

A Report on  
Technical Workshop  
of

**Vishwakarma Yojana : Sustainable planning  
for villages**

Date: 21<sup>st</sup> October, Monday, 2013

Venue: Auditorium, Shree Swami Atmanand Saraswati  
Vidhya Sankul, Surat



*Presented By:*  
*Dr. Indrajit Patel & Mrs. Jagruti Shah*



*Gujarat Technological University*  
*Ahmedabad, Gujarat*



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**Gujarat Technological University,  
Ahmedabad, Gujarat.**

**Technical workshop of Vishwakarma Yojana at SSASIT College, Surat**

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(21<sup>st</sup> October, 2013)

GTU had organized a one day Technical workshop of Vishwakarma: Phase-II for South region held on 21<sup>st</sup> October, 2013 from 10:00 am at auditorium of SSASIT College, Surat.

The workshop was inaugurated by esteemed Chief Guest Shri K.D. Waghani, Trustee - STBS Campus. Guest of Honour Shri H. J. Topiwala Secretary, STBS Campus, Prof. J. J. Waghasiya, Principal, SSASIT College, distinguished speakers Mr. B. K. Patel Town planner & Prof. Yogesh Prajapati. Mrs. Usha Banker, Deputy Director - GTU, Mrs. Jagruti Shah, Project Coordinator-Vishwakarma Yojana were present.

13 Nodal officers from GEC-Surat, SSG-Surat, CKPCET-Surat, GEC-Valsad, GP-Valsad, LNI-Valsad, GP-Dang, BVPIT-Umrakh, SNPIT-Umrakh & 236 students of respective College attended the workshop.

Students of SSASIT College welcomed all. As per our Indian Tradition, Workshop was inaugurated with prayer & lighting of the lamp. Prof. Digant Pastagia, Nodal officer- SSASIT requested Prof. J. J. Waghasiya to share his view on this occasion.

Prof. J. J. Waghasiya Principle welcomed all. He congratulated GTU for Completing Vishwakarma Yojana: Phase-I Successfully. He thanked GTU for involving them in phase – II. He motivated Student by explaining importance of project and advantages of getting real world experience. He requested all student to give their best efforts in village planning.



Mr. K. D. Waghani, Trustee of STBS Campus welcomed all. He explained Students the importance of villages for our country. Why one should develop village not city? He told students to help society is biggest help to our community. By developing village, Development of nations becomes laidback.

Prof. Kavita Choksi, Head of the Civil Engineering Department acknowledged efforts & initiatives of GTU & its team. He thanked Hon'ble VC – Dr. Akshai Agrawal for bringing such a prestigious project for Students of GTU & giving them opportunity to get real world experience. He motivated Student & Nodal officer to apply recent Technology & find better Solution for village development.



## INAUGURAL SESSION



Mrs. Jagruti Shah, Project Coordinator briefed all participants about core themes of workshop. Technical Session has been grouped in three core themes:

- I. Energy Audit
- II. Integrated development plan for Village
- III. Waste Management

## **Technical Session – I: Energy Audit**

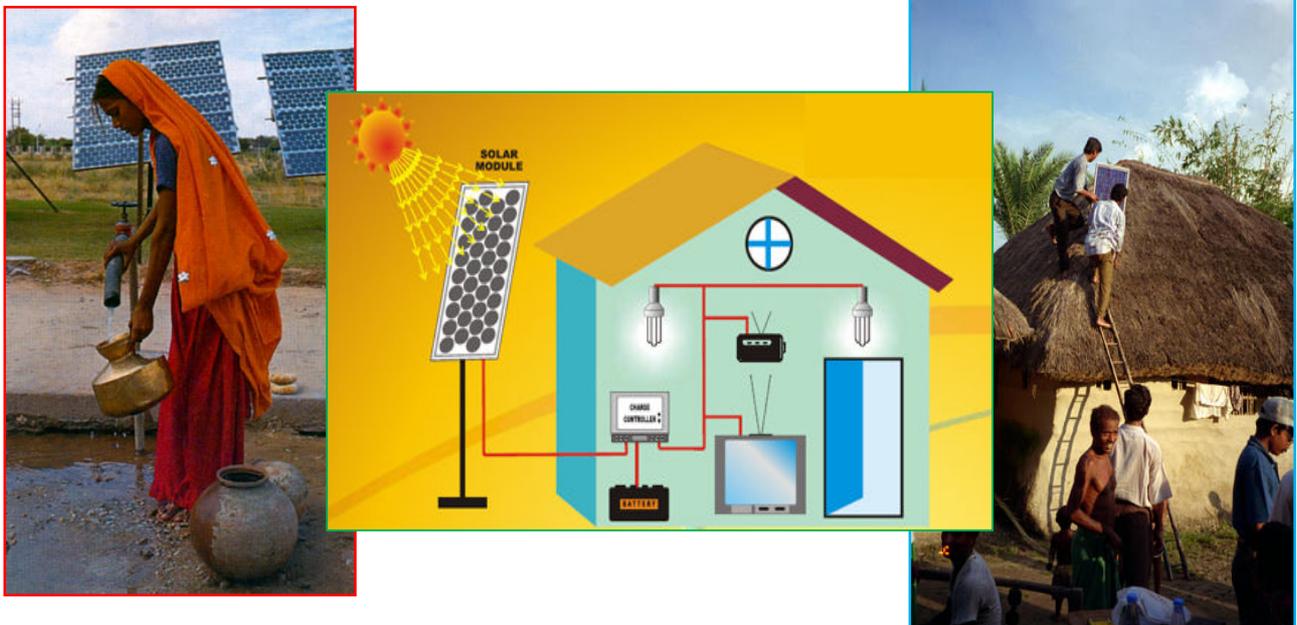
The first Session was conducted by Prof. Yogesh Prajapati from BVM Engineering Collage. He is a certified Engineer from the Bureau of Energy Audit. Mr. Prajapati has performed energy audit for Reserve bank of India, Zudys Cadila Pharmacy, ONGC-Hajira & other well-known firms.



In his presentation, he presented Energy Scenario, Energy Basics, Energy Audit, its Need, Types, Phases, Typical Energy Audit Questions, Energy Audit of Some Load Found in Villages, Energy Saving Examples, Instruments and Metering for Energy Audit, Energy Consumption Scenario in Rural India, Some Applications of Renewable Energy sources for Rural Development. He explained the students the meaning of energy audit. Energy Audit means the verification, monitoring and analysis of use of energy including submission of technical report containing recommendations for improving energy efficiency with cost benefit analysis and an action plan to reduce energy consumption. Energy Audit is a systematic study of energy inputs, conversion and outputs of energy consuming equipment. The Goal of Energy Audit is to reduce energy consumption per unit.



He also briefed some points to save energy like: Switching OFF ideal Lights, Fans, Reduce Water, Steam, Compressed Air Leakages, Use of high Efficiency Pumps, Fans, Motors, Lights, Cleaning of equipment, water treatments etc., Use of Compressors, Fans, Pumps with minimum pressure, Temperature,, flow, Use of small size equipment like Motors, Pumps, Refrigerators, T.V sets, 400 Ltr. Fridge will consume more energy than 165 Ltr. 42 Inch T.V consume 4 times more power than 21 Inch., Cycling/ walking in place of 2/4 wheelers., Mail, Telephone in place of Travel.



He also explained some applications of renewable energy sources for rural area with design. Students from Electrical Engineering branch asked various questions regarding electrification problems in villages at the end of the session. Mrs. Jagruti shah thanked Prof. Prajapati on behalf of GTU.



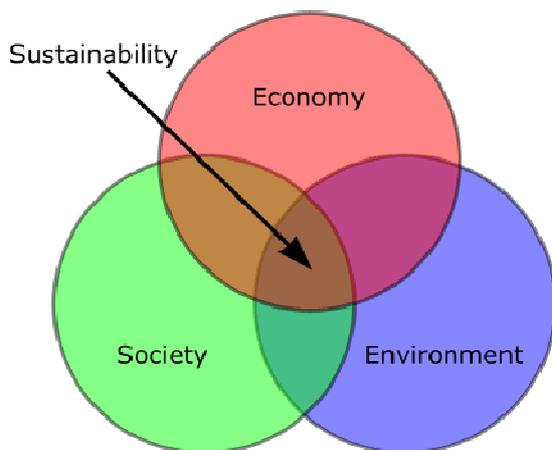
## Technical Session – II: A Case Study on

### Integrated Taluka Development Plan of Nizar Taluka, Tapi , Gujarat

This session was conducted by Mr. B. K. Patel, Town planner & MD, Design point Consultancy Pvt. Ltd, Surat. He has more than 20 years of experience in engineering, design activities of civil & Structural, Infrastructure planning & management, Town planning scheme Design & Planning projects in India and at various locations around the globe.



He presented integrated block planning for Villages & Taluka & how it can develop village in sustainable manner. He started his presentation with broad definition of Sustainable planning which means *'Sustainable Development is*



*development that meets the needs of the present without compromising the ability of future generations to meet their own needs'*. He stated that in urban area while studying the sustainability, one has to deal with one settle as whole city. Whereas for village, one need to study the regional area where Numbers of settlements came up

having different characteristics. To be sustainable, development must improve



economic efficiency, protect and restore ecological systems and enhance the well-being of people. Sustainable is today's agenda not a goal. He discussed various parameter to promote sustainability in detail.

He presented various steps to design development plan. He explained various parameters to be collected for the preparation of Development plan. He discussed case study of Nizar Taluka in depth to students which was helpful to

students to understand Data collection & analysis process. He explained GIS based approach for mapping. He has discussed various schemes of Government and SWOT analysis of the same presented. Outcome of the presentation for students was to design any proposal with parameters



like User Friendly, less time Consuming, Remove Overlapping/duplications, Existing Situation Analysis, Provides guidelines for village Development, Both Financial Requirements and Implementation Monitoring Modules for individual Villages and Taluka as a whole and professional tool for Decision Makers.

Nodal officers and students asked various issues phasing by them and solutions for the same was given. Prof. Digant Pastagia thanked Mr. B. K. Patel for his valuable guidance and motivation to students.

### **Technical Session – III: Waste Management- A case study of Integrated and Sustainable Solid & Liquid Resource Management (TAPI Model)**

This session was conducted by Mrs. Jagruti shah, Project coordinator & Urban planner, Vishwakarma Yojana- GTU. She presented the theme of waste management for villages.



Waste management is one of the challenge for urban as well as rural area. In her presentation, definition of waste, types of waste, waste management techniques, different parameters for design and guidelines to design waste management model have been explained.



Tapi model is one of the most sustainable approach for waste management in which Zero waste management centre was built by local material, local man power and with optimum cost. Door to door collection has been done by local people only. Three SHG members involved in door to door collection for every 250 to 300 families. Primary segregation or source segregation should take place at households for which two dustbins each have been provided. Secondary Segregation of organic (wet) waste into 20 types and inorganic (Dry) waste into 17 types in ZWM Centre. Aerobic composting (Windrow) & using cattle to reduce the volume of organic waste makes this model more sustainable.





### *Waste Is Not Waste Always, But Wealth....*

Nodal officers and students asked various issues faced by them and solutions were given. Prof. Digant Pastagia thanked Mrs. Jagruti Shah for her valuable guidance of Waste management.

### **Brain storming Session: Low cost Housing model By students of GP- Valsad**

Students of GP – Valsad presented the modal of low cost housing which was design by them under the guidance of Prof. D.V. Jariwala & Prof. H.K. Rana - Nodal officer of GP – Valsad in this session.

The model of low cost House is one of the Sustainable Solution Specially for the Villages of Solution region of Gujarat. Use of local material & local Man Power makes this design Sustainable. As this house has been prepared from the



ecofriendly materials and from refuse materials, it gives a sign of one of the most sustainable house.



	Size	Area
<b>Big hall</b>	3.9m×2.4m	9.36m <sup>2</sup>
<b>small room</b>	3.0m×3.0m	9.00m <sup>2</sup>
<b>Kitchen</b>	2.4m×3.0m	7.20m <sup>2</sup>
<b>varanda</b>	1.7m×2.6m	4.42m <sup>2</sup>



Light weight, & it can be with stand against the earthquake and less damage will be occurred. By considering, the current scenario of the village people they are highly suffer in the rainy season. A fly ash plaster will give them a waterproof house and protection from monsoon season.

Presentation by students has been very much helpful for technical interaction and it became platform for exchanging different innovative ideas of youth technocrats. Mrs. Jagruti shah acknowledge the efforts of students and nodal officers on behalf of GTU.

Mrs. Jagruti briefed about design phase to Student & Nodal Officers. Student & Nodal officers shared their Problems & issues for designs in villages. She has given various solutions to their issues & difficulties. She shared various guidelines for designing part. Mrs. Usha Banker resolved all admin & financial issues of colleges.



Mrs. Jagruti Shah & Mrs Usha Banker had interaction session with MBA students of Bhagwan Mahavir College, Surat & Naran Lala School Computer Science of Industrial Management, Navsari. Mrs. Jagruti Shah has briefed them about Vishwakarma Yojana and their scope of work in the project. She has given overall guidelines for survey work with respect to live stock management.

Prof. Digant Pastagia, Nodal officer thanked all Students, Nodal Officers, Staff of SSASIT & team of GTU for making orientation program success for Vishwakarma Yojana.

**On behalf of Vishwakarma Yojana, GTU, Ahemdabad**

**Dr. Indrajit Patel**

**Usha Banker**

**Jagruti Shah**

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