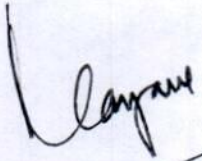


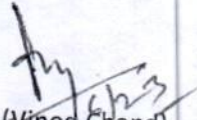
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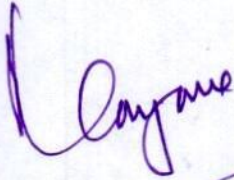
**NOTE**

Rainwater Harvesting is one of the most commonly used methods to save water. It refers to storing of rainwater for various uses. The notion behind rainwater harvesting is to not waste the rainwater and prevent it from running off. In other words, it is done to collect rainwater using simple mechanisms. We have various rain water harvesting tanks in which we collect rain water to recharge the ground water level. So it is our moral responsibility to clean our rainwater harvesting system regularly, therefore in this series today on dated 19-Jun-2023 we have completed the task of cleaning our rainwater harvesting system.

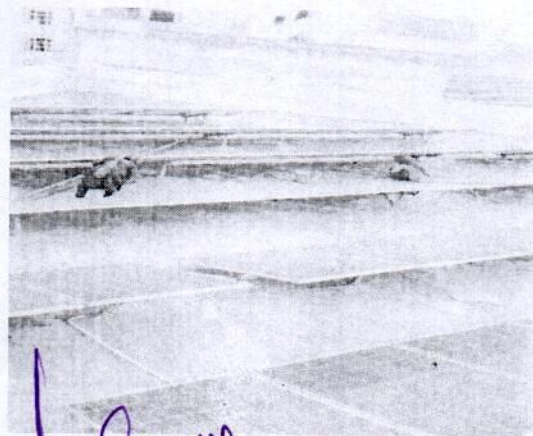
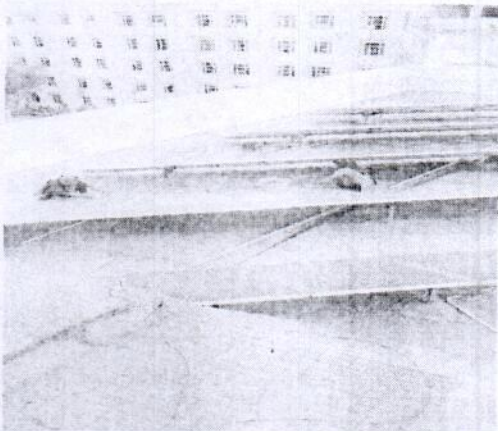
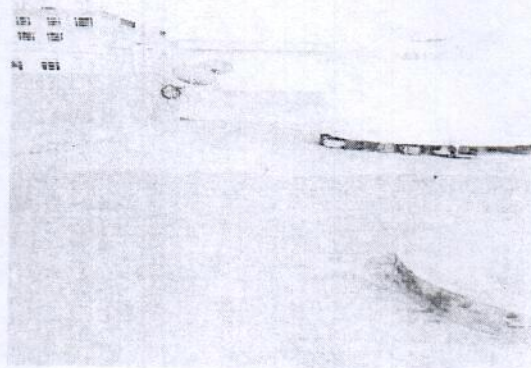
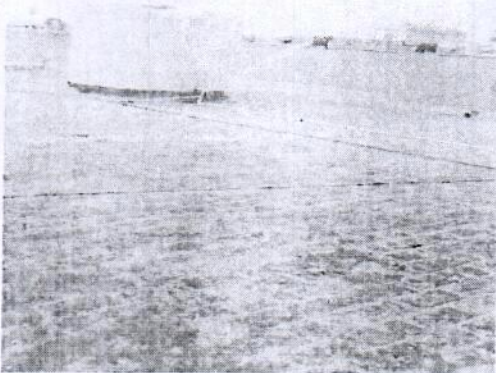
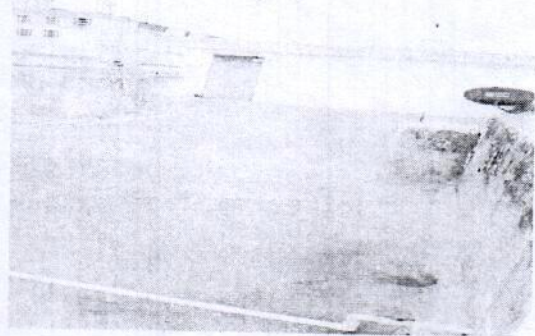
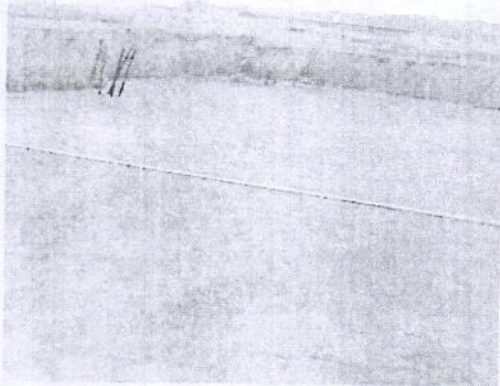
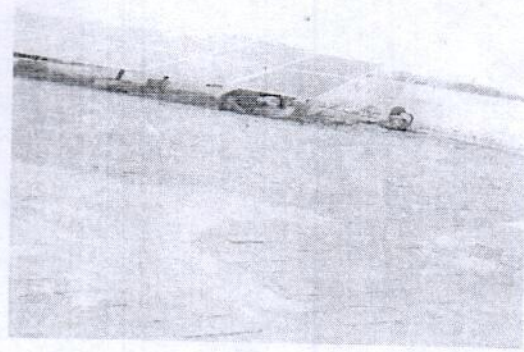
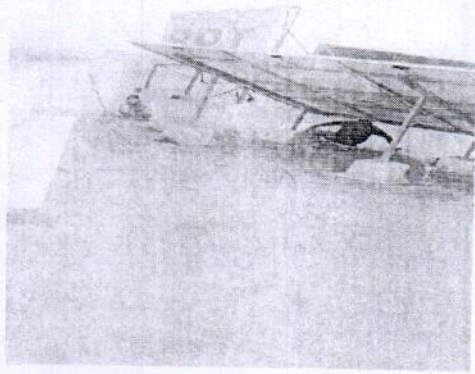
Actually this process was started since last 15 days from the college building's (i.e. Academic Building of Engineering College, CPS, Arjun, Dhruv and Sawarkar Hall and Staff flats etc.) roof top area, in which we had cleaned the roof top surface and rain water pipes. After that we cleaned the drains and finally today we have cleaned all the rainwater harvesting pits and its connection pipes. In this process, we have also cleared a lot of garbage from drains etc., sludge and garbage deposited in rainwater harvesting pits etc., the photographs of the same are being enclosed with this report for future reference.

  
Director Sir

  
(Wood Chand)  
Administrator  
ITS Engineering College, Greater Noida

  
Director  
ITS Engineering College  
Greater Noida

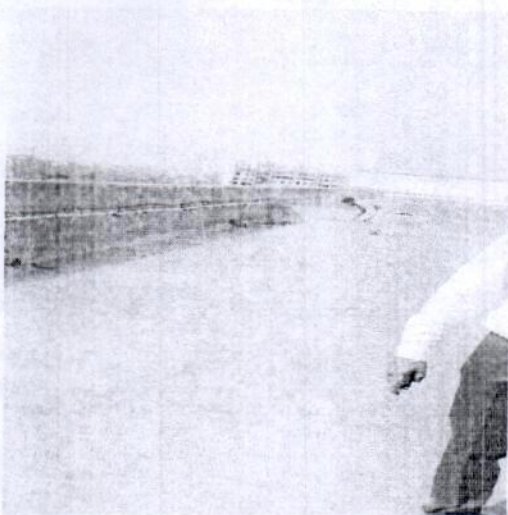
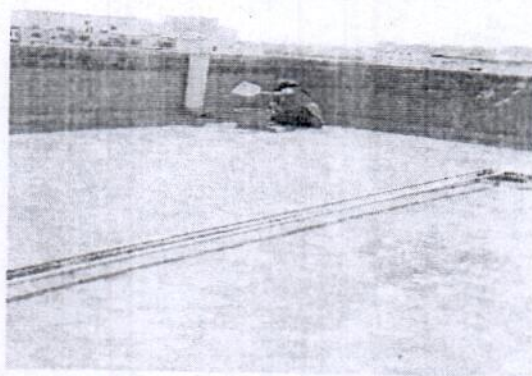
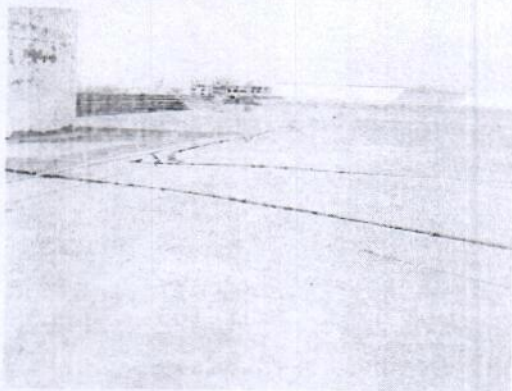
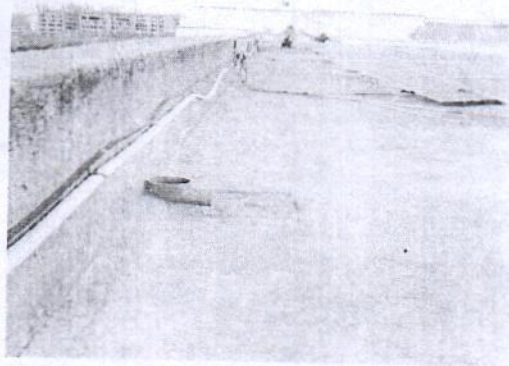
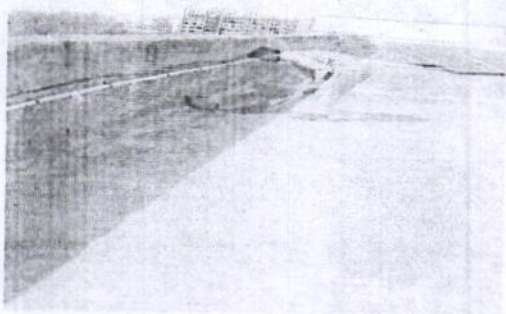




*K. Jayaram*

Director  
ITS Engineering College  
Greater Noida

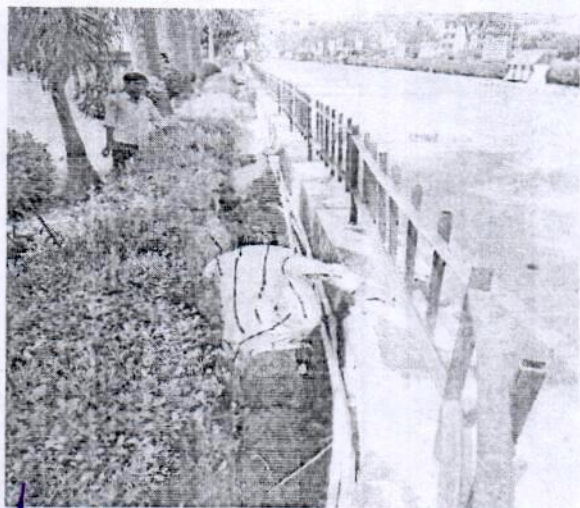
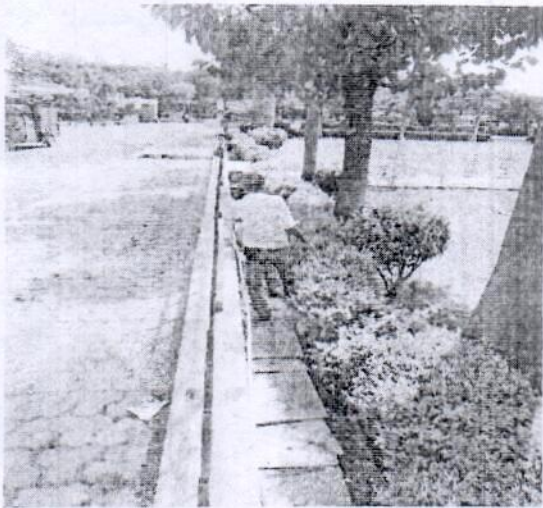
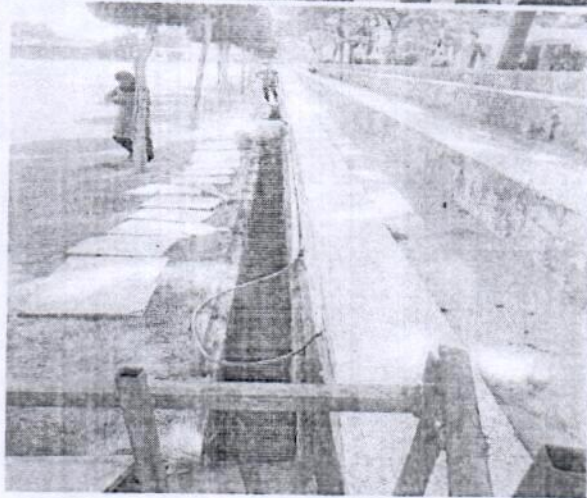
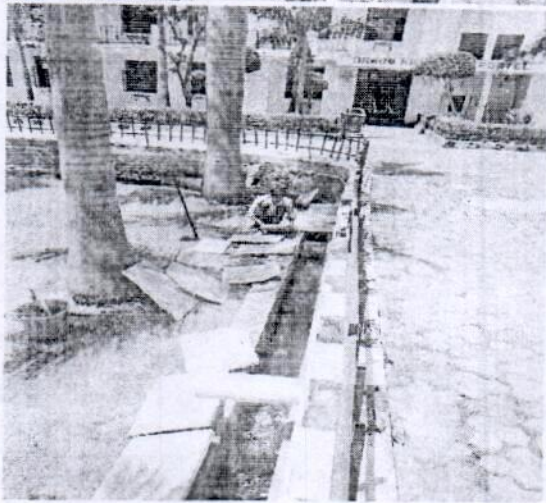
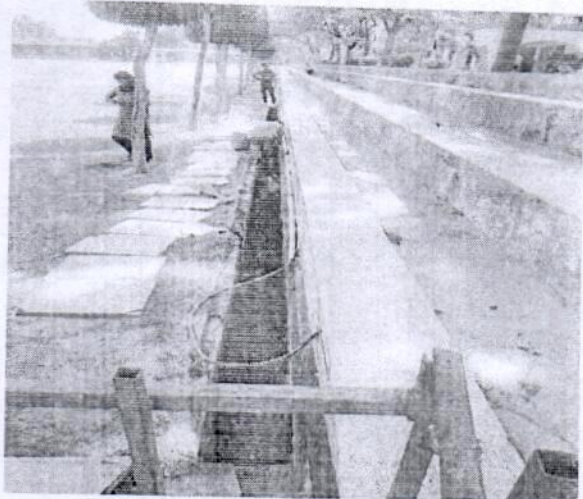
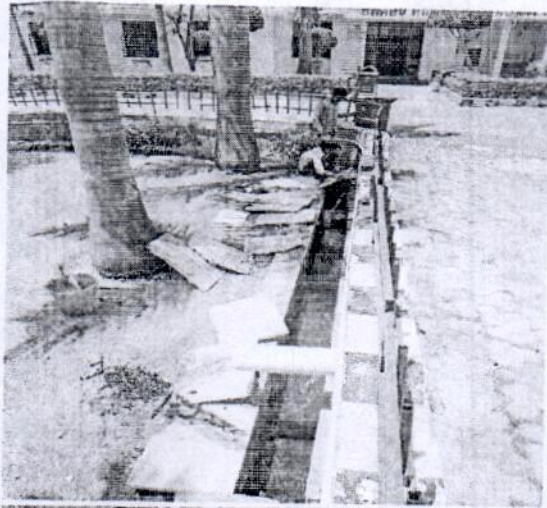




*K. Jayaram*

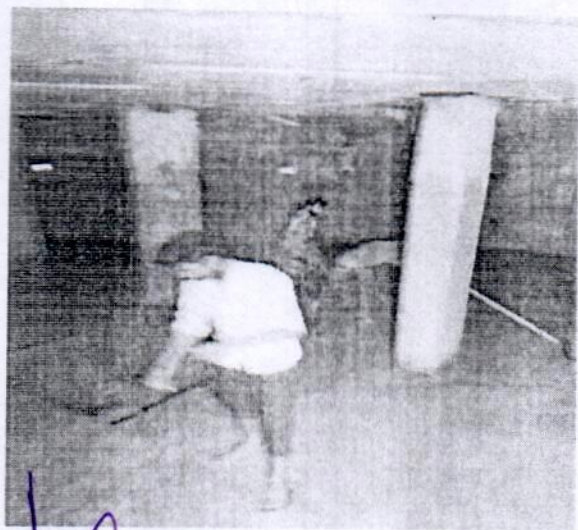
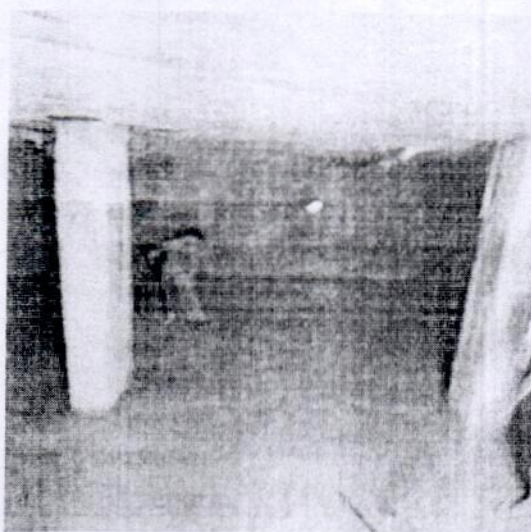
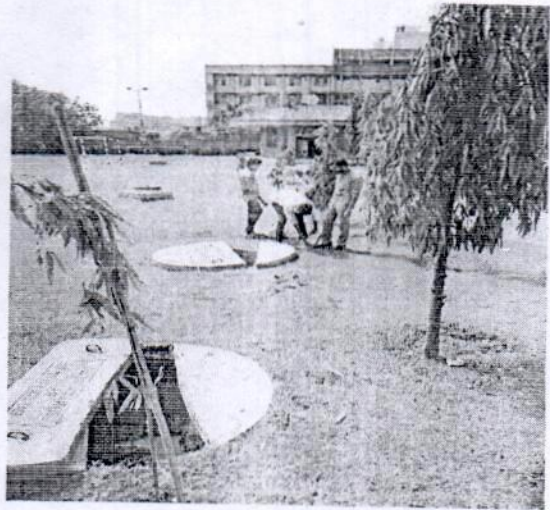
Director  
ITS Engineering College  
Greater Noida





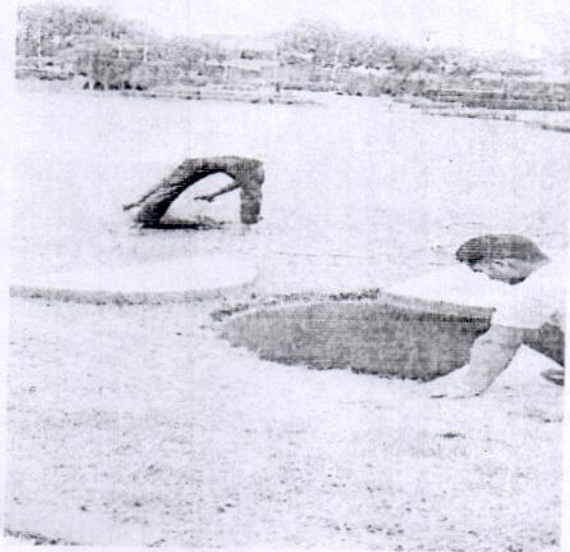
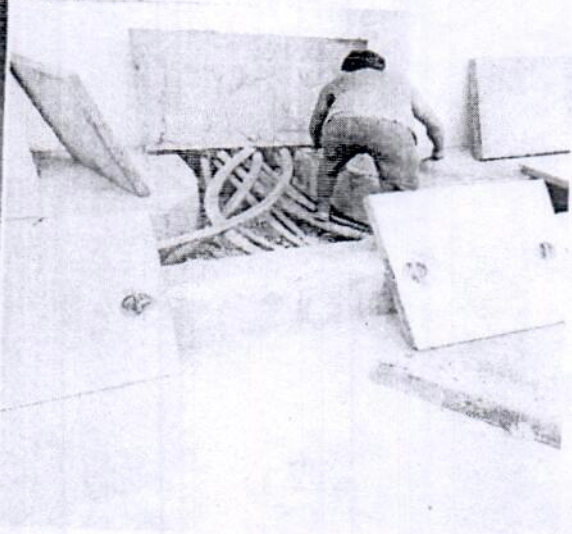
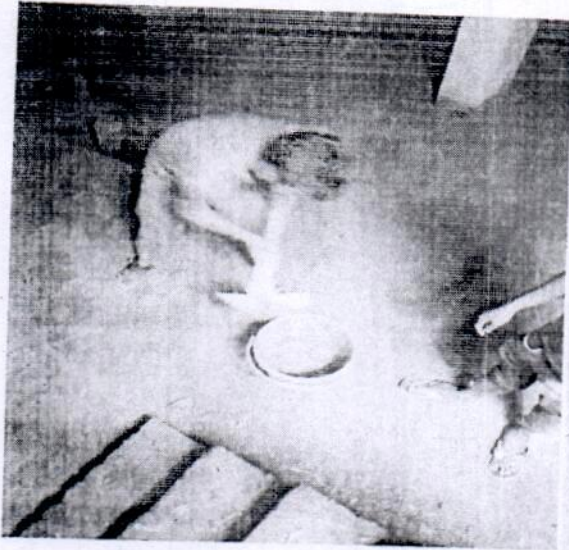
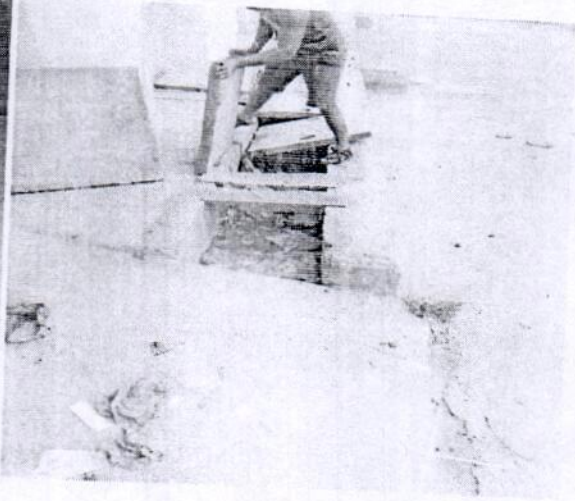
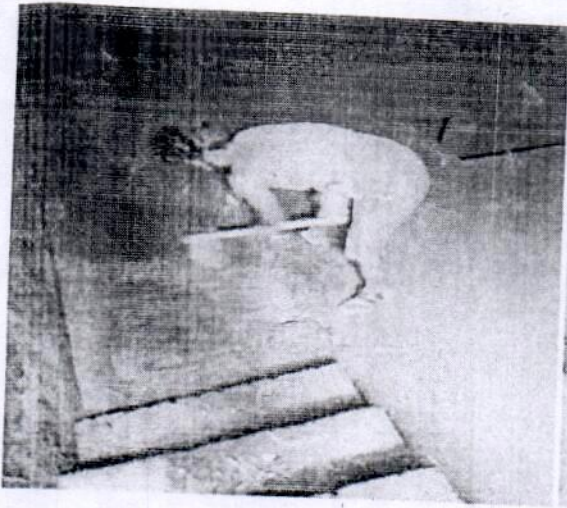
*Rayno*  
Director  
ITS Engineering College  
Greater Noida





*W. Jayaram*  
Director  
ITS Engineering College  
Greater Noida

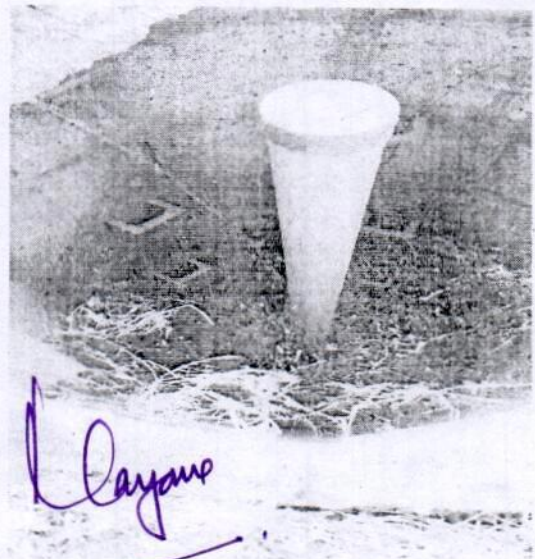
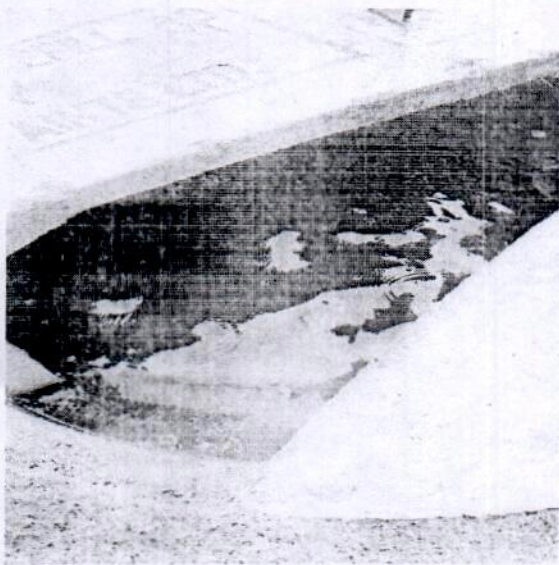
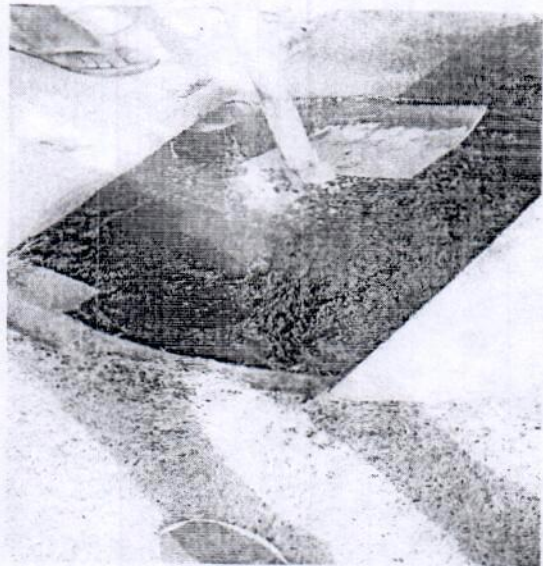
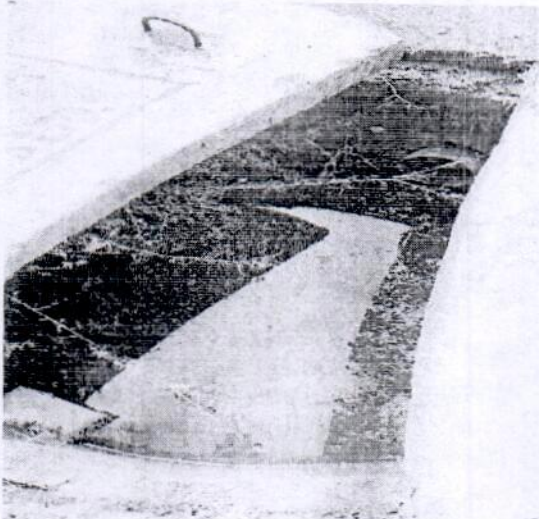




*Rayans*

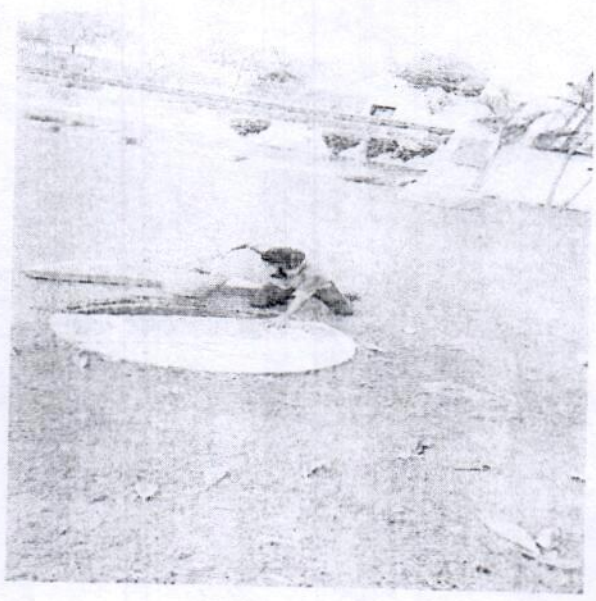
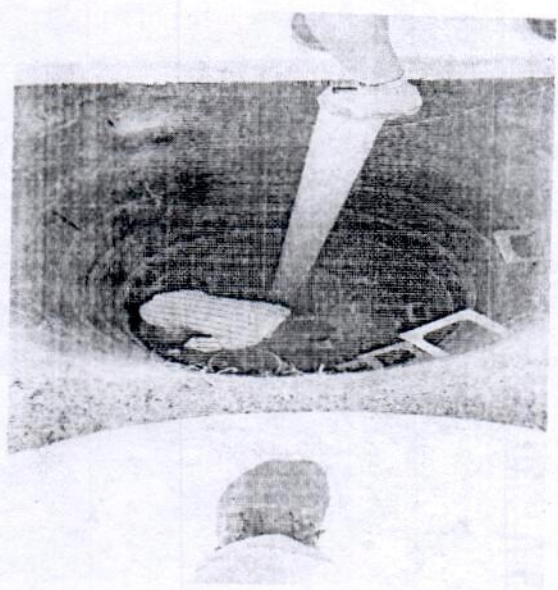
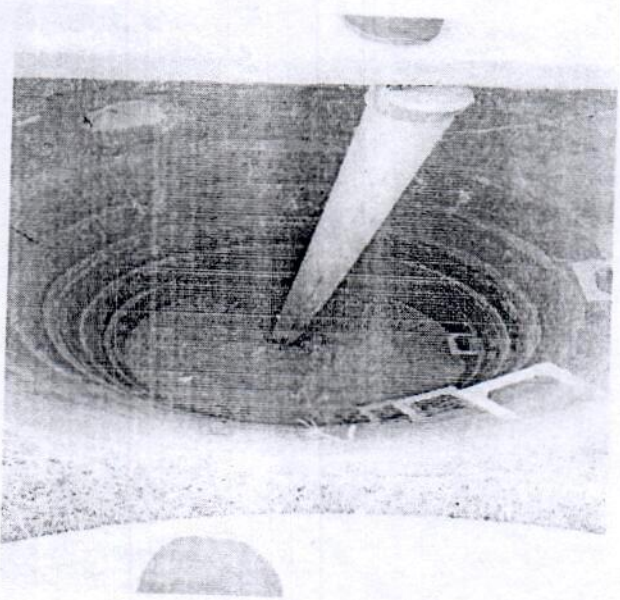
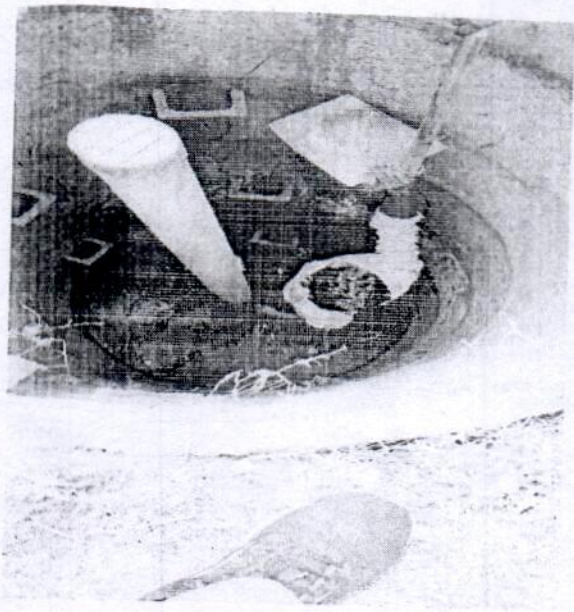
Director  
ITS Engineering College  
Greater Noida





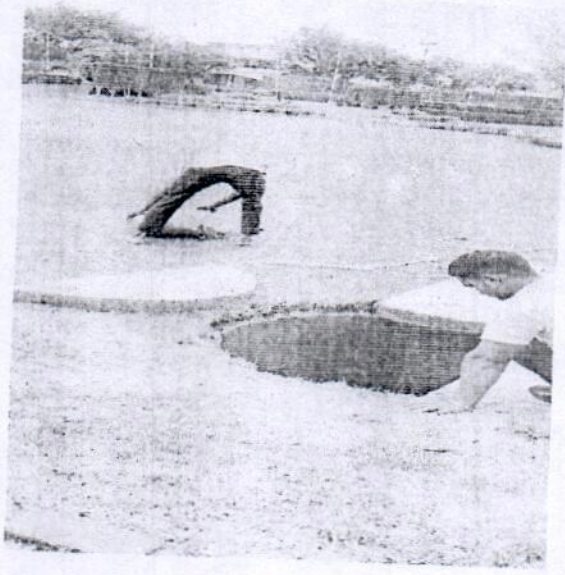
*K. Jayaram*  
Director  
ITS Engineering College  
Greater Noida





*K. Jayaram*  
Director  
ITS Engineering College  
Greater Noida



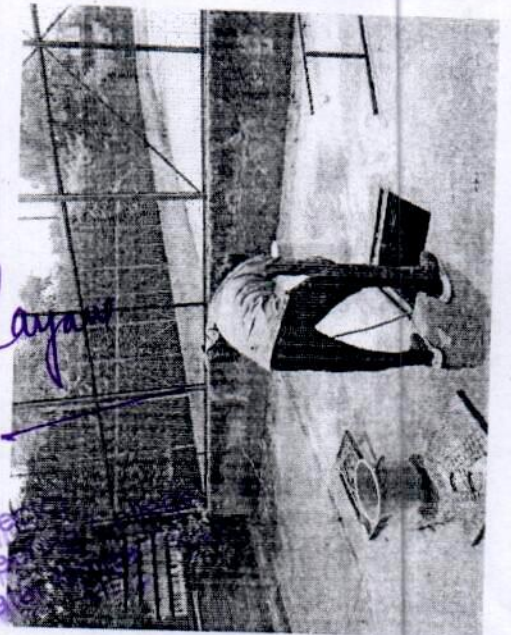
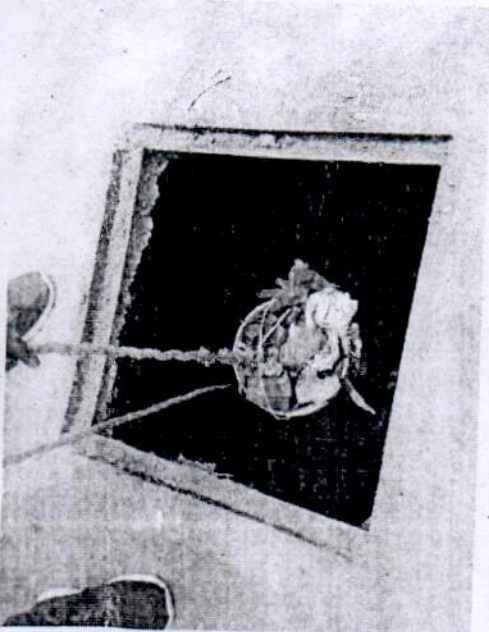
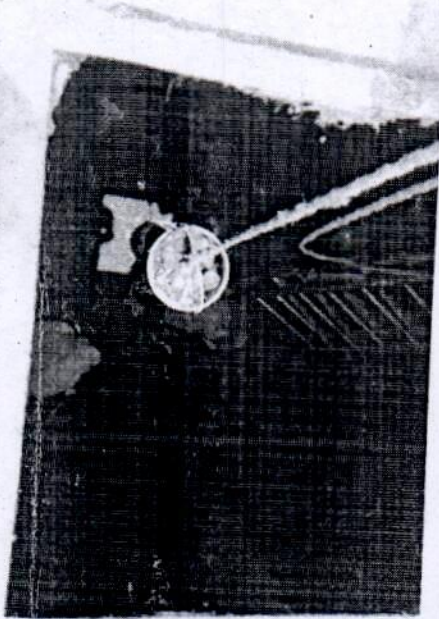


*K. Jayaram*

Director  
ITS Engineering College  
Greater Noida



Rain Water Harvesting Pits located in the main gate parking area have been completely cleared on 04/7/22. (29)

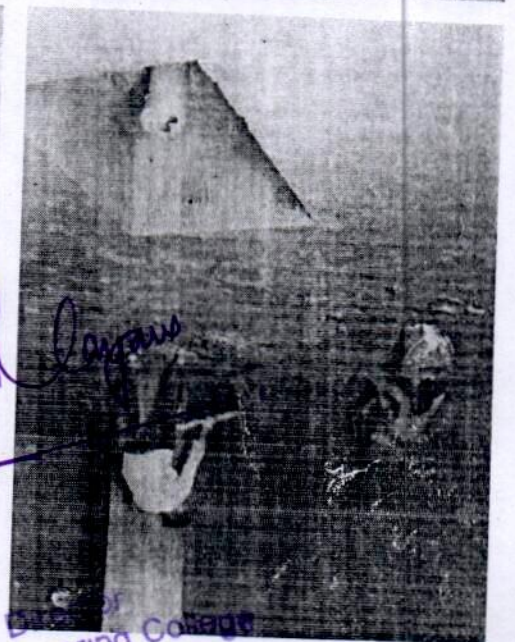
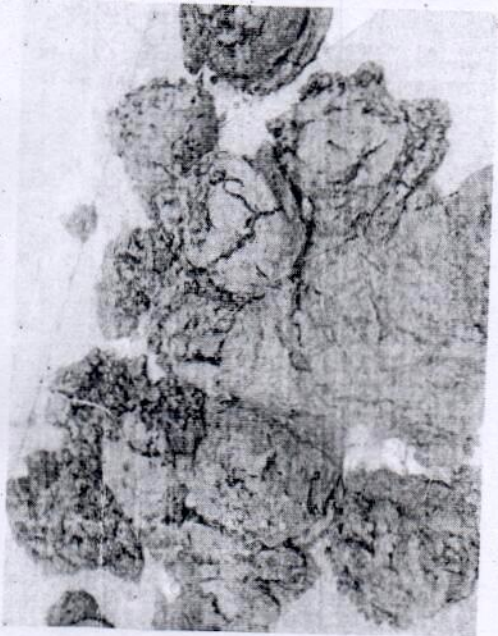
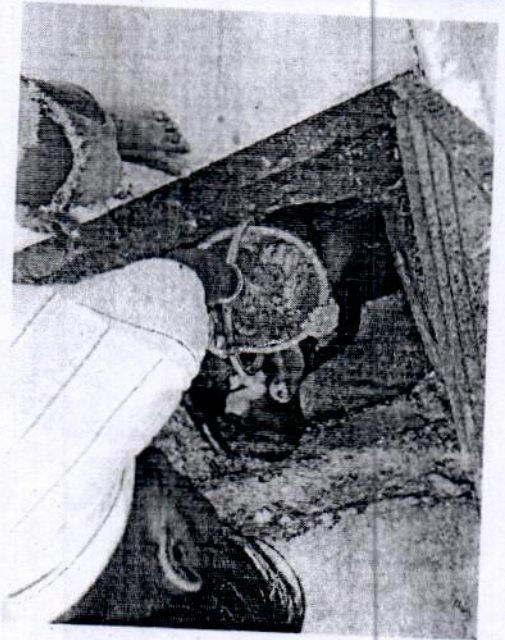
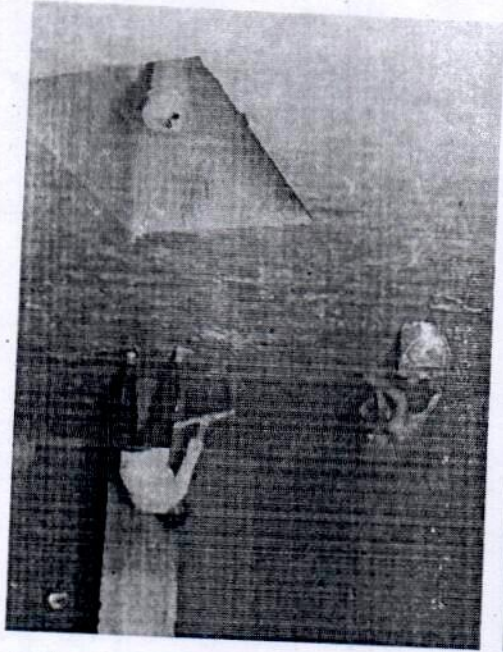


Kayan  
Direct  
ITS Engineers  
Greater



Rain water Harvesting pit and  
 Connected ST's of the  
 Amphitheater area have been  
 thoroughly cleared on 03/17/2022.

(28)



ITS Engineering College  
 Greater Noida

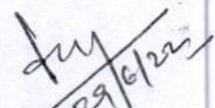


Dated : 29-Jun-2022

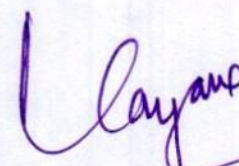
**NOTE**

Rainwater Harvesting is **one of the most commonly used methods to save water**. It refers to storing of rainwater for various uses. The notion behind rainwater harvesting is to not waste the rainwater and prevent it from running off. In other words, it is done to collect rainwater using simple mechanisms. We have various rain water harvesting tanks in which we collect rain water to recharge the ground water level. So it is also our moral responsibility to clean our rainwater harvesting system regularly, therefore in this series today on dated 29th June 2022 we have completed the task of cleaning our rainwater harvesting system.

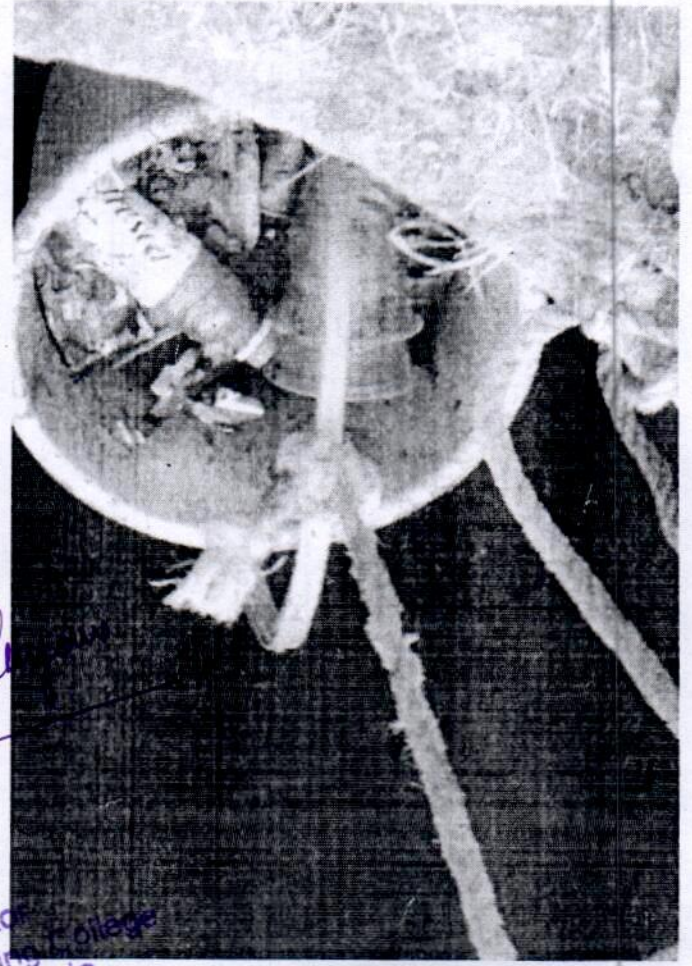
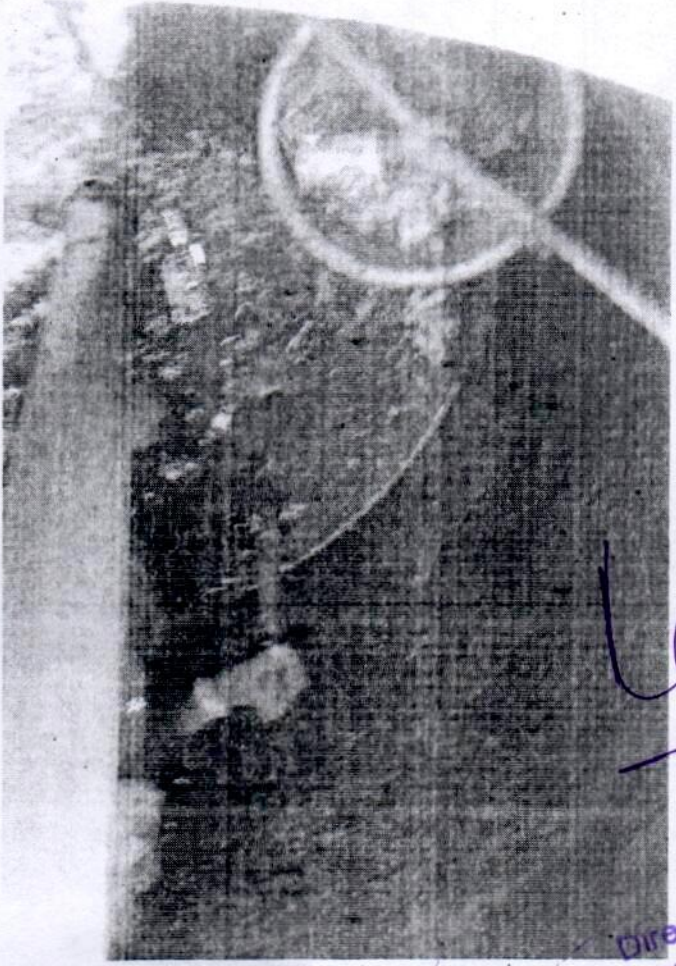
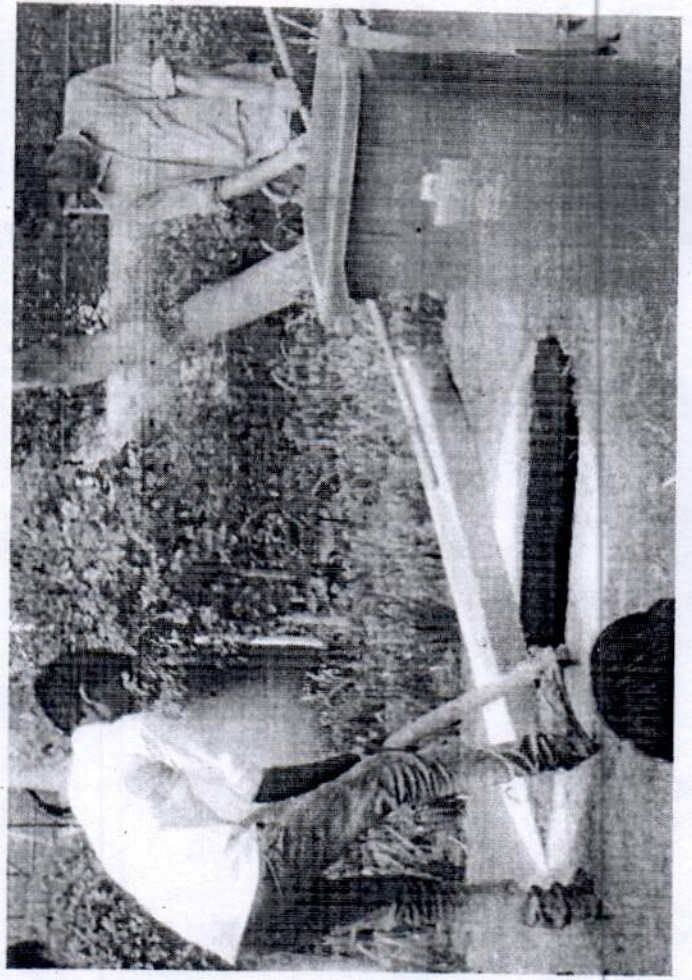
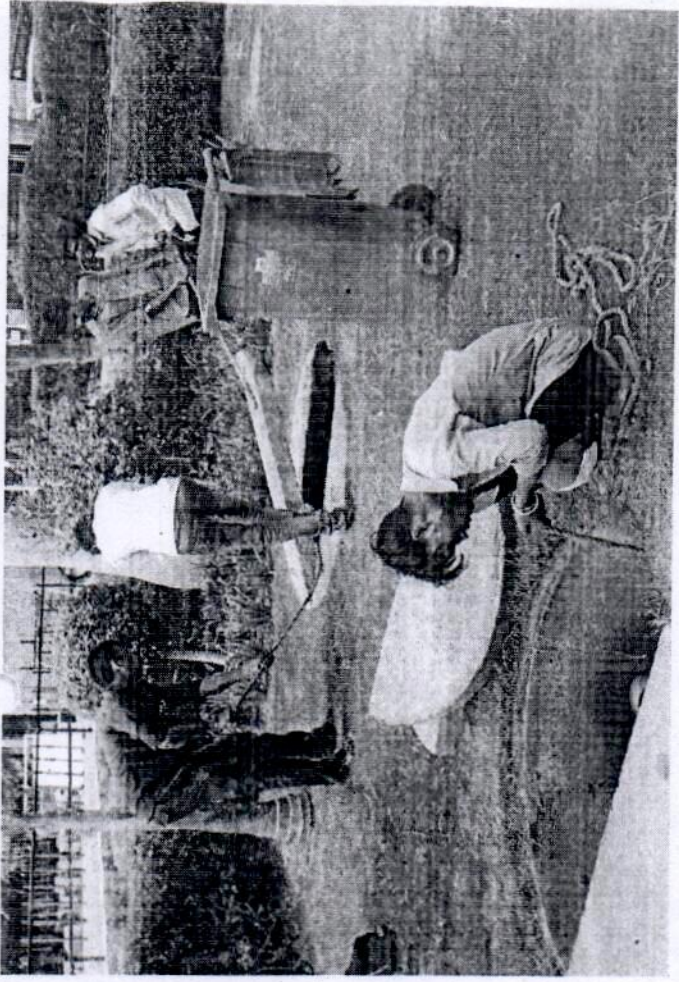
Actually this process was started since last 15 days from the college building's roof top area, in which we had cleaned the roof top surface and rain water pipes. After that we cleaned the drains and finally today we have cleaned all the rainwater harvesting pits and its connection pipes. In this process, we have also cleared a lot of garbage from drains etc., sludge and garbage deposited in rain water harvesting pits etc., the photographs of the same are being enclosed with this report for future reference.

  
(Vinod Chand)  
Administrator

ITS Engineering College, Greater Noida

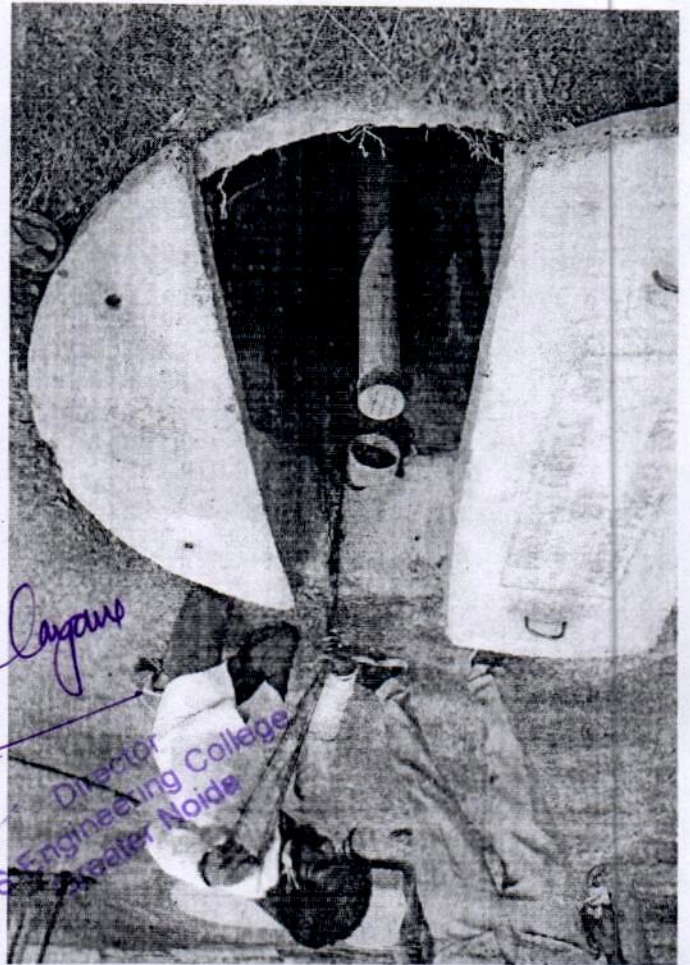
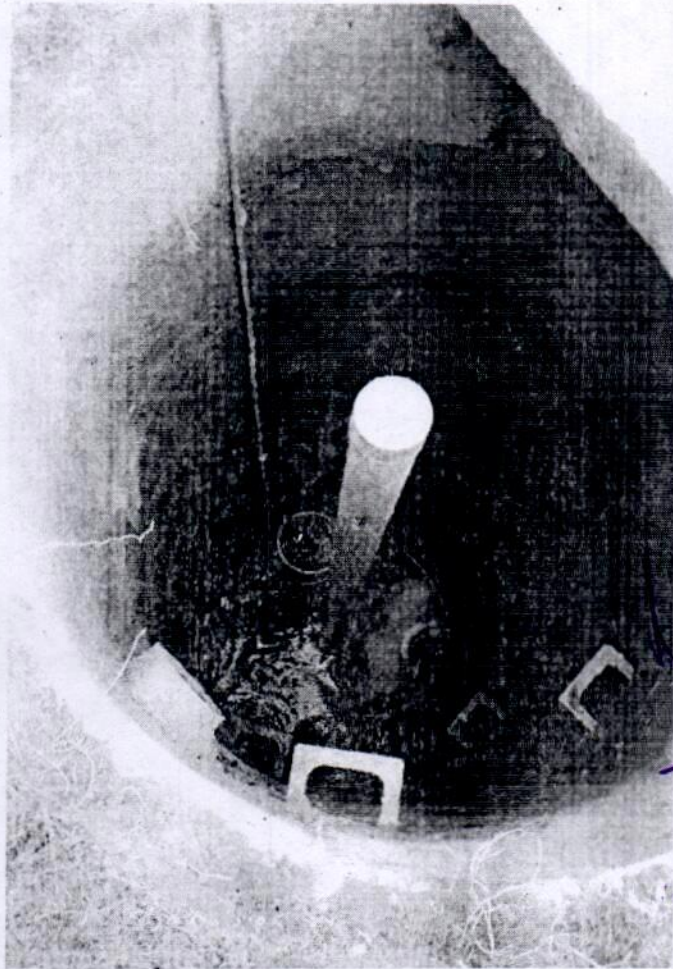
  
Director  
ITS Engineering College  
Greater Noida





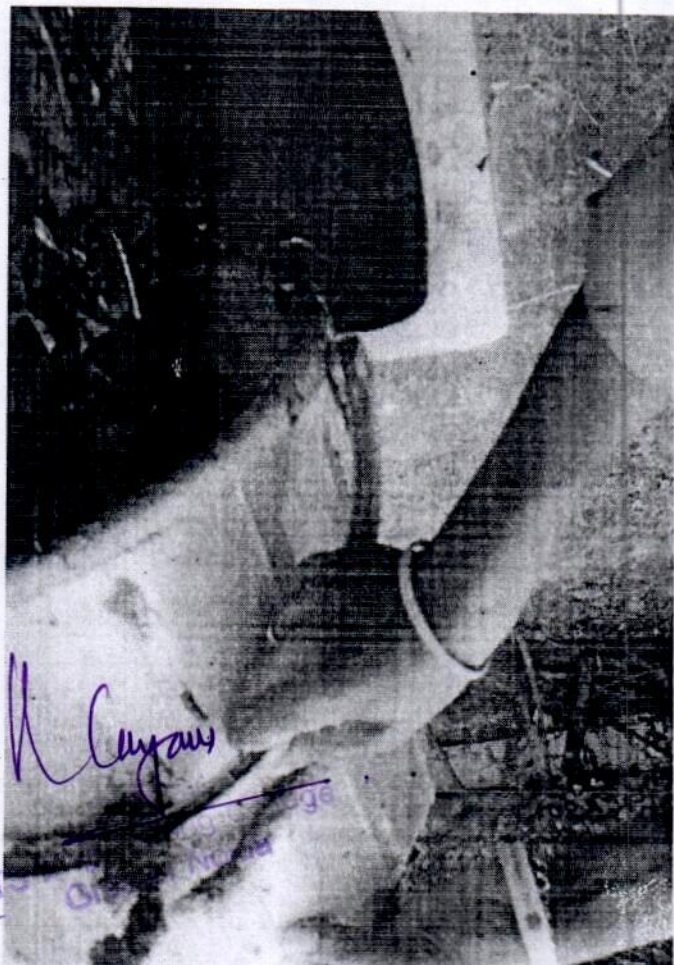
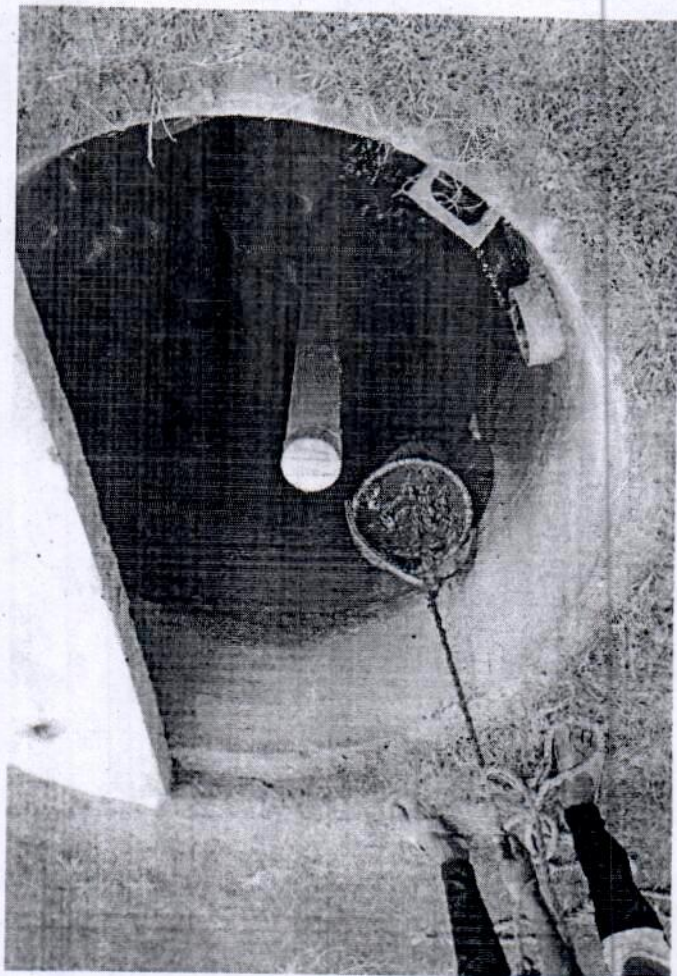
Director  
 ITS Engineering College  
 Greater Noida



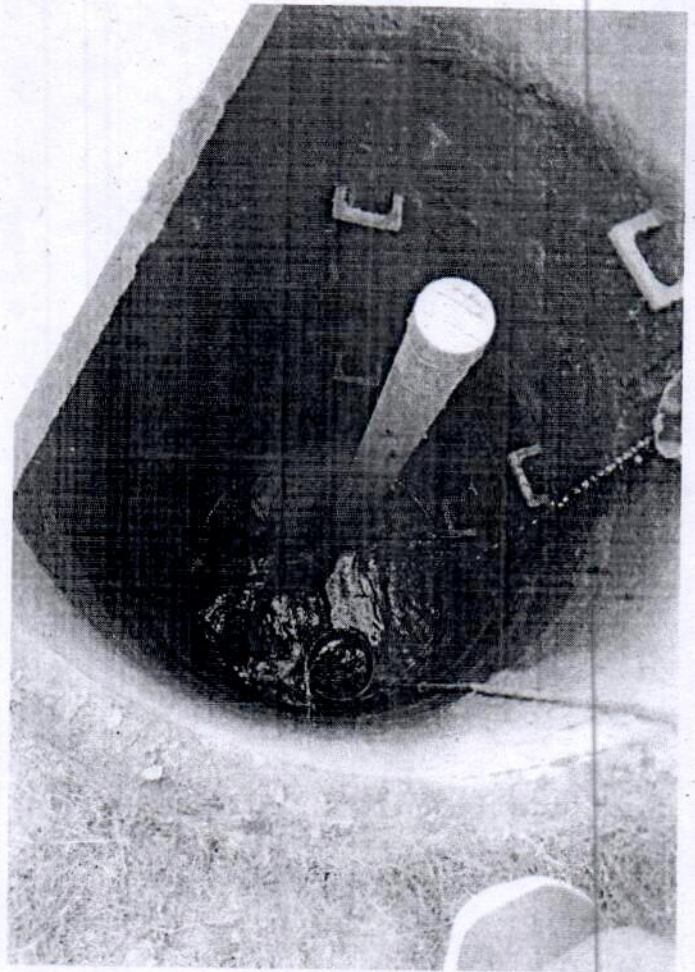
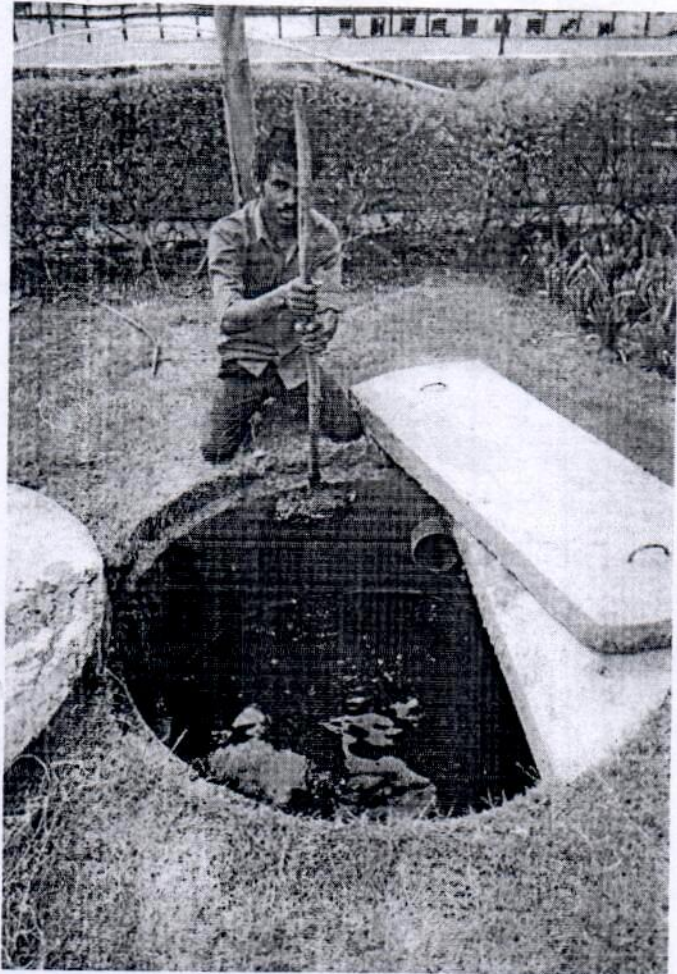


*Agarwal*  
Director  
Engineering College  
Greater Noida









*Allyan*

Director  
ITS Engineering College  
Greater Noida



22

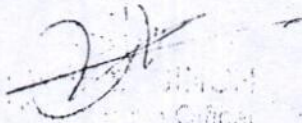
To,  
The Program Manager,  
FORCE

**SUB-CONFIRMATION OF MAINTENANCE**

This is to confirm that the routine maintenance of the Rainwater Harvesting Structure at ITS Engineering College sponsored by Asian Paints Ltd, Kasna has been completed by Forum For Organised Resource Conservation and Enhancement (FORCE).

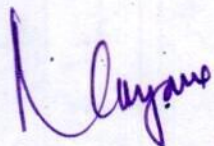
We would like to thank Asian Paints Ltd. Kasna for their support for rainwater harvesting maintenance.

Regards,



Name and Sign & stamp of authority:

Date: 25/11/2020



Director  
ITS Engineering College  
Greater Noida

Council for the Indian School WOL Certificate Examinations  
OLCERTIFICATE Chairman

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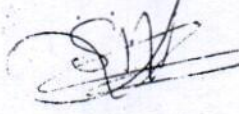


To,  
The Program Manager,  
FORCE

**SUB: CONFIRMATION OF MAINTENANCE**

This is to confirm that the routine maintenance of the Rainwater Harvesting Structure at ITS ENSS COLLEGE GREATER NOIDA sponsored by Asian Paints Ltd, Kasna has been completed by Forum For Organised Resource Conservation and Enhancement (FORCE).

We would like to thanks Asian Paints Ltd. Kasna for their support for rainwater harvesting maintenance.

Regards, *Prerna Thakur Bera Jom Jhu*  


Name and Sign & stamp of authority:  
Date: *30/10/2020*

*Kalyan*  
Director  
ITS Engineering College  
Greater Noida





20

The Principle,  
ITS ENGINEERING COLLEGE  
Greater Noida,  
Uttar Pradesh.

FEB 2016

Dear Sir/Madame,

Namaskar. It gives me great pleasure to congratulate you on having successfully completed the 'Asian paints - FORCE Rainwater Harvesting project' in your institution.

The project is now being handed over to you. ITS ENGINEERING COLLEGE, Greater Noida will now take care of maintenance and upkeep of the facilities created so that the children continue to benefit from them. The maintenance work includes a minimal charges for labour & it's a manual process which takes around 4-5 hrs to clean one structure.

The works conducted as a part of this project that is sponsored by Asian Paints are:

- 1) Design and implementation of 3 no. Rainwater Harvesting Structures in the institution premises having a total annual recharge potential of 2306.8cu.m / yr.
- 2) Child Protection features in each system. This includes use of closed reinforced concrete cement covers.
- 3) Installation of 1 nos 3ft X 4 ft signboard explaining the project features and installation of 3 nos 1ft X 1.5ft marker signboards at each site.
- 4) The Bore wells made for rainwater harvesting and recharging at your site should not be used for extraction of groundwater in future.
- 5) In case of any damage to structure, institute authority should inform FORCE and Asian Paints immediately.

Director  
ITS Engineering College  
Greater Noida





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To ensure that your rainwater harvesting system continues to perform optimally, please find enclosed a Rainwater Harvesting Maintenance Manual that shares with you the details of your rainwater harvesting system and what you need to do to maintain it.

We thank you for your gracious support during the implementation of the project.

We also request you to ensure the following for a period of at least 5 years from handing over of project.

- 1) That the educational signboard put up as a part of this project is always visible on site.
- 2) That visiting personnel from Asian Paints are allowed to visit the site.
- 3) That the Rainwater harvesting system is not demolished and is kept functional through regular maintenance.
- 4) Those apart from the safety measures taken as a part of the project, the school will also take measures to ensure that no mishap occurs.

Once again, on behalf of FORCE and of the generous sponsors of the project – Asian Paints Ltd, we congratulate you on your noble initiative. We are happy to hand over the completed structure to the institute. Kindly sign (with stamp) in the space indicated below to indicate your acceptance of the same.

Thanks and regards

Sanjiv Sharma

Director (Projects), FORCE

Ph: 8745017933

[www.force.org.in](http://www.force.org.in)

For – Institute Authority

Name:

KISHAN SINGH

Administrator

Designation:

ITS Engineering College

Gr. Noida

Institute Name:

Director  
ITS Engineering College  
Greater Noida



# **RAINWATER HARVESTING PROJECT 2015-16**

Sponsored by Asian Paints Ltd.

***Under "Project Refill"***



## **SURVEY REPORT**

For

**ITS DENTAL & ENGINEERING COLLEGE, GREATER NOIDA**

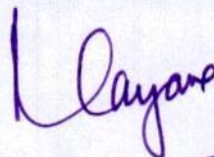
**PRESENTED TO ITS GROUP OF EDUCATION,  
GREATER NOIDA**



**Forum for Organised Resource Conservation and Enhancement**

*For more information on FORCE visit our website: [www.force.org.in](http://www.force.org.in)*

*FORCE-C-8/8035, Vasant Kunj, New Delhi-110070. T: 11 46018754 M: 9899812888 email [jyoti@force.org.in](mailto:jyoti@force.org.in)*



Director  
ITS Engineering College  
Greater Noida



## ASIAN PAINTS PROJECT REFILL OBJECTIVE

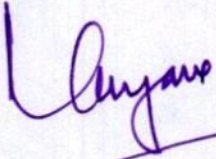
Asian Paints has identified Water Conservation as a priority Corporate Social Responsibility area. For the Asian Paints unit in Kasna Village, Greater NOIDA, it has been decided to identify Water Conservation projects that benefit communities around the unit location.

In this context, FORCE had conducted a Pre-Project Feasibility study to assess the options for Asian Paints.

The objective of the CSR project to be done in Greater Noida in 2015-16 was:

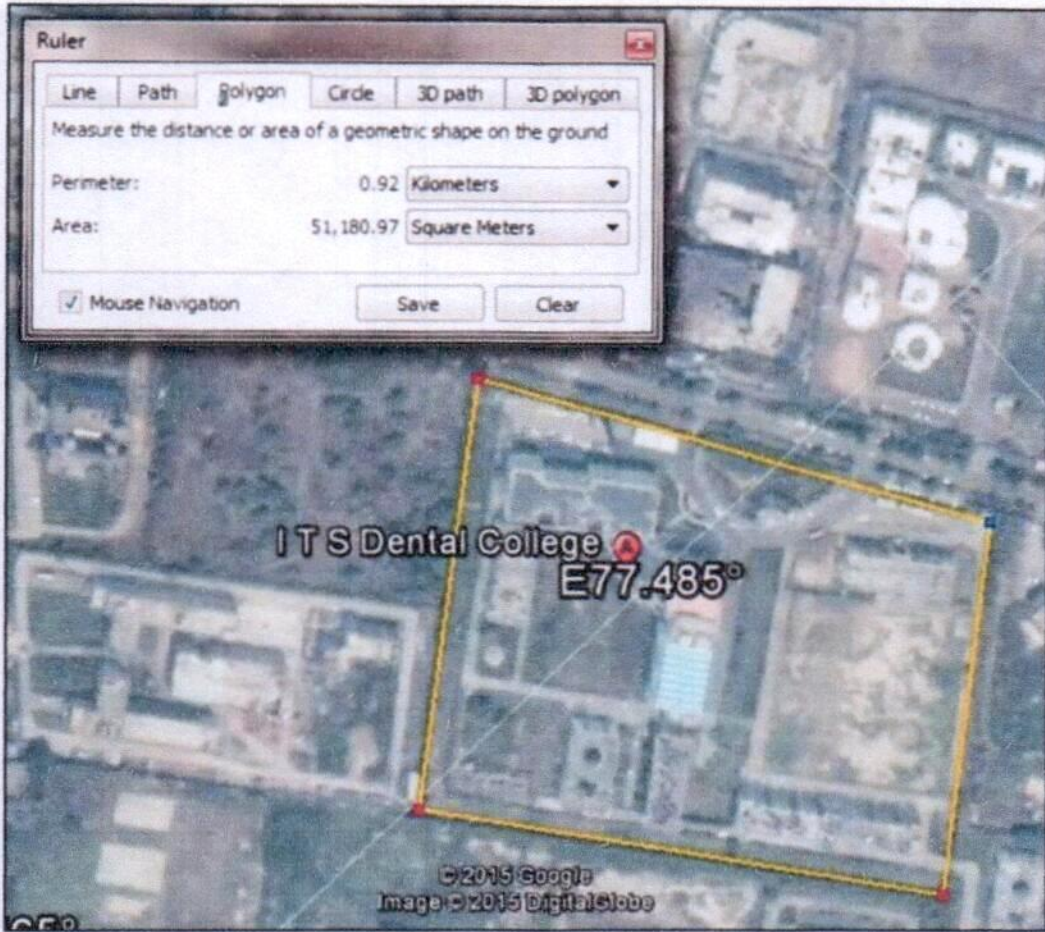
- 1) To make a Rainwater Harvesting Plan and design Rainwater Harvesting structures for harvesting the runoff potential generated by the Institution.
- 2) To construct the Rainwater Harvesting structures in the Institution including:
  - a. Channeling to transport water from catchment to the structures
- 3) To conduct a Water Conservation Awareness Workshop in the Institution.

To plan for a system that harvests maximum rainwater in minimum number of structures, a survey was done to understand the flow of rainwater runoff in your Institution. The rainwater drains originating from the rooftops were studied. Also the drains that carry the rainwater runoff out of the Institution building and the surface slopes were studied. The Institution staff also helped us in this process. As a result of this study, we were able to identify critical points where a significant amount of the rainwater runoff from the area could be harvested.

  
Director  
ITS Engineering College  
Greater Noida



MAP SHOWING TOTAL AREA OF ITS DENTAL:



*Udayan*

Director  
ITS Engineering College  
Greater Noida



**RECHARGE POTENTIAL CALCULATION FOR TOTAL AREA:**

**ITS DENTAL**

Site No.	Land use break-up	Area (sq.m)	Annual Rainfall (m)	Hourly Rainfall (m)	Coefficients	Annual Runoff (cu.m/yr)	Hourly Runoff (cu.m/hr)
ITS Dental	Roof top	8608.01	0.7	0.025	0.8	4820.486	172.1602
	Green	18112.92	0.7	0.025	0.2	2535.809	90.5646
	Paved	24460.04	0.7	0.025	0.6	10273.22	366.9006
	<b>Total</b>	<b>51180.97</b>				<b>17629.51</b>	<b>629.6254</b>

**Details of Existing structure of ITS Dental:**

- 2 Circular Structure: 3m dia & 3m depth with rectangular desilting chamber of 3 x 3x3m recharge bore of 6" dia: Recharge potential of 73.2 cum each.
- 1 rectangular structure: 3m x3m x3m with bore of 6" dia: Recharge potential of 52cum

**Total Recharge potential of existing structures is 198.4 cum**

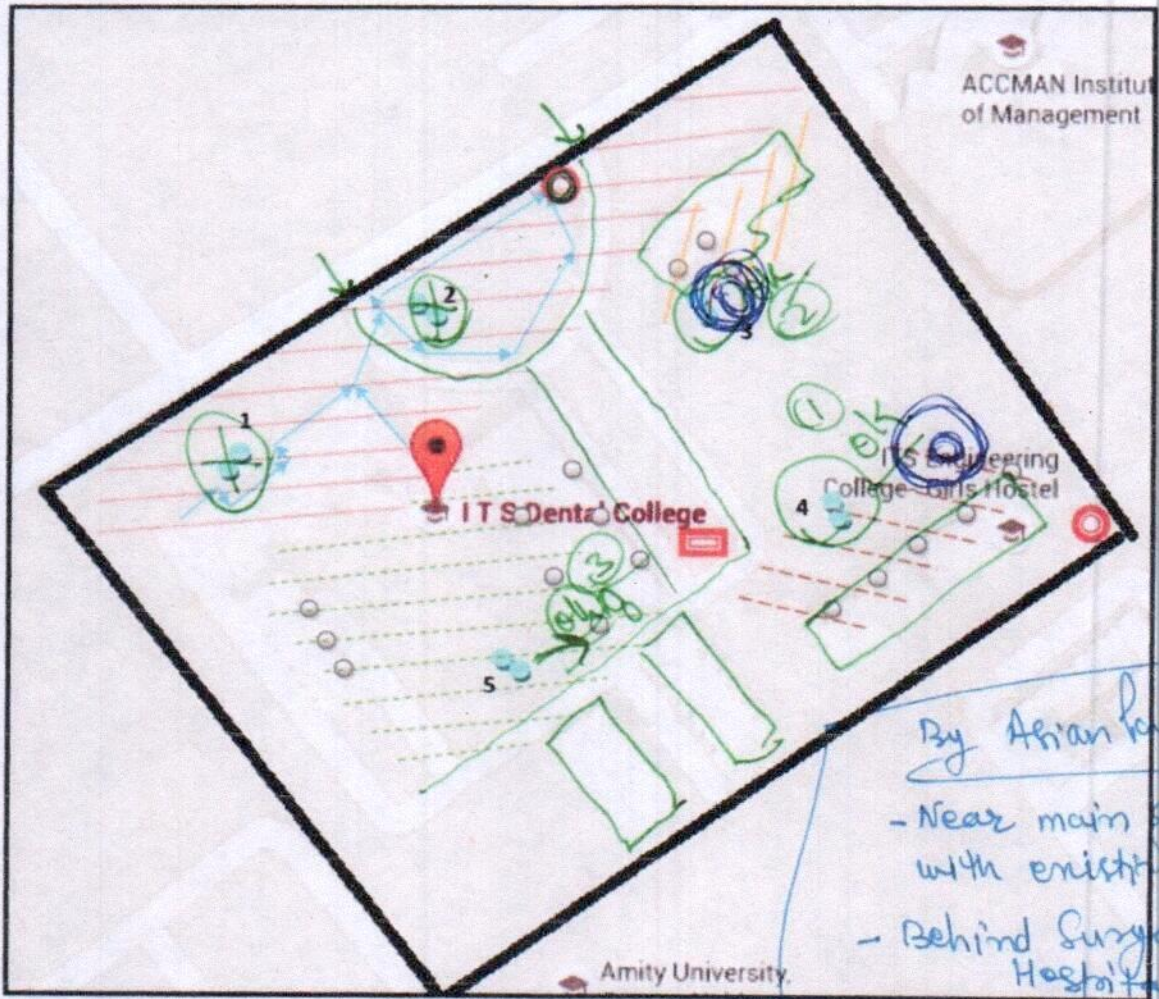
**The possibility of proposing more rain water harvesting structure is for 431.2 cum runoff.**

*K. Jayaram*

Director  
ITS Engineering College  
Greater Noida



MAP SHOWING RECOMMENDED SITES FOR RAINWATER HARVESTING STRUCTURES AT ITS DENTAL



Catchment 1

Catchment 3

Structure proposed

Catchment 2

Catchment 4

Existing RWH structures

By Arjan Printo

- Near main gate with existing
- Behind Surya Hospital
- Behind Saraswati and Durga - II Hostel
- Behind MDS building near staff flat corner

our own existing

- ① Near main entry gate in front side of temple
- ② outside Durga - Ist
- ③ - Near engg. gate - front side of Saraswati Hostel

Arjan  
Director  
ITS Engineering College  
Greater Noida



RECHARGE POTENTIAL CALCULATION FOR MINI CATCHMENT AREA:

Mini Catchment	Land use break-up	Area (sq.m)	Annual Rainfall (m)	Hourly Rainfall (m)	Coefficients	Annual Runoff (cu.m/yr)	Hourly Runoff (cu.m/hr)
1	Roof top	2287.92	0.7	0.025	0.8	1281.235	45.76
	Green	2826.53	0.7	0.025	0.2	395.7142	14.13
	Paved	3697.58	0.7	0.025	0.6	1552.984	55.46
	<b>Total</b>	<b>8812.03</b>				<b>3229.933</b>	<b>115.35</b>
2 (Surya Hospital)	Roof top	900	0.7	0.025	0.8	504	18
	Green	500	0.7	0.025	0.2	70	2.5
	Paved	0	0.7	0.025	0.6	0	0
	<b>Total</b>	<b>1400</b>				<b>574</b>	<b>20.5</b>
3 (Girls Hostel)	Roof top	1010.7	0.7	0.025	0.8	565.992	20.214
	Green	0	0.7	0.025	0.2	0	0
	Paved	668.8	0.7	0.025	0.6	280.896	10.032
	<b>Total</b>	<b>1679.5</b>				<b>846.888</b>	<b>30.246</b>
4	Roof top	1000	0.7	0.025	0.8	560	20
	Green	3054.7	0.7	0.025	0.2	427.658	15.2735
	Paved	650	0.7	0.025	0.6	273	9.75
	<b>Total</b>	<b>4704.7</b>				<b>1260.658</b>	<b>45.0235</b>

*K. Rayane*  
Director  
ITS Engineering College  
Greater Noida



**DETAILS OF RECHARGE STRUCTURES PROPOSED FOR ITS DENTAL:**

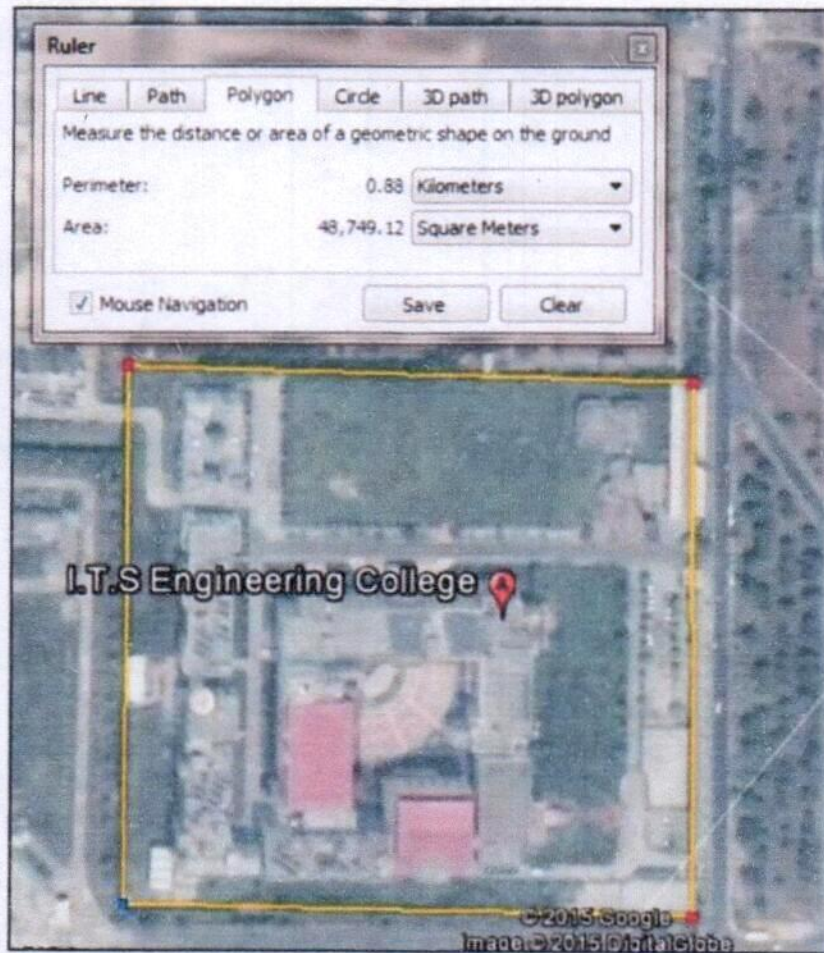
Site	Location	Channelization details (pipe length & dia)
1	Near Admin building	20m & 4" with 2 manholes & 1 shutter
2	Green area near entry gate	10m & 4" & 1 Shutter
3	Surya Hospital backside	40m & 6" with 4 manholes & 1 shutter
4	In green area front of Girls hostel	70m & 4" with 7 manholes & 1 shutter
5	Backside building of Admin block	60m & 4" with 6 manholes & 1 shutter
		200 m with 19 manholes

*K. Jayaram*

Director  
ITS Engineering College  
Greater Noida



MAP SHOWING TOTAL AREA OF ITS ENGINEERING:



*W. Jayaram*

Director  
ITS Engineering College  
Greater Noida



**RECHARGE POTENTIAL CALCULATION FOR TOTAL AREA:**

**ITS Engineering**

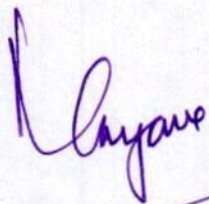
Site No.	Land use break-up	Area (sq.m)	Annual Rainfall (m)	Hourly Rainfall (m)	Coefficients	Annual Runoff (cu.m/yr)	Hourly Runoff (cu.m/hr)
ITS Eng.	Roof top	13454.72	0.7	0.025	0.8	7534.643	269.0944
	Green	17722.11	0.7	0.025	0.2	2481.095	88.61055
	Paved	17572.17	0.7	0.025	0.6	7380.311	263.5826
	<b>Total</b>	<b>48749</b>				<b>17396.05</b>	<b>621.2875</b>

**Details of Existing structure of ITS Engineering:**

- 3 Circular Structure: 3m dia & 3m depth with recharge bore of 8" dia: Recharge potential of 51.2 cum each.
- 1 rectangular structure: 3m x3m x3m with bore of 8" dia: Recharge potential of 57cum

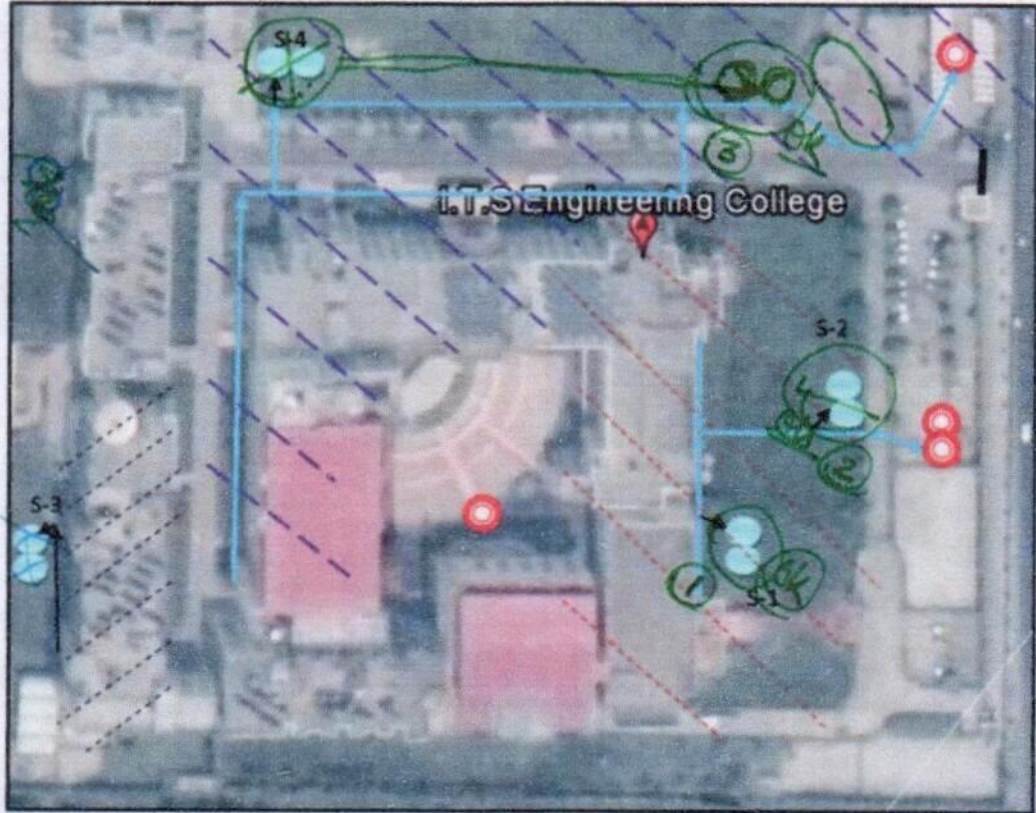
**Total Recharge potential of existing rainwater harvesting structure 210.6 cum**

**The possibility of proposing more rain water harvesting structure is for 190.1 cum runoff.**

  
Director  
ITS Engineering College  
Greater Noida



MAP SHOWING RECOMMENDED SITES FOR RAINWATER HARVESTING STRUCTURES AT ITS ENGINEERING



- Structures proposed
- Proposed Channelization
- Catchment area 1
- Catchment area 2
- Catchment area 3
- Existing rwh structure

*Mayans*  
Director  
ITS Engineering College  
Greater Noida

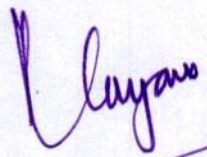


**RECHARGE POTENTIAL CALCULATION**

Site No.	Land use break-up	Area (sq.m)	Annual Rainfall (m)	Hourly Rainfall (m)	Coefficients	Annual Runoff (cu.m/yr)	Hourly Runoff (cu.m/hr)
S-1 & S-2	Rooftop	2358.9	0.7	0.025	0.8	1321	47.2
	Green	4345.6	0.7	0.025	0.2	608.38	21.7
	Paved	2916.4	0.7	0.025	0.6	1224.9	43.7
	<b>Total</b>	<b>9620.9</b>				<b>3154.3</b>	<b>112.7</b>
Already two structure exist for this catchment area of total capacity of approx 148 cum/hr							
Hostel (S-3)	Roof top	784.03	0.7	0.025	0.8	439.1	15.7
	Green	1178.5	0.7	0.025	0.2	165.0	5.9
	Paved	577.17	0.7	0.025	0.6	242.4	8.7
	<b>Total</b>	<b>2539.7</b>				<b>846.5</b>	<b>30.2</b>
S-4	Roof top	754.26	0.7	0.025	0.8	422.4	15.1
	Green	10097.37	0.7	0.025	0.2	1413.6	50.5
	Paved	1717.04	0.7	0.025	0.6	721.2	25.8
	<b>Total</b>	<b>12568.67</b>				<b>2557.2</b>	<b>91.3</b>

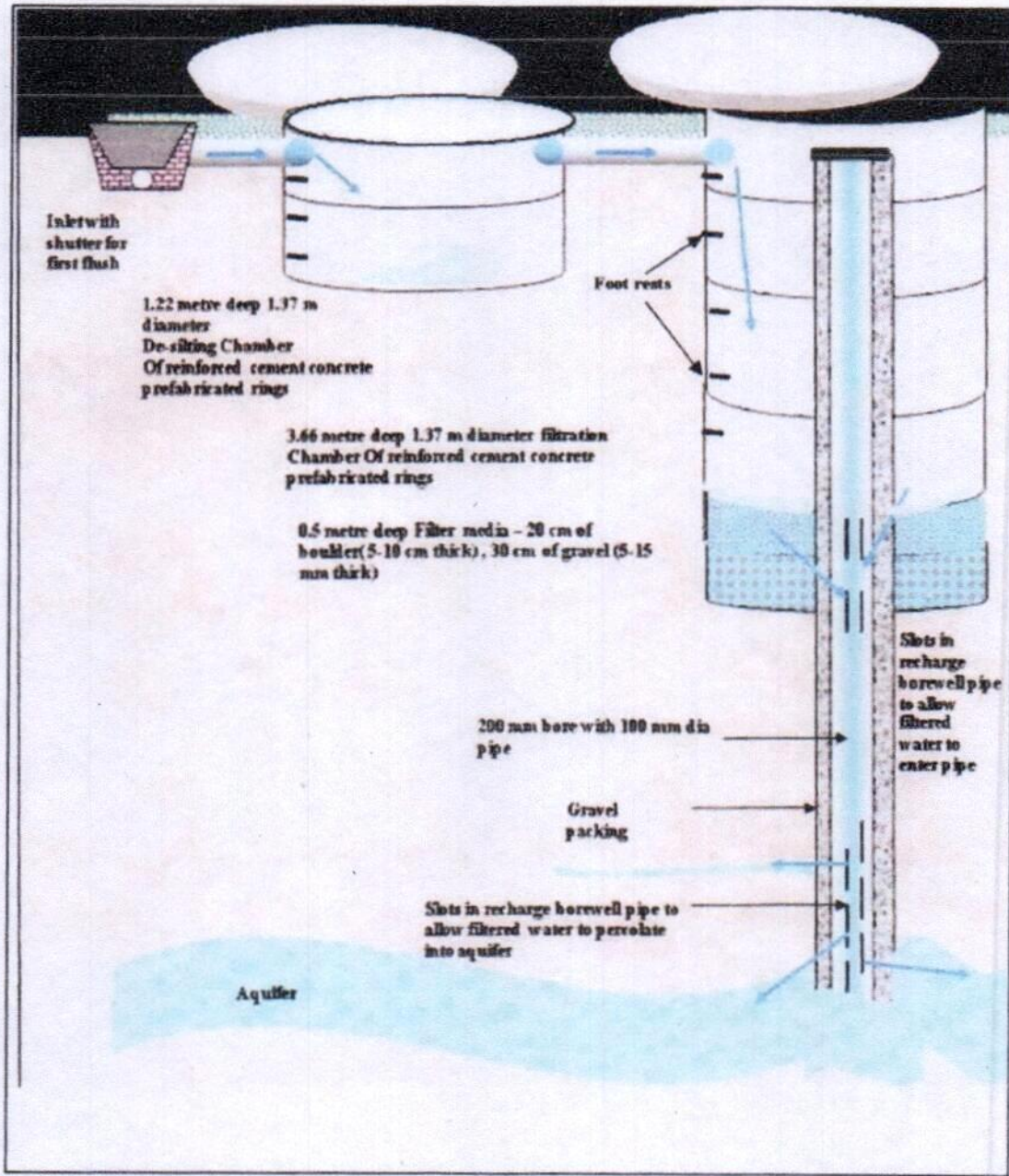
**DETAILS OF RECHARGE STRUCTURES PROPOSED:**

Site	Location	Channelization details (pipe length & dia)
1	In green area front of main college building	10m & 6" & 1 shutter
2	In green area front of Management building	20 m channelization with 2 manhole & 1 shutter
3	Green of opp. Hostel	40m & 6" with 4 manholes & 1 shutter
4	Green area adjacent to Mandir	10m & 6" & 1 shutter

  
 Director  
 ITS Engineering College  
 Greater Noida



DESIGN OF STRUCTURE PROPOSED



*Clayton*

Director  
ITS Engineering College  
Greater Noida



**About FORCE**

Forum for Organised Resource Conservation and Enhancement is a Delhi based NGO registered under the Societies Act of 1860. FORCE is FCRA Certified, 80G certified and registered under section 12A of Income Tax Act, 1961.

Our focus area is WATER.

Our Vision: To make communities "Water Secure"

Our mission: To help create productive, responsible partnerships that use traditional wisdom, modern technology and participative governance for holistic solutions to Save Water, Share Water.

FORCE adopts a unique '4 WAY PARTNERSHIP'(P-4)approach. It partners with government and local leaders, communities, funding partners and technical experts to offer end-to-end support to citizen groups for adopting water conservation and sanitation practices. From research studies/seminars to creating awareness/interest and finally implementation, FORCE uses this model to empower communities and to cover the entire spectrum of activities related to water conservation and sanitation. We also share our learning with relevant government departments to help make existing water policies more people and water friendly.

FORCE has received awards and recognition such as in National Urban Water Award (Ministry of Urban Development) at various levels. The P-4 Partnership approach has also enabled us to create a 'Ripple Effect' – an ever expanding circle of impact on mass awareness and adoption of water conservation practices and sustainable sanitation.

FOR ANY MORE INFORMATION OR ANY HELP PLEASE CONTACT

Asian Paints – FORCE Rainwater Harvesting Project Co-ordinator


FORCE

C-8/8035, Vasant Kunj, New Delhi.

Ph: 011 46018754

Email: [force@force.org.in](mailto:force@force.org.in)

**Happy Rainwater Harvesting!**



Director  
ITS Engineering College  
Greater Noida



ITS ENGINEERING LAYOUT MAP SHOWING CATCHMENT AREA FOR PROPOSING THE RAIN WATER HARVESTING STRUCTURE



Structures proposed



Catchment area



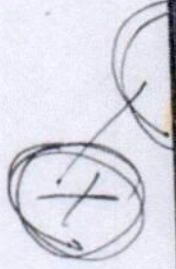
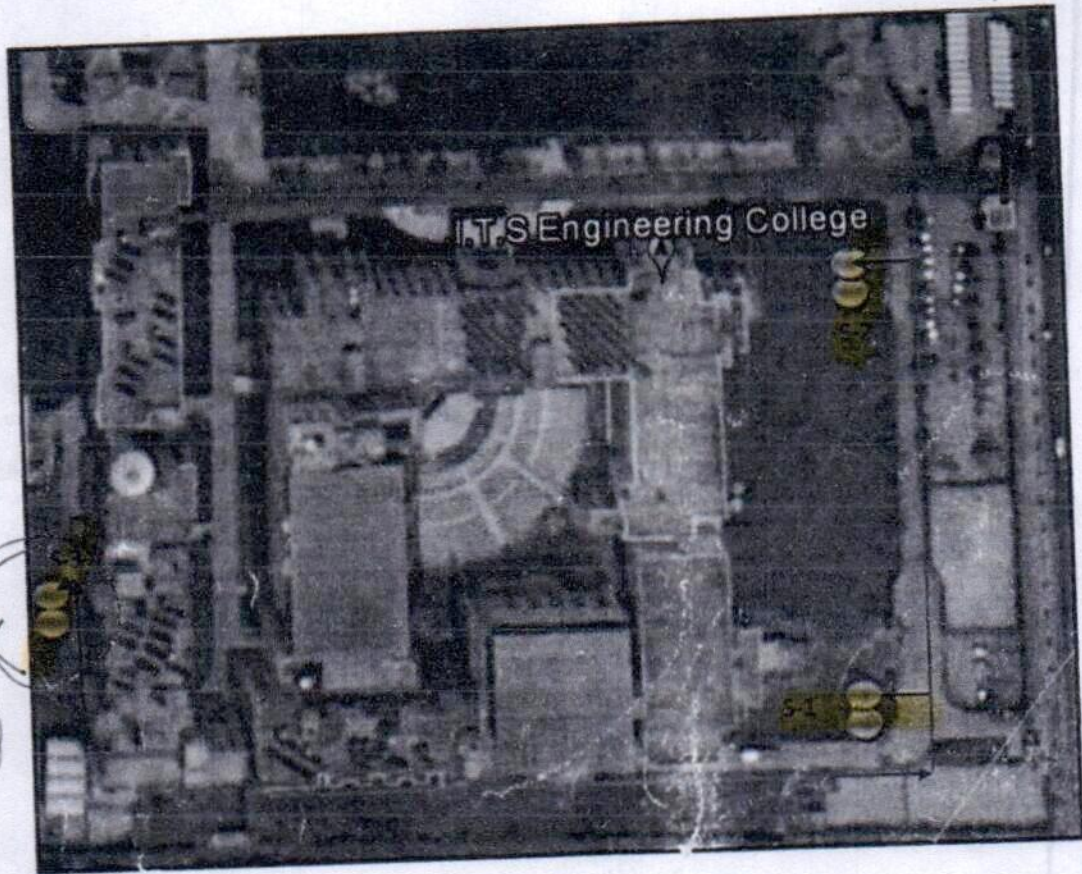
Proposed Channelization



*K. Jayaram*

Director  
ITS Engineering College  
Greater Noida



ITS ENGINEERING LAYOUT MAP SHOWING CATCHMENT AREA FOR PROPOSING THE RAIN WATER HARVESTING STRUCTURE



-  Structures proposed
-  Proposed Channelization

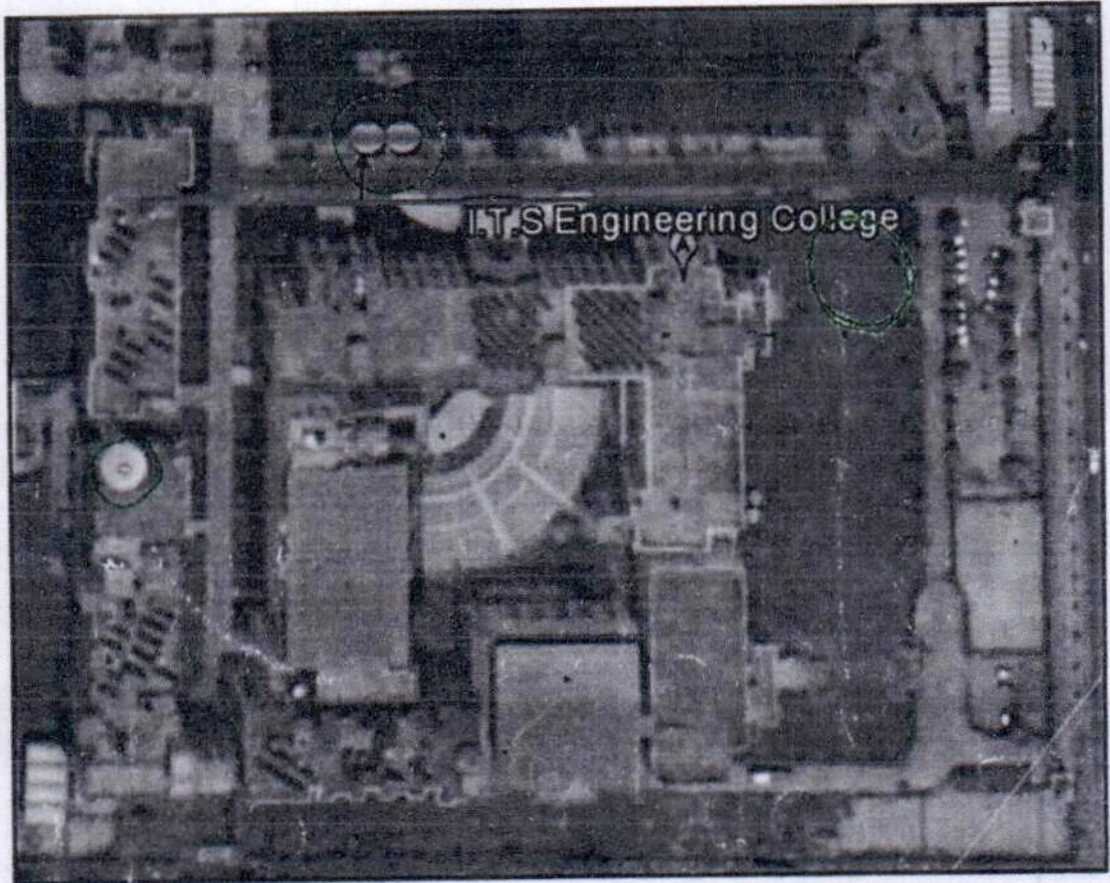
Catchment area



*Signature*

Director  
ITS Engineering Collage  
Greater Noida



**ITS ENGINEERING LAYOUT MAP SHOWING CATCHMENT AREA FOR PROPOSING THE RAIN WATER HARVESTING STRUCTURE**



-  Structures proposed
-  Proposed Channelization

Catchment area

*(Handwritten signature in red ink)*

*(Handwritten signature in purple ink)*

Director  
ITS Engineering College  
Greater Noida



**RECHARGE POTENTIAL CALCULATION**

Site No.	Land use break-up	Area (sq.m)	Annual Rainfall (m)	Hourly Rainfall (m)	Coefficients	Annual Runoff (cu.m/yr)	Hourly Runoff (cu.m/hr)
A Block	Roof top	784.03	0.7	0.025	0.8	439.06	15.7
	Green	1178.5	0.7	0.025	0.2	164.9	5.9
	Paved	577.17	0.7	0.025	0.6	242.4	8.7
	<b>Total</b>	<b>2539.7</b>				<b>846.4</b>	<b>30.3</b>

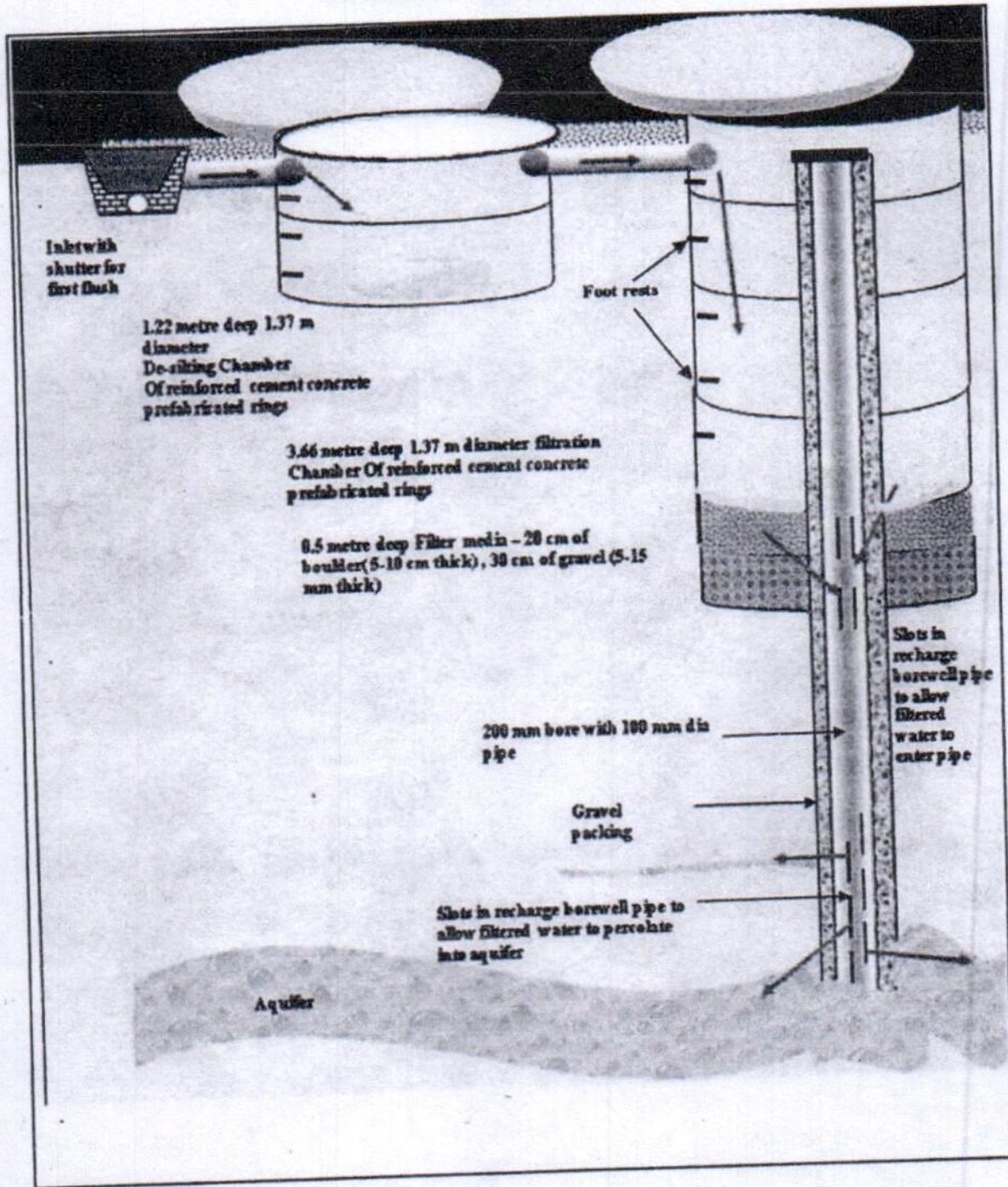
**DETAILS OF RECHARGE STRUCTURES PROPOSED:**

Site	Location	Channelization details (pipe length & dia)
1	In green area front of main college building	40m & 6" with 4 manholes & 1 shutter <i>*Note: 6m road cutting would be also suggested for channelization</i>

*K. Rayan*  
Director  
ITS Engineering College  
Greater Noida



DESIGN OF STRUCTURE PROPOSED



*K. Jayaram*

Director  
ITS Engineering College  
Greater Noida