

<b>PIUI 7008</b>	Non conventional methods of urban infrastructure creations	L	T	P	C
<b>Version 1.0</b>		3	0	0	3
<b>Pre-requisites/Exposure</b>	Graduate				
<b>Co-requisites</b>	Good Command in MS Word and MS Powerpoint				

### **Course Objectives**

- a) To be suitable to become as good entrepreneurial personal
- b) To understand regulatory framework in infrastructure in undertaking projects

### **Course Outcomes**

On completion of this course, the students will be able to

CO1: To understand the spectrum of what is Non-conventional methods of urban infrastructure creations in General

CO2: To develop the functionality of the Non-conventional infrastructure in India

CO3: To analyse and integrate the students to understand about the concepts of non- conventional infrastructure

### **Catalog Description**

This course is an education offering to the global community of infrastructure/right of way professionals. Its purpose and content plans are centered on members of the Project Team with specific emphasis to the infrastructure professional/right of way agent. This course is an introduction to industry specific disciplines. Infrastructure professionals/right of way agents who typically participate on a project team are from the following disciplines: environment, engineering/survey, appraisal, negotiation/mitigation, and relocation assistance. Law is included because it is a vital component of the infrastructure professional/right of way agent's responsibility to prepare legal documents and obtain the correct signatures of vesting property owners to ensure the document is legal and enforceable. This course provides an awareness of the disciplines involved in infrastructure/right of way projects and the importance of a team approach to the work.

---

## Course Content

---

**Unit I:** **6 lecture hours**  
Energy Conservation Act 2001, Functions of BEE in Infrastructure Thrust Areas of BEE.

**Unit II:** **6 lecture hours**  
DSM Guiding Principles, DSM Programs Eligibility Criteria, Capturing Demand Side Resources, Roles and Responsibilities of Regulators, Utility, DSM Administrative Structure under Multi- Year DSM Planning Regime, DSM Funding, Targets and Budgets, Integrated resource planning (IRP), Integrated Energy Policy, Government Notifications, BEE Initiatives, International Initiatives.

**Unit III:** **7.5 lecture hours**  
Biomass, Biofuel, Solar, Wind, Hydro, Geothermal, Tidal, Municipal Solid Waste, Baggase, Co-genco. etc.

**Unit IV:** **7.5 lecture hours**  
Indian Intelligent Building Management System, Office Space, Government buildings, Commercial office buildings, Hospitality, Residential & Retail, Residential buildings, Retail buildings, Lodging, Manufacturing Buildings, Industrial manufacturing buildings, Energy & Infrastructure, Highways, streets & bridges.

**Unit V:** **12 lecture hours**  
Energy Efficiency Trends, Energy Efficiency Indicators, Overall Energy Efficiency Performance, Industry, Transport, Household and Service Sectors, Energy Efficiency Obligations in Europe, Biofuel, Dual fuel, Hybrid, CO2 Emissions from Energy Combustion. Institutions and Programmes, Regulations, Financial Incentives, Policy Instruments for Cars Energy Efficiency.

### Text Books and Journals

- V.G.Ramachandran's Law of Land Acquisition and Compensation
- The Price of Land Acquisition Conflict Consequence
- Land Acquisition, Displacement and Resettlement in Gujarat 1947-2004
- Law of Acquisition of Land in Indi
- Commentary on the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act 2013
- Guide to New Land Acquisition Law (As amended by 2014 ordinance)

**Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination Examination Scheme:**

Components	Presentation/Assignment/Projects etc	ESE
Weightage (%)	50	50

### Relationship between the Course Outcomes (COs) and Program Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	To understand the spectrum of what is Non-conventional methods of urban infrastructure creations in General	PO 1,2, 3, 7,8,9,10, 11,14
CO2	To develop the functionality of the Non-conventional infrastructure in India	PO 1,2, 3, 8,9,10, 11, 12,13,14


<b>CO3</b>	To analyse and integrate the students to understand about the concepts of non- conventional infrastructure	PO 4,5,6, 8,7, 12,13, 14
------------	--	--------------------------------

<b>Course Outcomes</b>	<b>CO 1</b>	<b>CO 2</b>	<b>CO 3</b>
<b>PO 1</b>	3	3	3
<b>PO 2</b>	3	3	3
<b>PO 3</b>	2	3	3
<b>PO 4</b>	3	2	2
<b>PO 5</b>	2	2	2
<b>PO 6</b>	2	2	2
<b>PO 7</b>	3	3	2
<b>PO 8</b>	3	3	3
<b>PSO 9</b>	3	3	3
<b>PSO 10</b>	3	3	3
<b>PSO 11</b>	3	3	3
<b>PSO 12</b>	3	2	3
<b>PSO 13</b>	3	2	3
<b>PSO 14</b>	2	3	3

Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO 12	PO13	PO14
PIUI 7008	Non-conventional methods of urban infrastructure creations	2	3	3	2	3	2	1	1	2	1	1	1	1	3
		Students will demonstrate strong conceptual knowledge and execution in soft and hard infrastructure planning, development, management, financing, regulation and governance.	Students will demonstrate effective understanding of infrastructure planning and development, utility & energy management, urban transportation including metro rail, e-vehicle with charging and other modes of urban surface transportation, water supply and sewerage, smart city planning and effective financing urban infrastructure.	Students will demonstrate analytical skills to understand issues with remedial solutions relating to urban infrastructure. of soft and hard infrastructure	Students will exhibit the ability to integrate planning, construction & development, operation & management, financing, regulation and governance of urban infrastructure projects and facilities.	Students will exhibit the ability to integrate technical, economic, social and regulatory frameworks for urban infrastructure sector planning and resource management.	Students will exhibit deployable skills pertinent to urban hard and soft infrastructure sector and smart city development and management.	Students will be able to develop and evaluate alternate managerial choices and identify optimal solutions.	Students will demonstrate effective application capabilities of their conceptual understanding to infrastructure planning, development and management.	Students will be able to exhibit effective decision-making skills, employing analytical and critical thinking ability for planning, development and management of soft and hard infrastructure.	Students will demonstrate effective oral and written communication skills in the professional context.	Students will be able to work effectively in teams and demonstrate team-working capabilities.	Students will exhibit leadership and networking skills.	Students will demonstrate sensitivity towards ethical and moral issues and have ability to address them in the context of urban planning, development and management including cost effective financing and good governance.	Students will demonstrate employability traits in line with the needs of changing hard and soft urban infrastructure sector.

1=weakly mapped  
2= moderately mapped  
3=strongly mapped

## Model Question Paper

<b>Name:</b> <b>Enrolment No:</b>			
<p style="text-align: center;"><b>Course:</b> Non-conventional methods of urban infrastructure creations</p> <p><b>Programme:</b> MBA UISC <span style="float: right;"><b>Semester:</b> Odd</span></p> <p><b>Time:</b> 03 hrs. <span style="float: right;"><b>Max. Marks:</b>100</span></p>			
<p><b>Instructions:</b>  <b>Section A</b> (each carrying 2 marks); Attempt all questions from <b>Section B</b> (each carrying 5 marks). Any <b>Two Questions</b> from <b>Section C</b> (carrying 15 marks). Case Study <b>Section D</b> ( 30 Marks)</p>			
<b>Section A ( )</b> <b>Define the following</b>			
1	Administrator	[2]	CO1
2	Affected Family	[2]	CO1
3	Displaced family	[2]	CO2
4	Environmental Impacts.	[2]	CO2
5	Holding of the Land.	[2]	CO3
6	Environmental Aspects	[2]	CO1
7	Land Owner	[2]	CO2
8	Marginal Farmer	[2]	CO2
9	Requiring body	[2]	CO3
10	Resettlement Area	[2]	CO2
<b>SECTION B (Attempt all Questions)</b>			
11	Draw a flowchart for EIA process.	[5]	CO3
12	Write a Short note on Land pooling.	[5]	CO1
13.	How a SIA have to be prepared?	[5]	CO3
	Write down the differences between Land Acquisition Act of 1894 & LARR 2103	[5]	CO1
<b>SECTION C (Attempt any Two Questions)</b>			
14.	Write down the Process of Land Acquisition according to LARR 2013 with proper flowchart.	[15]	CO2

15.	Write down the problems that had been faced for Project implementations of Thika Dam Kenya.	[15]	CO3
16	Say you are a consultant and is given a job for assessing a Highway project. How you will do a life cycle assessment on it.	[15]	CO3
<b>SECTION D ( Case Study)</b>			
<b>Case Study</b>		[30]	CO2
<p>Critically analyze the following Cases &amp; compare both of them:</p> <p><b>Struggle for saving 1898 hectares agricultural land destroyed due to coal mining (Jharkhand)</b>  <b>Dhanbad, Jharkhand, Arpan 27.2.2012</b></p> <p>Coal mining in the region began almost 100 years ago. In 1971 with nationalization of coal mines many public sector units such as Bharat Cooking Coal Limited began mining operations in new areas. As a result the labour working in these mines had many immediate benefits but in 2000 after reductions in the number of labour working the mines they faced major hardships. In the Mohda region alone mining is being done by BCCL in 38,898 hectares of land. Prior to mining this land was used for agriculture and was so prosperous that in 1967-68 when there was a nationwide famine not a single person in the area died of starvation. Today even after 40 years, more than 60% population of the region does not have access to basic facilities. According to the detailed project report released in 1971 the government promised re-settlement, rehabilitation and employment but it has failed to fulfill its promises. The Government of India has begun the process of part privatization and is promoting contract labour instead of regular employment. A labour receives merely Rs120 after back breaking toil of 10-12 hours and this in itself is a violation of the minimum wages act. This region was much safer prior to the nationalization in 1971 as against this, now uncontrolled mining is turning into a nightmare for the habitants of the region. This is leading to increased number of accidents and is a major safety hazard for the people living in the region. This region of Dhanbad is surrounded by coal mines on all sides and open cast mining is being undertaken at more than 100 sites. Identity cards and safety equipments were not being given to the workers before entry into the mines. Not only this, there was no registration of the workers before they enter the mines and so in case of accidents they cannot claim compensation from the companies. According to some scientific report the region has enough coal for the next</p>			

hundred years but the speed at which mining is being done currently this coal reserve will come to an end within 30 years.

**Movement for distribution of tea garden land to workers (West Bengal)**

**Jaipalguri Jaipalgudi, West Bengal TISHA SHG 10.3.2012**

The problems of the Tea garden laborers in this region are worrisome. Ghuppa tribes from the adjoining areas of Bhutan who are settled in the area are deprived of their land rights even today. Very limited work has been done for development of the education, health and other basic services for these tea garden laborers. Despite more than 100 year, the tea garden laborers are unsure about their local identity. The organization Centre for Development Human Initiative is working with women farmers and has formed West Bengal Tarai Mahila Association (Samti) which is in constant dialogue with the government on issues of women rights. Mr. Subrato Majumdar informed that Bacxa Region of tarai area is predominantly tribal. However, no serious efforts have been made by the administration to implement the Forest Rights Act. He said that there about 5000 Nepali & Rabha Tribal families who are landless. He said that there are 14 tea gardens whose lease term has expired and where local laborer are fighting for their land and homestead land rights. Mostly it is Uaoran and Santhal Teagarden laborer, who are denied their land rights. With the closure of tea gardens, these laborers are migrating to the neighboring states. The tea garden laborers are being exploited in regards to payment of wages too. They are given Rs 60-67/day while in Darjeeling area, the daily wage rate is Rs 90. The tea Garden laborers are raising collective voice for their land rights and are raising their voice for seeking Rs 120 as wages. He shared that tribals who have come from Jharkhand and other neighboring states are not recognized as tribal in Bengal. As a result, civil and land rights have not been implemented properly. He shared that in this region, small farmers have taken the initiative to established tea garden and the government needs to give them more protection. In addition, laborer cooperatives should be formed in those tea garden whose lease has expired which will provide them sustainable livelihood option. The second stop of the yatra in the district was Rangamali village, where a meeting was organised by Uttarbanga Terai Mahila Samiti. The members shared that there is an acute problem of flood and drinking water in this village which is located on the Banks of Tista river. Up until now, about 100 acres of agriculture land has been

	destroyed by flood and about 20 families have lost their land. Government has not taken any initiative to compensate and rehabilitate them.		
--	---	--	--