Data as a Resource for Government & Institutions

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In Government, Location is never an Afterthought
GIS is recognized as a Foundational System

GIS supports all aspects of government
Smart City Varanasi’s efforts of using Data as a source of Governance

### Spatial GIS Layers
- Created from different Surveys
- Boundary
- Public Services
- Religious places
- Education Services
- Health services
- Tourism
- Creation
- Transportation
- Water Bodies
- Sewage Drainage
- Surveillance

### GIS layers integrated with API of Sensors for Big data analytics
- Solid waste Management
- Pollution
- Safety
- Traffic control

### Open Data Hubs for Data Collaboration and Sharing
- Apps
- Thematic Maps
- International Apps
- Crowd Sourcing Apps
- Story Sharing
- Business Applications
- Open Data
- Creating Web Maps
- Education
- App Development Training
- Change Detection App
- Multi Media Integration

### 3D Data of Cities an effort towards Digital Twin
- Vertical Landuses
- Density analysis
- Location of New Project
- Location of Street Lights
- Live Traffic
- Green Space Analysis
- 3D sewer
- Citizen’s Response Workflow
Spatial Data for Citizen’s and departments information

- Multiple Layers of Information to support Citizen’s locational requirement
- Common set of Base Maps for departments to collaborate and take decisions.
- Spatial Information for operation efficiency and provide efficient citizen services.
- Reduce Business Process through spatial information

Utility Lines
Surveillance Cameras in the city
Water Utility
Features on surface
Street Lights
Integrated APIs for Real Time Decision Making

- Smart Sensors are integrated with GIS for Real time Information
- e.g. It helps to optimise resources like Waste Collection Routes formation based on fill status of bins. Deployment of Traffic police based on status of working of street lights
- It helps operational Decision Making
- It Helps GIS based analysis like sink areas of pollution based on Sensor data.
Kashi-GeoHub
Contents

• Information – Static and Dynamic
• Best Practices: like Disabled friendly cities
• Geo-Spatial Applications
• Hackathon
• Crowd Sourcing Applications to drive citizen’s initiative for different missions
• Global Applications
• Explore Data under different Heads
• APIs for Developers
• Developer’s environment:
  • Browsing Map Gallery
  • Create your own Map
  • Developer support
  • Training Support
  • GITHUB code gallery
• Learning Resources
• Kashi Dham Project (a sample of project demonstration)
• FAQ for people
• Partners and Data Associates
• Tweets

www.kashigeohub.org
Geo-hub Stakeholders

- Administrators can collaborate for Decision Making
- Business People may download data and use it for customer analysis of different types
- Startups may download GIS APIs and Non GIS APIs for Making Apps of Different types for market places.
- Academia and research may use the GIS Maps for different study purposes.
- Citizens can give opinions and feedbacks via survey or initiative
- NGOs can run initiatives to collect data, do analysis and take actions based on data.
Story of Disable friendly cities on Kashi Geo-hub
• Geographic Information Science (GIS) offers powerful tools for performing detailed analysis of spatial information and solving complex problems.

• Traditional GIS data is based on mapping in two dimensions, an x and y-value, which can be limiting in some applications. Like in 2D you mention a space as school or Hospital, but when you visualize it in 3D, it gives a possible perspective of services it may offer.

• Utilizing 3D GIS software lets users engage with data from a whole new perspective that results in more nuanced insights and detailed visualizations.

• One can visualize above ground, on Ground and Below the ground geographical entities with a 3D relationship.
Location of New Projects in Smart City

Building Density

Citizen’s opinion in 3D

Street Lights in 3D with buffer to show coverage
Thank You...

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