

## Smart Cities Perspective of India

### An approach to identify various methods for Smart City

#### Author 1

Prof. Sonali Borate,

*Priyadarshini Institute of Architecture and Design Studies,*

*Priyadarshini Campus, Near CRPF, Hingna Road, Nagpur, Maharashtra*

#### Author 2

Prof. Pratiksha Misal,

*Priyadarshini Institute of Architecture and Design Studies,*

*Priyadarshini Campus, Near CRPF, Hingna Road, Nagpur, Maharashtra*

#### Author 3

Prof. Neha Chourasia,

*Priyadarshini Institute of Architecture and Design Studies,*

*Priyadarshini Campus, Near CRPF, Hingna Road, Nagpur, Maharashtra*

#### Abstract

Smart City Concept will be varying from person to person, as some people think that smart means a technically advanced city and some may think of the city for the people by the people with social interaction.

A **smart city** is an urban development vision to integrate multiple information and communication technology (ICT) and Internet of Things (IoT) solutions in a secure fashion to manage a **city's** assets – the **city's** assets include, but are not limited to, local departments' information systems, schools, libraries, etc.,

An ideal smart city stands for three S i.e. Safe, Secure and Social. The rapid technical growth of the city is directly affecting quality of life in terms of time and health management, social life. Quality of life could be enhanced by Essential Elements of City by Kevin Lynch we could be beneficial in the process to enhance the beauty/image of city.

Enhancing the essential elements of the city plays a very important role by creating social interaction spaces, by spreading more and more social awareness messages, and social events, where public would be directly involved to make events successful and participate to beautify their own city.

SMART can be defined from our point of view as follows-

S – Social

M- Management

A – Availability

R- Reduce, Reuse and Recycled

T- Time

Keywords – Quality of life, Essential elements and interactive spaces.

#### Introduction

An ideal smart city is the safe, secure, environmentally green and efficient urban centre of the future and it also includes Smart infrastructure, governance, buildings, Energy, Mobility and Quality of Life.

We are focusing on Quality of life as the Nagpur City is developing as Metro City. There is more and more Urban Insertion in city like Metro Rail, IT Parks, Road Development, MIHAN Project, Township etc. All these physical infrastructure developing in city and growing economically is directly affecting the quality of life.

Quality of life is the general well being of individual and society outlining the positive features of life. It observes life satisfaction

including everything from physical health, family, religious beliefs and social interaction. As an Architect we need to focus on social quality of life and it will be achieved by Essential elements of city by Kevin Lynch.

We are analysing Nagpur in context to essential elements of a city. It is the third largest city of Maharashtra and also the winter capital of the state. Nagpur is the second capital of Maharashtra and is located in the geo-graphical centre of India with good roads and rail networks. Also known as the **Orange City of India** as it is a major trade centre for oranges grown in this region.

According to our perception SMART can also be defined as-

S – Social

M- Management

A – Availability

R- Reduce, Reuse and Recycled

T- Time

Social – Life must be enhanced.

The basic growth of human beings is co related with social interaction. Social based interaction can be happened through Facebook, whatsapp, tweet, instagram etc. The change of age group required a different spaces like kids required garden, parks for playing activity, young generation required urban spaces like malls, urban plazas and elderly people required space like meditation centre, temples, parks and garden.

Management – Balancing activities.

The process of dealing with or controlling things or people. It is very much required to manage our basic requirement of life which is basically balancing our private, social, economical and professional activities.

Availability – Technology/Material

It is rightly said that “There is no greater wealth in this World than the Peace of mind”.

R- Reduce, Reuse and Recycled

With our current consumer driven lifestyle, the volume of waste is growing every year. A helpful

way to think of environmental conservation is to think of 3R`s. Reduce, Reuse, Recycle of Products are - Plastic, Paper, Batteries, Glass, Tires and used oils.

Time - Priorities could to be set.

Quality of time must be set with your priorities such as family, friends and social responsibilities.

Methods

By following Essential Elements of City by Kevin Lynch we could be beneficial in the process to enhance the beauty of city.

- *Paths*, the streets, sidewalks, trails, and other channels in which people travel;
- *Edges*, perceived boundaries such as walls, buildings, and shorelines;
- *Districts*, relatively large sections of the city distinguished by some identity or character;
- *Nodes*, focal points, intersections or loci;
- *Landmarks*, readily identifiable objects which serve as external reference points.

*Paths*

Paths are channels along which the observer customarily, occasionally moves. They may be street, walkways, transit lines etc. and along these paths, other elements are arranged and related. Path in this case is straight road, giving it character of a contemporary planned development.

Time of India organized Happy Street Activity in 2015 which was the successful event and public enjoyed it a lot. The main aim of such activity is to gather people for interaction amongst themselves.

We could also beautify the pathways by organizing workshops/competition from experts, designers or from citizen from city. The detailing of pathway can be done such as flooring pattern, color coding of pathways and street furniture to enhance the beauty.

*Edges*

Edges are the linear elements not used or considered paths by observer. There are boundaries between two phases, linear breaks in continuity, shores, railroads They are lateral references rather than co-ordinate axes. Such edges may be barriers or more or less penetrable, which close one region from other.

Nagpur Municipal Corporation has organized a competition on wall painting. It was held on 18 December, 2016. The Length of City wall painted stretched over 40km across the city on 17 streets in all four zones of Nagpur.

This competition was all inclusive it was in two categories —

College students and

Open for all citizens of the city

Topics for the graffiti were

1. Swachh Bharat,
2. Beti Bachao Beti Padhao,
3. Digital Nagpur,
4. Smart City Nagpur,
5. Happy Nagpur,
6. Clean and Green Nagpur,
7. Save Water and
8. Sustainable Nagpur.

Analyzing this data, the nature of Completion was all inclusive people from any strata can participate;

This competition was all inclusive it was in two categories, so the end user of society of any age, religion, background could participate. The first category was college students who are future generation and open for all citizens of the city, who are actual user group of the city.

Such nature of competition gave rise to sense of belonging to city, by contributing something to city which will last for some time. (3-5 years). Making such completion a group activity induces a sense of belonging in citizens.

It increases social interactions in society and positive give and take of thoughts and formation of opinion by citizens about a new thought, technology or methodology.

So if we want to make people centric smart cities such participation in events and workshops can become a good tool in shaping our future cities.

Some of the glimpses of the wall painting competition.



Image 1:  
Showing painting on Sustainable Nagpur.

(Pic.Courtesy- Ar.Pratiksha Misal)



Image 2: Showing participants painting on Save Water theme.( Pic.Courtesy- Ar.Pratiksha Misal)

District

Medium to large sections of the city, conceived as having two dimensional extents, which the observer mentally enters 'inside of' and which are recognized as having some common identifying.

Each area/ zone must have its own character and identity. This could be achieved by building character/ typology.

Nodes

Nodes are points, the strategic spots in an area into which an observer can enter, which are the intensive foci to and from which observer is travelling..

They are primarily the junctions, places of breaks in transportations, a crossing and convergence of paths, moment of shift from one structure to other..

Nodes may be the simply concentration which gain their importance from being condensation of some use of physical character, as a street corner hangout or enclosed square.

NMC Organized Dot Junction design Competition for Architect / Civil Engineer.

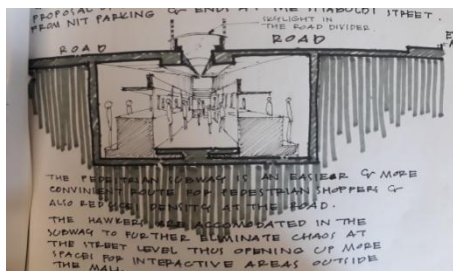


Image 3: Showing conceptual sketch of Junction design



Image 4: Showing conceptual sketch of Subway

One more such example was again by NMC where 14 artist & sculpture from different places in India were at work in process to turn scrap into artistic forms. These artists have been invited to take part in this initiative to beautifying the city. This art works from scrap undertaken for the first time in city is going to installed at various places of the city which will be iconic signature for the particular nodes/ area/ roads. This scrap art work created with theme to give social messages and to create awareness in public.



Image 5& 6: Showing Artwork from scrap

(Pic Courtesy by Ar. Himani Suchak)

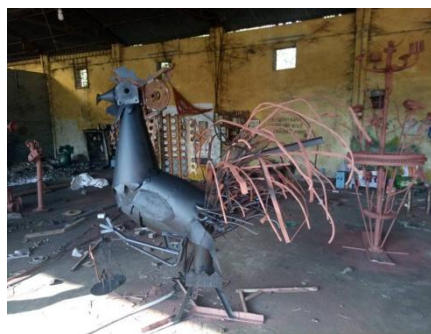


Image 7 & 8: Showing Artwork from scrap

(Pic Courtesy by Ar. Himani Suchak)

### Landmark

Another type of point of reference. They are usually a rather than simply defined the physical objects like buildings etc. Their use involves the signaling out one of element from the host of possibilities.

### Conclusion

Enhancing these essential elements of the city by creating social interaction spaces, by spreading more and more social awareness messages, and social events.

This is an effort to study that how transition is possible from objective measures of smartness to an intangible entity of wellbeing.

Smartness should be both the citizen and the public administration which must build a true dialogue with people. A smart city is above all inclusive, meaning the ability and opportunity for everyone to be an active citizen.

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