



SRM
INSTITUTE OF SCIENCE & TECHNOLOGY
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SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

Report on
**THE WORLD ENVIRONMENT
DAY CELEBRATION
– 05TH JUNE 2019
WEEK LONG ACTIVITIES**

3rd June to 07th June 2019

Prepared By

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Dean

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Directorate of Research and Virtual Education
SRM Institute of Science and Technology

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World Environment Day Schedule – SRM IST



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Founded in the year 1981

WORLD ENVIRONMENTAL DAY 2019
INVITATION (June 3rd to 7th)



Date	Events	Venue	Registration Details	
3.6.19	Environmental Audit	1. Java Green Canteen 2. Medical Canteen SRM campus	2 to 4 Staffs from each department https://tinyurl.com/ED-19-3	
4.6.19	Tree planting & Seed Ball Throwing	SRM Rural Health Hospital Mamandoor		
5.6.19	Ramzan Holiday			
6.6.19	Intra college E- poster competition Last Date for Submission 5 th June 6.00 pm	Students, Teaching and Non-Teaching faculties from E & T, FSH, FAS, Management, Law & IHM	<i>Best three prizes been sponsored by</i> The Institution of Engineers (India), Kalpakkam Local Centre (IE-KLC) & Indian Association of Nuclear and Allied Scientists (IANCAS), Kalpakkam https://tinyurl.com/SRM-ED-19	
7.6.19 4:30 pm – 5:30 pm	Workshop on Seed ball Making	Children of SRMIST members	MBA Block (Lawn)	https://tinyurl.com/Environmental-day-19
	<ul style="list-style-type: none"> Terrace Gardening Fireless Cooking 	SRMIST members	MBA Seminar Hall	
7.6.19	Valedictory 5:30 – 6:30pm		Venue – MBA Seminar Hall	
	Dinner 6:30 – 7:30 pm		Venue – Tech Park Canteen	

World Environmental Day – 2019



Weekly Agenda of Environmental day

Date	Day	Plan of Action	Venue	Responsibilities/Remarks
3/6/2019	Monday 10:00 am - 1:00 pm	Environmental Audit in SRM IST	<ul style="list-style-type: none"> Java green SRM MCH & RC Canteen 	Dr. Mythili – DSA Dr. V. Thirumurugan., AD (CL) E&T and FSH Faculties SRM MCH & RC
4/6/2019	Tuesday 10:00 am - 4:00 pm	1. Tree Plantation Drive 2. Seed Ball throwing	SRM Rural Hospital, Mamandoor	Organizers – DSA 1. Dr. T. M. Thiyagarajan (FAS) 2. Dr. Padma Venkat (SPH) 3. Dr. Rajan Patil (SPH) 4. Dr. V. Thirumurugan
6/6/2019	Thursday 9:00 am - 4:00 pm	Forenoon: 1. CME on Hospital Waste Management 2. E-poster competition.	Medical Auditorium	Event Co-ordination 1. Dr. Gayathri, SRM MCH&RC 2. Dr. Sangeetha –Nursing 3. Mrs. Bharathi Raja, SRM MCH&RC Organizers – DSA Speakers Dr. Kantha-CENR
		Afternoon: Lecture Series on 1. Green Initiatives 2. Radiation Awareness 3. E - Poster Competition		
7/6/2019	Friday 9:00 am - 10:30 am 4:00 pm - 5:00 pm	Forenoon: (9:00 am - 10:30 am) MARCH FOR ENVIRONMENT – 1. Banner Competition 2. Rally - Medical & Health Sciences Students	MBA Seminar Hall	Dr. V. Thirumurugan Event Co-ordination – Dr. Gayathri, SRM MCH&RC Dr. Sangeetha –Nursing Mrs. Bharathi Raja, SRM MCH&RC Dr. Kantha D. Arunachalam (CENR) Organization part – DSA Workshop - Dr. Parthiban (FAS)
		Afternoon: (4:00 pm - 5:00 pm) Workshop on 1. Seed balls making –Children of SRMIST Faculties & Staff 2. Terrace Gardening – for SRMIST faculties and Staff		
		Valedictory/Dinner (5.00 pm to 7.00 pm)		

World Environment Day Invitation



SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

Requests your august presence for the

WORLD ENVIRONMENT DAY CELEBRATIONS -2019

DR. SANDEEP SANCHETI

Vice Chancellor
SRM Institute of Science and Technology
Presides

Dr. A. SUNDARAM, MD.,

Dean
SRM Medical College Hospital & Research Centre
Delivers special address

Shri J. Daniel Chellappa

Senior Scientist (TCW)
BARC, GOI, Chennai
Felicitates

Date: 6th June, 2019 Time: 10.30 am

Venue: Hippocrates Auditorium
SRM Medical College Hospital & Research Centre

PROGRAMME

08.30 – 09.00 am	Registration https://tinyurl.com/hwmmedical
09.00 – 10.30 am	E - Poster Presentation (MBBS and BDS)
10.30 – 10.40 am	Inauguration
10.40 - 11.15 am	Guest Speaker I (<i>Hospital Waste Management</i>) Dr. V. K. Ramadesikan , MBBS., MD., Former Professor in Madras Medical College Chennai
11.15 – 12.00 pm	Guest Speaker II (<i>Green Initiatives</i>) Shri J. Daniel Chellappa Senior Scientist (TCW) BARC, GOI, Chennai
12.00 – 01.00 pm	E - Poster Presentation (AHS (MLT), Nursing, B.Opt, RDT)
01.00 – 02.15 pm	Lunch Break
02.15 – 03.00 pm	Guest Speaker III (<i>Radiation Awareness</i>) Er. M. Shanmugasundaram Scientific Officer/F, IFS, DD & RSD, FRTG, IGCAR, Kalpakkam-603102
03.00 – 04.00 pm	E - Poster Presentation (BPT, BOT & MIT)
04.00 – 04.10 pm	Prize Distribution & Pledge
04.10 pm	Felicitation & Vote of Thanks

World Environment Day, Week-Long Activities, 03rd June – 07th June 2019

Date & Time	Details of various activities
03 rd June 2019	Environment Audit by SRM IST Faculties, Staff and Students
04 th June 2019	Tree Planting and at SRM IST Rural Hospital Campus at Mamandoor Village
06 th June 2019	<ol style="list-style-type: none">1. Intra College e-poster Presentation at Hippocrates Auditorium, 3rd Floor SRM Medical College Hospital & Research Centre2. Guest Lecture:<ol style="list-style-type: none">1) Dr. V. K. Ramadesikan, Former Professor in MMC, Chennai2) Shri. J. Daniel Chellappa, Senior Scientist, BARC, GOI, Chennai3) Er. M. Shanmugasundaram, Scientific Officer/F, IFS, DD & RSD, FRTG, IGCAR, Kalpakkam
07 th June 2019	<ol style="list-style-type: none">1. Demonstration of Terrace gardening (Dr. M. Leenus Jesu Martin, Director Hostels)2. Fireless Cooking (Chef. Vinoth, SRM Hotel Management)3. Workshop on Seed Ball Making (Dr. Parthiban, Faculty of Agriculture)

Report – The World Environment Day 05th June 2019

SRM Institute of Science and Technology,

Kattankulathur, Chennai – 603 203

SRM Institute of Science and Technology celebrated World Environment Day, 05th June, 2019 (WED). it was jointly organized by Center for Environmental Nuclear Research, Directorate of Research and Virtual Education, School of Public Health, Medical College, School of Nursing, Physiotherapy, Occupational Therapy, Faculty of Engineering & Technology, Directorate of Student Affairs, Swachh Bharat Team showcasing and harnessing the multidisciplinary strength at SRM IST by coming together for a common cause. It was a symbolic fact that environment is everybody's concern and environmental issues necessarily should have inter-sectoral initiative. The World Environment Day celebrations from 03rd June 2019 to 07th June 2019 packed with a multitude of environmental activities starting with

1. Environmental audit cum Walkathon at SRM Kattankulathur campus
2. Tree planting at SRM Rural Health Center, Mamandoor
3. Intra college e-poster competition
4. Rally for creating awareness about air pollution
5. Demonstration of Terrace gardening
6. Fireless Cooking
7. Workshop on Seed Ball Making

Registration links for participating in various events of the celebration were shared with students and faculty members. Promotional head caps with Beat Air Pollution slogan was distributed to all the members in the campus. The prizes and certificates were distributed to all the winners of various competitions and participation certificates were given to all the participants of the events. On completion of the WED 2019 celebration, the program concluded with the Environment Pledge followed by the vote of thanks note by Prof. Kantha D. Arunachalam, Dean, CENR, DRVE, SRM IST.

All our activities are well covered in the media as prime-time news in Puthiya Thalaimurai, Vendhar TV and also in all leading newspapers.

Google Forms Shared for Registration

6/14/2019

World Environmental Day

World Environmental Day

June 3,2019-Environmental Audit.

Venue:Inside SRM Campus.

Timings:10.00a.m to 12.00p.m.

Refreshment will be provided.

June 4,2019-Environmental day(Tree Plantation)

Venue:Urban & Rural Health Centers, Mamandur.

Timings:9.30a.m to 12.30p.m

Transportation will be provided from SRM TO Mamandur, Return also.

Lunch will be provided.

* Required

1. Name *

2. Phone No *

3. Email ID *

4. Present Residential address *

5. Disciplines *

6. Department *

7. Designation at SRM *

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1/2

6/14/2019

World Environmental Day

8. Events *

Check all that apply:

☐ Environmental Audit (June 3,2019)

☐ Plantation Drive (June 4,2019)



CME on Hospital Waste Management

Date:- 06.06.2019

Time:- 09.00am - 12.30pm

Venue:- Hippocrates Auditorium (Medical Auditorium)

* Required

1. Full Name *

2. Course *

3. Year *

Mark only one oval.

☐ 2018-2019

☐ 2017-2018

☐ 2016-2017

☐ 2015-2016

4. Whatsapp Number *

5. Email ID *

6. You want to participate as *

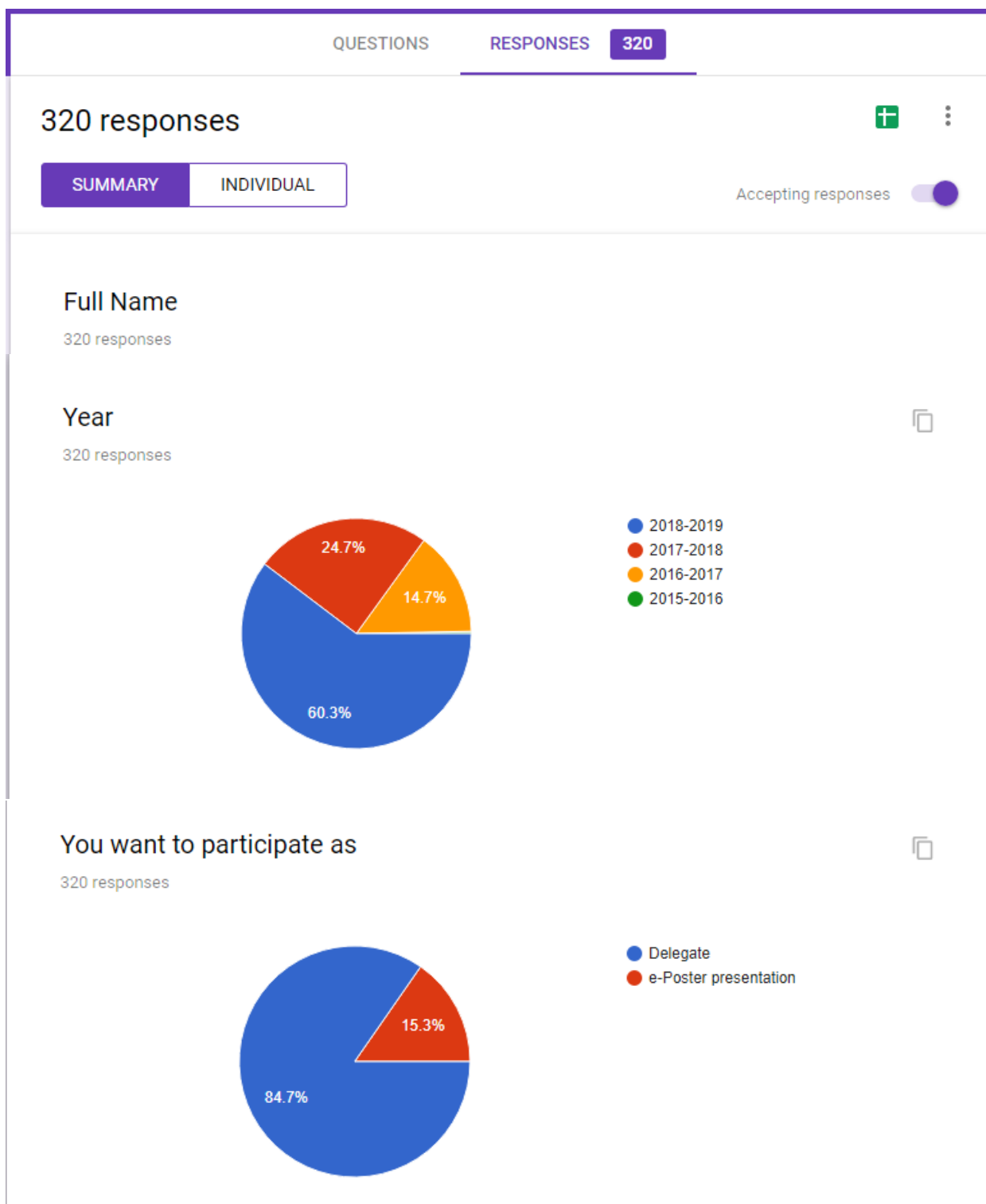
Mark only one oval.

☐ Delegate

☐ e-Poster presentation

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 Google Forms



E-Poster Competition for Environmental Day-19

Date:- 06.06.2019

Time:- 09.00am - 12.30pm

Venue:- Hippocrates Auditorium (Medical Auditorium)

* Required

1. Full Name *

2. Phone Number *

3. E-Mail Id *

4. Faculties *

Mark only one oval.

- ☐ E&T
- ☐ FSH
- ☐ FAS
- ☐ IHM
- ☐ LAW
- ☐ School of Management

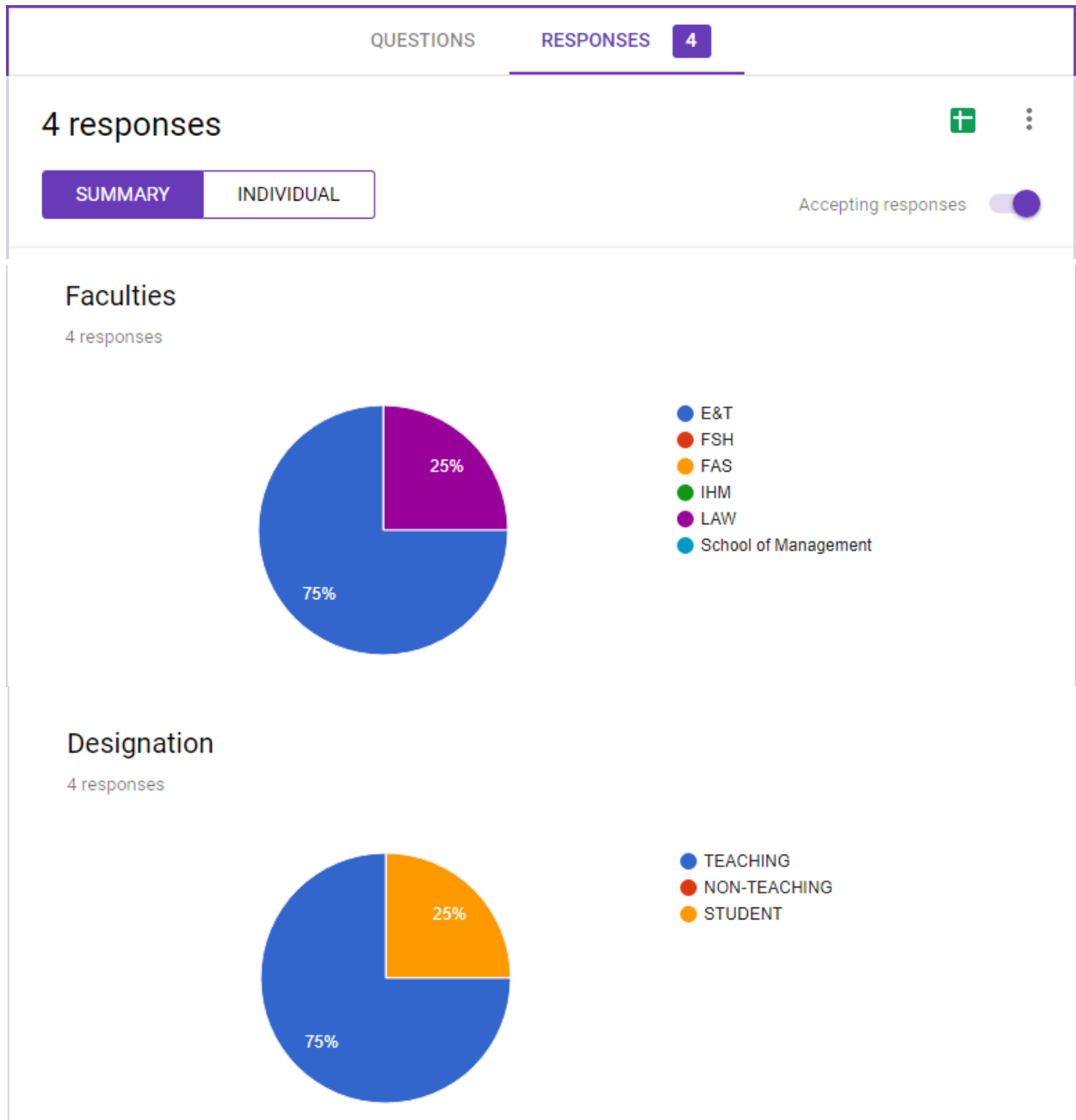
5. Department *

6. Designation *

Mark only one oval.

- ☐ TEACHING
- ☐ NON-TEACHING
- ☐ STUDENT

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World Environmental Day-2019

World Environmental Day Celebration-2019

7th June 2019-04.30 p.m to 7.30p.m

Event Agenda:

1)Workshop on Seed Balls making for Children.

Venue: MBA LANE.

2)Workshop on Terrace Gardening.

Venue:MBA Seminar Hall.

Valedictory.

Dinner.

* Required

1. Name *

2. Designation in SRM *

3. Department

4. Present Residential Address *

5. Children Name & Standard

6. Contact No *

7. E-mail id *

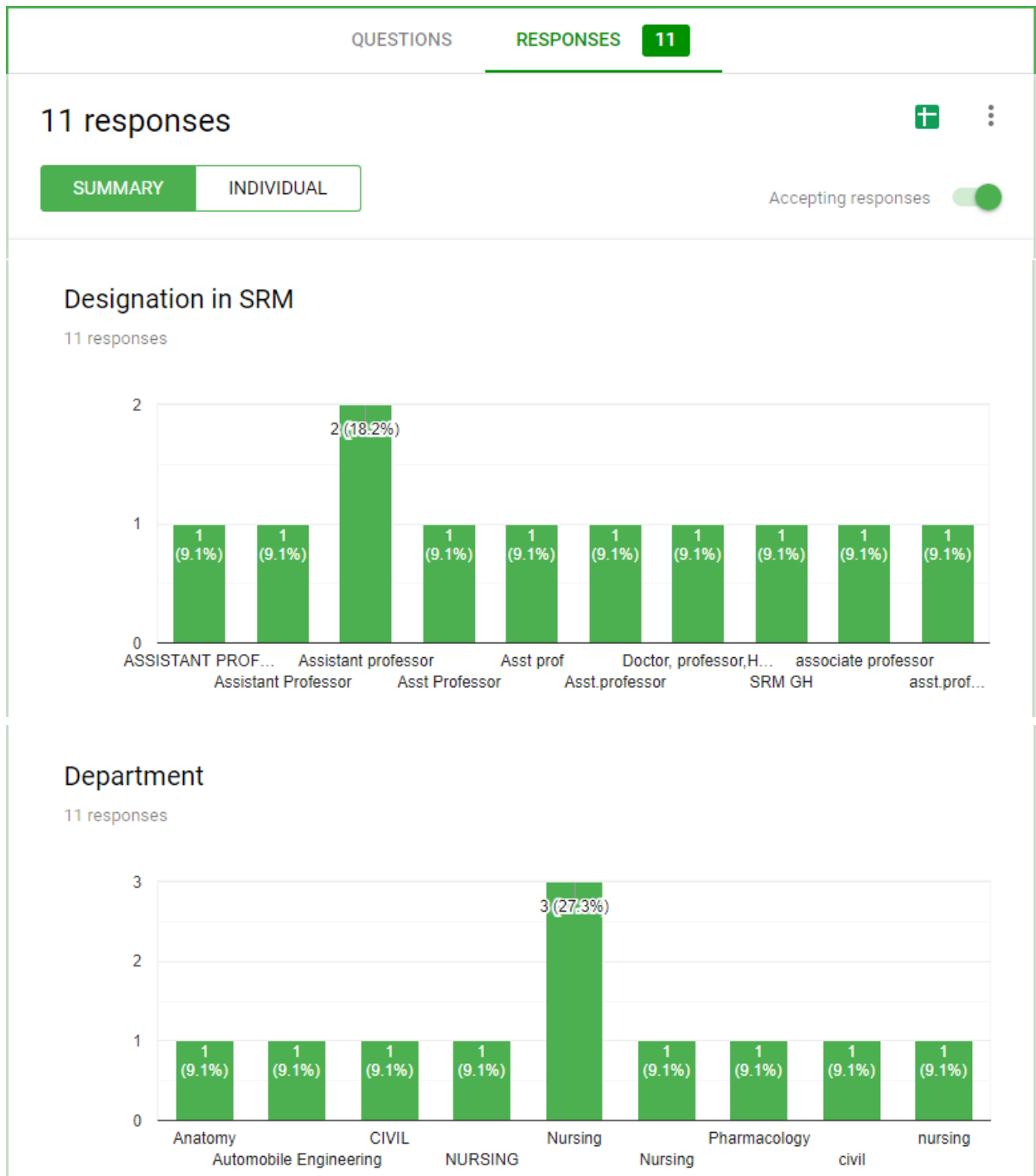
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Environment Audit cum Walkathon – Monday, 3rd June 2019

A team of faculty members across disciplines Center for Environmental Nuclear Research, School of Nursing, Physiotherapy, Occupational therapy, Medical, Public Health, Directorate of Student Affairs, Engineering & Technology, **Swachh Bharat** have joined hands for a week-long celebration, in view of Environment Day on June 5th 2019. On Monday, June 3rd, 2019, being the first day, a group of 50 members gathered at the University Library and instruction for the Environmental Audit was given by **Prof. Kantha Deivi Arunachalam**, Dean, Centre for Environmental Nuclear Research. A demonstration and information hand out on the environmental audit details have been given to all the members. The 50-member team went for a mini walkathon around the campus and did the Environmental Audit protocol at two places.

1. Near the library
2. Shops at Java Green.

The 50-members team separated into small groups to create awareness among the vendors at Java Green Canteen, about the importance of avoiding nondegradable materials like plastics and segregating the wastes into biodegradable and non-biodegradable. The housekeeping team along with gloves and bags helped to segregate the waste as paper cups, plates, food, plastic bottles and metals, cans, bottles and took the weight of them. The faculties from the Center for Environmental Nuclear Research demonstrated the preparation of the audit report with the waste data generated during the mini walkathon for the participants. The 50 member team gathered at Tech Park canteen and discussed various functional mechanisms to make the SRM IST a plastic free campus by creating awareness among the students, faculties, staff, SRM workers and the vendors. The long-term objective is to reduce waste and segregate the waste every day and make it a part of life, thereby leaving the world a safer place for our future generations. The team discussed the plan of action for the next few days celebrations; bringing today's activity to an end.

Waste Audit Report Questions

1. **Location**
2. **Type of waste:** whether it is Dry, Wet, Hazardous or Mixed
3. **What waste it contains**
4. **Weight of the waste**
5. **Quality of the waste:** Whether it is contaminated with other waste or not
6. **Source:** Where the waste came from

Time of Clearance: 8 am, 2 pm

Location 1:

1. Central Library
2. Mixed
3. Contained: Straws, Paper, Plastic spoon
4. 150g
5. Quality: Poor
6. Source: Canteen (Orange blossom)

Location 2:

1. Food court (Java Green)
2. Mixed
3. Contained: Plastic cups, Coca-cola pet bottle, lays chips pockets, paper cups, snickers covers, plastic spoon waste, paper plates, minute-made orange, tissue paper, sprite bottles, bisleri plastic bottles, snickers cardboard box, plastic covers, plastic straws, food waste, kit-kat cover
4. 1215g of mixed plastic waste & 2115g of plastic cups and other waste
5. Quality: Poor
6. Source: Coming from various food shops.

Monday, 3rd June 2019, Environmental Audit at SRM IST Waste Collection, Segregations from the Vendors



Directors & Deans Meeting, SRM IST - Monday, 03rd June 2019

SRM Institute of Science and Technology, Directors and Dean's Meeting was held on 3rd June 2019 and **Dr. Sandeep Sancheti**, Vice Chancellor, **Dr. N. Sethuraman**, Registrar and all Directors and Deans were present. In this meeting, they discussed the World Environment Day 2019 celebrations. WED2019 committee members informed about the weeklong activities that include Environmental audit, e-posters presentation for students and faculties, environmental awareness rally, seed ball making, terrace gardening and fireless cooking. Further, WED2019 organizing team distributed the Caps and Seed Balls with guidelines to all the delegates to promote environmental day activities.

There are three types (Neem, teak and custard) of seed balls distributed in a pack distinguished with colour to throw in and outside of the campus. The guidelines will help them to throw seed balls.



Seed Balls



Seed Ball Guidelines

Directors and Deans Meeting, SRM IST



Tree Planting at Mamandoor – Tuesday, 4th June 2019

The second day of the World Environment Day (WED) celebration -2019, the 45 member members from medical and Health Sciences department of SRMIST including faculties and students have reached the SRM Rural Health center at Mamandoor on 04/06/2019. The bus services have been provided by the Transport Division. Before starting the tree plantation function Prof. Kantha D Arunachalam, Dean-CENR gave the Welcome speech to participants. Further, she denoted about the environmental issues and what are the measurements we have taken to care for environmental protection and its importance. She also added a note about SRM IST Green Initiatives to keep the environment clean.

The maintenance team of SRMIST has arranged the 40 plants saplings of five varieties; **Jackfruit, Neem, Almond, Indian beech** (Pungai) and **Malay Padauk** (Vengai) from the Agriculture Department. The other required materials like gloves water cans and tools for Tree plantation has been provided by the horticulture department (Mr. Elango). Each participant planted different varieties of plant saplings around SRM Rural Health Center and totally 40 trees were planted. **Dr. Roshni Alex** the medical Doctor in-charge at the hospital was very kind and made the local arrangements with the help of the supervisors and other interns available in the rural hospital. The lunch and refreshment were provided to all participants by the WED-2019 team. The planting of trees alone is not sufficient but it has to be maintained by daily watering and putting guards to protect the plants from the animals like cows and goats. So, WED-2019 team decided that we can request the **Unnat Bharat Abhiyan** (UBA) team to take care of the plants by watering them every day. Finally, Prof. Kantha D Arunachalam thanked SRMIST for providing the facilities and Doctors and staff members of SRM Rural Health Center for necessary arrangement.

**Team Members from SRM IST Planting Trees at SRM Health Centre,
Mamandoor**





Intra College e-poster Presentation
At Hippocrates Auditorium, 3rd Floor SRM Medical College Hospital &
Research Centre Thursday, 06th June 2019

As a part of the World Environment Day celebrations, the selected e-poster presentation was conducted from the 320 entries for the e-poster competition. Students from various disciplines such as MBBS, BDS, AHS, MLT, Nursing, OPT, RDT, BPT, BOT & MIT participated in this and presented their creative posters with the theme of **Hospital Waste Management** and **Beat Air Pollution** to create awareness. **Dr. B. Gayathri**, SRM MCH &RC co-ordinated this program. The posters were judged by a panel of judges. The list of judges for the e-posters competition

1. **Dr. Vijaykrishna, MD – Community Medicine**
2. **Dr. Mononmani. MD – Microbiology**
3. **Dr. Sangeetha Raja, MD – Pharmacology**
4. **Dr. B. Gayathri, MD - Biochemistry**

After the tea break, the inauguration started with Tamizh Thaa Vaazhthu followed by the Classical dance, Bharatanatyam performance by - first-year medical students. Then Honourable Vice Chancellor of SRM IST **Dr. Sandeep Sancheti** presided the function and delivered his presidential address. **Dr. A. Sundaram**, MD., Dean SRM Medical College Hospital & Research Centre delivered a special address. The guest invitees were honoured with mementos. Shri J. Daniel Chellappa, Senior Scientist (TCW) BARC, GOI, Chennai felicitated the function.

As soon as the inauguration was completed, Special lectures were given on Environment awareness.

- The first lecture was given by **Dr. V. K. Ramadesikan**, MBBS., MD., Former Professor in Madras Medical College Chennai, on the title **“Hospital Waste Management”**.
- The Second lecture was given by **Shri J. Daniel Chellappa**, Senior Scientist (TCW) BARC, GOI, Chennai, on the topic **“Green Initiatives”**.
- The final lecture was given by **Er. M. Shanmugasundaram**, Scientific Officer F, IFS, DD & RSD, FRTG, IGCAR, Kalpakkam, on the topic **“Radiation Awareness”**.

Finally, the posters of excellence were honoured with prizes under three different categories and e-Certificates were provided for all the participants. The day ends off with a vote of thanks and all gathered for National Anthem.

The prize winners of the e-poster competition are listed below

MBBS Category	Paramedics Category	M.Sc Category
1st Prize – Rashmi Rithusha	1 st Prize – Ms. Ranjana Gupta	1 st Prize – Ms. Aparna
2nd Prize – Reva Venkatesan	2 nd Prize – Ms. Mohana Priya	2 nd Prize – Ms. Sneha Priya
3rd Prize – Chandru & Jeevan	3 rd Prize – Mr. Praveen Kumar	



List of Participants in e-poster presentation

S.No	Name	Department	Title
1	Ms. Rashmi Rithusha, Dr. B. Gayathri, MD	MBBS	A study on hospital waste management in Apollo children hospital
2	Ms. Reva Venkatesan, Dr.B. Gayathri, MD, Dr.V.M. Vinodhini, MD,	MBBS	Hospital Waste Management
3	Mr. Rohan Raj	MBBS	Hospital Waste Management and recent developments
4	Mr.Jeevan	MBBS	Hospital Waste Management
5	Ms. Pooja	MBBS	Hospital Waste Management
6	Mr. Praveen	Nursing	Hospital waste management
7	Ms. Ramya	Nursing	Biomedical waste management
8	Ms. Ranjana	Nursing	Hospital waste management
9	Ms. Keerthana	Nursing	Hospital waste management “Environment is precious to life, secure it for life
10	Ms. Jayasree Kannan	Nursing	Biomedical waste management
11	Mr. Karthic, Ms. Santhiya, Ms. Minisha	Nursing	Hospital waste management
12	Ms. P. Snega Priya	Medical Microbiology	Identification of plastic degrading bacteria and degradation of biomedical waste by biodegradation
13	Ms. R. Aparna	Medical Microbiology	Biomedical waste management- challenges faced in India
14	Mr. Saravana Kumar, Mr. Mohan	Physiotherapy	Biomedical waste management
15	Mr. Balaji. R & Mr. Pranav. A	Physiotherapy	Misuse of bio-medical waste & health
16	Mr. Ramu. E, Mr. S. Aditya Rajan	Physiotherapy	Bio medical waste management
17	Mr. Nelson	MLT	Hospital waste management
18	Ms. J. Soundarya	MLT	Biomedical waste management
19	Ms. Srilekha	MLT	Sharps disposal and needle stick injury

Photos of Student's Presentation



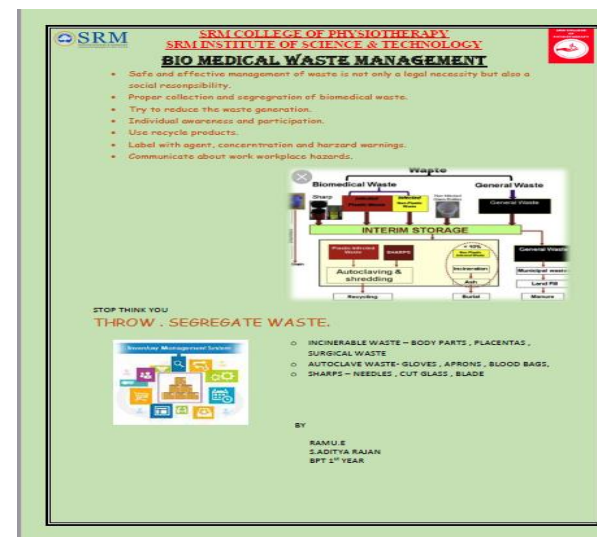
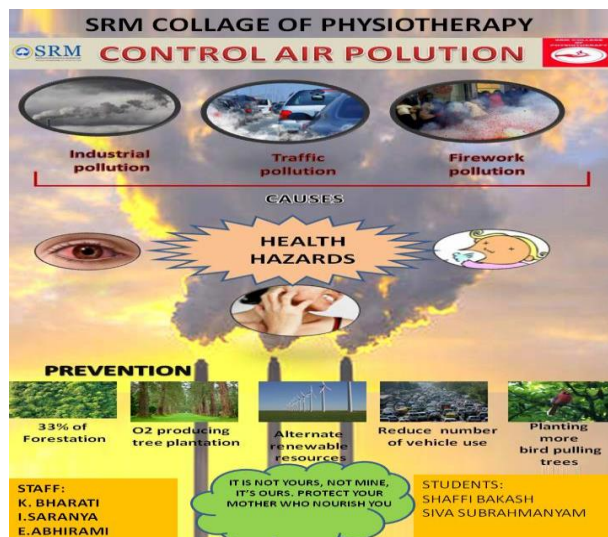
Inauguration of CME on Hospital Waste Management



Presidential Address by VC and Special Lectures by Guest Speakers



Posters Presented by Students with the Theme of Hospital Waste Management and Beat Air Pollution



Posters Presented by Students with the Theme of Hospital Waste Management and Beat Air Pollution

[illegible]

BIOMEDICAL WASTE MANAGEMENT

Main sources of healthcare risk waste

Source	Percentage
Wards	25%
Theatre	17%
Labs	16%
Other small areas combined	34%
OPD	1%
I & O	0.5%
A&E	3%

Knowledge

Waste Type	YES (%)	NO (%)
INJECTOR	~85	~15
ASST. DRUGS	~85	~15
INTERNAL	~85	~15
SHARPS	~85	~15
DISCARD	~85	~15
WASTE CAN	~85	~15

Figure 1: The participant's knowledge in biomedical waste management

VENKATARAMANA INCINERATORS

WASTE CAN BE HAZARDOUS. HANDLE WITH CARE.

Spill management


Blood & Body Fluid Safety

BIOMEDICAL WASTE MANAGEMENT (BMW)


RAMYA, T.K (B.Sc NURSING IIII YEAR) BATCH 2018-2019
SRM COLLEGE OF NURSING – SRM IST

INTRODUCTION

Biomedical waste management is any waste which is generated diagnosis and treatment or the immunization of human beings or animals or research activities pertaining thereto in the testing of the samples in the health camps including the categories mentioned in Schedule I appended to these rules.



BIOMEDICAL WASTE



BMW IS GENERATED BY

- Health care facilities
- Laboratories

SEGREGATION OF BIOMEDICAL WASTE


- GENERAL WASTE** – Kitchen wastes, papers and tissues.
- INFECTIOUS PLASTICS** – Syringes, Plastic wastes, and gloves.
- INFECTED WASTE** – Solid, Anatomical, Laboratory waste, Expired and discarded medicines.
- GLASS WASTE** – Antiseptic waste, Metallic implants, Glassware materials except cytotoxic.
- SHARPS** – Needles and cut glasses.

BMW IS CLASSIFIED INTO TWO

- INFECTIOUS 15%**
- NON INFECTIOUS 85%**

HEALTH HAZARDS

- Injury to the hospital staff
- Adverse effects on health





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HOSPITAL WASTE MANAGEMENT

“Environment is precious to life, secure it for life”

INTRODUCTION

•The waste produced in the course of health care activities carries a higher potential for infection and injuries than any other type of waste.

•Inadequate and inappropriate knowledge of handling of health care waste may have serious health consequences and a significant impact on the environment as well.

•It is estimated that annually about 0.33 million tons of hospital waste is generated in India and the waste generation rate ranges from 0.5 to 2.0 kg per bed per day.

•Therefore, generated a safe and reliable method for handling of hospital waste is essential.



AIMS AND OBJECTIVES

1. Provide information on the correct method of clinical waste management and disposal.
2. To develop awareness so as to appreciate health safety and environmental protection issues relating to clinical waste.

STRATEGY ADOPED FOR HOSPITAL WASTE MANAGEMENT

- Waste reduction strategy
- Waste assessment & recycling strategy
- Hospital waste disposal

COMPONENTS OF HOSPITAL WASTE MANAGEMENT

1.Training and awareness of hospital staff



2.Initiating and segregation of waste



3.Disinfection and neutralization



4.Secure storage and transportation of waste



5.Sharp and hazardous waste management



6.Final treatment and disposal



MEDICAL WASTE MANAGEMENT TECHNIQUES

- Segregation
- Autoclaving
- Microwave
- Disinfection
- Incineration
- Disinfection by plasma
- Landfilling technology

IMPACTS OF HOSPITAL WASTE

- Infects entire community
- Population at greatest risk
- o patients
- off-duty care workers
- oNon-patient workers
- oBag pickers
- oWorkers at recycling industries
- Global warming
- Solid waste
- Decrease level of communicable disease

SAFETY PRECAUTION

- Training and education
- Use of handkerchiefs
- Strict protocols and sharp handling and disposal
- All items protocols as remainder for the health care staff
- Limit access to only trained personnel with personal protective equipments



HOSPITAL WASTE HIERARCHY



CONCLUSION

Safe and effective management of waste is not only a legal necessity but also a social responsibility. Proper training programme should be encouraged. Labeled with agent, concentration and hazard warning.

REFERENCES

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- 2.DOE. [http://doe.gov.in/12035294-6561/comp2181978](#)
- 3.Journal of Environmental and Public Health. Volume 2018, Article ID 747280, 10 pages. [http://dx.doi.org/10.1155/2018/747280](#)



Srm College Of Physiotherapy

SRM Institute of Science and Technology

Biomedical Waste Management



Waste generated during the diagnosis, testing, treatment, research and production of biological products of human or animals (WHO).



WHO has estimated that In year 2000 Infection with contaminated syringes caused 21 million hepatitis B Virus (HBV) infection (32% of all new infection)

Two million hepatitis C Virus (HCV) infection (40% of all new infection)

260000 HIV infection (5% of all new)

Disposal methods of Biomedical Waste

Incineration, chemical disinfection, irradiation, Autoclave, Encapsulation, etc

GJ Multiclave Ltd is external agency managing final disposal in the zone.

COLOR	WASTE	TREAT
Yellow	Excret & fecal anatomical waste / Micro-organisms and viral culture/serology/urine, body fluids, etc.	Incineration/sterilization
Red	Bloods, Cultures, IV sets	Autoclave/sterilization/chemical disinfection
Blue / Green	Woundheaps (Needles, Syringes, Scalpels, Blades etc.)	Autoclave/sterilization/chemical disinfection/ incineration/sterilization
Black	Discarded medicines, chemicals, drugs, incineration ash, chemical waste.	Disposal in biohazard



REUSE
REPAIR
RECYCLE

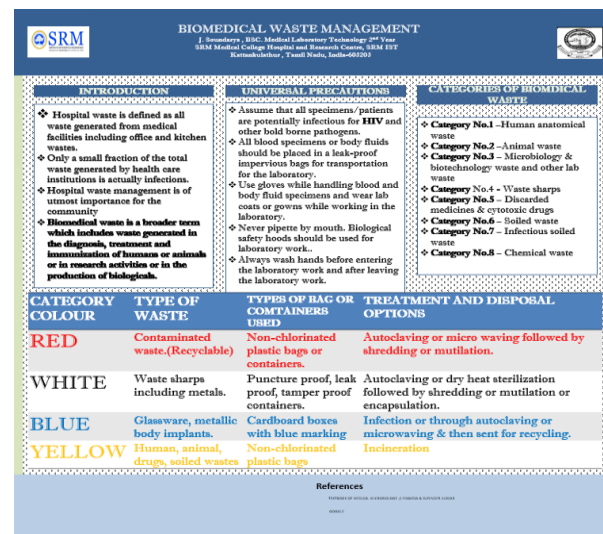
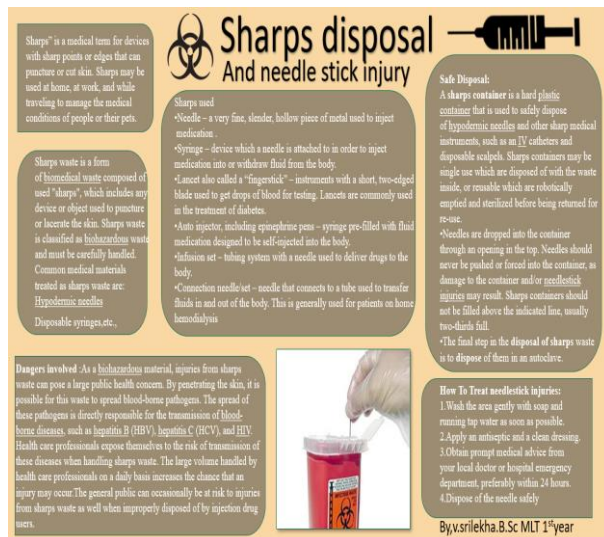
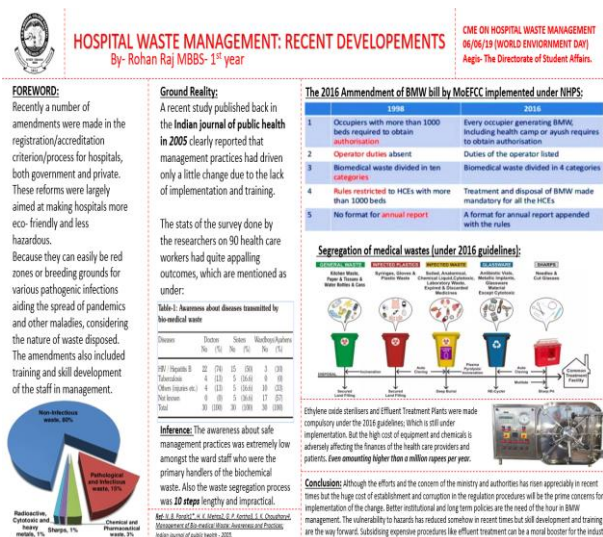
Reference: MOEF Guide
lines INDIA BMW
(Management and
handling) rules 1998

Done by: Saravana Kumar, S.R. Moha

PowerPoint



Posters Presented by Students with the Theme of Hospital Waste Management and Beat Air Pollution



Prize Distribution to e-poster winners





SRM



SRM Medical College Hospital and Research Centre

“World Environmental Day Celebration”

6th June 2019

Certificate of Appreciation / Participation

This is to certify that Dr./ Mr./ Ms. _____ has participated as a Guest

Speaker /Delegate / Presented in E-poster at the CME on “Hospital Waste Management & Green Initiatives” held on June

6th , 2019 organized by the SRM Medical College Hospital & Research Centre.

**Registrar
SRM IST**

Valedictory of CME Programme



Rally on World Environment Day (Wed) Celebration – Friday, 07th June 2019

The Rally Started at 10.00am. on 07th June 2019. Around 300 members of medical college students and faculties participated in WED-2019 rally. During the rally, the students held placards and posters with environmental awareness slogans. **Dr. Sangeetha**, School of Nursing, SRM IST coordinated this program. The rally started from medical college building, passed via Java Green Canteen, University Building, and Tech Park Building and ended at Dr. T. P Ganesan Auditorium. After reaching Dr. T. P Ganesan auditorium refreshments were provided to the participants. Then **Dr. V. Thirumurugan**, Associate Director (CL), SRM IST gave the prizes to students for best environmental awareness slogans.

First prize - **Nursing Team**

Second prize - **Physiotherapy Team**

Third prize - **Occupational Team**

Prof. Kantha D. Arunachalam, Dean CENR Honored Dr. V. Thirumurugan, Associate Director (CL), SRM IST with a memento and thanked for supporting WED-2019 program. Finally, Prof. Kantha D. Arunachalam, Dean, CENR gave the vote of thanks to all the participants.



Rally for promoting the theme Beat Air Pollution and Prize Distribution





Prize Distribution for Best Slogans



World Environment Day Workshop – Friday, June 7th 2019

This event started at around 4.00 pm in Prof. Peter Drucker Seminar Hall, MBA Block, SRM IST. In this event, three activities were conducted; Terrace Gardening, Fireless cooking, and Seed ball Making. Students and faculty members of various departments of SRM IST participated with their kids in this event.

Terrace Gardening

In this event, **Dr. M. Leenus Jesu Martin** gave a talk about how to maintain a terrace garden and its importance. He emphasized the advantages of having a terrace gardening and shared his experience of joy and happiness in tasting the healthy and organic fruits and vegetables that were grown by him. He also said the challenges he faced in maintaining a terrace garden. After his talk faculty members of SRM IST and their children raised some questions and doubts to which he answered. This sitting was really useful for the entire participants.

Dr. M. Leenus Jesu Martin Presentation about Terrace Gardening



Dr. M. Leenus Jesu Martin Interacting With Audience in the Hall



Fireless Cooking

Madam Lalitha from SRM hotel management with her team of 10 members coordinated this event of fireless cooking. **Chef Mr. Gopinath** showed the demo of preparing tasty and easy to make dishes without using fire in front of students, faculty members and their children. **Ms. Vinotha** narrated about the nutritional values of the dishes prepared. She also gave the statistics about the people in hunger and asked the children not to waste the food. Then the children were given hands-on training to prepare some of the dishes like Vegetable sandwich, Chapathi roll and Sweet balls.



Fireless Cooking Demonstration by Chef Gopinath



Workshop on Seed Balls Making

Dr. Parthiban, Assistant Professor, Faculty of Agricultural Sciences demonstrated the method of making seed balls. He highlighted the growth media and other natural nutritious supplements like “*Panchagavya*” for plants. Apart from seed ball making, he also talked about the importance and advantages of involving in agricultural activities and nature loving hobbies like gardening. Children found it very useful and were found to be very happy in making the seed balls on their own. Pouches containing 3 seed balls with instruction sheet was distributed to all the participants. They also promised that each one will plant at least one plant and show its growth in the next World Environment Day celebration. All the participants were provided with a participation certificate and the children were gifted with goodies and stationary materials like crayons, sketches, chart sheets, etc. In the end, dinner was provided to everyone.





SRM
INSTITUTE OF SCIENCE & TECHNOLOGY
(Deemed to be University u/s 3 of UGC Act, 1956)



SRM Institute of Science and Technology

“World Environmental Day - 2019

A Week Long Activities 7th June 2019”

Certificate of Participation

This is to certify that Dr./ Mr./ Ms. _____ has participated
as a Delegate in the workshop on *“Seed Ball Making / Terrace Gardening and Fireless Cooking”* held on
June 7th , 2019 organized by SRM Institute of Science and Technology, Kattankulathur - 603 203.

Registrar
SRM IST

DECCAN Chronicle

THE LARGEST CIRCULATED ENGLISH DAILY IN SOUTH INDIA
CHENNAI | WEDNESDAY 12 | JUNE 2019

'Need to develop more efficient water purifiers'

DC CORRESPONDENT
CHENNAI, JUNE 11

Senior scientist in Bhabha Atomic Research Centre (BARC) J. Daniel Chellappa, stressed the need to develop more efficient water purifiers in houses and colleges.

BARC has developed technologies that would decrease the water wastage during reverse osmosis, he said.

He also mentioned the BARC developed a variety of drought resistant seeds in Tamil Nadu.

Mr. Chellappa was speaking at the World Environment Day celebrations held at the SRM Institute of Science and

Technology.

The event started with an Environmental Audit around the University campus. This activity helps to gauge the exact status of the waste that has been created and eventually helps us to reduce the quantity of waste and to understand the impact it has on our ecosystem.

Dr. Sandeep Sancheti, Vice Chancellor of SRM Institute of Science and Technology presided and Dr. A. Sundaram, Dean, SRM Medical College Hospital & Research Centre delivered the special address.

M. Shanmugasundaram, Scientific Officer, Kalpakkam spoke on

radiation awareness. Dr. V. K. Ramadesikan, former professor of Madras Medical College, also spoke.

The week-long event kick-started with the tree planting and seed ball throwing in SRM Rural Health Hospital in Mamandoor.

Events such as E-poster and Banner creation based on Hospital Waste management and, this year's main agenda, Beat Air Pollution (#BeatAirPollution) got hundreds of entries. The Institution of Engineers, Kalpakkam and Indian Association of Nuclear and Allied Scientist, Kalpakkam gave away prizes to the first three winners in each category.

NEWS TODAY

NATIONAL DAILY

FOUNDER EDITOR: T.R.R

CHENNAI'S No.1 ENGLISH EVENING DAILY SINCE 1982

CHENNAI ★ WEDNESDAY 12 JUNE 2019

'Need to develop higher efficient water purifiers'

◆ SRM Institute conducts series of events to mark World Environment Day



SRM Institute of Science and Technology Vice-Chancellor Sandeep Sancheti presenting a memento to BARC senior scientist J Daniel Chellappa during World Environment Day celebrations in Chennai recently.

[NT Bureau]

Chennai, June 12:

Bhabha Atomic Research Centre (BARC) has developed technologies that would decrease water wastages during reverse osmosis, said its senior scientist J Daniel Chellappa. Participating at the World Environment Day celebrations at SRM Institute of Science and Technology here recently, he pinpointed the need to develop higher efficient wa-

ter purifiers in houses and colleges.

He also spoke about the ways water purification can be perceived in SRM, Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam, Scientific Officer, M Shanmugasundaram, spoke about radiation awareness. He also added the need to develop better awareness among people about the radiations.

Madras Medical College former professor, Dr V K Ramadesikan,

spoke about the hospital waste management. He said we need to be careful while disposing hospital waste such as a syringe, liquids, used bandages and dressings, discarded gloves and other medical supplies. He explained different ways to dispose of all these waste safely and eco-friendly.

SRM Institute of Science and Technology Vice-Chancellor Sandeep Sancheti presided over the event and SRM Medical College Hospital & Research Centre dean, Dr A Sundaram gave few interesting insights into the ways, the environment can be handled better.

According to a press release, the weeklong event saw tree planting and seed ball throwing in SRM Rural Health Hospital in Mamandoor. Events such as E-poster and banner creation based on hospital waste management and, this year's main agenda, 'Beat Air Pollution' (#BeatAirPollution) got hundreds of entries. Students took part in various events.

உலக சுற்றுச்சூழல் தினம்: விதைப்பந்து வழங்கி எஸ்.ஆர்.எம்., கல்லூரி மாணவர்கள் அசத்தல்!

சென்னை, ஜூன் 12-
எஸ்.ஆர்.எம்., அறிவியல் தொழில்நுட்ப நிறுவனத்திலிருந்து, உலக சுற்றுச்சூழல் தினத்தை அனுசரித்து விஞ்ஞானி டேவியல் செல்வராஜா தொட்டி விதைத்தார்.

உலக சுற்றுச்சூழல் தின திருவிழா, எஸ்.ஆர்.எம்., அறிவியல் தொழில்நுட்ப நிறுவனத்திலிருந்து பல்வேறு துறைகளின் சான்றிதழ் சுற்றுச்சூழல் பாதுகாப்பு சம்மதமாக மாற்றித்தான் அவசியம், பழக்கவழக்கம், விதைப்பந்து நவாபித் தம், மொண்டை மருத்துவமனை, உணவுக்களத்தில் தூய்மை பராமரித்தல், திட்டமிட்ட வேலை நிகழ்வுகள், சுற்றுச்சூழல் செல்வங்கள் என்ற கருத்துடன், சமீபத்தில் தான் தட்டிக்கொண்ட பெற்றோர் விழா, தொட்டி விதை, சென்னைக்கு உணர்வு, எஸ்.ஆர்.எம்., மருத்துவக்கல்லூரி மருத்துவமனை மற்றும் ஆராய்ச்சி மையத்தில், ஜூன் மாதம் தொடர்ந்து அங்குள்ள நடைபெற்றிருந்தது.



அறிவியல் தொழில் நுட்ப நிறுவனத்தின் துணைவேந்தர் சந்திரன்மேந்திரன் அவர்களிடம், திருச்சியில் பரம அணு ஆராய்ச்சி மையத்தின் முதலினை விஞ்ஞானி டேவியல் செல்வராஜா அவர்கள் மாணவர்களுக்கு உலக சுற்றுச்சூழல் தினத்தை தொடங்கி வைத்து வேண்டுகோள், வின் உற்பத்தி, உணவு பற்றாக்குறை, 'மேக் இன் இந்தியா' திட்டத்தின் கீழ் உற்பத்தி உருவாக்கப் பட்ட வேலைகளில் வளர்ச்சி காண்பதற்கான தொழில்நுட்பங்களை உருவாக்கும் பணியில் பரம அணு ஆராய்ச்சி

மையம் ஈடுபட்டுள்ளதாகவும் இதில் எஸ்.ஆர்.எம்., அறிவியல் தொழில்நுட்ப நிறுவனமும் தங்களில் மாணவர்களை அழைத்து ஆராய்ச்சி பணியில் ஈடுபடுத்த வேண்டும் என்றும் கேட்டுக் கொண்டார். இதில், எஸ்.ஆர்.எம்., மருத்துவக்கல்லூரி மருத்துவமனை மற்றும் ஆராய்ச்சி மையத்தின் மாணவர்கள் ஈடுபட்டுக் கொண்டனர். உற்பத்தி மையங்களில் அணுக்கதிர் வீச்சு ஒத்த உணவையில் கிடைக்கக்கூடிய உணவுகளில் அணு உற்பத்தி தடைபெறுகிறது. அதே

தேர்தலில் கதிர்வீச்சு மயிர் பற்றாது என்பது குறித்து விழிப்புணர்வு மக்களுக்கு ஏற்படுத்த வேண்டும்," என்றார். இந்த நிகழ்ச்சியில், சென்னை மருத்துவக்கல்லூரி முன்னாள் போசிரியர் டாக்டர் கல்பாக்கம் அணு ஆராய்ச்சி மைய அறிவியல் அலுவலர் எம்.சண்முக சுத்தரம், போசிரியர் டாக்டர் வினோம் மார்கண்டே, சுற்றுச்சூழல் அணு ஆராய்ச்சி மையத்தின் முதன்மைப் பேராளியை சுமந்தா தேவி அருணாச்சலம் ஆகியோர் பங்கேற்று பேசினர். தான் தட்டிக்கொண்ட பெற்ற உலக சுற்றுச்சூழல் தினத்தின் திருவிழா மானாற்றுகிற உயர்வு, ஆர்.எம்., கிழமை கருத்து மையத்தில் வேம்பு, பரம, புரக்கை மரக்கன்றுகளை நடர்ப்பட்டதுடன் விதைப்பந்துகள் வளர்க்கப்பட்டன. மேலும், சுற்றுச்சூழல் குறித்த விழிப்புணர்வை ஈடுபடுத்தி, எஸ்.ஆர்.எம்., அறிவியல் தொழில்நுட்ப நிறுவனத்தின் போசிரியர்கள், அறிவியல்கள், மாணவர்கள் பங்கேற்ற வேண்டி நடத்தப்பட்டது.



இதில் பல நிரூபிப்பின் 'வரல்த் ஸ்ரீராம்மென்ட் டே' கார்யக்ரமல்த் பார், சீனயர் ஸென்ட் ஐ.டேனயல் செல்வகு மெமென்ட்ஸு லண்டஜெஸ்ஸு ஸ்ரீராம் இன்ஸ்டிடியூட் ஸ்ரீ லண்ட் டிசுலஜ் லைன் டாஸ்ஸல் ஸ்ரீ.ஸன்ட்

ANNEXURE I

Environmental Audit

What do you mean?

A management tool comprising systematic, documented, periodic and objective evaluation of how well environmental organization, management and equipment are performing with the aim of helping to safeguard the environment by facilitating management control of practices and assessing compliance with company policies, which would include regulatory requirements and standards applicable.

Features of Environmental Audit

- Management tool
- Aim of environmental audit
- EIA • Systematic process
- Documentation
- Periodic
- Objective evaluation
- Environmental performance

Objective of Environmental audit

- Determine and document compliance status
- Improve environmental performance
- Assist facility management
- Increase overall level of environmental awareness
- Development of environmental management control system
- Improve risk management systems
- Protect corporation from potential liabilities
- Develop a basis for optimising environmental resources.

Benefits of Environmental Auditing

- Improves efficiency of EMS
- Compliance with environmental laws and standards
- Risk mitigation
- Meeting stakeholder's expectations
- Reduction in operational inefficiencies
- Encourages continual improvement
- Compliance with certification requirements
- Employee awareness
- Helps management in decision-making

Types of Environmental Audit

- Environmental Compliance Audit
- Environmental Performance Audit
- Environmental Financial Audit

Environmental Compliance Audit

- Objective - To provide assurance to organisational activities are conducted in accordance with environmental laws, standards, guidelines, policies.
- Criteria - National law, International Agreements, Applicable Standards, Industry Guidelines or Corporate Policy.

Environmental Compliance Audit

Benefits:

- Helps in ensuring compliance with laws.
- Reduces risk / costs with non-compliance.
- Gap between promises and results.
- Pollution & Waste reducing, conserving resources.
- Helps in improving Environmental Performance.

Environmental Performance Audit

- Objective - To assess whether an organisation meets its environmental objectives, is effective in producing environmental results with efficiency and economy.
- Criteria - Indicators prescribed by professional institutes, Govt. / NGO, academic literature or Environmental Organisation.

Environmental Performance Audit

Benefits:

- ❖ □Health & Safety Audit □ Site Audit
- ❖ Activity Audit
- ❖ Process Audit □Product Life Cycle audit

Environmental Financial Audit • Benefits:

International Auditing Practices Statement (IAPS) 1010. Environmental Matters affect financial statements.

Initiatives to prevent damage to Environment.

- Consequences of violating laws.
- Consequences of damage to resources.
- Consequences of vicarious liability levied by law.

Environmental Audit Process

Stage - I Pre-audit / Planning stage

- Collection of data
- Define objectives of audit
- Define scope
- Choose criteria
- Select the team members
- Develop audit plan and protocols
- Address On-site needs

Environmental Audit Process

Stage-II Onsite / Field Audit

- ❖ Opening conference
- ❖ Facility tour
- ❖ Site/facility inspection
- ❖ Evidence
- ❖ Records/document review
- ❖ Staff interviews
- ❖ Initial review of findings
- ❖ Closing/exit conference

Environmental Audit Process Stage-III Post Audit

- ❖ Final evaluation of findings
- ❖ Drafting of preliminary audit report
- ❖ Approval of the management
- ❖ Holding of exit conference
- ❖ Discussion on recommendations, if any
- ❖ Preparation and submission of final report

Stage-IV Follow up / Review stage

E A R

- Contains findings / results / recommendations
- Concise & informative - easy to interpret & understand
- Auditor ensures accuracy of data

Contents of report

- Executive Summary
- Introduction
- Objectives
- Scope
- Criteria
- Approach & methodology used
- Evidences used
- Findings - (Elaborated in next to next slide)
- Conclusion
- Recommendations
- Signatures of auditor with date

Tools & Techniques Used

- Checklist
- Questionnaires
- Questioning
- Observation
- Photographs / Electronic data
- Research

June 3: Environmental Audit: 10:00 am – 12 :00 noon

Environmental audit (EA) is defined as basic management tool which comprises a systematic, documented, periodic & objective evaluation of how well SRMIST can reduce its pollution and waste to improve the environmental performances. EA is an exercise which generates necessary information on analysis of pollution generated or will be generated and completion of annual estimate. EA has 3 phases 1. Pre audit activity- pertaining to collection of information. 2. Activity at site pertaining to evaluation of information collected. 3 Post audit activity pertaining to drawing conclusion and identifying areas of improvement to achieve compliance of standards and establish a report with regulatory bodies for implementation of environment management policies.

Each faculty will nominate 3 volunteers/department to do the Environmental Audit

Assemble in front of Library for instruction on June 3

Audit will be done in three places

1. Java Green
2. UB building shopping mall
3. Medical Hospital canteens

The degradable and non-degradable waste will be segregated and weighed to calculate the percentage and documented. The findings will be evaluated and follow up actions will be recommended to reduce the waste.

ANNEXURE II

What are Seed Balls?



A pile of seed balls.

What are seed balls and seed bombs?

A seed ball (or seed bomb) is a seed that has been wrapped in soil materials, usually a mixture of clay and compost, and then dried. Essentially, the seed is ‘pre-planted’ and can be sown by depositing the seed ball anywhere suitable for the species, keeping the seed safely until the proper germination window arises. Seed balls are an easy and sustainable way to cultivate plants in a way that provides a larger window of time when the sowing can occur. They also are a convenient dispersal mechanism for guerrilla gardeners and people with achy backs.



A seed ball before the storm.

History

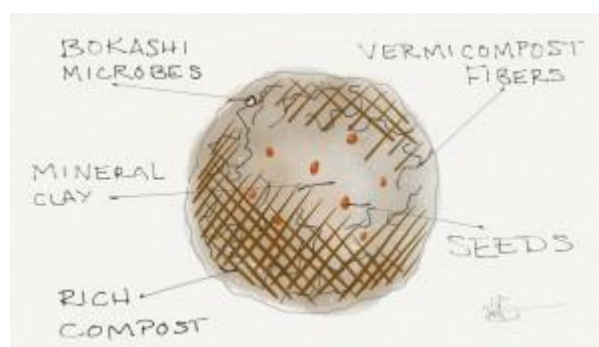
Seed balls have been used by the Ancient Egyptians to seed the receding banks of The Nile after annual floods. They have been used in Asia especially in arid regions, because of their ability to keep the seeds safe until conditions are favourable for germination, and the ease at which they can be distributed. In the 1700's, West African slaves, predominantly women, were brought in to

cultivate rice using a seed ball technique that was used in Africa. Rice seeds were coated in clay, dried, and pressed into the mud flats with the heel of the foot. This served two purposes, protecting the seed from the birds, and also preventing it from floating off when the fields were flooded. I am surprised that this is not mentioned more in the online seed ball literature. I plan to write a more lengthy post about it soon.



A pumpkin seed ball growing in our lab.

More recently, Japanese agricultural renegade, Masanobu Fukuoka, began exploring the use of seed balls (nendo dango in Japanese) to help improve food production in post WWII Japan. His research and outreach efforts has brought the seed ball back into the public eye. Today, seed balls are fun for green-minded kids and adults, and are also an important tool of the guerrilla gardening movement.



Seed Ball Anatomy

Anatomy of Our Seed balls

Our seed balls/seed bombs are individually made in our Pennsylvania greenhouse. I like to think of them as the Ferrari of seed balls. They contain a combination of mineral soil and three types of compost. Depending on the size and requirements of the plants, seeds are either mixed in with the soil before the seed balls are made or placed individually within the moist seed ball and carefully hand roll each seed ball until it's just right. The seed balls are then air-dried, providing a safe haven for its contents until germination. The seed balls are packaged in a small recyclable brown paper bag. Nothing fancy, nothing that leaves an unnecessary footprint.



How to sow seed balls & seed bombs:

Press them gently on the soil, about 2/3 of the way down. For added fun, throw them along the road, use a slingshot, or a boilie thrower.

Why our seed balls are special

- We test our seeds for germination and make certain that our seed balls have excellent viability when the environment is favorable.
- Our seed ball matrix is designed by Dr. Blake Ketchum and Biologist, Brian Moyer. Blake's got a PhD in Soil Science and is nuts about soil and plants, Brian has totally got the mad experimental scientist thing going on!
- We use 3 kinds of compost to super charge our seed balls for all the nutritional requirements of your plants.

Guerrilla Gardening Etiquette

- Don't sow in others' gardens or crops.
- Never plant invasive species.
- Don't disturb pristine or vulnerable ecosystems with non-native species
- And... don't throw seed balls at siblings or animals or people, vehicles, buildings, etc.

ANNEXURE III

Gallery of Terrace Garden Maintained by Dr. Leenus Jesu Martin



Bitter Guard Plant



Overview of Terrace Garden



Lemon Tree



Aloe Vera



Pot stands



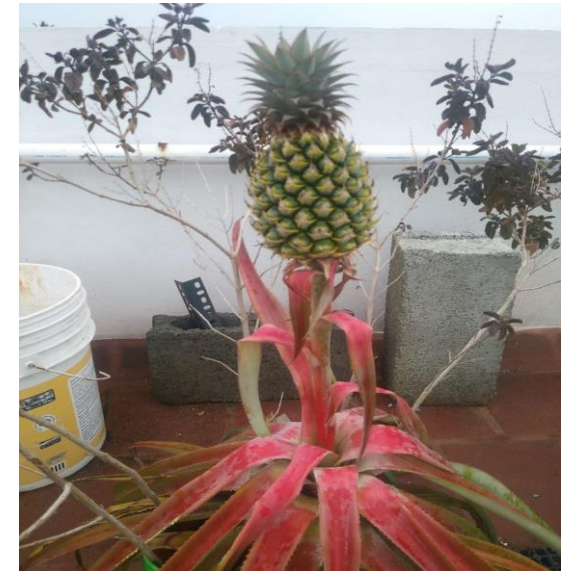
Tomato Plant



Spinach



Chilly Plant



Pineapple Plant



Guava Plant



Mint



Snake gourd