JSS ACADEMY OF HIGHER EDUCATION & RESEARCH
(DEEMED TO BE UNIVERSITY) MYSURU

JSS Academy of Higher Education & Research

(Deemed to be University) (Accredited A+ Grade by NAAC)

COMPENDIUM ON SDG-12

Responsible Consumption

Compendium of Activities in Achieving UN Sustainable Development Goals

2021-22

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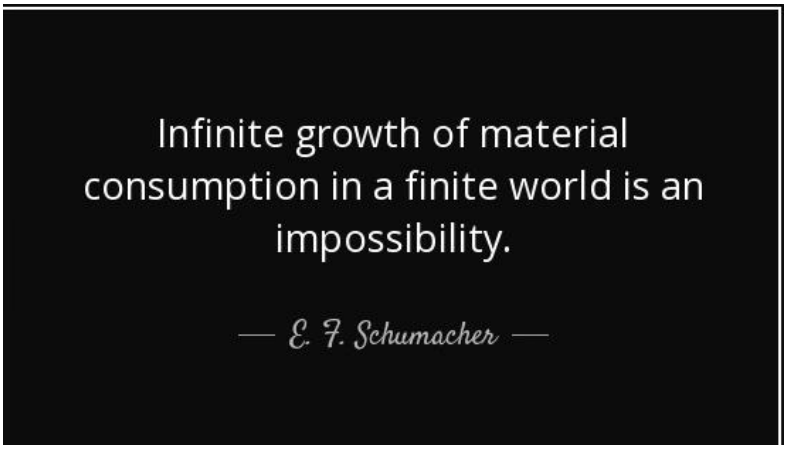
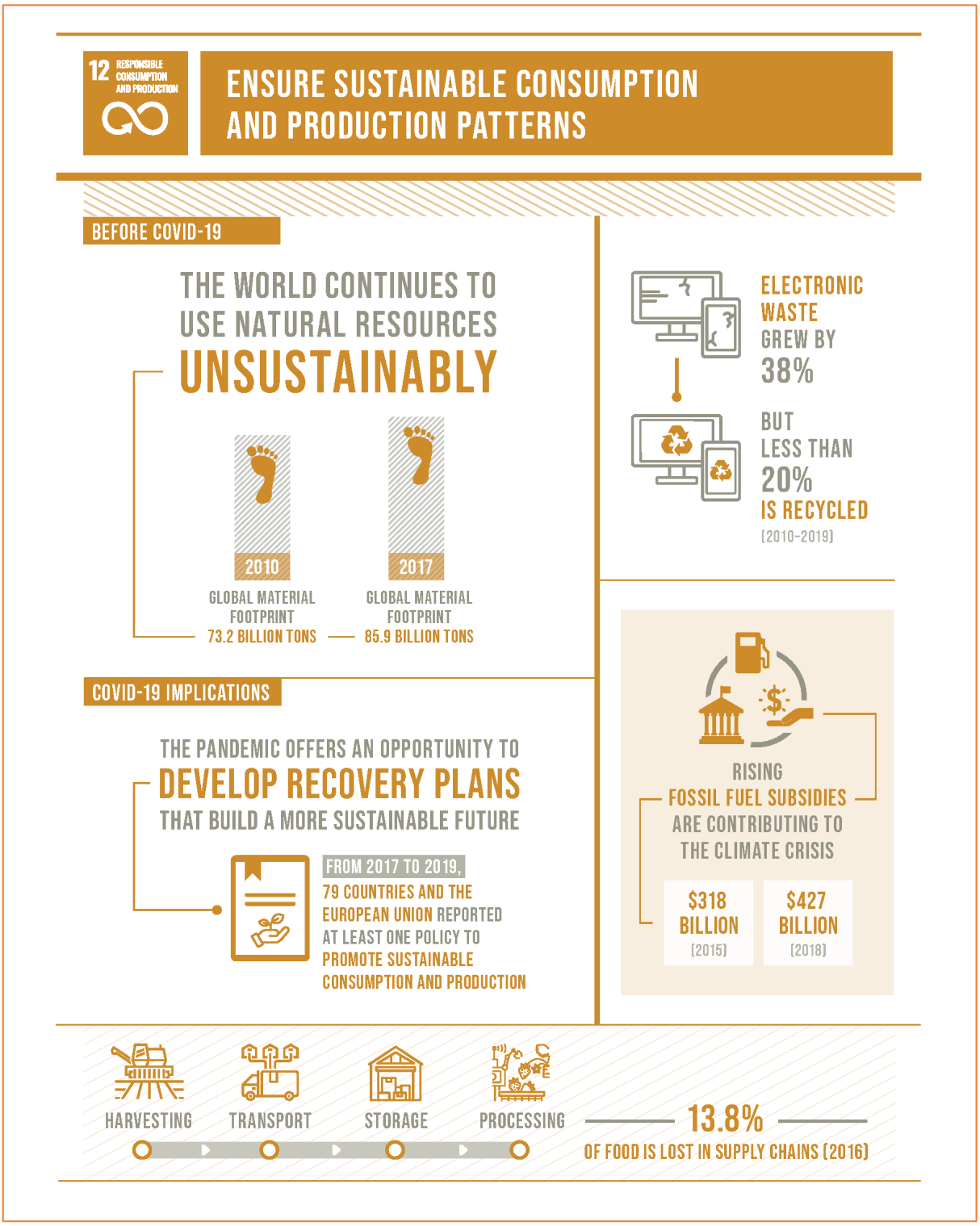
ABOUT SDG 12


12
RESPONSIBLE
CONSUMPTION
AND PRODUCTION


Infinite growth of material consumption in a finite world is an impossibility.
— E. F. Schumacher —

ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS



Worldwide consumption and production — a driving force of the global economy — rest on the use of the natural environment and resources in a way that continues to have destructive impacts on the planet.

Economic and social progress over the last century has been accompanied by environmental degradation that is endangering the very systems on which our future development — indeed, our very survival — depends.

A FEW FACTS AND FIGURES

Each year, an estimated one third of all food produced – equivalent to 1.2 billion tonnes worth around $1 trillion – ends up rotting in the bins of consumers and retailers or spoiling due to poor transportation and harvesting practices.

If people worldwide switched to energy efficient light bulbs the world would save US$120 billion annually.

Should the global population reach 9.6 billion by 2050, the equivalent of almost three planets could be required to provide the natural resources needed to sustain current lifestyles.

The COVID-19 pandemic offers countries an opportunity to build recovery plans that will reverse current trends and change our consumption and production patterns towards a more sustainable future.

Sustainable consumption and production are about doing more and better with less. It is also about decoupling economic growth from environmental degradation, increasing resource efficiency, and promoting sustainable lifestyles.

Sustainable consumption and production can also contribute substantially to poverty alleviation and the transition towards low-carbon and green economies.

COVID-19 RESPONSE

The current crisis is an opportunity for a profound, systemic shift to a more sustainable economy that works for both people and the planet.

The emergence of COVID-19 has underscored the relationship between people and nature and revealed the fundamental tenets of the trade-off we consistently face humans have unlimited needs, but the planet has limited capacity to satisfy them. We must try to understand and appreciate the limits to which humans can push nature before the impact is negative. Those limits must be reflected in our consumption and production patterns.

COVID-19 can be a catalyst for social change. We must build back better and transition our production and consumption patterns towards more sustainable practices.

ALIGNMENT TO SDG 12 TARGETS

Our planet has provided us with an abundance of natural resources. But we have not utilized them responsibly and currently consume far beyond what our planet can provide. We must learn how to use and produce in sustainable ways that will reverse the harm that we have inflicted on the planet.

	**2.1 Implement the 10-year Sustainable Consumption and Production Framework** Implement the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries.
	**2.2 Sustainable management and use of natural resources: A**chieve the sustainable management and efficient use of natural resources.
	**2.3Halve global per capita food waste** By 2020, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses.
	**2.4 Responsible management of chemicals and waste** By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.
	**2.5 Substantially reduce waste generation** By 2020, substantially reduce waste generation through prevention, reduction, recycling and reuse.

	**2.6 Encourage companies to adopt sustainable practices and sustainability reporting** Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle.
	**2.7 Promote sustainable public procurement practices** Promote public procurement practices that are sustainable, in accordance with national policies and priorities.
	**2.8 Promote universal understanding of sustainable lifestyles** By 2020, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.
	**2.9 Support developing countries' scientific and technological capacity for sustainable consumption and production** Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production.
	**2.10 Develop and implement tools to monitor sustainable tourism** Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products.
	**2.11 Remove market distortions that encourage wasteful consumption** Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities.

EFFORTS TOWARDS SDG 12

- Abiding by JSS AHER Green policy
- Ensuring greenery in the college and hospital campus
- Energy conservation measures
- Kitchen garden in the campus
- Oxygen plant installation
- Scientific disposal of biomedical waste from all health centres
- Regular training of health care workers and students on biomedical waste management

UNIVERSITY POLICY ON ETHICAL SOURCING OF FOOD AND SUPPLIES

University has policy for the responsibility of ensuring that the commodities that are procuring and consuming are sourced in a responsible and sustainable way, promote questionable and sustainable sourcing ensuring the high standards of food served and supplied in the campus. Moreover, this policy enables the university to remove the affected and contaminated products from the campus, hence reducing incidences of foodborne illnesses. Institution has policies Talk about the approved vendors and milk and milk products from dairy via ethical route.

The objectives of this policy are to promote the concept of questionable sourcing, ensure the high standards of foods served and supplied in the hostels, to enable the university to remove the affected and contaminated food products, and to prevent the food products from tainted and unethical sources in the entire food supply chain including uses of child labour, exploitative labour, or harsh working conditions at the supplier's factory or production units . Institution is mostly, mindful of the wastage of food in hostels and Précised food menu is prepared according to the need of hostel inmates and prepared. Institution also has a contract to lift the waste food to the livestock .

UNIVERSITY POLICY, PROCESS AND PRACTICE ON WASTE DISPOSAL - COVERING HAZARDOUS MATERIALS

Institution has MOU with Karnataka State Pollution Control Board, GIPS Biotech for common treatment facility for Bio-Medical waste as per the regulations imposed by Karnataka State Pollution Control Board, the waste will be transported in closed containers/ vehicles. Practicing use of minimum reagents and chemicals during practical classes to avoid pollution.

UNIVERSITY POLICIES AROUND USE MINIMISATION - OF PLASTIC

Institution has taken major step and creating awareness among the students and faculties to adopted plastic free zone and has raised an alarm urging us to eradicate plastic usage at least within our campus. Institution has stopped using carry bags during seminar/conference and cloth/ paper bags are used.

Hostel inmates are strictly instructed not to use plastic plates and to use stainless steel plates.

All students and faculties are stressed the plastic-free lifestyle to the maximum extent possible and made research scholars/staff to make e-poster presentation during the seminar/conference held in the institution.

ZERO EMISSION OF CARBON IN CAMPUS

As initiative towards zero pollution, the college encourages the staff members for carpooling and encouraging staff and students to use electric vehicles to reduce carbon foot print (pollution).

BIOWASTE DISPOSAL

Ensuring compliance with all animal waste legislation requirements, including the duty of care, planning for future legal changes, and mitigating the effects of those changes and to promote holistic approach of waste management in the campus, ensure the safe handling and storage of wastes, promote environmental awareness in order to increase and encourage waste minimisation, reuse and recycling. Institution/ University has policies for animal waste disposal, When providing its waste management services, the University will adhere to the "best practical environmental alternative" standards. The University will utilise a "waste hierarchy strategy," which prioritises waste reduction, reuse, recycling, and product recovery over landfill disposal.

CONSUMPTION AND PRODUCTION IN TERMS OF ELECTRICITY.

As initiative towards smart campus solar panels are installed in the college and in hostels to reduce the electricity requirements as part of clean and renewable energy utilization. The dependency has reduced by 50 % or more after the installation of Solar panels.

RECYLCE OF PAPER , BOTTLES ETC

Initiative has been taken to reduce the use of plastic, and to create the awareness among the society, institutional NSS team has made a rally and distributes free cloth bags to the people.

SUPPLY CHAIN FOR STATIONERIES ETC

Institution is fully committed to operating with the highest standards of ethics, honesty and integrity throughout the supply chain .

AGRICULTURE PRODUCED IN THE CAMPUS.

As initiative towards smart campus the campus area has more than 60% of greenery with herbal garden and 20 varieties of Fruit bearing trees. In the campus no pesticides are used and all fruits are grown organically and distributed it among the working staff.

ENERGY CONSERVATION & RECYCLING POLICY

Introduction

JSS Academy of Higher Education & Research (JSSAHER) is conscious of its responsibility and role in materialising its green policy using renewable energy, management of its water resources, and disposal of waste.

Purpose

In order to minimize energy usage, improve the efficiency of all energy/ resources (natural resources, water, electricity) consuming systems and equipment, and improve the environment in all facilities, JSS Academy of Higher Education & Research has adopted an energy /resources conservation and recycling policy.

Definitions

- Energy conservation: Energy conservation is a practice of decreasing the quantity of energy used and achieved through efficient energy use.
- Recycle: Recycle is a process of collecting and reprocessing materials that would typically be considered waste.

Policy

Conservation of energy and natural resources and recycling process is an integral part of JSS Academy of Higher Education & Research (JSSAHER) facilities' design and usage. The JSSAHER employs a variety of energy conservation, recycling, and other techniques to lessen the consumption of resources and achieve the lowest feasible life cycle costs. However, occupant health, safety, comfort, and program requirements shall always be the primary concerns. Energy conservation measures will be achieved by using the most cost-effective, energy-efficient approach with consideration given for flexibility of use and future remodelling convenience. Recycling efforts are encouraged at the Institution/department level.

Responsibilities

- All faculty, staff, students, design consultants, and construction contractors must observe energy and resource conservation measures employed by the campus.
- The Campus Facilities Maintenance & Management Authority- Deputy Registrar shall be the principal coordinator of all design disciplines, which includes responsibility for the implementation of this policy.
- Constituent Colleges & Departments shall be responsible for internal energy conservation, recycling efforts.

Related Policies

The energy conservation and recycling policy of JSS Academy of Higher Education &Research (JSSAHER) supports:

- Smart Campus Policy of JSSAHER
- The Swachh Bharat Mission (Urban) guidelines- Government of India.
- National conservation strategy and policy statement on environment and development Government of India.

GREEN &CLEAM CAMPUS MEASURES

Objectives

- To develop ‘Our Campus, Our Planet’ best practices
- To assimilate health, transport, energy and environmental management Future Plan
- Develop a program to monitor and sustain the best practices on SMART Campus.
- Survey the pitfall in current practices and research the ways to improve and realize

Smart ten elements

JSS AHER HAS ITS GREEN POLICY WHICH EMPHASIZES ON THE FOLLOWING TO BE STRICTLY FOLLOWED IN ALL ITS CAMPUSES.

- Provision for natural light in all its buildings Maintenance of clean, green and smart campus – waste segregation and planned disposal of waste through authorized agencies only
- Disposal of biomedical waste, Chemicals, and e-waste as per the norms of the Karnataka
- State Pollution control Board
- Energy conservation strategies – For e.g. use of CFL/LED lights and Solar heaters and
- Air source heat pumps in the hostels
- Plastic-free campuses
- Conservation of water resources - Rainwater harvesting and wastewater treatment
- Reducing paper communication
- The HEI actively organizes Swachh Bharat Abhiyan and creates awareness and consciousness amongst students.

The Institution also has included a subject Environmental Sciences in all courses as stipulated by UGC and organizes Environment Day and Water Day. The Institution believes in preserving traditional medicine and has established medicinal plants garden and promotes eco-friendly cultivation practices by organizing medicinal plants exhibition in JSS Urban Health Centre.

To meet the needs and sustainable management of fresh water, the rainwater harvesting, and utilisation systems have been established in all the campuses of the university to aid towards the greater objectives of water management and conservation and increasing recharge of groundwater by capturing and storing rainwater, rainwater harvesting from rooftop run-offs and natural waterbodies and the community development. The below mentioned models are established in the various buildings based on the size of the building and the extent and topography of the land.

- Simple roof water collection systems - Most of the rooftop rainwater harvesting has been completed by constructing five water storage structures with a storage capacity of 1000 m3.
- Land surface catchments – a simple way of collecting rainwater by retaining the flows
- (including flood flows) of small creeks and streams in small storage reservoirs (on surface
- or underground) created by low-cost dams
- Collection of storm water – The surface runoff collected in stormwater ponds/reservoirs is subject to a wide variety of contaminants and every effort is made to keep these catchments clean.

The University supports green practices in all its initiatives. It has well-defined policies for its sustainable green practices which include its energy conservation policy, water conservation policy, transport policy, the SMART and Green campus policy and many such policies and practices that inculcate the importance of conserving the present for the future generations. Towards the same some of the practices include - Students, staff using Bicycles – the staff and students are encouraged to use bicycles on its campuses and students residing in the hostels of the university are discouraged from having automobiles and live on campus. Battery operated vehicles too are available on the campus to help students transport their belongings. Public Transport – the university maintains a fleet of buses that are available to the students for travel between campuses and public places at fixed timings. Pedestrian friendly roads – all roads are paved and landscaped and are pedestrian friendly Plastic-free campus – All its campuses are plastic free Paperless office – the utilization of papers for administrative purposes is minimized and ecommunications are encouraged. Green landscaping with trees and plants – all the campuses are beautifully landscaped which have won appreciation, admiration, and awards for the aesthetic and green environment of its campuses. The Green campus committee ensures that the above principles are strictly complied with and provides feedback to the university on its efforts and the future directions.

ENSURING GREENERY IN THE COLLEGE AND HOSPITAL CAMPUS


20
FACULTY OF LIFE SCIENCES

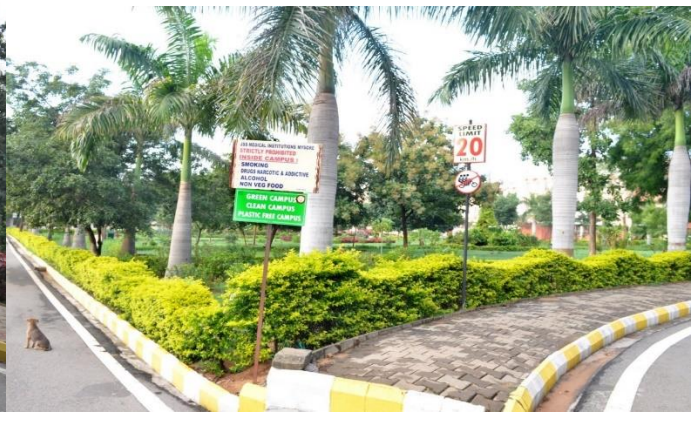

20


SPEED LIMIT
20
km./h.
GREEN CAMPUS
CLEAN CAMPUS
PLASTIC FREE CAMPUS
I will Salute I can also Pollute


J.S.S. MEDICAL COLLEGE


SPEED LIMIT
20


J.S.S. MEDICAL COLLEGE


SPEED LIMIT
20
GREEN CAMPUS
CLEAN CAMPUS
PLASTIC FREE CAMPUS


JSS MEDICAL INSTITUTIONS MYSORE
STRICTLY PROHIBITED
INSIDE CAMPUS :
SMOKING
DRUGS NARCOTIC & ADDICTIVE
ALCOHOL
NON VEG FOOD
GREEN CAMPUS
CLEAN CAMPUS
PLASTIC FREE CAMPUS
SPEED LIMIT
20

KITCHEN GARDEN IN THE HOSTEL CAMPUS

AGRICULTURE IN THE CAMPUS.

As initiative towards smart campus the campus area has more than 60% of greenery with herbal garden and 20 varieties of Fruit bearing trees. In the campus no pesticides are used and all fruits are grown organically and distributed it among the working staff.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ENERGY CONSERVATION MEASURES

Light Bulb Replacement

- It is estimated that replacing traditional incandescent bulbs with CFLs/LED can cut lighting costs by up to 75%. JSSAHER, Constituent Colleges & Departments shall exchange such traditional incandescent bulbs across campus with CFLs/LED in a phased manner. Thus 75 % of the bulbs shall be changed with CFLs/LEDs by 2017.
- Sticker Reminders as part of their 'Energy Awareness Campaign' shall be placed on switch boards to remind everyone to conserve energy by turning off the lights.
- Small pamphlets emphasizing the importance of energy saving shall be prepared and circulated to all the staff and students of the college.
- Solar water heaters installed in colleges and hostels and especially for cooking, solar energy is utilized in the hostels and in guest houses. Step shall be taken to replace use of LPG completely with solar energy by 2020.

Water conservation

- Awareness program shall be held in campus once in 3 months for Sensitizing the staff and students
- The students in hostels shall be sensitized about water conservation in their orientation meetings.
- Printed stickers / labels with the slogan 'Save Water' to be fixed in strategic places of the college and hostels.
- Reducing car washing and the vehicles on the campus shall be washed based on the real needs rather than regular washing.
- The gardens shall be irrigated only with sprinklers and drip irrigation systems to save the wastage of water in plantations.
- All the existing flushes in the toilets to be changed into duel flush system in a phased manner.
- Sticker Reminders as part of the 'Energy Awareness Campaign' shall be placed near taps to remind everyone to conserve water by reducing wastage and closing the tap.

Recycle

• Green wastes shall be composted and reused as composts manure.

• All the waste bins to be replaced with duel bins with tag and pictorial signs "biodegradable waste" & nondegradable waste".

• The biowaste disposal shall be only through Government approved disposal service contracts.

Rainwater harvest

To meet the needs and sustainable management of fresh water, the rainwater harvesting and

utilisation systems have been established in all the campuses of the JSSAHER to aid towards the greater objectives of water management and conservation and increasing recharge of groundwater by capturing and storing rainwater, rainwater harvesting from rooftop run-offs and natural waterbodies and the community development. The below-mentioned models are established in the various buildings based on the size of the building and the extent and topography of the land.

The systems include –

- Simple roof water collection systems - Most of the rooftop rainwater harvesting has been completed by constructing five water storage structures with a storage capacity of 1000 m3.
- Land surface catchments – a simple way of collecting rainwater by retaining the flows(Including flood flows) of small creeks and streams in small storage reservoirs (on surface or underground) created by low-cost dams
- Collection of storm water – The surface runoff collected in stormwater ponds/reservoirs is subject to a wide variety of contaminants and every effort is made to keep these catchments clean

JSSAHER and the constituent colleges shall continue to establish a combination of the above techniques to have meet the groundwater needs.

Response of JSSAHER towards conservation of energy:

The staff and students of JSSAHER shall be aware of the following response of JSSAHER towardsconservation of energy to support its activities:

• Green Policy to be strictly followed in all its campuses

• Maintenance of clean, green and smart campus – waste segregation and planned disposal of waste through authorized agencies only

• Disposal of biomedical waste, Chemicals, and e-waste as per the norms of the Government

• Pollution control Board

• No Smoking campuses

• Energy conservation strategies – use of CFL/LED lights

• Solar heaters and Air source heat

• Pumps in the hostels

• Plastic-free campuses

• Conservation of water resources - Rainwater harvesting and wastewater treatment

• Reducing paper communication

• Organizing Swachh Bharat Abhiyan and creates awareness and consciousness amongst students.

• Including a subject “Environmental Sciences” in all courses

• Organizing Environment Day and Water Day.

• Preserving traditional knowledge and herbal medicine. Established medicinal plants garden andpromotes eco-friendly cultivation practices by organizing medicinal plants exhibition.

Consumption and production in terms of electricity.

As initiative towards smart campus solar panels are installed in the college and in hostels to reduce the electricity requirements as part of clean and renewable energy utilization. The dependency has reduced by 50 % or more after the installation of Solar panels. The saving of electricity is recorded on regular basis which is given in the table below.

Green energy certification

Duration	KEB				Solar units generated		Total= (KEB & Solar)	
	Import Units KEB (A)	Export Units from Solar (B)	Actual Consumption of Units C= (A-B)	Amounts (D)	Units (E)	Amounts (F)	Units G=(C+A)	Amounts H=(D+F)
April-August 2022	102390	8670	93720	957625	60276	373711	153996	**879889**

Solar Powered Energy

OXYGEN PLANT INSTALLATION

JSS Hospital has installed and commissioned---

- TWO VSA Oxygen generator plants which produces 1000 Liters per Minute (500 Ltr/min x 2 nos) , This is an American product which is the latest, most efficient and cost effective model. Through this plant JSS Hospital, Mysore will be able to supply oxygen for additional 300 beds in the 'A' wing of the hospital. This has increased our oxygen bed numbers to 1060, with this plant we can generate and supply oxygen 24X7 without any interruption and also not be dependent on any other external source
- We have increased our liquid medical oxygen capacity from 13 kilo liters to 26 kilo liters

INITIATIVES ON PLASTIC FREE CAMPUS

The College follows the Government Gazette on Plastic Free zone in the whole Nilgiris District. The Enlisted items are completely banned within the campus. On, MAY 09, 2018 The Government Policy is abided by the College strictly and no single-use plastic items are used on the campus.

https://nilgiris.nic.in/plastic-free-nilgiris/#banned

https://cdn.s3waas.gov.in/s339461a19e9eddfb385ea76b26521ea48/uploads/2022/03/2022032483.pdf

The garbage waste disposal by the Municipality collects recycle plastic items from Separate bins placed around the campus.

RECYLCE OF PAPER , BOTTLES ETC

Initiative has been taken to reduce the use of plastic, and to create the awareness among the society, institutional NSS team has made a rally and distributes free cloth bags to the people.

BIOMEDICAL WASTE MANAGEMENT

Biomedical waste management in hospital

"CLEANLINESS IS GODLINESS NOT JUST NEXT TO GODLINESS"

Especially in hospitals, cleanliness can save lives. Every healthcare worker needs to understand this and also educate the visitors to the hospital with a lot of concern and patience.

We the staff of JSS hospital take this pledge of keeping our hospital very clean, meaning to say that we would like to keep the hospital germ free as far as possible.

This can be accomplished by following the international/national guidelines for Bio-Medical waste (BMW) management. This not only protects the patients, but health care workers and patient attendants too.

We are committed in giving safe and quality service to our patients as described by the founder of our hospital Jagadguru Sri Shivarathri Rajendra Mahaswamiji as "PATIENTS ARE OUR RELATIVES" (RogigaleNammaBandhugalu).

To keep the hospital safe and germfree, we also need the cooperation of patients and attendants.

We consider our hospital as a place of worship because we hear more prayers in the hospital for the good health of the patients than what we hear in temple/churches/mosques etc.

It's a process is developed by the hospital for safe handling and disposal of infectious and hazardous materials.

PURPOSE

• To minimize the health and equipment hazard in any related process

• To provide a safe and healthy environment for staff, patient and visitors

SCOPE

• The procedure for collection, segregation, treatment and disposal of biomedical waste generated during routine work in wards, OPDs, OT's, laboratories and other places where biomedical waste is generated.

RESPONSIBILITY

• Safety Committee, Quality Assurance Team, Bio Medical Waste Management Department, Laboratory, Clinical and Nonclinical staff.

• Document of BMW management approval from state Pollution control available with management

BIOMEDICAL WASTE MANAGEMENT

• Biomedical Waste management HIC-8b

• The SOP has been based on the policy direction issued in Gazette of India notification of 2018 Environment Protection Act guidelines

• All wards and departments will follow the under mentioned instructions meticulously

• Heads of departments and hierarchy of wards will be legally and morally responsible for effective functioning of health care waste management system at JSS Hospital.

• HIC members during rounds ensure appropriate disposal of BMW. If any deviation from the protocol is noticed, photographs are clicked and discussed with the concerned personnel to take necessary corrective measures.

Segregation, containment and packing of hospital waste in wards and departments HIC-8c. The waste should be segregated at source, all health care personnel – doctors, nurses, interns medical and nursing and paramedical students, lab personnel, helper staff, patients, attendants of patients are responsible for this. Clinical and nursing staff apart from meticulous exertion needs to oversee proper operation.

Waste collection is done in each ward / department in colour coded labelled bins of capacity 20 to 35 litres of each category and placed at the points of generation in respective wards/departments at accessible, user friendly and safe location.

Sharps will be collected in white puncture proof containers in each department / ward. Sharps should be decontaminated with 1% sodium hypochlorite solution after disfiguring the same, the hypochlorite solution should be changed every 24 hours. Once 2/3rd full the container should be dispatched for disposal.

Intact glassware will be collected in the cardboard boxes lined with blue boxes and can be handed over to the common treatment facilities.The waste collected by housekeeping staff is stored in colour coded rooms situated in the back yard of the hospital.

The waste is transported to Shree consultancy in closed vans within stipulated time limits in a secure manner.

HIC-8d:

STAFF SAFETY CONSIDERATIONS:

To ensure the safety of personnel involved in Bio-medical waste treatment and disposal, we follow certain policies and guidelines.

1. There are dedicated trolleys for transporting waste within the hospital.
2. All workers involved in this work are aware of the hazardous nature of this work.
3. The workers are provided with gumboots, rubber aprons, caps, masks and thick rubber gloves.
4. All workers are immunized against Hepatitis B.

TRAINING

1. JSSH hospital has a well-designed awareness and training program for all categories of workers involved in Bio-medical waste disposal and management.
2. Regular pre induction training shall be conducted for appropriate categories of staff before joining to the concerned department.
3. We have charts displayed at strategic points in all patient care areas depicting our Bio-medical waste management policy.
4. We have frequent workshops and training programs to promote awareness of our Bio-medical waste management policy.

HIC-9a:

HIC-9a: The management provides manpower, money and materials to carry out Infection control programmes. Regularly classes are conducted by ICNs and members of HIC committee to all the staff of the Hospital. Induction programme for newcomers includes sessions on HIC

HIC-9b: BUDGET: The organization earmarks an annual budget for Infection control programme. Based on the scope of HIC activities and the previous years' experience, this budget is allocated.

HIC-9c & d: TRAINING: Organization provides induction training and In-service training sessions for all staff in regular sessions.

For doctors, medical education unit conducts induction programme with HIC as one of the topics.

For nurses and other para medical staff, training is conducted by ICNs and HIC members.

All the policies and protocols defined and approved by the HIC committee is being taught repeatedly and any change in the protocol also is immediately informed to all the concerned staff. Pop up messages on HIS are flashed to enforce the new changes into action.

BIOMEDICAL WASTE MANAGEMENT IN DENTAL COLLEGE HOSPITAL

- JSS Dental College and Hospital gives utmost importance to controlling and prevention of infection in patients, visitors, healthcare providers and community by adopting appropriate safety measures.
- JSS Dental College and Hospital has an organized Infection Control Committee and Infection Control Team which formulates policies and measures aimed at reducing and eliminating infection risks to patients, housekeeping staff, visitors and to the environment.
- JSS Dental College and Hospital has an infection control and elimination programs and policies that are well documented.
- Infection control and elimination programs are performed regularly with yearly upgradations.
- JSS Dental College and Hospital has a well-coordinated Infection Control Committee that supervises all infection control and elimination programs.

Responsibilities of Infection Control Committee & Infection Control team Aim of Infection Control Committee (ICC)

Aim of Infection Control Committee of JSS Dental College and Hospital is to adopt policies and practices that help to prevent and eliminate hospital related infections in patients, health care providers, visitors and the environment.Duties of Infection Control team:

- Infection Control Team coordinates to formulate infection control policies and practices for control and elimination of infection.
- ITC introduce standard operating procedures that aim toward infection control.
- The team organizes training and appraisal of all members of the staff regularly regarding the policies and protocols for infection control and elimination.
- The team streamlines the documentation of the outcome of policies and practices.
- ICT performs the periodical auditing of the infection control practices outcome.
- Team formulates appropriate protocols for biomedical waste management.
- The team is responsible for periodic monitoring and documentation of water supply, air supply and other engineering works.

Definition

Biomedical waste means any waste which is generated during diagnosis, treatment or immunization of human being or animals or in the research activities pertaining there to or in the production of testing of biological

Purpose: to ensure safe and secure biomedical waste disposal or handling in JSSDCH. JSSDCH has obtained consent from pollution control board to operate. JSSDCH has outsourced biomedical waste collection and disposal to Shree consultancy.

JSSDCH adheres to policies in manual for waste handling and management inside the working area and outside till it is collected.

Classification of waste

Classification of waste: (According to Environmental Protection Agency, EPA)

Regulated Waste: They require special disposal care. Sharps

- Disposable needles
- Scalpel blades
- Contaminated broken glass
- Disposable dental burs
- Endodontic files or reamers

Others

- Blood
- Blood soaked items
- Human tissues
- Pathological wastes

Non regulated Wastes:

- Contaminated materials
- Saliva soaked gauze
- Patient bibs
- Surface barriers

Toxic Wastes: It is a waste that can have poisonous effect. Eg: mercury, extracted teeth with silver amalgam filling.All waste containers that hold potentially infectious materials (regulated or non regulated) must be labeled with biohazard symbol. JSSDCH outsources BMW disposal to Shree consultancy. As per the guidelines of Shree consultancy the waste generated should be segregated into different colored containers. Colored containers are provided to each department and each color is designated to collect specific type of waste as mentioned below.

Non chlorinated yellow bags (Incinerable waste only)

- Human tissue
- Placenta
- Infected cotton and dressing
- Soiled plaster casts
- Body parts
- Blood bags
- Cotton swabs
- Bedding items contaminated with blood and body fluids
- Expired pharmaceutical wastes (eg: expired analgesics and antibiotics)
- Lab cultures
- Waste specimens
- Cytotoxic drugs

Non chlorinated red bags (plastic waste only):

- Catheter
- IV sets
- Gloves
- Tubings
- Syringe without needles etc..

Non chlorinated blue bags (glasswares and metals only):

- Broken bottles
- Discarded or contaminated glass vials and ampules.

Black colored bags (not to be sent to BMW management facility)

- Food wastes
- Tender coconut
- Leaves wrapping
- Office paper waste
- Dustings
- Paper and plastic cups
- Syringe wrapper
- Vegetables
- Fruits or fruit peels etc.

Non chlorinated white transluscent bags or bin with disinfectant (only sharps):

- Glass pieces slides
- Needles, lancets
- Syringe with fixed needles
- Scalpel blades
- Overused and underused sharps

All the colored bags or bins should be closed tightly in order to prevent spillage or contamination.
All the waste should be collected in central waste collection centre from where it will be collected by BMW management agency.
All the staff handling the biomedical waste will be provided with PPE which should be used mandatorily while handling BMW.
Syringe or needle burner must be used for syringe needles and then the syringe must be disposed into the designated colored bin.
Radiographic fixer and developer are considered hazardous wastes. It can be handles on site or offsite treatment. JSSDCH manages them by offsite management, where it is outsourced to a company

Category	**Definition**	**Examples**
Medical waste	Waste generated as part of treatment; can be contaminated or infectious	Contaminated barriers
Contaminated waste	Waste that has been in contact with blood or other body fluids; in most .states, disposed of as general waste	Contaminated patient bibs
Infectious waste	Contaminated waste that is capable .of causing an infectious disease	Blood and blood saturated materials
Chemical waste	Waste that poses a threat to humans .or environment	Pathological waste: tissue, extracted teeth
Hazardous waste	Usually refers to toxic chemicals or .materials	Sharps: needles, burs
Toxic waste		Scrap amalgam
General waste	Non hazardous, non regulated waste	Lead foil, radiographic solution, paperwaste generated at front desk, dis-carded lunch bags or wraps

Segregation

Proper segregation of BMW:

- BMW has been segregated into different color coded containers as per the guidelines provided by Shree consultancy.
- Waste from the working or patient care area is removed once a day or more if required.
- The containers of waste are closed tightly and stored in central waste collection bay from where it is collected and carried out of the campus.

Handling of mercury, extracted teeth and sharps

Precautions When Working With Mercury.

- Work in a well ventilated space.
- Avoid direct skin contact with mercury.
- Avoid inhaling mercury vapour.
- Store mercury in unbreakable, tightly sealed containers away from heat.
- When preparing amalgam for restorations, use preloaded capsules (this avoids exposure while measuring mercury).
- When mixing amalgam, always close the cover before starting the amalgamator.
- Reassemble amalgam capsules immediately after dispensing the amalgam mass (the used amalgam capsule is highly contaminated with mercury and is a significant source of mercury vapour if left open).
- Left over scrap amalgam (that has been retrieved from dental unit traps) is disinfected in a solution of bleach and water. Then it is placed in the container with other scrap amalgam. Never rinse a dental unit trap in the sink. (waste water plants are not equipped to removed mercury from waste, and the mercury will enter the environment via the water ways)
- Clean spills using appropriate procedure and equipment. Do not use a household vacuum cleaner or the high volume evacuator (dangerous fumes from the mercury can be released into the air)
- Place the contaminated disposable materials into polyethylene bags and seal. Dispose according to regulations specific to your area.

2. CDC guidelines for handling extracted teeth:
    - Dispose of extracted teeth as regulated waste unless returned to the patient.
    - Do not dispose of expose teeth that contain amalgam as regulated medical waste intended for incineration.
    - Heat-Sterilize teeth that do not contain amalgam before they are used for educational purposes.
3. Handling sharps Safe injection practices:

    These procedures should meet below mentioned criteria,

    - Do not harm the recipient.
    - Do not expose the provider to any avoidable risk.

- Do not generate waste that is dangerous for other people.
- Eg: IV, IM, Lancet procedures etc.

Purpose:

- Promotes,implementation of practices associated with ,
- Intradermal,subcutaneous,IM needles
- IV infusions and injections
- Lancet procedures

Guidelines on Use of Injection Devices Syringes:

- Preferably use new devices for each procedure.
- Use disposable syringes.
- Before use inspect packing, whether there is breach in protective barrier.
- If package is punctured, torn, damaged, discard and use new one. Always check for expiry date.

Medication

- Do not use single loaded syringe for medication administration to several patients.
- Always follow single patient, single needle, single syringe policy.
- Avoid changing needle inorder to reuse syringe.
- Avoid using same mixing syringe to reconstitute several vials.
- Avoid combining left over medication for later use.
- Preferably use single dose vial for each patient in order to avoid contamination between patients.
- Open only one vial of particular medication at a time in each patient area.
- Do not store multidose vial in open ward where they may be contaminated.
- If sterility of vial is compromised discard immediately.

Practical Guidelines for Injection Administration

- Always check the prescription for medication/drug chart and corresponding patient's name.
- Check for the dosage prescribed.
- Check for the expiry date.
- Perform hand hygene procedures.
- Use 60-70% alcohol swab to clean the top of vial.
- Always open the syringe pack infront of patient to reassure them the syringe and needle have not been used previously.

Use sterile syringe or needle to withdraw medications from ampule.

Injection site preparation

- Use alcohol based (60-70%) solution or a single use swab or cotton wool ball to disinfect the site of injection.
- Wipe the area from centre of injection site outward without going over the same.
- Solution should be applied for 30 seconds and allow it to dry completely.

Delay in Administration

- If medication cannot be given immediately for some reasons it should be capped using scoop technique.
- It should be store safe dry place,it should be labelled.

Precautions

- Needle should not touch any contaminated surfaces.
- Syringe should not be reused even if needle is changed.
- Do not use same needle/syringe to enter multiple multidose vials.
- Do not use syringe/needle to reenter the vial once used on a patient, even if it is for same patient or other.

Guidelines to Prevent Sharp Injuries

- Avoid bending/breaking, manipulating or manually remove the needle before disposal.
- Use scoop technique when needle has to be recapped.
- Sharps, glass ampules should be discarded immediatetly after use into a sharp container which is leak/puncture proof.
- Sharp container should be sealed and replaced when it is three quarters full.
- NOTE: In the event of sharp injuries immediately report to the concern IC team person and follow the post exposure protocol.

Storage and transport

- JSSDCH has been designated as central waste collection bay where all the BMW from different departments are transported via closed containers or bags in safe and secure manner.
- Shree consultancy people collect the BMW in a closed vehicle without contaminating the campus.
- The quantity of waste and timings of BMW collection is all documented on day to day basis
- Shree consultancy is paid fee for collection of BMW. The details of which are maintained.
- Personal protective equipments are used mandatorily for handling BMW by all staff in accordance with manual to prevent cross infection or other accidental injuries.
- JSSDCH has equipment for disposing used syringes, blades, suture needles etc.. Handling of sharps are done using appropriate PPE and in accordance with JSSDCH ICM.

Training of all concerned staffs

- JSSDCH ICC recommends the required resources to carry out infection control programme.
- JSSDCH Management ensures availability of resources to carry out infection programme.
- Management decides the budget as per requirement.
- For efficient functioning of the policies and programmes all the staff concern with IC will
- be given training periodically.
- New staff will be given induction programme before joining departments.
- Charts giving information regarding post exposure protocol and prophylaxis will be displayed in all working areas, documentation and follow up of any such incident will be done.

PEP protocol, prophylaxis and immunization Requirements for employee medical records:

- Employee's name and social security number
- Proof of employee's hepatitis B virus (HBV) vaccination or signed refusal
- Circumstances of any exposure incident (such as needle stick) involving the employee and the name of the source individual (eg: a patient whose blood or bodily fluid was involved in the incident)
- A copy of the postexposure follow up procedures for any injuries sustained by that
- employee
- These records must be retained by the employer for the duration of the employment plus 30 years

Follow up measures for exposed workers:

The following services must be offered to the employee without charge:

- Confidential medical counseling
- Human immunodeficiency virus (HIV) test series immediately and at 6 weeks, 12 weeks
- and 6 months
- Hepatitis B virus (HBV) immune globulin (if no prior HBV vaccination)
- Tetanus booster
- Documentation of incident on appropriate Occupational Safety and Health Administration (OSHA) form.

Dentistry amidst Covid Pandemic

Under the guidance of JSS AHER and infection control committee, JSS dental College & Hospital, the staff and student of our college is educated and equipped to provide safe and efficient dental treatment amidst Covid pandemic. All the essential safety and infection control protocols are being followed. Sign boards have been put up in the hospitals for patient education and safety.

APPROACH TO HEALTHY FOOD

- The current meu was prepared as an initiative to the student intake preferences of the recipes served at the hostel mess.
- the menu served in the hostel was chosen by the hostel students
- The menu included varieties of foods including the Indian food groups.
- The various recipes served were measured using standard cups and ladles.
- The intake quantity of the of served food was found
- The current study is required is required to know the proper serving size and the preferences of the students for recipes.

JSS MEDICAL COLLEGE GIRLS HOSTEL FOR THE MONTH OF MARCH-2020 ('D' BLOCK MENU)

Days	Break fast	Lunch	Dinner
Monday	Maggi + Sauce/ Upma + Kesari Bath Sweet Bread + Jam Coffee+ Tea + Milk	Chapati + Meal Maker Curry Beetroot Palya + Dal+ Rice+ Sambar Rasam+ Curd+ Butter Milk Cut Vegetables	Chapati +Paneer Curry+ Dal Rice +Sambar+ Curd +Rasam Sweet : Jilebi / Gulab Jamun
Tuesday	Masala Dosa + Sambar + Chutney Sweet Bread + Jam Coffee+ Tea + Milk	Chapati + Mushroom Curry Cabbage Palya + Dal + Rice + Sambar Curd + Butter Milk + Rasam Cut Vegetables	Chapati + Tonde Kayi Palya + Dal Rice + Sambar + Curd + Rasam
Wednesday	Poori + Aloo Curry Sweet Bread + Jam Coffee+ Tea + Milk	Chapati + Rajma Curry + Carrot Palya Dal +Rice + Sambar+ Curd+ Butter Milk + Rasam + Cut Vegetables	Chapati +Aloo Fry + Dal Rice + Sambar+ Curd + Rasam Fruits: Papaya /Banana
Thursday	Idli + Vada + Sambar +Chutney Sweet Bread + Jam Coffee+ Tea + Milk	Chapati + Mix Vegetable Curry Beans Palya +Dal + Rice + Sambar Curd + Butter Milk + Rasam Cut Vegetables	Ghee Rice+ Kurma / Gobi + Fried Rice Sauce Rice + Curd + Rasam + Dal
Friday	Poha + Tomato Curry Toast Bread + Butter Sweet Bread + Jam Coffee+ Tea + Milk	Chapati+ Moong Curry + Heerekayi Palya + Dal + Rice + Sambar + Curd Butter Milk + Rasam + Cut Vegetables	Masala Dosa + Aloo + Chutney Rice + Curd + Rasam + Dal Ice Cream
Saturday	Rava Idli+ Tomato curry/ Akki Rotti + Chutney Sweet Bread + Jam Coffee+ Tea + Milk	Chole Bhature + Huruli Palya +Rice Sambar + Curd+ Butter Milk + Rasam Cut Vegetables	Rumali Rotti + Paneer Curry / Pav bhaji Rice + Dal+ Rasam + Papad
Sunday	Alloo Parotha + Curd+ Chutney Sweet Bread + Jam Coffee+ Tea + Milk	Pulao + Raita + Rice + Sambar + Curd Dal + Rasam + Cut Vegetables	Rice + Dal+ Sambar + Rasam + Curd Papad Fruits: Watermelon / Orange

RESEARCH ACTIVITY RELATED TO SDG 12

Publications related to SDG 12

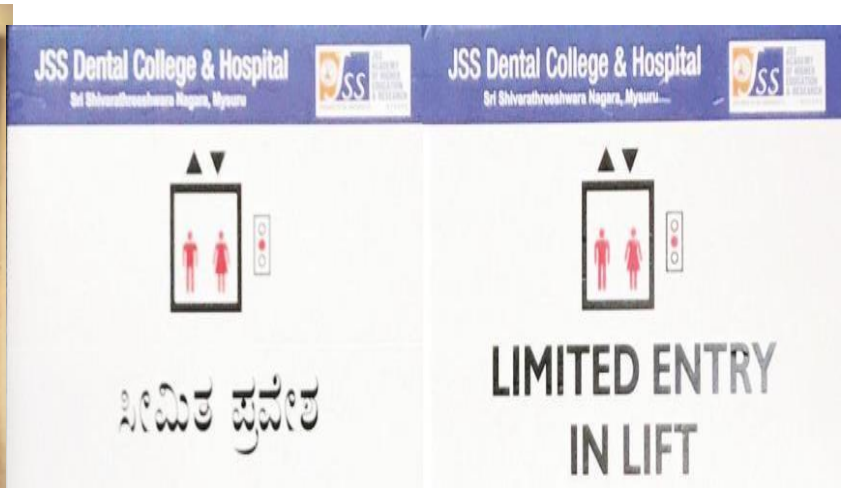
1.	Smart Use of Nanomaterials as Sensors for Detection and Monitoring of Food Spoilage.
2.	Nanomaterials in Food System Application: Biochemical, Preservation, and Food Safety Perspectives.

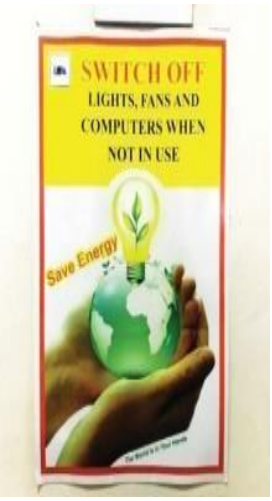
Students Projects related to SDG 12

1.	Green synthesis of silver nanoparticles, characterization and study on antimicrobial, anti-diabetic & anti- inflammatory activities
2.	Microwave induced ag-au alloy nanoparticles using Pluerotus florida
3.	Role of hermetic bags for control of stored grain insects
4.	Detection and enumeration of coliforms in street vended pan
5.	Immobilization of FTase enzyme to produce FOS.
6.	Production of amylase from bacteria and its application
7.	Optimization of cellulase production: comparison between synthetic and agro-chemical waste
8.	Isolation, screening, production and extraction of polyhydroxy butyrate from bacillus species
9.	Biosynthesis of silver nanoparticles and evaluation of its antimicrobial activity
10.	Evaluation of prophylactic solutions for stored grain pests
11.	Development of antimicrobial edible films using tragacanth gum and carrageenan incorporated essential oil
12.	Development of antimicrobial edible films of chia seed mucilage and methyl cellulose incorporated with mint essential oil for active food packaging
13.	"Effect of Pectinase on production of clean Coffee"
14.	"Preparation of antioxidant rich Pomegranate peel powder incorporated pasta production"
15.	"Biochemical study of Protease from K. blossfeldiana "
16.	" Study on the effect of Spirulina fortication on the digestive Protease & carbohydrates on Silkworm Bombyx mori"
17.	“Effect of carbon source on production & purification of antimicrobial Peptides”
18.	“Studies on the properties of proteases from Euphorbia pulcherrima”
19.	Biochemical characterization of Picrorhiza kurroa plant root and nanoformulation of apocynin
20.	Effect of physical and chemical stress on microbes for the production of glucose oxidase

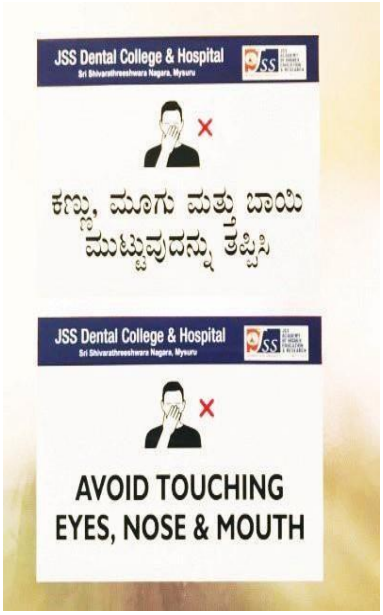
SIGN BOARDS TO EDUCATE STUDENTS, STAFF AND PATIENTS REGARDING SAFETY/ CONSERVATION MEASUREMENTS

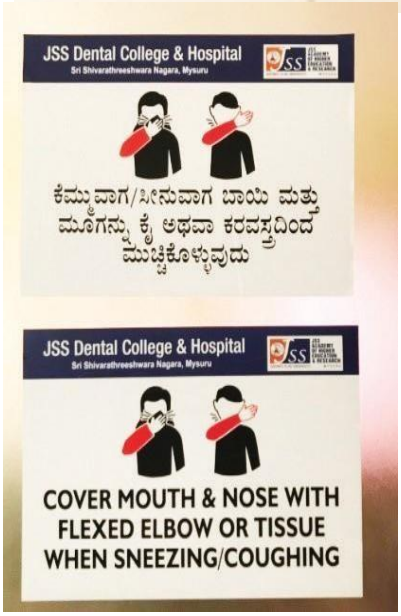
Sign Boards





Sign Boards and Equipment for Managing Fire Accidents





POLICIES RELATED TO SDG 12

JSS Academy of Higher Education & Research
(Deemed to be University)
Accredited 'A+' Grade by NAAC
Sri Shivarathreeshwara Nagara
Mysuru – 570 015, Karnataka, INDIA

JSS ACADEMY OF HIGHER EDUCATION &RESEARCH, MYSURU

Energy Conservation & Recycling Policy

1. Purpose

In order to minimize energy usage, improve the efficiency of all energy/ resources (natural resources, water, electricity) consuming systems and equipment, and improve the environment in all facilities, JSS Academy of Higher Education & Research has adopted a energy / resources conservation and recycling policy.

2. Definitions

- Energy conservation : Energy conservation is a practice of decreasing the quantity of energy used and achieved through efficient energyuse.
- Recycle: Recycle is a process of collecting and reprocessing materials that would typically be consideredwaste.

3. Responsible Office

Office of the Vice Chancellor, Registrar & Finance Officer

4. Policy

Conservation of energy and natural resources and recycling process is an integral part of JSS Academy of Higher Education & Research (JSSAHER) facilities' design and usage. The JSSAHER employs a variety of energy conservation, recycling, and other techniques to lessen the consumption of resources and achieve the lowest feasible life cycle costs. However, occupant health, safety, comfort, and program requirements shall always be the primary concerns. Energy conservation measures will be achieved by using the most cost-effective, energy-efficient approach with consideration given for flexibility of use and future remodeling convenience. Recycling efforts are encouraged at the Institution/department level.

5. Responsibilities

A. All faculty, staff, students, design consultants, and construction contractors must observe energy and resource conservation measures employed by the campus.

B. The Campus Facilities Maintenance & Management Authority- Deputy Registrar shall be the principal coordinator of all design disciplines, which includes responsibility for the implementation of this policy.

C. Constituent Colleges & Departments shall be responsible for internal energy conservation, recycling efforts.

6. Related Policies

The energy conservation and recycling policy of JSS Academy of Higher Education &Research (JSSAHER) follows :

- The Swachh Bharat Mission (Urban) guidelines- Government ofIndia.
- National conservation strategy and policy statement on environment and development- Government of India.

7. Date of implementation

This policy will come into immediate effect from 01.01 .2022

8. Date of revision

01.01.2024

REGISTRAR

JSS ACADEMY OF HIGHER EDUCATION & RESEARCH
(DEEMED TO BE UNIVERSITY) MYSURU

JSS Academy of Higher Education & Research
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Infrastructure policy

I. Preamble:

- JSSAHER is committed to develop & provide "Infrastructure" for the growing requirements of its constituent units and to meet the Statutory body/ State/ National /International standards for the pursuit of Academic research & administrative requirement maintain standards & its educational excellence.
- This shall be in alignment with the standards/ requirements of waste management, energy conservation & recycling, water management, smart campus/campus maintenance ... any other policies in place or created and implemented from time to time.

II. Scope/Objective

- To facilitate the stakeholders with the growing requirements of the academic & research formats and maintain the high standards in its educational pursuit.
- Need assessment to be made and submit the proposal
- Shall design & plan for futuristic infrastructure compatible for next one or two decades
- Resource Mobilization planning to be made in consultation with competent authority.
- All statutory body permission to be sought periodically/ from time to time.
- Such infrastructure shall have the approach towards ecofriendly, cost effective, energy efficient with the provisions for re-cycling mechanism and considered throughout the process of infrastructure plan, Design, execution & remolding.

- Conservation, restoration, reuse, remodeling of the infrastructure be given emphasis as far as possible.
- During its course - priority to be given for the safety, Health, Comfort of the occupants.
- All *drawings shall be maintained in soft & hard copies duly numbered for easy retrieval and reference. (*Planning, statutory body, approved drawings, Construction drawings, modification drawings, as built drawing, remodifying drawing....)

III. Policy/ Procedure

- All infrastructure provided shall be well maintained with due monitoring by the Head of the Institution of the user end and administrative departments of the Institution.
- All Electrical lines be concealed and shall ensure safety and security all the time.
- Decent/comfortable Physical infrastructure with reference to space, furnitures, washroom, lighting, aeration, accessibility ..... be provided including for physically challenged.
- Identify the suitable contractor/partner for execution/deliverables of the identified work.
- Agreement to be executed with the right partner
- Optimal utilization of resources to be ensured
- Natural resources like; light, rainwater, wind may be optimally utilized & adopt use appropriate energy conservation methods as far as possible.
- Ensure all renovation/new built standards (like Indian infrastructure code)
- Infrastructure monitoring & development committee shall periodically review

Broad Guidelines: -

1. Constructor antecedent and capability for delivering the work entrusted shall be ensured by the committee before entrustment of the work to the contractors.

2. Periodically all infrastructure be maintained ensure its maintenance on Building maintenance guidelines (BMG).
    a. BMG shall be provided for All terrace, facade, building cracks & painting, water storage tank maintenance. Periodically BMG be updated or as and when required.
    b. BMG may be in alignment with the MVP/JSSAHER maintenance guidelines and circulars issued from time to time and ensure the following broad activities and its functionality are intact.
        - Building painting-Once in 5 Years
        - Bathroom fittings- Service once in a year/as & when required
        - Bathroom wall & flooring tiles – Epoxy joints once in 2-3 year
        - Electrical fittings (Ac, Fans, lights, Switches)- periodically (Quarterly basis)
        - UGD lines, terrace, Chejja – once in a month
        - Waste management – Follow the guideline in place modified from time to time
        - Infrastructure maintenance – follow the Housekeeping Guidelines
        - Plumbing line – CPVC lines.

IV. Authorities enforcing the policy

The Vice Chancellor, The Registrar and Deputy Registrar (Sr.Grade), Resident Engineer I/c of JSS Academy of Higher Education & Research for implementation of Infrastructure policy.

V. Date of implementation

This policy will come into immediate effect from 01.01 .2022

VI. Date of revision

01.01.2024

REGISTRAR

JSS ACADEMY OF HIGHER EDUCATION & RESEARCH
(DEEMED TO BE UNIVERSITY) MYSURU

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Plastics Policy

I. Preamble:

JSS Academy of higher education & Research is committed to protecting the environment by minimising the use of plastic in the campus. JSSAHER recognises that waste plastics pose a global threat to environment. Within the context of Smart Campus Policy, JSSAHER is working on minimising the use of plastics, to reducing the environmental impact of waste plastics.

II. Policy Description:

- Measure and audit the use of plastics and set targets for reduction
- Plastics less than 50 microns is banned at JSSAHER
- Where possible, to use only those plastic products that can be easily reused or recycled
- Encourage innovative recycling opportunities for the plastic waste in buildings, cafes and daily operations
- Work with stake holders to develop capability and capacity for recycling plastic waste
- Maintain housekeeping standards at campus to attend to plastic litter
- Work with employees, customers and suppliers to encourage them to take practical steps to reduce the use of plastic and the production of plastic waste
- Expand campaign to highlight the environmental damage caused by plastic waste,
- Promote behaviours that reduce reliance on plastics and the reduction of plastic packaging waste
- Fund research and pilot projects for removing plastic waste
- Support and encourage employee and community initiatives to remove plastic waste and litter from the environment
- Work in partnership with research bodies, universities, suppliers, and other stakeholders to meet these policy objectives.
- Plastic Hazard Awareness program as a part outreach activity

III. The Campus Maintenance & Management Authority:

Registrar and Deputy Registrar shall be the principal coordinator of all design disciplines, which includes responsibility for the implementation of this policy.
Constituent Colleges & Departments are responsible for internal monitor on the use of plastic and recycling efforts.

IV. The policy relates to:

- Smart campus policy of JSSAHER.
- The Swachh Bharat Mission (Urban) guidelines, Government of India.
- National conservation strategy and policy statement on environment and development, Government of India.

V. Date of implementation

This policy will come into immediate effect from 01.01 .2022

VI. Date of revision

01.01.2024

REGISTRAR

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SMART CAMPUS POLICY

I. INTRODUCTION:

JSS Academy of Higher Education & Research, Mysuru has established its state of art Campus using cutting edge technology. Smart campus theme is adopted and realigned with the Sustainable Development Goal of UNO under the broad 10 elements for smart campus initiative with the commitment of our social responsibility to our **environment** and for **our city and community** carved out in **'TOUCHING THE LIVES OF MILLIONS'**

For our environment

1. Ensure that the developments in JSS AHER are sustainable and do not have a negative impact on the environment.
2. Promote the concepts of the 3Rs of Reduction, Reuse and Recycling and eliminate, where possible, the use of non-degradable materials.
3. Aim for a continuous reduction of the carbon footprint of the Institution.
4. Provide equipment, training and other resources to ensure a healthy and safe environment for the students and staff.
5. Continuously work and evolve environmental improvements in the way we manage our transport, waste, and energy

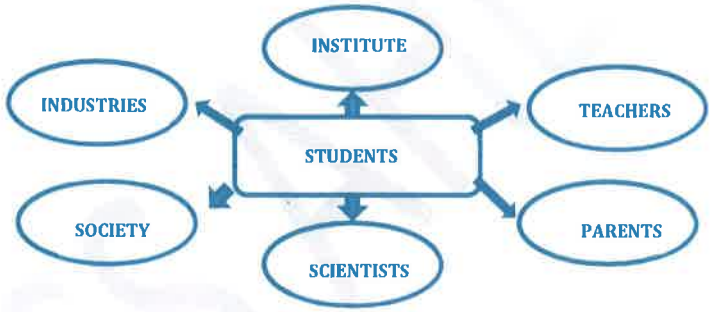
For our City and our Community

1. To work with the City of Mysore and regional partners to raise the health profile of the city and neighboring districts; and in partnership to help secure the economic, health, social and cultural regeneration of the City and region.
2. Make significant and major contributions through our Faculty to the Social Responsibility agenda including:
   - ✓ the training of the future health professional workforce
   - ✓ The ongoing support for health professionals
   - ✓ Support JSS Hospital to provide access to quality healthcare at affordable costs
   - ✓ Nurture and contribute to research that impacts healthcare and health policies and makes significant contribution to national and global health.
3. Working with young people in local schools: - to discuss health and science and its relevance to their everyday lives
   - ✓ to inspire them to consider careers in science and health
   - ✓ to devise creative and fun activities to help engage them
4. By involving the public/patients in our work to improve the quality of our teaching and healthcare delivery.

II. OBJECTIVE:

- ✓ Embed the use of smart technology into daily life of the campus; providing an opportunity for the development and application of innovation and technology to support a smart campus.
- ✓ Integrate an enhanced process and Programme focused on materials, security, health, transport, energy and environmental management.
- ✓ Focus on maintaining "Eco friendly institution" through best practices.
- ✓ Provide world class facilities and enabling nationally and internationally renowned industrial/institutional partners have to meaningful collaboration.
- ✓ To Provide value base education and to create responsible & responsive citizens.
- ✓ To ensure good health & wellbeing of the campus inmates & stakeholders.
- ✓ To Provide & ensure uninterrupted service.
- ✓ To maintain high standards of academic, education & research pursuit.
- ✓ Ensure to use resource Judiciously to Align/integrate smart campus elements with SDG's.
- ✓ To ensure reduced carbon "footprint" in all its Campuses and to achieve zero carbon footprint by 2030 as far as possible.

III. Our Stake Holders:



IV. Need assessment:

- ❖ Set clear strategies and goals
- ❖ Comprehensive approach
- ❖ Integrate students, faculty, staff and external partners
- ❖ Initiate pilot projects in areas required involving stakeholders & students.
- ❖ Plan policies, financial resources, facilities management, curriculum, sustainability literacy, ecosystems, land use, energy resources, etc.

V. Smart Campus elements:

1. Building & infrastructure
2. Education, learning & digitalization
3. Sports & recreation
4. Safety & security
5. Waste, water & air management
6. Utilities
7. Green environment resilience
8. Food & health
9. Services & connectivity
10. Governance

VI. Sub Parameters for Smart Campus Initiatives

Building & Infrastructure

- Accessibility
- Safety and Security
- Energy efficient
- Rain Water Harvesting
- Walkable campus
- Bicycle
- Sustainable Transport
- Road network
- Signage

Sports & Recreation

- Playgrounds
- Sport facilities-Indoor and Outdoor
- Recreational space
- Open Gym
- Yoga facilities
- Amusement park
- Open air theatre
- Swimming pool

Waste, Water & Air Management

- Sanitation and cleanliness
- STP
- Solid waste management
- Plastic waste management
- E-waste management
- Automatic sensor taps
- Air monitoring system

Green Environment Resilience

- Green Campus
- Landscaping
- Preserving open space
- Soil erosion control
- Ground water recharging

Services & Connectivity

- Online services
- Amenities- Bank, Food court, Stationery, pharmacy
- Wi-Fi Services
- LAN

Education, Learning & Digitization

- Smart Classroom
- E-Resources
- Wi-Fi Connectivity
- ICT Enabled services
- Modular Laboratories
- Innovation Centre
- Virtual Class and Laboratories
- Outreach Programmes

Safety & Security

- CCTV surveillance
- Fire alarms
- Fire fighting
- Peripheral safety
- Visitor management system
- Biometric system
- Anti-ragging
- Women safety/ICC
- Student counselling

Utilities

- Solar Projects
- Smart lighting System
- Emergency power backup
- Smart micro grids
- Bio-gas plant
- Kiosks

Food & Health

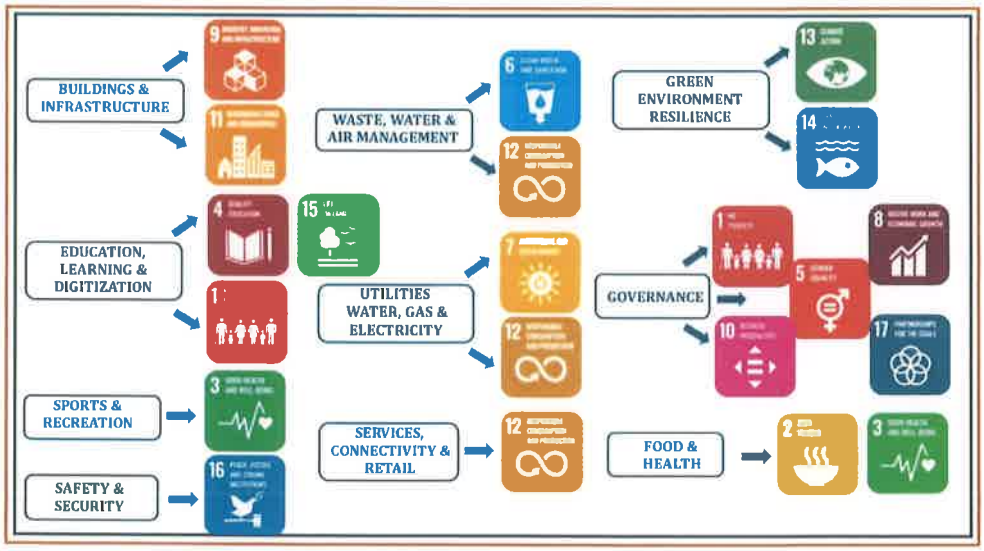
- Wellness Centre
- Health Centre
- Potable water facility
- Personal Hygiene
- Nutritional Values
- Dietary Components

Governance

- ERP
- Less paper Office
- Training and Development
- ART- Accountability, Responsibility, Transparency

INTEGRATION OF SDGs INTO KEY ELEMENTS OF SMART CAMPUS		
No	KEY ELEMENTS	SDGs
1	BUILDINGS & INFRASTRUCTURE	SDG 9 (Industry, Innovation & Infrastructure), SDG 11 (Sustainable Cities & Communities)
2	EDUCATION, LEARNING & DIGITISATION	SDG 4 (Quality Education), SDG 15 (Life on Land), SDG 1 (No Poverty)
3	SPORTS & RECREATION	SDG 3 (Good Health & Well- Being)
4	SAFETY & SECURITY	SDG 16 (Peace, Justice & Strong Institutions)
5	WASTE, WATER, AIR MANAGEMENT	SDG 6 (Clean Water & Sanitation), SDG 12 (Responsible Consumption & Production)
6	UTILITIES – WATER, GAS, ELECTRICITY	SDG 7 (Affordable & Clean Energy),SDG 12 (Responsible Consumption & Production)
7	SERVICES, CONNECTIVITY & RETAIL	SDG 12 (Responsible Consumption & Production)
8	GREEN ENVIRONMENT RESILIENCE	SDG 13 (Climate Action), SDG 14 (Life Below Water)
9	GOVERNANCE	SDG 1 (No Poverty), SDG 5 (Gender Equality), SDG 8 (Decent Work & Economic Growth), SDG 10 (Reduced Inequalities), SDG 17 (Partnerships for the Goals)
10	FOOD & HEALTH	SDG 2 (Zero Hunger), SDG 3 (Good Health & Well-Being)

VII. SMART CAMPUS INITIATIVES IN LINE WITH SUSTAINABLE DEVELOPMENT GOALS (SDGs OF THE UN)



VIII. Best practices: -

JSS Academy of Higher Education & Research emphasize on creation of a world-changing, connected, healthy and vibrant, ecofriendly, value-based campuses.

a. Governance:

- ✓ Create Healthy environment to support the mental, physical, and social wellbeing of the students and staff.
- ✓ Evaluate, understand, and improve the physical environment
- ✓ Develop new practices for workplace wellbeing.
- ✓ Develop the technology, to measure and influence health related behavior.

b. Students Centric:

- ✓ Safe and secure campus with homely atmosphere monitored round the clock.
- ✓ Dedicated band width with high-speed internet across its campuses and facilities to pursue their academic goals.
- ✓ Data-driven services and spaces for an improved student experience.
- ✓ Technology-enabled learning & teaching (including active learning, interactive teaching, flexible study).

c. ICT enabled:

- ✓ Open, flexible, integrated, interoperable, secure, and scalable ICT architecture.
- ✓ Physical security challenges in the campus be monitored through CCTV surveillance.
- ✓ Smart Portal for always establishing connectivity with students from entry to exit.

d. Environment Friendly:

- ✓ Resilient infrastructure systems and Innovation in infrastructure design and delivery.
- ✓ Ensure optimal utilization of resources with 3R's integral part of JSS and adopt safe/time-tested waste management protocols.
- ✓ Consumption pattern be observed through the meters/ registers provided for ease of monitoring its facilities for optimization & improvement to evolve suitable measure for ethical use of resources to the extent possible.
- ✓ Low carbon, low impact energy in a complex urban environment, focusing on generation, storage, distribution, and management.
- ✓ Adopt an energy / resources conservation and ensure cost-effective, energy-efficient approach with consideration given for flexibility of use and future remodeling convenience to achieve the lowest feasible life cycle costs.
- ✓ Encourage recycling efforts across the Institution/department at all levels.
- ✓ Follow the related policies and relevant guideline in place like Campus Maintenance Policy, Transport Policy, Infrastructure Policy, Energy Conservation & Recycling Policy, Waste Management Policy....

IX. Reference Document:

- The Swachh Bharat Mission (Urban) guidelines, Government of India.
- National conservation strategy and policy statement on environment and development, Government of India.
- National Cyber Security Policy, Ministry of Communication and Information Technology, Government of India.

X. AUTHORITY:

The Vice-Chancellor, Registrar & Deputy Registrar (Sr. Grade) of the Academy holds delegated authority and is responsible for overseeing and implementation of all aspects of the JSS Academy of Higher Education & Research's "SMART CAMPUS POLICY".

- The Campus Facilities Maintenance & Management Authority shall be the Principal coordinator & Constituent units are responsible for implementation of this policy.

XI. Date of implementation:

This policy will come into immediate effect from 01.01.2022

XII. Date of revision:

01.01.2024

REGISTRAR

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JSS Academy of Higher Education & Research
Sri Shivarathreeshwara Nagara
Mysuru-570015, Karnataka, India

JSS Academy of Higher Education & Research
(Deemed to be University)
Accredited 'A+' Grade by NAAC
Sri Shivarathreeshwara Nagara
Mysuru – 570 015, Karnataka, INDIA

JSS Academy of Higher Education & Research

Mysuru

Waste disposal Policy

"Reduce – Recycle – Reuse" is a social responsibility, let us work together for a better tomorrow

Waste disposal Policy Statement

This policy document contains information on the procedure being followed at the JSS Academia of HigherEducation & Research and its constituent colleges and departments. The document is prepared based on the Central Pollution Control Board, Govt of India and Karnataka State Pollution Control Board guidelines. The document will undergo revision as and when the central pollution control board makes amendments / changes and also as per the academia documentation policy. Sharing or copying the information in written, photocopy or any other mode without prior consent of the academia is discouraged.

Key personnel in waste disposal management

S No	Waste Disposal Activity	Function	Key Personnel	Contact details
1	Solid waste	Supervision of Collection and disposal	Mr Prashanth	9980613010
2	Green waste	Supervision of Collection and disposal	Mr Shivamanju	9886260635
3	E-waste	Supervision of Collection and disposal	Dr Ravindra	8105278665
4	Radioactive waste	Supervision of Collection and disposal	Dr Mahesh KP	9845189703
5	Biomedical waste	**Supervision of collection and disposal of Biomedical waste disposal** ▪ Collection ▪ Segregation at source ▪ Packing and Transport to central storage area ▪ Storage and Handover to CBMWTF	Dr Saravana Babu C	9042222277
		Disposal	Mr Umesh	9900970844
		Updating of biomedical waste register		
		Updating and Display of reports on website		

JSS Academy of Higher Education & Research

JSS Academy of Higher Education & Research (JSS AHER), formerly known as JSS University, is a deemed to be university located in Mysore, Karnataka. It was established in the year 2008 under Section 3 of the UGC Act 1956. JSS AHER is recognized by MOE and accredited with A^+ Grade (CGPA of 3.48 out of 4) by National Assessment and Accreditation Council (NAAC) during re-accreditation in 2018. National Institutional Ranking Framework (NIRF) has listed JSSAHER at 37 ranks in the Universities Category. JSS AHER has the credit of being the top YOUNG University in the Karnataka State Universities Rating Framework (KSURF).

JSS AHER focuses on Medical and health-sciences studies through its constituent colleges, JSS Medical College, JSS Dental College & Hospital, JSS College of Pharmacy, Mysuru and JSS College of Pharmacy in Ootacamund, School of Life Science, Mysuru, School of Life Science, Ooty, School of Public Health. The other university departments include Department of Health System Management Studies, Department of Nutrition and Dietetics, Department of Yoga, Department of Environmental Sciences, Department of Microbiology and Department of Biotechnology and Bioinformatics.

WASTE MANAGEMENT POLICY

1, Scope

This document provides information on the procedure being followed on waste management in the Deemed to be University

Applies to

All the teaching and non-teaching faculties, contractors and housekeeping staff

2. Preamble

Definitions

"Authorization" means permission granted by the Deemed to be University for the generation, collection, reception, storage, transportation, treatment, processing, disposal or any other form of handling of bio-medical waste in accordance with the rules and guidelines issued by the Central Pollution Control Board, Govt of India.

"Authorized person" means a person authorized by the Deemed to be University to generate, collect, receive, store, transport, treat, process, dispose or handle bio-medical waste in accordance with the rules and guidelines issued by the Central Pollution Control Board, Govt of India

"Biological" means any preparation made from organisms or micro-organisms or product of metabolism and biochemical reactions intended for use in the diagnosis, immunization or the treatment of human beings or animals or in research activities

"Bio-medical waste" means the wastes generated during the diagnosis, treatment orimmunization of human beings or animals or research activities

"Bio-Medical Waste Treatment and Disposal Facility" means the facility wherein treatment, disposal of bio-medical waste or processes incidental to such treatment and disposal is carried out, and includes common bio-medical waste treatment facilities

"Handling" in relation to bio-medical waste includes the generation, sorting, segregation, collection, packaging, storage, loading, transportation, unloading, treatment, destruction, transfer, disposal of waste.

"Healthcare facility" means a place where diagnosis, treatment or immunization of human beings is provided irrespective of type and size of health treatment system, and research activity

"Occupier" means a person having day to day administrative control over the clinic / lab generating bio-medical waste, which includes a hospital, mortuary, anatomical wastes, pathological laboratory, animal house, blood bank, irrespective of their system of medicine

"Operator of a common bio-medical waste treatment facility" means a person who owns or controls a Common Bio-medical Waste Treatment Facility (CBWTF) for the collection, reception, storage, transport, treatment, disposal or any other form of handling of bio-medical waste.

"Prescribed authority" mean the State Pollution Control Board in respect of State and Pollution Control Committee in respect of Union Territory. In Karnataka it is Karnataka State Pollution Control Board (KSPCB)

"Point of Generation" means the location where wastes initially generate and accumulate.

"Storage" means the holding of biomedical waste for a temporary period at the end of which the bio-medical waste is treated or disposed.

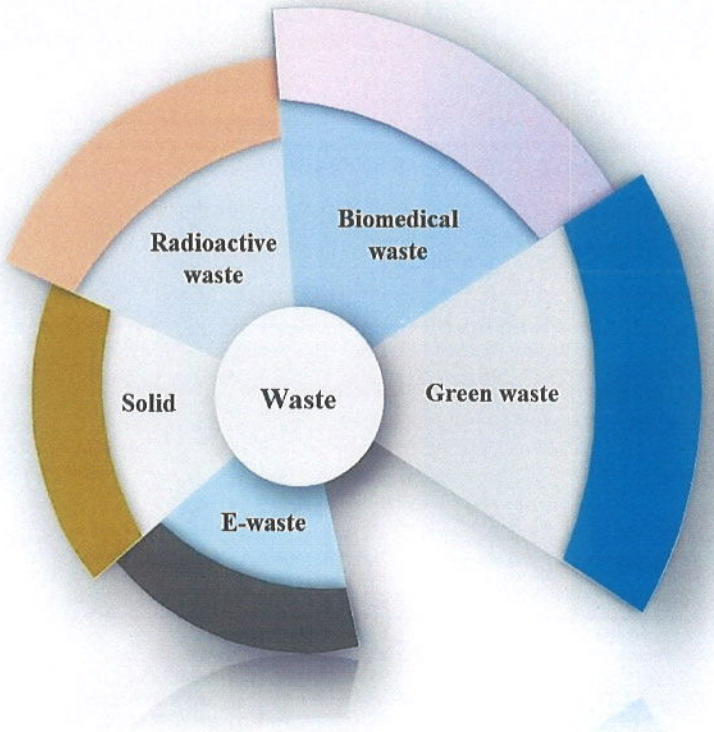
"Treatment" means any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological characteristics or composition of any hazardous waste

"Waste" any substance which is discarded after the primary use, or it is worthless, defective, and of no use

Policy

Classification of waste generated from the University, hospital and laboratories:

- **General solid wastes**: Domestic garbage, food and food packing materials, papers and cardboards, construction and demolition debris, sanitation residues, packaging materials, usually disposed through municipality
- **Bio-medical wastes**: Solid or liquid wastes including containers, intermediate or end products generated during diagnosis, treatment & research activities of medical sciences.
- **Green waste**: Wastes generated from gardens and herbal gardens activities. These substances are mostly biodegradable.
- **Radioactive wastes**: Waste containing radioactive materials. Usually these are byproducts of nuclear processes. e.g. radio-isotopes, chemical sludge etc.
- **E-wastes**: Electronic wastes generated from electrical or electronic devices. Electronic scrap components, such as CRTs, may contain contaminants such as Pb, Cd, Be or brominated flame retardants.



3. Procedure

General Wastes

It constitutes all the waste other than bio-medical wastes and which has not been in contact with any hazardous or infectious, chemical or biological secretions and does not includes any waste sharps. This waste consists of mainly:

1) Newspaper, paper and card boxes (dry waste)
2) Plastic water bottles (dry waste)
3) Aluminum cans of soft drinks (dry waste)
4) Packaging materials (dry waste)
5) Food Containers after emptying residual food (dry waste)
6) Organic / Bio-degradable waste - mostly food waste (wet waste)
7) Construction and Demolition wastes

These general wastes are further classified as dry wastes and wet wastes and should are collected separately. The quantity of such waste is around 80 % to 90 % of total waste generated from the University, hospital and laboratories.

Food wastes

Food wastes from the hostels are collected in closed containers in respective collection area and are taken to piggery to feed the pigs. Food waste is disposal ensured through third party contract. Pilot trials under process to convert food waste in to organic manure and biogas

Green waste

The dried / wet plants materials such as leaves, stem, trunk, roots, flowers etc collected or cut or shred from the garden. Approximately 20 tonnes per year green waste is generated from the campus. The collected materials are processed in pits and approximately 12 tonnes of manure are prepared from the green wastes which are used for gardening purpose spread over in different locations of the campus.

Construction and Demolition waste

As part of infrastructure development in the Deemed to be University, as and when renovation or new construction are planned, the solid debris generated are cleared from the campus through the contractors taking-up the construction work. These wastes are disposed through trucks and used as landfill (approximately 5 acre) at Belavatha site located 1 km from the main campus

E-waste

Electronic wastes – computers, televisions, circuit boards, hard disks, printers and copiers, used batteries, which are not covered under biomedical wastes are disposed as and when such wastes are generated as per the provisions laid down under E-Waste (Management) Rules, 2016, Batteries (Management & Handling) Rules, 2001, and Rules/guidelines under Atomic Energy Act, 1962 respectively. This is outsourced through third part contract.

Radioactive isotopes

Dept of Radiology, JSS Dental College and Hospital, is practising a safe way of radiology waste disposal as required by the Bhabha Atomic Research Centre (BARC), Govt of India, since decades. Following are the radiology wastes generated at JSSDC & H

1. Fixing Solution.
2. Lead foils.
3. Radiographs (X- Ray Hard copies).
4. Developer Solution.

Depleted Fixing solution is given to a private agency party (Amaron, Pit stop) to recycles and extract silver from it. The same is followed in the case of x-ray films once, which were collected for so many years excluding the last 10 years record. Lead foils are collected over a period of time and are given to battery manufacturers for recycling. Depleted Developing solution is with excessive water and disposed in drains as suggested by BARC.

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"Bio-medical waste" means waste that are generated during diagnosis, treatment or immunization of human beings or animals or research activities or in the production or testing of biologicals. Medical waste includes all the waste generated from the Health Care Facility which can have adverse effects onthe human health or to the environment in general if not disposed properly. In general, the quantity of biomedical waste will be 5% to 10% of total waste generated from the campus, hospitals and laboratories. These wastes consist of the materials originated patient or animals blood, secretions, infected parts, biological liquids such as chemicals, medical supplies, medicines, lab discharge, sharps metallic and glassware, plastics etc.

Bio Medical Waste Management Rules, 2016 categorizes the bio-medical waste generated from the health care facility into four major categories based on the segregation pathway and colour code:

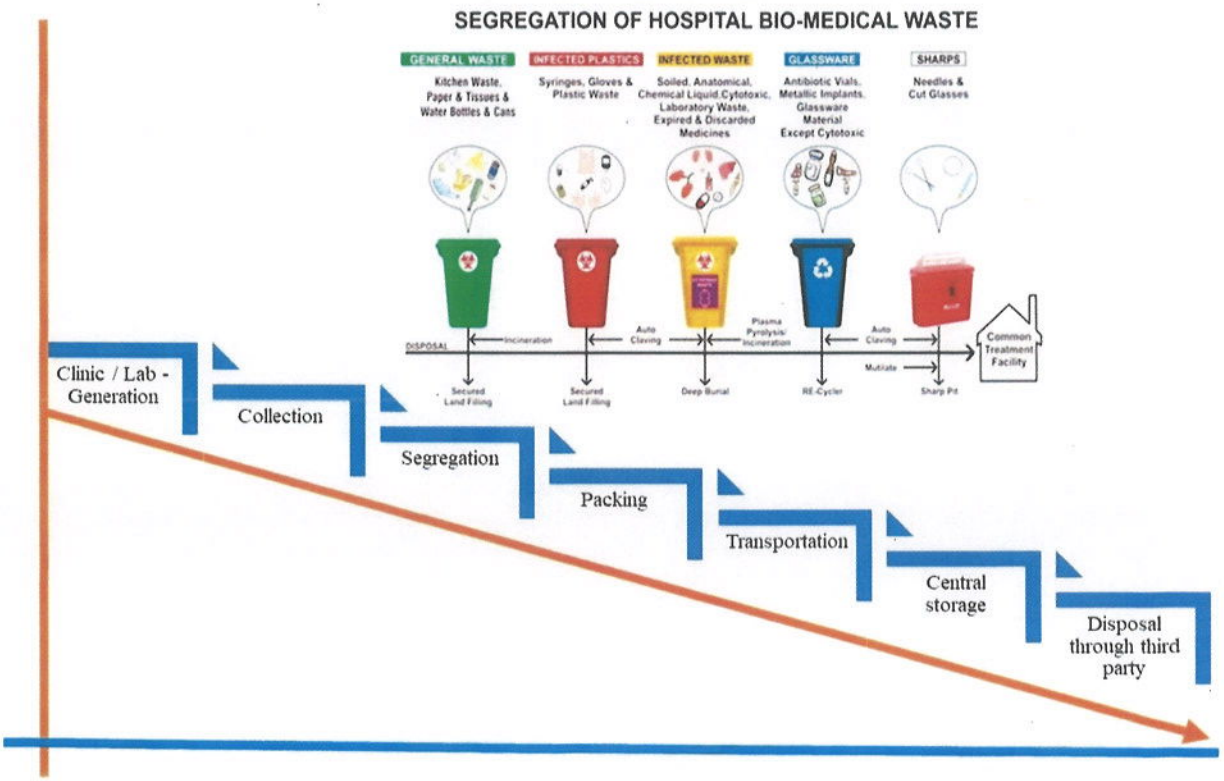
1. **Yellow Category**
2. **Red Category**
3. **White Category**
4. **Blue Category**
5. **Black Category**

S.No	Category	Type of waste	Color & Type of container
1	YELLOW	➢ Human Anatomical Waste ➢ Animal Anatomical Waste ➢ Soiled Waste ➢ Discarded or Expired Medicine ➢ Microbiology, Biotechnology and other clinical laboratory waste ➢ Chemical Waste ➢ Chemical Liquid Waste	Yellow colored Non-Chlorinated Plastic Bags (having thickness equal to more than 50 μ) or containers  Note (i) Infected secretions, aspired body fluids etc from laboratory are disinfected before mixing with another wastewater (ii) Liquid chemical wastes are pre-treated/ neutralised before mixing with other wastewater from hospital.
2	RED	➢ Contaminated Waste (Recyclable)	Red Colored Non-Chlorinated Plastic Bags (having thickness equal to more) 
3	WHITE	➢ Waste Sharps including metals	White Colored translucent, punctureproof, leak proof, Temper Proofcontainers
4	BLUE	➢ Glassware ➢ Metallic Body Implants	Cardboard boxes with blue colored marking or blue colored puncture proof, temper proof containers

BIOMEDICAL WASTE SEGREGATION

Biomedical waste generated from the hospital and laboratories are segregated at the point of generation as per the colour coding stipulated under Schedule I of BMWM Rules, 2016.

- Personnel Protective Equipment are provided to the bio-medical waste handling staff.
- Waste are segregated at the point of generation of source and not in later stages. "Point of Generation" means the location where wastes initially generate, accumulate and is under the control of doctor / nursing staff / lab etc. who is providing treatment to the patient / animals and in the process generating bio-medical waste.
- Posters / placards for bio-medical waste segregation are installed at the point of generation.
- Adequate numbers of colour coded bins / containers or bags are available at the point of generation of bio-medical waste.



BIO MEDICAL WASTE COLLECTION

Time of Collection

- Bio-medical waste should be collected on daily basis from each ward of the hospital / lab at a fixed time. There can be multiple collections during the day. All the biomedical waste should collected, segregated, packed and sent to central biomedical waste storage every evening before 4.30 pm
- Clinics and labs should ensure collection, transportation, and disposal of bio-medical waste within 48 hours.
- Bio-medical waste bags and sharps containers should be filled to no more than three quarters full. Once this level is reached, the bags are tied or sealed with plastic tags.
- Replacement bags or containers are available at each waste-collection location so that full ones can immediately be replaced.
- All the bags and containers to be transported to CBWTF are labeled with following details:
    - Date of Generation
    - Type of waste category
    - Dept name
    - Contact Person Name and Phone Number

Interim Storage

Interim storage of biomedical waste is discouraged in the clinics / labs

- If waste is needed to be stored on interim basis in the departments it is stored in the dirty utility/sections.
- In absence of dirty utilities/ sections such BMW must be stored in designated place away
- No waste is in patient care area / working area and procedure areas

General waste should not be collected at the same time or in the same trolley in which bio-medical waste is collected.

Labeling

All the bags/ containers/ bins used for collection and storage of bio-medical waste, are labelled with the warning Symbol of Bio Hazard or Cytotoxic Hazard as the case may be as per the type of waste in accordance with the BMWM Rules, 2016.

Bio-Hazard Label

Cyto-Toxic label

In-house Transportation of Biomedical waste

Transportation Trolleys & Carts

In-house transportation of biomedical waste from site of waste generation/ interim storage to central waste collection, with in the premises is done in closed trolleys/containers fitted with wheels for easy maneuverability. Such trolleys or carts are dedicated only for the purpose of biomedical waste transportation.

Waste Collection Cart

Waste Transport Trolley for a Particular category of waste

Route of transportation is planned in such a way that:

- Transportation does not occur through traffic and high-risk areas
- Supplies and waste are transported through separate routes
- Central waste collection area is accessed easily through the route adopted

Central waste collection area – for temporary storage

A central collection center situated within its premises for storage of bio-medical waste, till the waste is transported for treatment and disposal to CBMWTF. Center storage is manned and is under lock and key under the responsibility of a designated person. Central collection area has proper ventilation through the use of exhaust fan, hand wash area, weighing balance etc.

- Location of central waste collection facility is away from the public/visitors' access.
- The space allocated for collection is sufficient for the quantity of waste generated from premises
- Space is sufficient to store at least two days generation of waste
- Center has a concrete ramp for easy transportation of waste collection trolleys
- Flooring is of tiles with slope so as to easy the cleaning of the area
- Center has good ventilation through the use of exhaust fan and by use of wire meshes window
- Central storage station ensured for fire hazard like installation of fire extinguisher, smoke detector etc.
- Water supply is provided for cleaning and washing of this station containers. The drainage from the storage and washing area is routed to the effluent treatment plant (ETP).
- Sign boards indicating relevant details such as contact person and the telephone number is provided.
- It is ensured that no general waste is stored in the central waste collection area.
- Healthcare facilities need to maintain the record of waste generated and handed over to the authorized recycles.
- Centre is protected from stray animals in the academia and has installed cattle traps at main gate
- Pest control program is in place

Colour codes for Biomedical waste collection and Packing

				
▪ Human and animal anatomical wastes ▪ Soiled wastes, ▪ Discarded or expired medicines ▪ Chemical wastes, ▪ Blood and	▪ Contaminated waste (recyclable)	▪ Sharps including metals ▪ Needles ▪ Scalpels ▪ Blades	▪ Broken and contaminated glass including vials and ampoules ▪ Metallic body implants	▪ Food items ▪ Papers / paper plates, ▪ Water bottles, etc

References

- https://kspcb.gov.in/aboute.html (Bio-Medical Waste Management Rules, 2016)
- https://kspcb.gov.in/aboute.html (Construction & Demolition Waste Management Rules, 2016)
- https://kspcb.gov.in/aboute.html (E-waste Management Rules 2016)
- https://kspcb.gov.in/aboute.html (Solid Waste Management Rules, 2016)
- http://www.barc.gov.in/randd/rwm.html (Bhabha Atomic Research Centre)

4. Authority

The Vice-Chancellor, Registrar & Deputy Registrar of JSS Academy of Higher Education & Research and Principals of the constituent colleges and Heads of the departments holds delegated authority and is responsible for all aspects of this policy.

5. Date of implementation:

This policy will come into immediate effect from 01.01.2022

6. Date of revision:

01.01.2024

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