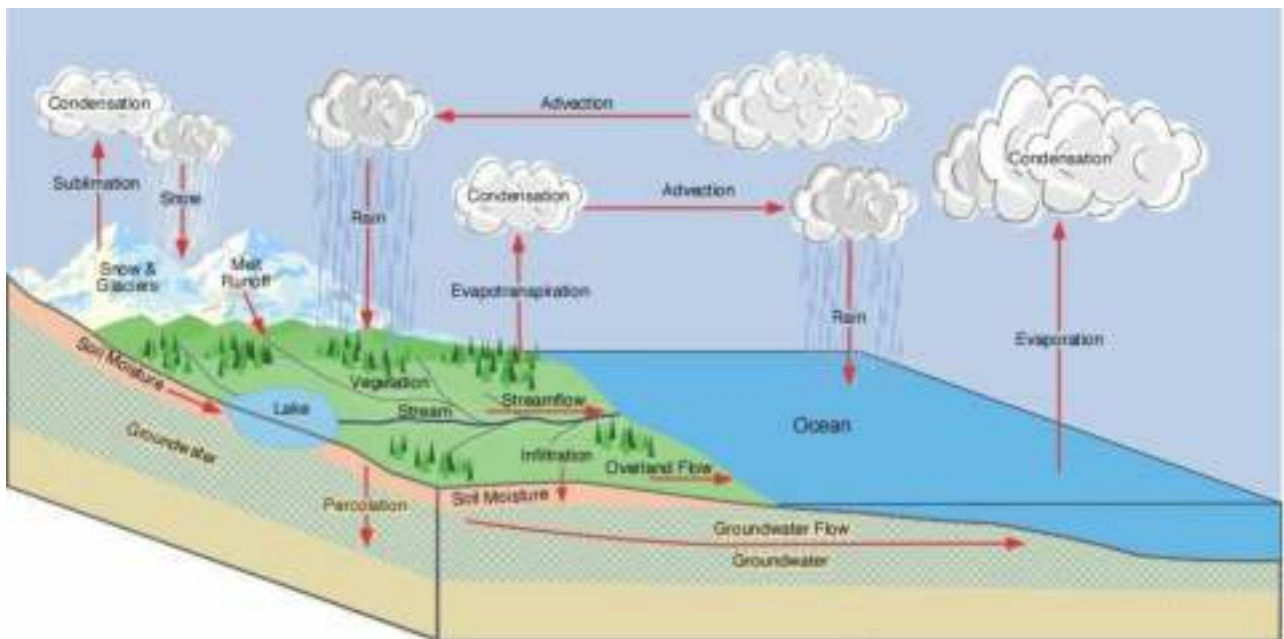


## RAIN WATER HARVESTING:

Water is essential for life and plays a major role in earth's climate. By modifying land use, the proportion of the different pathways, evaporation, and percolation and run off change. The never ending exchange of water from the atmosphere to the oceans and back again is known as the Hydrological Cycle.



In the present day world, rapid urbanization coupled with industrialization has become the order of the day. Added to urbanization, scanty and erratic rainfall is often resulting in reduction in water levels indicating depletion in storage in the surface reservoirs. Dependence on ground water is increasing rapidly over the past two decades. The demand is so high that indiscriminate use of groundwater resulting in steep fall of the ground water levels and there is also reduction in yields.

Apart from this, sealing of permeable soil zone is gradually increasing due to construction activities thereby resulting in reduced percolation of rainwater into the sub-surface and increased surface run-off.

Therefore an urgent need to take up rain / roof water harvesting / conservation methods in urban and rural areas on a large scale, which subsequently help to recharge and maintain ground water balance, in order to make it on a sustainable source.

## Additional Information on

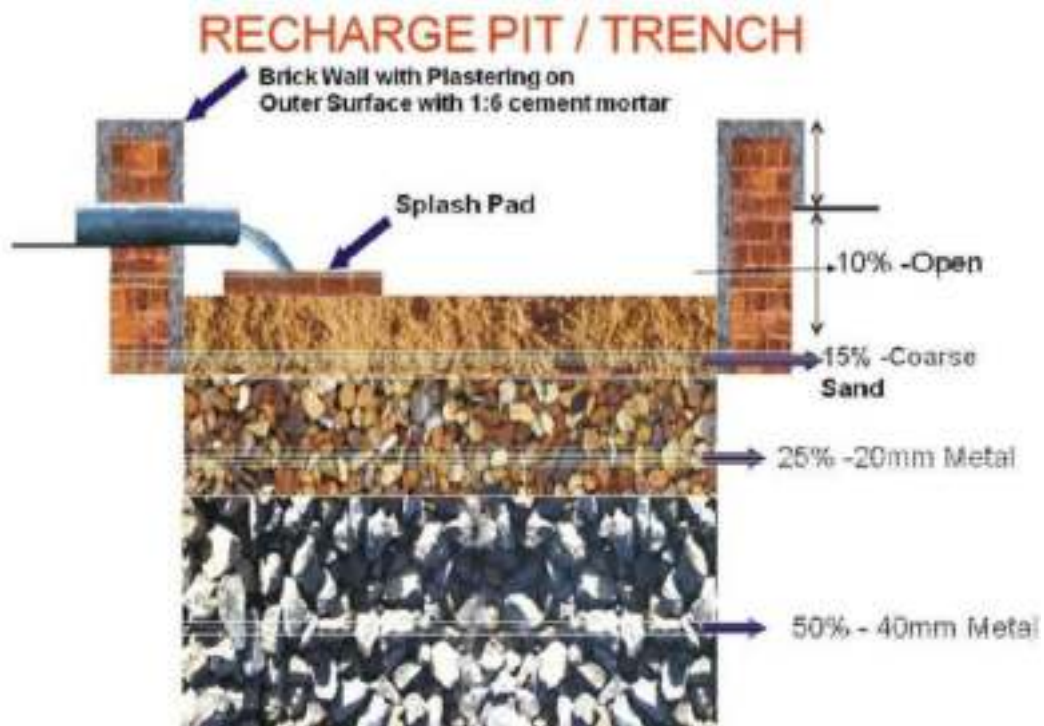
### Rain water harvesting structures and utilization in the campus

Recharging of ground water and rain water collection and utilization are implemented in KITS Engineering College. Rain water harvesting methods that are implemented in the college campus and has many benefits, such as it prevents soil erosion and increase ground water levels.

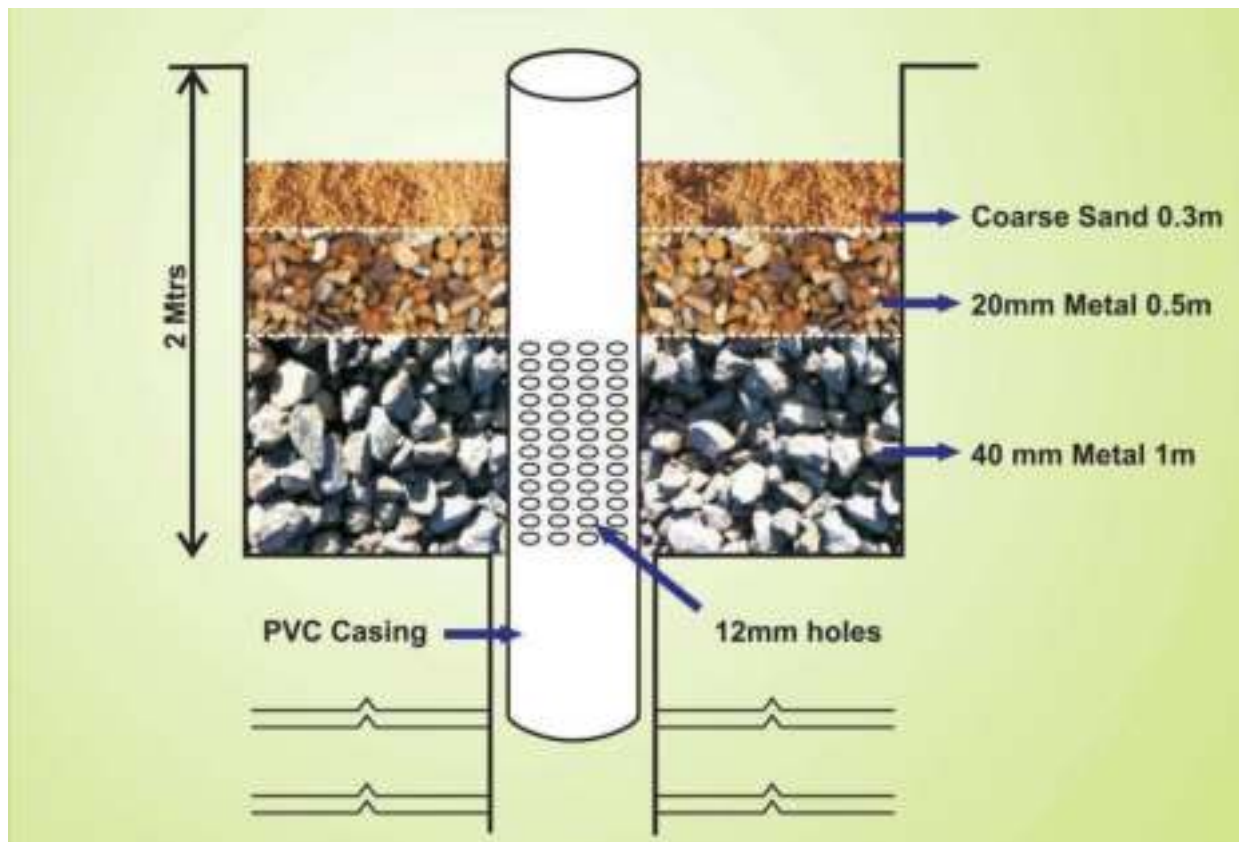
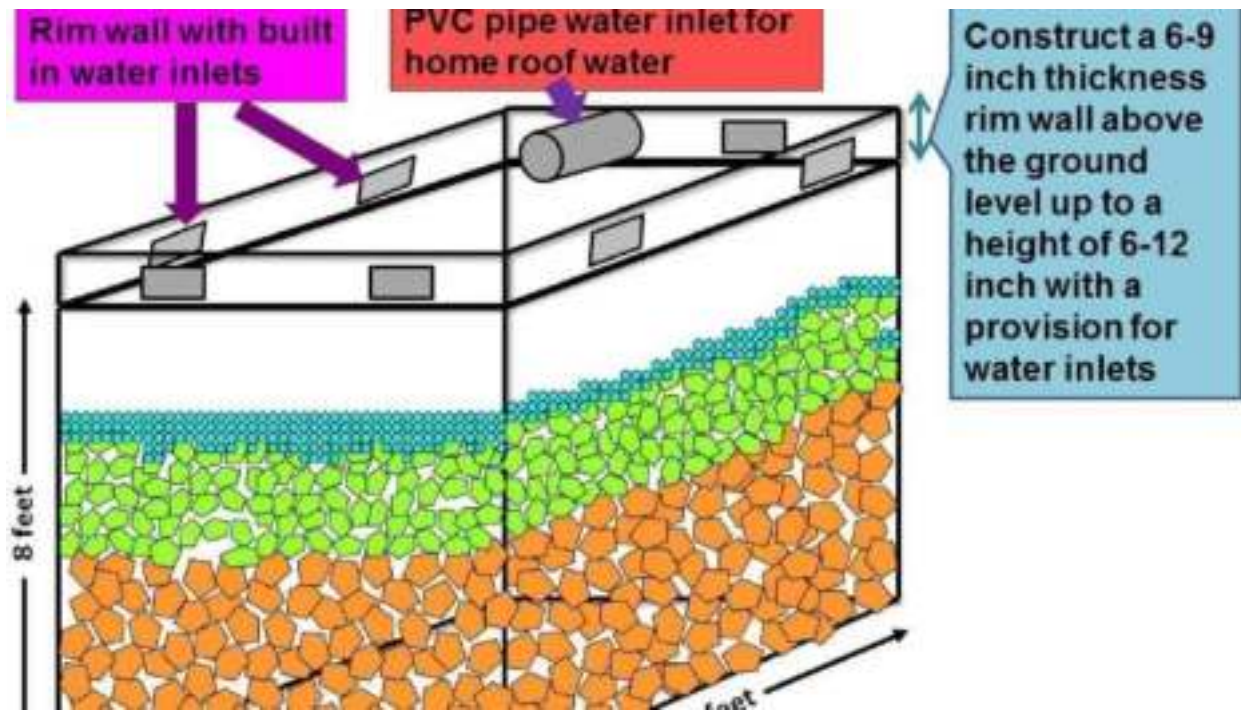
KITS Engineering College is deeply concerned and unconditionally believes that there is an urgent need to address regarding the rain water harvesting methods.

### Rainwater harvesting is practiced in KITS Engineering College:

Artificial recharge of groundwater: Recharge the rainwater in a scientifically planned way by construction of rain water harvesting recharge pits to augment the groundwater. It has been very helpful to increase the ground water levels.



**Design of Recharge pit**



Estd: 2008



Sri Kavitha Educational Society's

**KHAMMAM INSTITUTE OF TECHNOLOGY & SCIENCES**

(Affiliated to JNTUH & Approved by AICTE, New Delhi)

Ponnekal (Village), Khammam (Rural), Khammam (Dist) -507170

Phone: 08742 – 285399, 9908567792



**Rain harvesting recharge pits in KITS College**

  
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Ponnekal (V), Khammam (R), Khammam (Dist) T.S.

### **Waste water Recycling:**

It is a process used to remove contaminants from wastewater or sewage and convert it into an effluent that can be returned to the water cycle with minimum impact on the environment, or directly reused. The latter is called water reclamation because treated wastewater can be used for other purposes. The treatment process takes place in a wastewater treatment plant (WWTP), often

Estd: 2008



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referred to as a Water Resource Recovery Facility (WRRF) or a Sewage Treatment Plant (STP). Pollutants in municipal wastewater (households and small industries) are removed or broken down. The treatment of wastewater is part of the overarching field of sanitation. Sanitation also includes the management of human waste and solid waste as well as storm water (drainage) management. By-products from wastewater treatment plants, such as screenings, grit and sewage sludge may also be treated in a wastewater treatment plant



### WASTE WATER RECYCLING

### **BORE WELL/OPEN WELL RECHARGES:**

Water is a very scarce and crucial natural resource. In recent years, the state and the region is facing a acute shortage of water not only due to uneven and erratic rainfall but also due to improper management of rainwater. Drought is a common feature. Rainwater harvesting and its reutilization for providing protective irrigation proved effective in assured crop production. Groundwater is clearly the preferred source for farmers. This is one of the reasons why the region has experienced explosive growth in groundwater demand during recent decades and this is also one of the reasons why groundwater demand will further expand with changing climate. However, groundwater lifeline is in precarious situation and is likely to remain for many coming years

The water table is depleting at an alarming rate. Large number of wells, hand pumps and tube wells become dry in many areas causing acute shortage of irrigation and drinking water supply in the state. Sustainable crop production in rain fed areas can be achieved if supplemental irrigation can be provided. Groundwater is the major source for providing supplemental irrigation particularly during dry spell in kharif and in rabi seasons. Looking to the enhancement of groundwater potential, the AICRP for Dryland Agriculture has designed and developed a adoptable and economically feasible technology for recharging of open well and bore well.

### **BORE WELL/OPEN WELL RECHARGES**





## **POLICY DOCUMENT TOWARDS GREEN CAMPUS INITIATIVES**

Khammam Institute Of Technology And Sciences (KITS) is established 15 km away from town surrounded by farming fields. The institution is field with trees and beautiful garden. The initiatives towards the establishment of high quality environmental conditions are the prime motto of the institution.

The institution ambience is so arranged in such a way that hygienic environmental conditions for congenial teaching learning process must be provided for the students registered in this institution. A Green Campus is where natural cordial practices and instruction consolidate to advance maintainable and eco-accommodating practices in the grounds. The green grounds idea offers an organization the chance to lead the pack in reclassifying its natural culture and growing new ideal models by making practical answers for ecological, social and monetary needs of the humanity.

- Cleanliness in and around the campus and waste minimization
- Water conservation and management including rain water harvesting, etc
- Using Energy Efficient Light Bulbs.
- Planting trees for preserving environment in campus.
- Complete Ban on polythenes at Campus.
- Digital Library.
- Institute Community Garden.
- College Automation Package

Greening the grounds is about clearing endlessly inefficient wasteful aspects and utilizing traditional wellsprings of energies for its day by day power needs, right removal dealing with, acquisition of condition well disposed supplies and compelling reusing program. Establishment needs to work out the time bound techniques to actualize green grounds activities. These

Estd: 2008



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techniques should be fused into the institutional arranging and planning forms with the point of building up a clean what's more, green grounds.

- Energy conservation
- Plantation
- Waste management

Water management and other related issues.

**Energy conservation:** As and when a failure of an electrical equipment occurs the institution made it as a policy to go for either fire stalled equipment or led lamps and bulbs are those equipment which are of less power consuming in this thing. Every faculty member, student are must be given awareness to switch off the fans, led lights. As and when they are not in use.. No electrical appliances are used when the students are not in the class room.



  
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Khammam (Dist), T.S.



The electric motor starter for the bore well is fitted with an auto turn off device whenever the water is filled up. The solar electric lights for the street lighting in for the during night hours are connected with led sensors so as to operate it as per the light requirements without any manual interaction.

**Water management:** the water is very precious. Out of the water of the universe only 2% of the water is only usable. The water must be used at an very optimistic way. All the usable water that is coming into campus through the bore well.

**Water conservation:** in Rain water harvesting pits are arranged both the campuses where the water that is falling on the surface of the top floor are collected at a point and diverted to the soaking pit in such a way that the water is recharged. The ground water recharging techniques are ensured. There are 4 water recharging pits that are available inside the campus. However the 14 acres of land is completely a open place where the water falling in this pits. That is because of black soil the water will automatically woosed into the ground itself. This is an additional the water conservation normally that is adopted.





**Plantation:** the continuous green card covering techniques are adopted and the students are encouraged to participate in the plantation program at regular intervals and the total campus is containing of so many trees of over ten years of age. The water coming out off the over head tanks can be collected at a point in a tank and from there it is used for watering the plants. And we are regularly go for plantation through different processes out of the harithaharam program like that.

**Waste management:** e-waste management, solid waste management, liquid waste management. Liquid waste management: hazardous liquid waste management. The liquids from the chemistry laboratory and also from the environmental engineering laboratory are collected to the soak pits in a proper way. While managing the waste try to please consider that the liquid is in a proper managed. Do not use excessive liquids which are not contribute to the environment.

Solid waste management: the waste must be collected to the store room at regular intervals. Do not uses un-necessarily at stationary papers must be used in a proper way. Please use one side papers where they are available. Let us contribute environment by using the waste in a proper way by using the stationary in a proper way. Library stationary and other e-waste can be collected that is disposed through a proper waste management methodology. The vendors may be called or otherwise may be given to the people who are in need so as to contribute to the environmental conditions.

**E-waste management:** the computers and other electronic equipment that are not in use are collected and must be given to the vendors of the e-waste. Do not through away the equipment anywhere around the campus. Because they may contribute hazardous environmental pollution. All these initiatives are towards contributing to the healthy and hygienic environmental conditions inside the campus. The institution is committed towards establishment of heigenical atmospheric conditions for the students and the teaching learning process. And this is also educate the students to do same at their houses also. So as to make this as policy for the students rather than a policy for the institution.



Save Energy TIPS:

1. Activate power management features on your computer and monitor so that it will go into a low power “sleep” mode when you are not working on it.
2. Turn off your monitor when you leave your Table.
3. Activate power management features on your laser printer.
4. Whenever possible, shut down rather than logging off.
5. Turn off unnecessary lights and use
7. Use LED or compact fluorescent bulbs daylight instead.
6. Avoid the use of decorative lighting..
8. Keep lights off in conference rooms, classrooms, lecture halls when they are not in use.
9. Use the fans only when they are needed.

**Institute will make all the necessary efforts to involve the students, faculty and staff in  
“Green campus initiatives”.**



  
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### 7.1.4 Water conservation facilities available in the Institution

Rain water harvesting	Bore well / Open well recharge	Construction of tanks and bunds	Waste water recycling	Maintenance of water bodies and distribution system in the campus
Yes	Yes	Yes	Yes	Yes

Khammam Institute of Technology and Sciences(KITS) maintains various water conservation facilities in the campus.

S.No	Tanks and bunds /Soak pit	Available No.	Capacity in Litres
1	Tanks and bunds	2	1,13,23,076
2	Soak pit	4	94,648
Total Storage capacity			1,13,97,724

#### Rain Water Harvesting:

Khammam Institute of Technology and Sciences(KITS)has a good practice of harvesting the rainwater collected from roof top area (14193 Sq.m) in 2 ponds and 4 soak pits constructed. The college campus has a scientifically well- equipped rainwater harvesting unit facilitated by an ideal set up. The rainwater from top of the roofs is collected through proper network of pipes. This network is instrumental of storing the water in soak pit/bunds with the capacity of 1,13,97,724 liters.

#### Bore well / Open well recharge:

There are **four** bore wells available in the campus to supply of the water for regular usage. Currently the ground water is available within the depth of 100 ft. The bore wells are sufficiently recharged through soak pits, so as to retrieve required water throughout the year. Due to the measures taken in terms of water harvesting system ensured that all the bore wells are always kept recharged and hence the campus has never felt scarcity of water.

#### Construction of tanks and bunds

There are 2 (two) tanks and bunds available in the campus with a size of 100 ft. length X 150 ft. width X 8 ft. depth and 90 ft. length X 200 ft. width X 8 ft. depth which can store 1,13,26,738 liters of water.

**Waste water recycling: Sewage Treatment Plant (STP) for waste water recycling:**

The institute maintains two STPs with the capacity of 20000 liters water recycling and usage by the students in the hostel. Other water redirected to fields and ponds.

**Maintenance of water bodies and distribution system in the campus:**

The institute has proper network of pipes to collect the rainwater from top of the roofs. There is a well connected pipes network water delivery system to distribute the water for each floor of the various buildings.

S.No	Proof of Documents
1	Rain water harvesting
2	Bore well / Open well recharge
3	Construction of tanks and bunds
4	Waste water recycling
5	Maintenance of water bodies and distribution system in the campus
6	Bills, Vouchers and audit statements



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Pozhikal (V), Kallarassery (T),  
Mannargudi (Dist), T.N.

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## I. Rain Water Harvesting

Collect the rain water from the roof and diverted to the soak pits and pond.



**Rain water collecting path from the roof**



### **Soak pits**

### **Water Distribution to fields**

A recharge pit harvested the rainwater coming from the top of the roof, a rectangular water pit has dimensions of 30ft, and width of 10ft is located at northeast corner of Ramanujan bhavan. The rain water pipe is connected to the water pit, through the campus the drained rainwater connected to the open ponds available in the campus.



### **Ponds to collect the rain water**

There are two ponds in the campus where the rain water from various parts of the campus is collected and stored. Rain water from building rooftops is also collected and channeled into these open ponds.

A handwritten signature in green ink, appearing to be 'RUS'.

**PRINCIPAL**



**II. Bore well / Open well recharge:**





*[Handwritten signature]*  
**PRINCIPAL**

### III. Construction of tanks and bunds

There are three buildings in the campus, maintain three tanks and one pond to manage the water for daily usage and harvest the rain water.



  
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Khammam (Dist.) T.S.

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**IV. Waste water recycling: Sewage Treatment Plant (STP) for waste water recycling**



**STP has 20000 Liters. For west water recycling**



Handwritten signature in green ink.

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**V. Maintenance of water bodies and distribution system in the campus:**



**A Prototype model of Polavaram project for water distribution designed by our students for water distribution**



  
PRINCIPAL  
KJ SOMAIYA INSTITUTE OF TECHNOLOGY  
Punekar (V), Khambhat (Dist) - 388 111  
Mumbai (Dist) - 400 001

**PRINCIPAL**

Cell : 93908 47973, 93908 47972



**SURESH TILES SHOPEE** సురేష్ టైల్స్ షాపి

Beside Santhi Junior College, N.T.R. Circle, Bypass, KHAMMAM - 507 002, Khammam Dist.

**TAX INVOICE CASH / CREDIT**

SerialNo. **2700** Date **13/12/23**

GSTIN : 36ACCF53861R1ZF STATE CODE : 36

Buyer's Name  
and Address

Srl..... **KITS College**  
Address..... **PONNEKALLU. 507 170**

**Terms of Sale / Supply**

No.	HSN	PARTICULARS	Qty.	Rate	AMOUNT
①	6907	FLOOR TILE	200-	820-	1,64,000-
		TS040C 2493			1
				CGST@9%	14760-
				SGST@9%	14760-
				IGST@18%	
				GRAND TOTAL	1,93,520-

Rupees in words

**WHOLESALE & RETAIL TILES**

Goods Once sold will not be taken back.  
All disputes subject to Khammam Jurisdiction.

**Bank Details :**

Customer's Signature

Certified that the particulars given above are true and correct.

For **SURESH TILES SHOPEE**

Authorized Signatory

**Estimate**

Kit's collage.  
99085-67792.

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Particulars	Qty.	Rate	Amount
(2x2) Ivory. - Johnson. Commercial	160	35	5600 -
(2x2) 9002	80	35	<u>2800</u>
			8400 -
			120
			<u>400</u>
			8920
		(-)	<u>400</u>
			<u>8520</u>
<p><i>K. Jap</i> 28-12-21</p>			
<p>8,520</p>			
<p>Ch.No. <u>612923</u> 28/12/2021</p>			
Total			

E&OE



# JALARAM MARKETING

#2-5-323,P.S.R.Road, KHAMMAM-507003,Telangana (36).  
Cell : 7330735716.

To :- KITS COLLAGE

Add : MAIN ROADPONNEKAL-

GSTIN :

Invoice Date : 30-Dec-2021  
Invoice No : JM/GSAL/7026  
Bill Mode : Cash  
Delivery Add :-  
Delivery Add :-

S. No	Item Particulars	HSN	UOM	Qty	Rate	Disc %	Taxable Value	Tax %	Tax Amount	Amour
1	160MM SUDHAKAR RED PIPE	39172310	PCS	3	1602.00	0.00	4072.88	18	733.12	4806.00
2	450X300 JOHNSON CERAMIC WALL TILES	69072300	BOX	2	150.00	0.00	254.24	18	45.76	300.00

Total Count: 3.00 5.00

Tax%	Taxable	CGST	SGST	Tax Total	Total Amount Befor Tax	
18.00	4,327.12	389.44	389.44	778.88	4,327.12	
					Add SGST	389.44
					Add CGST	389.44
					TCS 0.075	0.00
					<b>Total Amount After Tax</b>	<b>5,106.00</b>

FIVE THOUSAND ONE HUNDRED SIX RUPEES ONLY

Bank Details :-

Bank Name : SBI  
VC No : 62498177876  
FSC : SBIN0020324

For : JALARAM MARKETING

Authorised Signatory





# JALARAM MARKETING

#2-5-323,P.S.R.Road, KHAMMAM-507003, Telangana (36).  
Cell : 7330735716.

To:- KITS COLLAGE

Invoice Date : 22-Dec-2021

Invoice No : JM/GSAL/6753

Add : MAIN ROADPONNEKAL-

Bill Mode : Credit

Delivery Add :-

Delivery Add :-

GSTIN :

S. No	Item Particulars	HSN	UOM	Qty	Rate	Disc %	Taxable Value	Tax %	Tax Amount	Amount
1	160MM SUDHAKAR RED PIPE	39172310	PCS	10	1602.00	0.00	13576.27	18	2443.73	16020.00
2	110MM SUDHAKAR SWR PIPE	39172310	PCS	6	707.00	0.00	3594.92	18	647.08	4242.00
3	90MM SUDHAKAR SWR PIPE	39172310	PCS	4	524.00	0.00	1776.27	18	319.73	2096.00
4	75MM SUDHAKAR SWR PIPE	39172310	PCS	4	379.00	0.00	1284.75	18	231.25	1516.00
5	SWR 110MM DOOR ELBOW	39172310	PCS	8	189.00	0.00	1281.36	18	230.64	1512.00
6	SWR 110MM DOOR TEE PRINCE	39172310	PCS	3	242.00	0.00	615.25	18	110.75	726.00
7	SWR 90MM PLANE ELBOW	39172310	PCS	8	136.00	0.00	922.03	18	165.97	1088.00
8	SWR 90MM DOOR ELBOW	39172310	PCS	4	145.00	0.00	491.53	18	88.47	580.00
9	SWR 75MM PLANE ELBOW	39172310	PCS	8	78.00	0.00	528.80	18	95.19	624.00
10	SWR 75MM DOOR ELBOW	39172310	PCS	11	105.00	0.00	978.81	18	176.19	1155.00
11	ROOF NAILS 2"	73170011	BOX	2	270.00	0.00	457.63	18	82.37	540.00
12	118ML CPVC PRINCE SOLVENT	35061000	PCS	5	150.00	0.00	635.59	18	114.41	750.00
13	PVC 110MM ENDCAP HEAVY PRINCE	39172310	PCS	4	90.00	0.00	305.06	18	54.92	360.00
14	PVC 63MM ELBOW PRESTIGE PRINCE	39172310	PCS	1	25.00	0.00	21.19	18	3.81	25.00

Total Count 105.00 78.00

Tax%	Taxable	CGST	SGST	Tax Total	Total Amount Befor Tax	
18.00	26,469.48	2,382.26	2,382.26	4,764.51	26,469.49	
					Add SGST	2,382.26
					Add CGST	2,382.26
					TCS 0.075	0.00
					Total Amount After Tax	31,234.00

THIRTY-ONE THOUSAND TWO HUNDRED THIRTY-FOUR RUPEES ONLY

Bank Details :-

Bank Name : SBI

A/C No : 62498177876

IFSC : SBIN0020324

For : JALARAM MARKETING

Authorised Signatory

GSTIN : 36AAXFK7073N1ZA INV.21-22/1594

TAX INVOICE - CASH

M/s.KOPPU KRISHNA MURTHY & RAMU  
Iron, Hardware & General Merchants,  
Kaviraj Nagar, KHAMMAM-507002.  
Cell:9848464226, 9848881619  
koppukrishnamurthyandramu@gmail.com

Name | KITS CLG PONNEKAL  
GSTIN |  
Place | TELANGANA State Code:36  
Cell | 9908567792 Date:28.12.2021

SNo	Item Description	Disc%	Qty.	GST	Rate	Value
1	ONIDA CP URINAL PUSH COCK HSN CODE : 8481	5.00	6	18%	495.00	2821.50
2	DOUBLE HACKSAW BLADE RED HSN CODE : 7307	0.00	50	18%	12.00	600.00
3	KOHINDO WASTE PIPE HEAVE HSN CODE : 3917	25.00	4	18%	160.00	400.00
4	CARTOON CP PUSH COCK HSN CODE : 0	15.00	10	18%	360.00	3060.00
5	IVORY BER TILE GROUT KG HSN CODE : 0	0.00	5	18%	60.00	300.00

10:31:25 am

Total : 7262.00

Rupees:Seven Thousand Two Hundred Sixty Two Only.

CHECKED 30/12/21

TAX	TAXABLE VALUE	CGST	SGST	TOTAL
18%	6153.82	553.84	553.84	7261.50
TOTAL	6153.82	553.84	553.84	7262.00



BANK NAME : HDFC BANK  
A/C NO. : 50200061360941  
IFSC CODE : HDFC0001631



# JALARAM MARKETING

#2-5-323,P.S.R.Road, KHAMMAM-507003,Telangana (36).  
Cell : 7330735716.

to :- KITS COLLAGE

Add : MAIN ROADPONNEKAL-

GSTIN :

Invoice Date :30-Dec-2021  
Invoice No :JM/GSAL/7025  
Bill Mode :Credit  
Delivery Add :-  
Delivery Add :-

Sl. No	Item Particulars	HSN	UOM	Qty	Rate	Disc %	Taxable Value	Tax %	Tax Amount	Amour
1	600X600 NANO JOHNSON TILES	69072300	BOX	15	560.00	0.00	7118.64	18	1281.36	8400.00
2	450X300 JOHNSON CERAMIC WALL TILES	69072300	BOX	1	120.00	0.00	101.69	18	18.31	120.00

Total Count: 3.00 16.00

Tax%	Taxable	CGST	SGST	Tax Total	Total Amount Befor Tax	
18.00	7,220.33	649.84	649.84	1,299.67	7,220.33	
					Add SGST	649.84
					Add CGST	649.84
					TCS 0.075	0.00
					<b>Total Amount After Tax</b>	<b>8,520.00</b>

EIGHT THOUSAND FIVE HUNDRED TWENTY RUPEES ONLY

Bank Details :-

Bank Name : SBI  
VC No : 62498177876  
FSC : SBIN0020324

For : JALARAM MARKETING

Authorised Signatory