

#### Birla Institute Of Technology Mesra, Ranchi (India)- 835215



My internship was within the Centre for Digital Governance (CDG) Team for the National Urban Digital Mission. I was part of the Urban Platform for deliverY of Online Governance (UPYOG) programme, an effort to digitize and improve the Urban Service Delivery by ULBs across India.

I was tasked with the Research for a GIS based Property Tax System to enhance the property tax module offered under UPYOG. I reviewed the online platforms, recommended changes in the implementation guidelines for the module and standards for the Property Tax Database. I also conducted discussion sessions with the GIS Companies, Experts, Fellows and proposed suitable cost models for project implementation.

My engagement with NIUA provided me with valuable insights about the future of Digital Governance.



Apurva Gupta Masters of Urban Planning (2021-2023)

# NIUA

National Institute Of Urban Affairs

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Birla Institute Of Technology Mesra, Ranchi (India)- 835215

Course Code: AR711

Course: Training Viva

Name : Apurva Gupta Roll No : MUP/10015/21

Project Name: GIS based Property Tax System for all ULBs

Project Brief

Enhancing UPYOG Property Tax module and GIS Model options for implementing a GIS based online property tax collection system across India.

#### **Tasks Asssigned**

 Research (Case Studies on property tax reforms, GIS mapping, cost models and tax collection websites of Smart Cities).
 Review of Issues in UPYOG backend website.
 Study of Guidelines and Framework Standards for GIS infrastructure of Smart Cities.

Meetings, Discussions
and review of Proposals
by GIS Companies for
Budget modelling.
Review of problems
associated with the
proposal and listing
framework for solutions.

#### Work Sample

SELECTING PILOT AREA		DIZITALIZING DATA		WEB GIS
ULB selection     Defining Area     Boundary     Budget     Time Frame	<ul> <li>Primary Data- GPS Survey, Door to Doo Property Tax Survey</li> <li>Secondary Data- DP Plans, Ward boundary, Tax zones, Satellite Imager (high resolution), Colony Ilius Property tax documents</li> </ul>	<ul> <li>Raster images</li> <li>Image Georeferencing (location, roads, utilities)</li> <li>Data Connection</li> </ul>	Ward Boundary     Propertyl Plot     Boundary     Building/ Plinth Area,     Build Up Area     Land Use     Property Tax map     according to tax rate	Geodata base Creation     Data Integration with Property tax     Unique Property ID allotment     Verification and Medification.     Web maps, layers, apps     Portals

Pitch Presentations: Steps to Onboard Stares for GIS Implmentation

Categorising States or ULBs according to factors (progress, finance availability)	<ul> <li>Issue specific conduction of study or comparison of handful of selected States/ ULBs</li> <li>According to Data Availability</li> </ul>	Diverse models for GIS     Implementation	<ul> <li>Financial cost and Time Umit</li> <li>Who conducts On-Grout Survey and Training.</li> <li>Availability of resources</li> <li>GIS Mapping of other Infrastructures? (time and cost)</li> </ul>
	ase wise categorisation (listing of ne slot for current number of UL		
• N	cal Private GIS Company (region UA develops its own GIS Applica RI India (high cost)		
	cal Private GIS Company Party to provide training and suj	pport	
	view of problems a	nd Framework for	solutions



Comparison of websites of various cities

**Key Learnings:** Through this project I studied the ground realities that ULBs face through implementation stages for GIS mapping and Online platforms for Property Tax Collection.

# Birla Institute Of Tehnology Mesra, Ranchi (India)-835215

# **INTERN'S DIARY** Summer of 2022

My internship with the National Institute of Urban Affairs' Building Accessible Safe Inclusive Indian Cities (BASIC) programme was the most fulfilling and motivating experience I've had. I connected with my teammates, team leader, fellow associates, and other interns all of whom supported my growth both directly and indirectly

During my internship, I helped to prepare the compendium's summary report and technical report. I also participated in a webinar hosted by the Inclusive City Centre (ICC), where I contributed by drafting quotations for various media channels. I was also a co-author of an article in the magazine titled "Exclusively Inclusive.



Ashwani Kumar Masters In Urban Planning (2021-2023)

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Course Code: AR711

Course:Training Viva

Name : Ashwani Kumar Roll No: MUP/10004/21

# Project name: Cities Insights Report

## Project brief

Work Sample

Cities Insights Report interlinks the drift of global urbanization and the need for adopting inclusive planning and designing approach by the cities. It is design for cities to address the barriers faced by disabilities persons with irrespective of age, gender and ability.

# **Task Assigned**

To read the complete report and prepare a summary and technical report.

# Project name:

City Audit Assessment Report: Varanasi

# **Project brief**

The report highlights the importance of adopting institutional and policy level changes which would act as key enablers for the adoption and replication of the recommendations the at grass-root level.

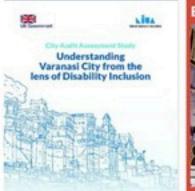
# **Task Assigned**

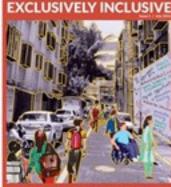
To read the complete report and prepare a summary and technical report.

Key Learning: It helped me to understand the various aspects of inclusive city planning and to learn the strategies on developing the framework for disability inclusion.













## Birla Institute Of Tehnology Mesra, Ranchi (India)-835215

# **INTERN'S DIARY** Summer of 2022

I worked with the Water & Environment Vertical of NIUA. I was majorly part of one of the draft knowledge products about Floods and Floodplain Management and I was also involved in the brainstorming stage for various capacity-building workshops on River Sensitive planning. While working on the knowledge product, I was involved in the research of best practices to support the facts and vulnerabilities of floods and floodplain management at the urban scale. The work experience at NIUA enabled me to have a handful of knowledge about the rivers in urban cities & the best practices. Moreover, it helped me to enhance my research skillsets, and knowledge about a few of the Planning Tools & Techniques, and Methodologies. The internship has encouraged me to explore various aspects of River Sensitive Urban Planning and made me enthusiastic to work on similar lines.



Krishna Verma Masters In Urban Planning (2021 - 2023)

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Course Code:AR711

Course: Training Viva

Name : Krishna Varma Roll No : MUP/10018/21

Project Name: Floods and Floodplain Management in Urban Cities : Knowledge Product **Project Brief:** 

The thought was to prepare a guide which could help identify the issues due to which the flood like situation is occurring in the urban cities, how it is making the river as well as the city and people residing in it vulnerable and deriving a common set of tools, techniques and parameters under which cities can tackle the issues at urban scale.

## Work Sample:





#### Birla Institute Of Tehnology Mesra.Ranchi(India)-835215

# **INTERN'S DIARY** Summer of 2022

I was employed with the Climate Center for Cities (C3). I worked on a World Bank-funded project that entailed gathering best practises from around the globe in categories including urban planning, nature-based solutions, infrastructure, and data and technology that guided flood resilience in a city. Finding appropriate case studies and doing graphics-based visualisation required a lot of investigation. This training experience gave me the opportunity to learn a bit about the current best Affairs(NIUA) is India's leaHding National practises being used to reduce the risk of flooding. Additionally, it enhanced my research abilities, my ability to visualize information, GIS Knowldege and it helped me understand concepts like nature-based solutions.



Manish M Nair Masters In Urban Planning (2021-2023)

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Course Code: AR711

Course:Training Viva

Work Sample

#### Name : Manish M Nair Roll No : MUP/10002/21

(2011 - 2021)

Project Name: Baseline Study for 5 Cities informing Flood Vulnerability.

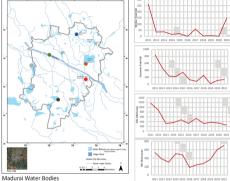
#### **Project Brief**

**Tasks Asssigned** 

City Profile.

Historic Trend of Rainfall-Seasonal Variation:

The project involves mapping the water bodies to inform the flood vulnerability of the city. Then the vulnerability and risk assessment in these cities will be undertaken and a spatial map will be developed to identify flood hotspots. - Water Body Mapping using GIS - Literature Study on Topics:Flood



Project Name: Compendium on best Practises that mitigates Flooding.

#### **Project Brief**

Work Sample

The project involves identifying some of the best interventions implemented all over the world under 5 Themes," Urban Planning, Nature Based Solution, Infrastructure, Data and Technology which mitigates the risk of Flooding

History, Factors causing Flooding.

Hydrometerological Parameter,

#### **Tasks Asssigned**

- 3D Visualization
- Literature Study on Interventions that mitigates Urban Flooding.

Key Learning: Through this Internship I got an oppurtunity to do Hand's on experience on Softwares Like GIS and learnt about various Strategies which mitigates Flooding.





## Birla Institute Of Tehnology Mesra, Ranchi (India)-835215

# **INTERN' S DIARY** Summer of 2022

did my internship with the Wastewater Intelligence Network (WIN) team at the National Institute of Urban Affairs (NIUA). During the tenure of my internship, I was tasked with research about Wastewater Based Epidemiology (WBE), and the various projects were undertaken across the world for the same as well as compiling and designing the product documents for the launch event. I was also tasked with cataloging and updating the glossary of GIS data of cities across the country on dataspace. mobi.

I feel that it was an enriching experience to be part of the program as I gained valuable technical knowledge and Affairs(NIUA) is India's leading National hands-on experience through my involvement. I also got the chance to attend meetings and discussions at the Ministry of Housing and Urban Affairs (MoHUA) which was a great opportunity to get first-hand experience of the inner workings of the ministry and the decision-makers involved.



Vishwam Chandrayan Masters In Urban Planning (2021 - 2023)

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Course Code:AR711

Course: Training Viva

What Is

Wastewater

Surveillance

Name : Vishwam Chandrayan Roll No : MUP/10010/21

Project Name: Wastewater Intelligence Network (WIN) **Project Brief** Work Sample

This program is concerned with foreseeing governance in India taking a thought-level shift backed by an on ground action from a reactive approach to a pre-emptive and proactive approach.

## **Tasks Asssigned**

- Research
  - Documentation
  - Graphic Design
  - Data Aggregation
  - Data Digitization

### Project Name: Dataspace.mobi

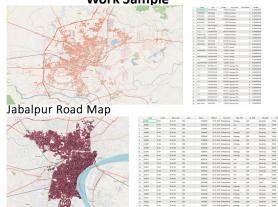
### **Project Brief**

DataSpace is a public digital infrastructure that enables democratised sharing of high quality standardized datasets among various stakeholders in the quadruple helix model -Government, citizens, academia, and industry, in a secure and controlled manner.

### **Tasks Asssigned**

- GIS Data Aggregation - Data Correction

#### Work Sample



Varanasi Street Light Locations

Key Learning: This internship gave me a glimpse of how urban planning in India is undertaken and also helped me acquire skill that will be useful throughout my career