the citizens, 17787 + suggestions received

PAN CITY DEVELOPMENT (to be implemented throughout the City):

- **Smart City Bus System (SCBS)**
 - i. High Quality CNG AC & Non AC Low floor Standard size and Midi buses with disabled friendly wider doors, on-board cameras & GPS.
 - ii. AVLS, real time passenger information system on-bus and bus-stops through LED display to give route info
 - iii. Central control room linked to bus stops and buses to receive, analyse, store, convey and use for operations
 - iv. Hand held electronic ticketing machine for on-board fare collection, smart cards including passes
 - v. Upgraded, well-lit and differently-abled friendly bus stops at 400 mm floor height for seamless boarding- alighting

- vi. City bus routes (13 nos) covering entire city
- vii. Signals upgradation to modern vehicle actuated signals, compatible with ATCS system, pelican signals near high pedestrian activity

- **Integrated Technology Solution for Public Utility and Public Safety (ITSPUPS)**

Public Utility

- i. SCADA & Predictive Analysis for water & sewerage utilities
- ii. Decision Support System with consolidated view of water network via schematics
- iii. Data Analytics using data from across the Water & Sewage Network
- iv. Real-time monitoring of utility meter readers
- v. Smart Billing & Collection
- vi. Leakage sensors/Ghost Pipe detection systems
- vii. Sensor in Sewer Line Infrastructure

Public Safety

- i. Cameras & sensors at vulnerable locations including fixed cameras (Full HD), PAN tilt zoom cameras (PTZ), ANPR Cameras and Panic Buttons
- ii. Command & control center equipped with predictive analysis, workflow planner, social media Integration, collaborative monitoring, video management & video analytics tools, Public Addressing System
- iii. Computer aided dispatch (CAD) with Dial-100 (accessing Police in emergency)
- iv. ICT system to regulate traffic, enable expeditious emergency & Disaster Response by integrating various Fire & Health Dept.
- v. Installation of Smart poles at vulnerable locations with Wi-Fi capability , LED
- vi. lights, Cameras.

ICT based LED Street Lighting (LSL) Management

- i. 81000 Sodium vapors street lights with LED lights equipped with photo sensors, wireless sensors & microcontrollers for enabling automatic ON/OFF

AREA BASED DEVELOPMENT (to be implemented in selected area):

- **Area Selected:**

Burlton Park & Adjoining Area - Population (73,260) – Area (1010 acres)

- **Components of proposed Area Based Development**

- i. Sports Hub (REDEVELOPMENT IN AN AREA OF 63 ACRES) consisting of multipurpose stadium, fields and spaces, energy efficient structures for the training academies, sports rehabilitation and education centres, commercial trade facilitation for sports goods and hospitality and leisure venues. (LEED certified, ASHRAE Certified)
- ii. Develop a comprehensive green network of spaces (36 acres) and NMT routes (24 kms)that will function as both well lit pedestrian and cycling routes with good quality public realm, and soft-scape areas for rainwater recharge and storage.
- iii. Environmental protection and aesthetic development through Canal area rejuvenation, making it a walking and cycling green space of 4.8 km length with new street furniture and planters
- iv. Provision of pedestrian ramps, railings for safety of specially-abled and elderly along canal road and organized commercial areas
- v. Establishment of a Skill Development Center
- vi. Comprehensive traffic mobility plan that includes new bus routes, broad pavements for pedestrians, at grade crossings, and cycle tracks along the main routes.
- vii. Underground utility ducts on all roads (80 kms)
- viii. Replace 41 water pumps with energy efficient pumps & replacing 65kms of water lines.
- ix. Install 10,000 Automated Metered Readers (AMR) and 2 RFID for volumetric based smart billing & collection system and SCADA in water supply
- x. Construction of 10 overhead storage reservoirs to ensure 24X7 water supply

- xi. Installation of 50 kms of dual piping system for STP's treated wastewater reuse.
- xii. Replace old 15 kms sewer lines and install E-Sensors (man-holes) and SCADA system
- xiii. 100% coverage of Storm Water drainage system through new drains
- xiv. Pumpsets to drain water from low lying area and construction of 20 Recharge Wells
- xv. Introduction of Smart poles at strategic locations with a provision for a) Wifi b) LED lighting c) Camera & Sensors. 100% replacement of existing 5000 street lights with LED.
- xvi. Underground electrical cabling and 100% coverage of properties through Smart Meters.
- xvii. Door-to-door collection of segregated MSW, creating a complaint redressal system, GPS tracking system for MSW vehicles, secondary collection points with dumpers bins
- xviii. Installation of CCTVs at for video surveillance system (video crime monitoring)
- xix. Introduction of E-Rickshaw to arrest air pollution caused due to diesel based IPT services.
- xx. Provision of dedicated E-Rickshaw stands and create "Dial a Rickshaw and App based personalized rickshaw booking through mobile phones
- xxi. Dedicated Grade Separated U-turn on Hansraj Marg for Burlton Park Sports Complex
- xxii. Redevelopment of Slums (767 Households) under PPP Format
- xxiii. Provision of Smart Class room in Government Schools
- xxiv.** Establishing Roof top solar infrastructure on Institutional area (1,49,564 sq mt) to meet energy demand from renewable sources.
- xxv.** 100% area to be covered under Piped Natural Gas network

FINANCIAL PLAN:

The total estimated cost of the proposed projects including CAPEX & OPEX has been prepared to the tune of **Rs.3431.39 Cr.**

A. CAPEX

S. No.	Components	Estimated Cost (Rs. in Cr.)
A.	Pan City Projects	465.11
1.	Public Transportation	134.11
	a. Buses – Rs.55.30 Cr.	53.30
	b. Depot & Bus Shelters	32.15
	c. Intelligent Transportation System (ITS) & Advance Traffic Control System (ATCS) Infrastructure	27.92
	d. Miscellaneous	5.51
	e. DPR & PMC	6.00
	f. CNG Distribution	9.23
2.	Integrated Technology Solution for Public Utility & Public Safety (ITSPUPS)	190.75
	a. Cameras, Servers and Command & Control Room	152.49
	b. ITS Support for Public Utilities	30.60
	c. DPR & PMC Cost	7.66
3.	LED Street Lighting	140.25
B.	Area Based Development Projects	1519.40
1.	Area Development – Burlton Park Area (Retrofitting) & Gas Distribution	952.27
	a. Water, Waste Water, Power & Utility Ducting	262.51
	b. Area Improvement	128.03

S. No.	Components	Estimated Cost (Rs. in Cr.)
	c. Traffic Circulation & Pedestrian Facilities	246.92
	d. Roof Top Solar Power	197.44
	e. Gas Distribution (PNG)	32.64
	f. Social Interventions	40.50
	g. DPR & PMC Cost	44.23
2.	Burlton Park Sports Hub (Redevelopment)	567.13
	a. Stadium Cost	148.40
	b. Support Infrastructure	24.21
	c. International Swimming Pool	4.55
	d. Multi Level Car Parking (MLCP)	32.56
	e. Arena & Hotel	329.30
	f. Miscellaneous	17.09
	g. DPR & PMC Cost	11.01
	Grand Total (A+B)	1984.51 Cr.

B. OPEX

i.	PAN City Projects	Rs.629.94 Cr.
ii.	Area Based Projects	Rs.816.94 Cr.
	Total O&M (for 10 years)	Rs.1446.88 Cr.

Total Project Cost (CAPEX + OPEX): INR 3431.39 Cr

RESOURCE PLAN:

The financing options for the components identified under the SCP Jalandhar are planned considering the capital available from the GoI & GoP and will be made available for the period of 5

years. Different sources of funding which can be used to fund SCP Jalandhar are:

Funding (Inflow):

Sr.No.	Fund Source (@ 5 Years)	Rs. in Crore
A.	GoI & GoP Funding - SCM	988.00
1.	Centre funding	488.00
2.	State Funding	500.00
B.	Funding Through Central & State Govt. Schemes	786.19
1.	Atal Mission for Rejuvenation & Urban Transport (AMRUT) (<i>GoI - 1/3rd Share + GoP - 2/3rd Share</i>)	539.83
2.	MNRE Subsidy for Solar	59.74
3.	Support through Govt/PSU Company projects (City Based Gas Distribution, Department of Sports, LED Streetlight Project)	186.62
C.	PPP Revenue	551.17
D.	Debt	108.42
	Total (A+B+C)	2433.78