



JSS Academy of Higher Education & Research
(Deemed to be University) (Accredited A++ Grade by
NAAC)

COMPENDIUM ON SDG-7

AFFORDABLE AND CLEAN ENERGY

**Compendium of Activities in Achieving UN Sustainable
Development Goals**



2023-24

TABLE OF CONTENTS

S.r	Content	Page Number
1	Introduction	3-4
2	Targets aligning to this SDG 7	5-24
3	Outreach Activities	26-36
4	Research Project	37-39
5	Patent	40
6	Guest Lecture, Faculty Development program	41-42
7	Publications of JSSAHER supporting SDG 7	42-44

Introduction:

About the Goal

Sustainable Development Goal 7 (SDG 7) is integral to the United Nations' 2030 Agenda for Sustainable Development. It aims to "Ensure access to affordable, reliable, sustainable, and modern energy for all." The achievement of this goal is fundamental for the development of nations and the overall prosperity of the globe, directly impacting several other SDGs.

SDG 7 encompasses five targets, monitored through five indicators, and aims for completion by 2030. These targets are categorized as follows:

Outcome targets:

1. Ensure universal access to affordable, reliable, and modern energy services.
2. Increase substantially the share of renewable energy in the global energy mix.
3. Double the global rate of improvement in energy efficiency.

Means of achieving targets:

1. Enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency, and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology.
2. Expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, particularly least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programmes of support.

Achieving SDG 7 is essential for the sustainable development of nations, contributing to the elimination of poverty and hunger, improvement of global health, and overall socio-economic growth. Access to clean energy supports a better ecosystem, helps address climate change, reduces inequality, and fosters global peace and partnerships. Additionally, sustainable energy practices enhance infrastructure and industrialization, increase sustainable production, and promote the efficient utilization of natural resources, which in turn generates better employment opportunities, combats hunger, reduces gender inequality, and ensures healthier lives.

Renewable energy solutions are becoming cheaper, more reliable and more efficient every day. Our current reliance on fossil fuels is unsustainable and harmful to the planet, which is why we have to change the way we produce and consume energy. Implementing these new energy solutions as fast as possible is essential to counter climate change, one of the biggest threats to our own survival.

Status in India

- Nearly 84.5 % people have access to electricity
- 100% villages electrified

Power cables from the grid have reached a transformer in each village, but 31 million houses still lack access to electricity

A well-established energy system supports all sectors: from businesses, medicine and education to agriculture, infrastructure, communications and high technology. Countries can accelerate the transition to an affordable, reliable, and sustainable energy system by investing in renewable energy resources, prioritizing energy efficient practices, and adopting clean energy technologies and infrastructure.

Objectives

The primary objective of SDG 7 is to ensure access to affordable, reliable, sustainable, and modern energy for all by the year 2030. This goal addresses the significant global challenges related to energy access, efficiency, and sustainability.

The key targets of SDG 7 are as follows:

Universal Access to Energy: Ensure universal access to affordable, reliable, and modern energy services. This includes electricity, clean cooking solutions, and other sustainable energy sources for both urban and rural populations.

Renewable Energy: Increase substantially the share of renewable energy in the global energy mix. The goal is to promote the use of renewable sources like solar, wind, hydro, and geothermal energy to reduce dependence on fossil fuels and mitigate climate change.

Energy Efficiency: Double the global rate of improvement in energy efficiency. This entails encouraging energy-efficient practices in industries, buildings, transportation, and other sectors to reduce energy consumption and greenhouse gas emissions.

Energy Sustainability: Enhance international cooperation to facilitate access to clean energy research and technology, promoting sustainable energy infrastructure in developing countries, and ensuring a secure and stable energy supply.

Energy for Economic Development: Enhance the use of sustainable energy in sectors such as agriculture, industry, and transportation, as well as support developing countries in advancing their energy-related technology and infrastructure.

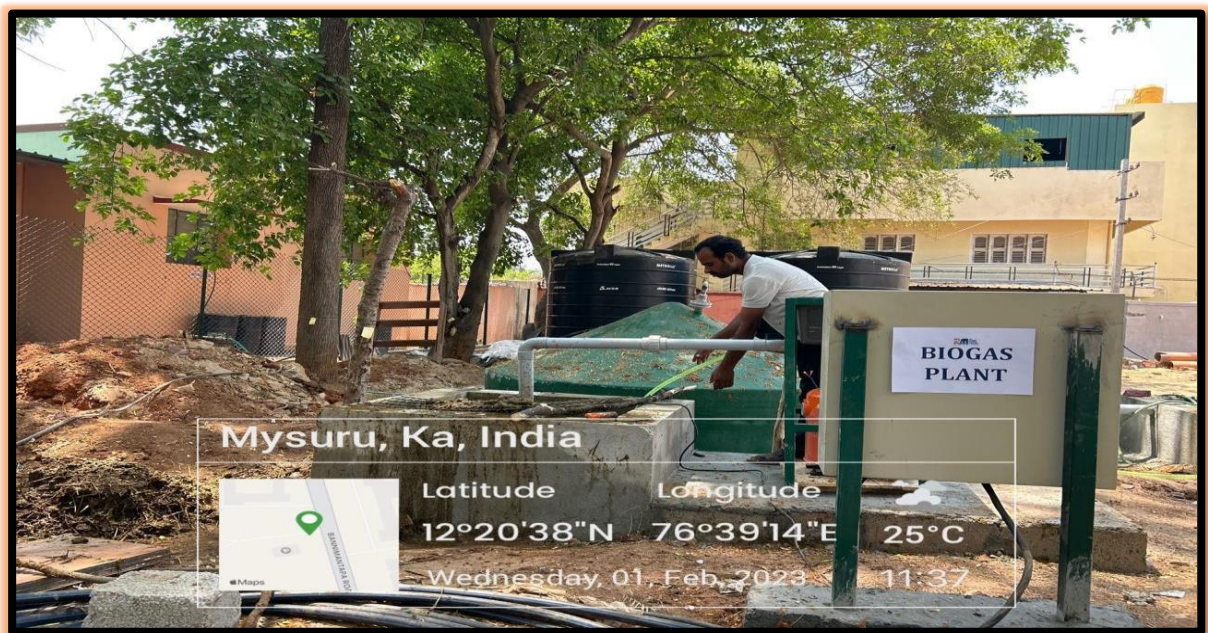
SDG 7 plays a vital role in achieving several other Sustainable Development Goals, as energy is a cross-cutting issue that impacts various aspects of human development, environmental sustainability, and economic growth. Access to reliable and sustainable energy sources is crucial for eradicating poverty, improving healthcare, education, and promoting inclusive economic growth. It is important to monitor progress on SDG Goal 7 and take collective actions at the global, national, and local levels to ensure that everyone has access to clean, affordable, and modern energy sources, while also protecting the planet and promoting sustainable development for future generations

Targets aligning to this SDG 7

- **Clean Fuel for Cooking:** In our efforts to ensure universal access to modern energy, we have implemented the use of clean fuel for cooking at the hostel. This initiative aims to reduce the reliance on fossil fuels and biofuels, thereby decreasing harmful emissions and promoting healthier living environments.
- **Promoting Sustainable Transportation:** To further encourage the reduction of non- renewable energy usage, we provide bicycles for students and staff to use in and around the campus. This initiative aims to:

- Encourage the youth to adopt more sustainable modes of transportation.
- Reduce air pollution by minimizing CO2 emissions from vehicles.
- Promote physical activity and well-being among the campus community.

These measures align with the goal of achieving universal access to affordable, reliable, and modern energy services, contributing to broader environmental and health benefits.





7.2: Increase the global percentage of renewable energy:

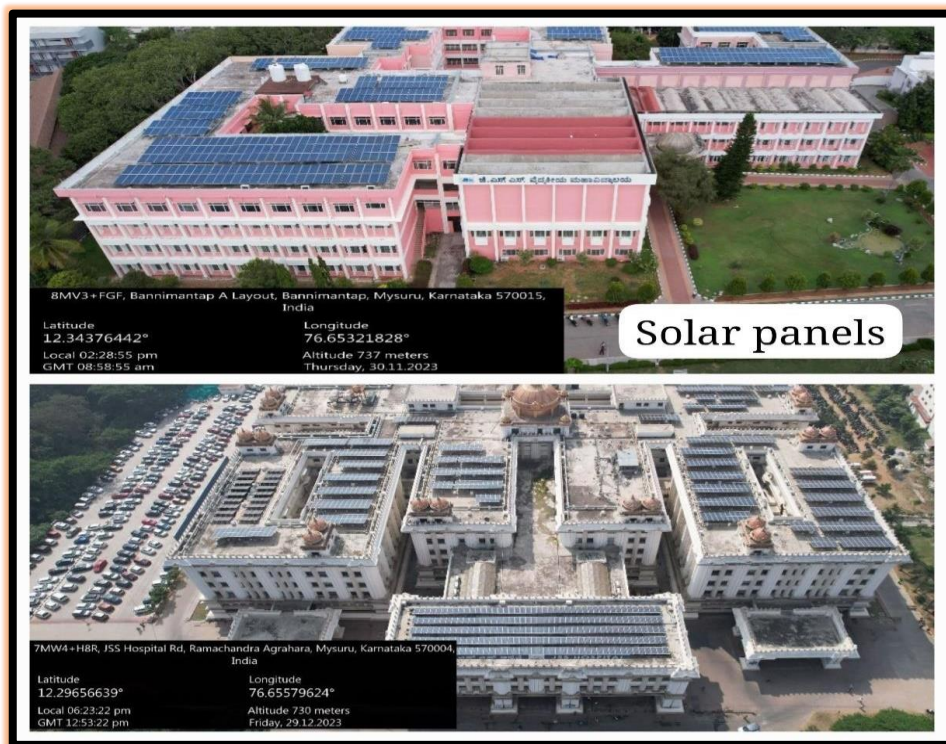
- **Solar Energy Implementation:** We have installed solar panels in the hostels, medical college, and hospital, significantly increasing the use of renewable energy sources on campus.
- **Efficient Lighting:** The campus is equipped with LED lights, which are more energy- efficient and have a longer lifespan compared to traditional lighting. To further conserve energy:
 - Lights are turned off during the night when not needed.
 - Motion-sensitive lights are installed on pathways to ensure student safety while minimizing unnecessary energy consumption.
 - Natural ventilation in classrooms and laboratories eliminates the need for artificial lighting during the day.
- **Environmental Considerations:**
 - Air conditioners are not installed in offices and chambers to reduce energy consumption and promote environmental safety.
 - Rainwater harvesting systems are adopted to utilize natural water sources and recharge underground water, contributing to sustainable water management.

~~These measures contribute to increasing the global percentage of renewable energy, enhancing energy efficiency, and promoting environmental sustainability on our campus.~~

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7.3: Double the improvement in energy efficiency:

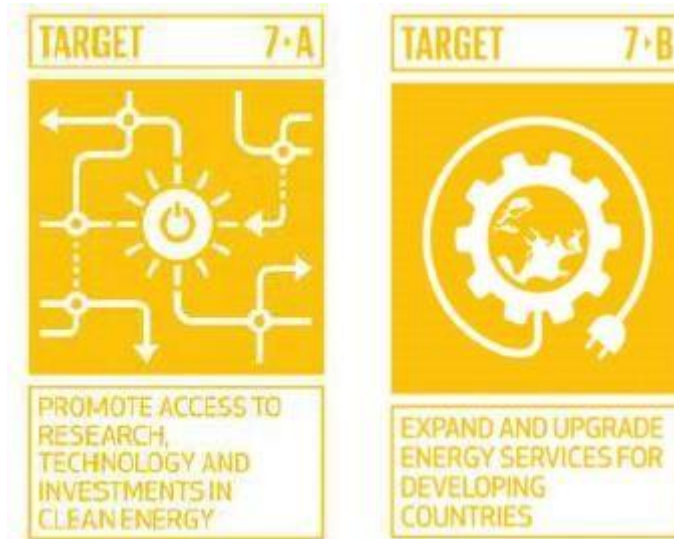
- **Solar Panels and LED Lighting:**
 - By installing solar panels and using LED lights, we have significantly reduced energy consumption on campus, enhancing energy efficiency and reliance on renewable energy sources.
 - Motion-sensitive lights are installed on pathways to ensure student safety while minimizing unnecessary energy consumption.
- **CPCB Energy Compliance:** We ensure that all energy sources and appliances are compliant with the Central Pollution Control Board (CPCB) standards, which promotes higher energy efficiency and reduces environmental impact.
- **Pooled Transport Systems:** To minimize the use of petroleum fuels, we have implemented pooled transport systems for students traveling between the college, hospital, and other campus areas. This initiative reduces the number of individual vehicles on the road, cutting down on fuel consumption and emissions.

These steps are instrumental in doubling the improvement in energy efficiency, aligning with the goals of SDG 7.3 to foster sustainable energy practices and reduce overall energy consumption.



The fourth target of SDG-7:

- **Promote access to research, technology, and investments in clean energy**
- **Expand and upgrade energy services for developing countries.**



The JSS Medical College (JSS MC) in Mysuru, situated on a 43-acre campus, exemplifies bioclimatic architecture that enhances shading, natural ventilation, passive heating, and cooling. This design, combined with an internal atrium for insolation and natural lighting, supports sustainability efforts. The campus leverages solar energy for passive heating and maintains tree canopies for sun protection during summer. Here are some key initiatives and commitments made by JSS AHER:

- **Regulatory Compliance and Education:** The university complies with relevant energy conservation regulations and actively educates staff on energy-saving practices.
- **Biomedical Waste Management:** Efficient biomedical waste management practices are implemented in the hospital to ensure safety and compliance.
- **Pollution Reduction:** The promotion and support of bicycle use reduce fossil fuel pollution on and around the campus.
- **Solar Panels and LED Lighting:** Solar panels are installed at hostels, and LED lights are used throughout the campus to enhance energy efficiency and conservation.
- **Rainwater Harvesting:** The hospital implements rainwater harvesting to utilize natural water sources effectively.

- **Soil Screening and Effluent Treatment:** Soil samples around the hospital and



university are screened to prevent the spread of multidrug-resistant (MDR) bugs. Effluent treatment plants manage waste from microbiology laboratories.

- **Plastic Reduction:** In the Central Sterile Services Department (CSSD), brown paper is used instead of Steripack plastic for wrapping instruments.
- **Safe Disposal of Microbiology Specimens:** Culture samples and microbiology specimens are autoclaved and treated by Shree Consultancy to prevent environmental contamination.
- **Student Involvement:** Students actively participate in sustainable development goals, with frequent educational sessions on affordable and clean energy to foster non-renewable energy management practices.
- **Campus Greening:** The campus is one of the greenest among institutions, retaining existing trees and cultivating new annual, biennial, and long-living trees to support local fauna and enhance the ecosystem.

These initiatives collectively aim to promote the efficient use of renewable energy sources, address pollution, and minimize reliance on non-renewable energies, contributing to the sustained health of the environment.





We are taking significant steps towards sustainable energy use by redirecting rainwater to irrigate our garden and planning to install rainwater harvesting-friendly infrastructure. Encouraging students to plant saplings during special occasions instills a practical mindset for achieving a sustainable environment. Our college actively contributes to environmental awareness by educating students about afforestation and the importance of rebuilding green spaces. Through participation in events like sapling planting and creating working models for innovative environmental solutions, students gain practical knowledge and experience. Additionally, understanding the principles of recycling and reusing energy productively and constructively helps in sustaining affordable and clean energy.

Universal access to modern energy:

- Our implementation consists of using clean fuel for cooking at the hostel and decreasing the use of fossil fuels and biofuels.
- Bicycles are provided for students and staff to use on and around campus to encourage the youth to reduce the use of nonrenewable energy sources and air-pollution by decreasing CO2 emissions.



Increase the global percentage of renewable energy:

- Our implementation includes the use of solar panels in dormitories and LED lighting throughout the campus.
- To ensure the safety of the hostel's students, the majority of the lights are turned off at night and only provided on the pathways.
- We do not use lights during the day because our classrooms and laboratories are equipped with sufficient ventilation to fulfill the need for light.
- To protect the environment, we have refrained from installing air conditioners in the office and rooms.



Double the improvement in energy efficiency

- Our implementation includes solar panels and LED because they significantly reduce energy consumption.
- In order to reduce the use of fossil fuels, we have provided pooled transportation systems for college students traveling to hospitals or to other campuses.



- Promote access to research, technology, and investments in clean energy & Target
- Expand and upgrade energy services for developing countries.

The sprawling 43-acre campus of the JSS MC in Mysuru, the cleanest city in India, features bioclimatic architecture that provides sufficient shading, natural ventilation, passive heating and cooling. Additionally, it features an internal atrium for insulation and natural illumination. The building uses solar energy for passive heating and has tree canopies for summer sun protection.

JSS AHER is committed to a cleaner and greener campus, and the University is committed to achieving this objective by:

- Complying with applicable rules and regulations and other recognized requirements to encourage and educate staff to conserve energy wherever applicable.

- By implementing and encouraging the use of bicycles on campus, we can avoid and reduce air pollution caused by fossil fuels.
- Incorporation of solar panels in dormitories and LED lighting across the campus to promote energy efficiency and conservation.
- The rainwater harvesting is done at the hospital.
- Examining the soil samples surrounding the Hospital and the University in an effort to contain the spread of MDR bugs that are contaminating the environment near JSS Dental College and Hospital by means of the soil.
- Guaranteed the use of an Effluent treatment plant for the laboratory's effluents.
- Reduced the use of plastic in CSSD by wrapping dressing instruments in brown paper instead of Steripack made of plastic.
- The culture samples and microbiology specimens are autoclaved and discarded in order to prevent environmental contamination by Shree consultancy.
- Ensure students' participation in achieving sustainable development objectives. During the year in question.

In order to improve the environment on a global scale, we have been advocating the effective use of renewable energy sources, along with ideas and strategies for dealing with a polluted environment and avoiding or using as little non-renewable energy as possible, which depends on the continued health of the environment around us. In fact, we have been working to educate the staff and students about "Affordable and Clean energy" in order to live up to the school's motto of achieving a sustainable environment. They receive regular educational sessions to assist them in managing non-renewable energy.

Our college has made significant investments to offer one of the greenest campuses among the majority of other institutions. The campus has kept the trees that were previously planted and has been re-cultivating the annual, biennial, and long-living trees that also improve the ecosystem for the local fauna.

The rainwater is diverted to the garden to irrigate the plants, and in the near future, we intend to install infrastructure that is conducive to rainwater harvesting. As a result, we have made progress toward using clean energy continuously.



Contribution to environmental awareness:

To inculcate the knowledge of afforestation and rebuilding the green life on the earth, humans can merely contribute but a little effort on behalf of our college is put into the view of educating them students.

They are made to participate in certain events that include planting the saplings and creating the working models of certain ideas that shall in high-end infrastructure bring fair change in the betterment of a healthy environment.

Knowledge of recycling and reuse of energy productively and constructively would help to accomplish the sustenance of affordable and clean energy.

<p>Teaching & Learning</p>	<p>Department of Health System Management Studies adopts ecofriendly practices by conducting student internal assessments online through JSS AHER portal there by conserving natural resources. Displays posters across department for energy saving through switching off lights and fans when not in use, posters for water conservation in hand washing areas.</p> <p style="text-align: center;"><u>Energy conservation practices</u></p> <p>The department adopts energy conservation practices by promoting awareness through poster displays in classrooms, corridors, boys’ common room and girls’ common room areas, and staff room. The posters reiterate and remind the students, teaching, and non-teaching staff of the department on the importance of adopting energy conservation practices ‘Save Water’ and ‘Save Electricity’.</p> <p style="text-align: center;"><u>Save water and save electricity posters</u></p> <p>Awareness posters on saving water and electricity were displayed across the department in the classrooms and corridors. This is to make the students aware of the significant role these energy systems play in our lives and remind them about their responsibility in conserving these rich resources</p>
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TARGETS UNDER THE GOAL



OUR INITIATIVES

JSS College of Pharmacy, Ooty has an excellent infrastructure for academic and residential purposes with centralized gas facilities for laboratories and hostels. Exclusive high-power transformers for stabilized voltage and generator machines to support uninterrupted power supply to the campus are available.

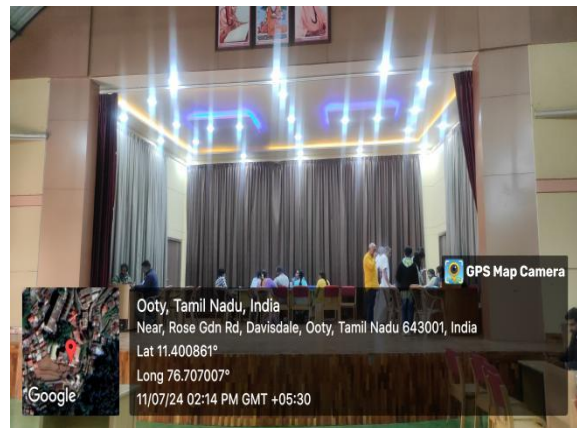
Outstanding infrastructure built in the serene campus with the extent of about 6.5 acres dedicated exclusively to the Pharmacy discipline makes the teaching-learning process a pleasurable experience. The entire campus including the residential facilities is Wi-Fi enabled with uninterrupted power and water supply. 24x7 functioning state-of-the-art laboratories and specialized software facilitate quality research in pharmaceutical sciences and practice. The other facilities include but are not limited to, Smart class room, Simulation Labs, Model Pharmacy, Library with more than 10,000 print and digital resources and a 'Clinical key' database, Residential facilities for students and staff members, Indoor/outdoor sports facilities, Multipurpose auditorium and Health Centre in the campus. The other goal is to implement and replace all phosphorous bulbs with LED bulbs. In the long-term goal, we look forward to implementing an electricity capacitor panel for power conservation.

PHOTOS OF THE ACTIVITIES INITIATED

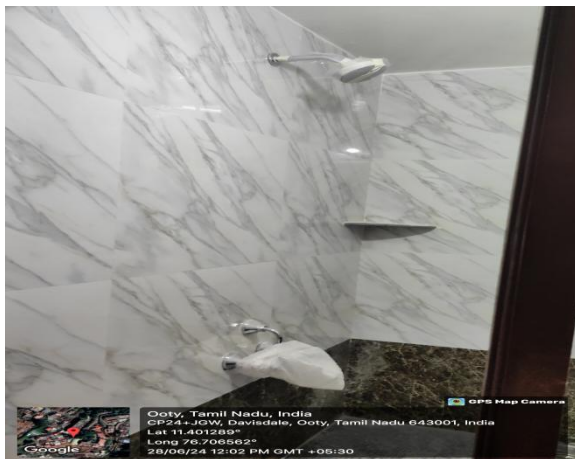
Wi-Fi ENABLED CAMPUS



ENERGY SAVING (LED) LIGHTS IN CAMPUS



Infrastructure Development



Electricity Bill statement

JSS College of Pharmacy, Ooty electricity unit consumed and amount. Compared to 2022-2023 this 2023-2024 consumption of electricity is reduced.

JSS COLLEGE OF PHARMACY , OOTY -01

Statement showing of Electricity & Diesel Consumptions

Month	Units	Amount (Rs)	Disel (L)	Total amount (Rs)
July 2023	45927	392749	300	28878
August 2023	47276	485207	300	28878
Sep 2023	45527	498211	300	28878
Oct 2023	46634	493144	300	28887
Nov 2023	44085	467929	nil	--
Dec 2023	42375	453374	300	28857
Jan 2024	33242	373420	Nil	--
Feb 2024	44109	469526	Nil	--
March 2024	47075	495730	300	28839
April 2024	40090	434183	Nil	--
May 2024	41449	446986	Nil	--
June 2024	38842	422603	300	28902
Total	516631	4935560	1800	202119


Electrician


Administrative Officer
JSSCP, Ooty


PRINCIPAL
J.S.S. COLLEGE OF PHARMACY
Rockland's, Ootacamund-643 001



Dr. Gomathi S



Dr. Kousalya S


Principal

PRINCIPAL
J.S.S. COLLEGE OF PHARMACY
Rockland's, Ootacamund - 643 001

OUTREACH & EXTENSION ACTIVITIES

World Environmental Day – 25-07-2023

“What we are doing to the forests of the world is but a mirror reflection of what we are doing to ourselves and one another.” – Mahatma Gandhi

A healthier environment is the need of the hour and we must not make any more delays. World Environment Day (WED) is celebrated to encourage and create awareness and to take appropriate action for the protection of the environment. It is supported by many organizations worldwide. In this regard to mark the activity, NSS unit JSS Medical College, Mysuru, conducted the sapling implantation program on 25th July 2023 in the medical college campus garden. Faculty and NSS student volunteers actively participated and witnessed the event.

Dr. Basavana Gowdappa H, Principal of JSS medical college, Dr. Suma M.N., and Dr. Praveen Kulkarni, vice-principals of JSS Medical College, and Mr.

Sathish Chandra, Administrative officer of JSS Medical College, Sports director Mr Lokeshappa H, implanted number of saplings in the garden to mark this event. The NSS volunteers also implanted the saplings in the same garden. This program was coordinated by NSS program officers NSS unit, at JSS Medical College, Mysuru.

**“World Environmental Day” JSS
Medical College,**



Mysuru

Sapling Implantation by Principal and vice-principal, JSS Medical college

“Swachhata Hi Seva” – 01-10-2023

“Swachh Bharat Abhiyan” was conducted to disseminate the importance of a “Sampoorna Swachh Bharath, to reinforce the concept of sanitation as everyone’s business. To prelude “Swachh Seva” activities, many students and faculty volunteers from JSS Academy of Higher Education and Research, Mysuru conducted cleanliness activities on 1st October 2023 between 9:30 am-11:30 am.

The program involved the commissioner, deputy mayor, and regional corporator of Mysuru city corporation who actively took part and supported the whole event. The program was started with the felicitation of the corporation authorities by Dr.Praveen Kulkarni, Vice-Principal, JSS Medical, and Dr.Krishna K.L., NSS Programme Officer, JSS AHER College Mysuru.

Dr.Praveen Kulkarni passed the initial remarks about the importance of cleanliness in the health professions by reiterating the significance of the prevention of various communicable and non-communicable diseases. Subsequently, the formal inauguration of the cleanliness drive was marked by the deputy mayor by initiating the cleaning activities at the entrance of JSS AHER. Twenty-five student MBBS NSS volunteers and 10 faculty from JSS MC actively participated in the event and cleaned the streets and parks by plugging various degradable and non-degradable substances in areas coming under the jurisdiction of Sri Shivarathreshwara Nagara.

The activity was supported and encouraged by the Principal and Vice Principal of JSS Medical College, Mysuru; and the administrative officer JSS Medical College, Mysuru. Dr. Krishna K L, NSS programme officer JSS AHER was instrumental in conducting this whole event. The program was supervised and coordinated by NSS program officers NSS unit, JSS Medical College, Mysuru.



World Environment Day was celebrated by tree plantation in the campus on 5th June 2024



National Service Scheme (NSS)

Health Awareness Programme

On 27th December 2023 the JSS Medical College NSS unit JSS MC, fuelled with compassion and a commitment to social well-being, embarked on a journey of awareness and education. Our activities began at 10:30 AM, as we visited the apartments at Rajarajeshwari Nagar, Mysuru armed with compelling charts, images, and motivational quotes. Our mission was to shed light on the crucial topics of HIV/AIDS prevention, communicable diseases, personal hygiene, and the problems related to drug and alcohol abuse. Students were engaged in the community interactions by spreading

awareness, and igniting crucial conversations with the public. At 11:30 AM, our focus shifted to empowering young girls at a government high school. Dr Rama, medical officer, at JSS Urban Health Centre, Mysuru was instrumental in conducting this event at government high school. This activity was supported by Mr. Santhosh, health inspector JSS UHC, Mysuru. Ms.Sanya Sathish, delivered a comprehensive talk by sensitizing the young girls about menstruation and its hygiene. We delved into the often-silenced topic of menstrual hygiene, normalizing the conversation, and educating young girls about this essential aspect of their personal health. Dr.Rama, formally initiated the process of free sanitary pad distribution. To support their well-being, and symbolically create awareness we distributed naturally degradable sanitary napkins. Our message resonated not just with the girls but also with the other students across all classes, sparking open dialogues and a culture of understanding. Later we headed towards surrounding localities of the urban health centre and continued our awareness campaign by engaging in interactive sessions with the public, displaying informative charts, followed by open question and answer sessions, which ensured that health education reached every corner. Later we moved on to the Medhar block, where the residents' enthusiasm showing inclination towards awareness which reflected the significance of our efforts. We addressed their concerns, answered their questions, disseminated information on vital health issues, and distributed sanitary pads to the women in need. Then we went to the Halim block where the residents gathered to hear our insights on HIV/AIDS prevention, communicable diseases, drug and alcohol abuse, and menstrual/personal hygiene. The interactive sessions fostered a sense of community and collective responsibility for health and well-being. By the end of the day, the team's impact was undeniable. It was a day woven with impactful conversations, meaningful connections, and a shared commitment to create a healthier world. Numerous minds had been enlightened and communities were empowered with knowledge and resources. This NSS camp served as a powerful reminder that even small steps taken together can pave the way for improving public health status of needy population. Twenty-two B.Sc. (AHS) students from JSS Medical College were actively took part in the whole event.

The awareness activity was supported and encouraged by the Principal and Vice Principal of JSS Medical College, Mysuru; and the administrative officer JSS Medical College, Mysuru. The NSS programme officers from JSS medical College, Mysuru were the coordinators of the whole event.



Shramadaan at K R Mills by JSS Medical College, Mysuru – 09-03-2024

As part of Family Adoption Program, along with NSS, “**Shramadaan**”- Giving Back to community- activity was organized on 9th March 2024 at K R Mills colony, Hanchya PHC, Mysore. As part of the program 1st year MBBS students were involved as NSS volunteers and carried out cleaning of the premises of KR Mills Subcentre, Government Model Higher primary School, KR mills and Government High School, K R mills. The students also gave health education to school students on importance of segregation of dry and wet waste at household level, personal hygiene and hand hygiene. Dr.Shwetha Kurkuri, Dr.Sunitha Singh, Senior Residents, Dept of Community Medicine, Dr.Amoghashree, Asst.Prof., Dept. of Community Medicine, Dr.Ravishankar, Asst.Prof., and NSS Co-ordinator, Dept. of Anatomy, JSS Medical College, Mysuru along with Post graduates from the Dept. of Community Medicine, JSS Medical College, coordinated the whole event. Support was also extended by Dr.Sunil Kumar D, HOD, Dept. of Community Medicine, JSS Medical College, Gram Panchayat, Siddlingipura, Dr.Ravidra, Medical Officer, Hanchya PHC, Mysuru for the event.



SRI SUTTUR JATHRA MAHOTSAVA - 2024 JSS MEDICAL COLLEGE AND HOSPITAL

Theme "Healthy Lungs – Healthy Life: Every breath counts"



The annual Jathra Mahotsava of Adi Jagadguru Sri Shivarathreeshwara Shivayogi Mahaswamigalu, held at Suttur Srikshetra from February 6th to 11th, 2024, showcased a multitude of programs and exhibitions aimed at fostering scientific and educational awareness among rural communities. The medical exhibition, inaugurated by His Holiness Jagadguru Sri Shivarathri Deshikendra Mahaswamiji, focused on the theme "Healthy Lungs – Healthy Life: Every breath counts," emphasizing respiratory health education and preventive measures.

The medical exhibition by JSS Medical College and Hospital received 2nd prize at the Jathra Mahotsava for its efforts and commitment towards generating health awareness among the public.

Key Highlights:

- The exhibition featured 17 departments of JSS Medical College and Hospital, engaging thousands of visitors daily, including individuals of all ages.
- Departments like Anatomy, Physiology, Biochemistry, and Medical Genetics offered interactive displays, demonstrations, and educational materials on respiratory anatomy, lung function, genetic disorders, and preventive measures.

- Activities ranged from respiratory health quizzes, lung function testing, and deep breathing demonstrations to screenings for oxygen saturation and pulse rate using point-of-care testing devices.
- Departments like Pathology, Microbiology, and Pharmacology showcased models, posters, and educational games on lung pathologies, infections, and pharmacological interventions.
- Department of Community Medicine initiatives were community-focused activities included interactive games, puppet shows, movie screenings, and clean air pledges to promote awareness and behavioral change regarding respiratory health.
- Specialty departments such as Forensic Medicine highlighted safety measures related to gas geyser usage and drowning prevention, while Psychiatry focused on tobacco cessation and sexual health education.
- The School of Public Health emphasized air pollution awareness, preventive measures, and the importance of mask-wearing and social distancing.
- Feedback from attendees lauded the innovative and informative exhibits, with the JSS Medical College & Hospital exhibition receiving recognition and praise for its impactful contributions.

International TB Conclave 2022

Theme – Accelerating Progress Towards a TB-free World: Innovations, Challenges and Solutions - 22nd, 23rd, 24th November 2023



The Departments of Community Medicine and Respiratory Medicine, JSS Medical College, and JSS Academy of Higher Education Mysuru, jointly organized the **International Tuberculosis Conclave-2023** on the 23rd and 24th of November with four pre-conference workshops on 22nd November 2023 at Sri Rajendra Auditorium, JSS Medical College, SS Nagara, Mysuru. The conference theme is “**Accelerating Progress Towards a TB-free World: Innovations, Challenges and Solutions.**”

Tuberculosis (TB) is a significant cause of ill health and death worldwide. The sharing of knowledge, best practices, innovations, and strategies through scientific platforms is essential for policy-making and program implementation for prevention and control of Tuberculosis. International Tuberculosis Conclave-2023 aimed at bringing together experts from around the world to share information and best practices on preventive, diagnostic, and therapeutic advances in TB.

More than 500 delegates from various parts of India and overseas and 34 renowned resource persons from reputed institutes in India and abroad participated. The conference provided an academic feast, and exchange of scientific ideas through scientific presentations and interactions. There were sessions on critical thinking to overcome the existing challenges.

**Indo Swedish Conference on “Air Pollution and Respiratory Toxicology” and
Workshop on “Methods of Assessing Cytotoxicity, Anti-oxidant, Anti-inflammatory and Reactive Oxygen**

The Department of Respiratory Medicine along with the Department of Biochemistry (DST- FIST Supported Department), JSS Medical College, Mysore Karnataka in collaboration with Department of Environmental Science and Engineering, Indian Institute of Technology Bombay, (IITB), Mumbai, Maharashtra, India and Institute of Environmental Medicine (IMM), Karolinska Institutet, Stockholm, Sweden have organized Indo Swedish one day conference on “Air pollution and Respiratory Toxicology” and 2 day’s workshops on “Methods of Assessing Cytotoxicity, Anti-oxidant, Anti-inflammatory and Reactive Oxygen Species (ROS)” from 2nd to 4th January 2024. This event is supported by Ministry of Education, Govt of India, under Scheme for Promotion of Academic and Research Collaboration (MoE-SPARC).

The conference was designed to understand the role of air pollution on human health and to explore the recent strategies to combat the same while the workshop focused on various techniques crucial in deciphering the impact of pollution by assessing Cytotoxicity, Anti- oxidant, Anti-inflammatory and Reactive Oxygen Species (ROS)

A total of 29 participants had registered for the conference and 14 participants were registered for the workshop. During the course of workshop, participants were exposed to a wide array of techniques: Demonstration of cell culture, plating of cells in 96-well microtiter plates, cell viability determination by MTT, ROS assessment, ELISA, Lipid peroxidation estimation with serum and LDL. In addition, antioxidant assay using

colorimetric methods such as FRAP, DPPH, DCFH-DA were also demonstrated to the workshop participants.



WORLD NO TOBACCO DAY – 31-05-2024

World No Tobacco Day was observed in collaboration with the Department of Psychiatry, JSS Hospital, on May 31, 2024, at 12 pm. The chief guest was Dr.C.P. Madhu, Medical Superintendent of JSS Hospital, Mysuru. Posters on the dangers of tobacco use were displayed at JSS Hospital to create awareness regarding the health hazards related to tobacco use.

Mrs. Purohit Saraswati, Assistant Professor and HOD of the Department of Mental Health Nursing, conveyed the significance of World No Tobacco Day to the public at JSS Hospital. Dr. Kishore M., Professor of Psychiatry at JSS Medical College and Hospital, Mysuru, delivered the keynote address on World No Tobacco Day. Dr. C.P. Madhu, Medical Superintendent of JSS Hospital, Mysuru, addressed the gathering regarding the importance of quitting tobacco and the associated health benefits. Prof. Aswathy Devi M.K., Principal of JSS College of Nursing, graced the program, as did Dr. Pradeep Kumar, Psychiatrist at JSS Hospital, Mysuru.

A role play was performed by II Semester BSc Nursing students under the guidance of Dr. Pradeep Kumar to create awareness regarding the effects of tobacco use among the public. Patients of JSS Hospital benefited from the program. Prizes for the winners of the poster- making competition were distributed during the event. The program concluded vote of thanks.



E-Learning module on tobacco counselling – 22-01-2024

E-Learning Module on Tobacco Counselling! This interactive and comprehensive online program has been designed to equip healthcare professionals with the knowledge and skills necessary to provide effective tobacco counselling to their patients. Dr.Chandrashekar B R, MDS, PhD, FAIMER 2017 Fellow. Associate Dean (Academics), Professor, Department of Public Health Dentistry, JSS Dental College and Hospital, JSS Academy of Higher Education and Research, Mysuru enumerated the reasons for tobacco initiation and dependence, Factors related abuse liability and tobacco industry tactics to promote abuse liability of product and how to Motivating young children's not to experiment the tobacco.



National Tuberculosis Elimination Program - 15.05.2024

Dr.Jayaraj B S (Nodal officer) greeted all members present and briefed about the minutes previous NTEP core committee meeting. Dr.Siraj (DTO) briefed about NTEP guidelines, and to check the availability of CBNAAT technician at District centre prior to sending sample and to send gastric lavage for CBNAAT in suspected paediatric TB cases.

Dr.Ganapthy Uppinal (Medical officer) discussed the last quarter statistics of our hospital which is almost 8% of total district contribution to NTEP programme.

Dr.Kiran (WHO consultant ,NTEP Bangalore) discussed and clarified about mismatches between actual data and data presented by Dr.Uppinal (NTEP - M.O.) regarding EP Cases and emphasized about 100% screening for HIV and DM for all patients of Tuberculosis confirmed both clinically and microbiologically.Dr.Kiran also highlighted about delay in diagnosing and initiating treatment for TB resulting in 3-4% patient death.

He also discussed that if there is strong suspicion of TB if both AFB and CBNAAT are negative, then we can go for liquid culture and can start treatment as clinically diagnosed Tuberculosis. He also discussed about sample collection and availability of transportation facility. Dr.Kiran appreciated about the good number of Extra Pulmonary TB cases contribution by JSSMC and discussed about Active screening of IP Patients with, presumptive TB cases, from all the department.

Dr.Jayaraj B S (Nodal Officer) requested Dr. Kiran to conduct sensitization class for nursing staff /PG / Consultant and Paramedical staff and to provide information regarding NTEP Guidelines. Dr.Siraj (DTO) assured to arrange classes for sensitization programme by the end of this month. Dr.Jayaraj (Nodal Officer) discussed regarding starting of DR-TB IP and OP facilities and Centre of Excellence with DTO/WHO Consultant and regarding the ABARK scheme .

Dr.Basavana Gowdappa (Chairman, Principal) discussed with DTO/ WHO Consultant regarding the Centre of Excellence and DRTB IP and OP facilities. Dr.Madhu C P (Medical Superintendent) insisted DTO to make use of space given by the hospital for Drug storage facility, as appropriately. Dr.Sarveswarakar, Principal, JSSAH expressed his willingness for engaging AYUSH Medicine Department towards NTEP Programme.

Dr.Mahesh Prof, Respiratory medicine expressed his concern regarding INH, Under dosage dosage for patient weighing less than 50 kgs. Under NTEP programme. WHO consultant, Dr.Kiran spoke on recent NTEP guidelines for Core committee members



and post graduates for an hour after the meeting. 105 delegates attended this event.

Foundation course to MBBS students

Dr Rashmi started the session by introducing types of **biomedical waste** and generation of wastes in hospital settings. She has discussed basic concepts of biosafety and its implementation while handling biohazard materials. She explained the importance of waste segregation immediately after generation in the hospital and color codes for segregating different types of biomedical wastes after procedures. She discussed all 4-color coded based segregation method including yellow, red, blue, and white. Besides segregation, she also discussed on several methods of treatment of these biomedical wastes, and precautions during waste segregation. She briefly explained on Hospital acquired infection and contribution of biomedical wastes in several HAI. She made students aware of blood borne viruses (BBV) and discussed safety measures to avoid the spread of cross infections through biomedical wastes.

Dr Deepashree started the session **Hospital infection** with small video clips on the possibility of spread of infection in hospital and clinics while inspecting the patient. She discussed several personal protective equipment (PPE) and its importance while working in hospitals. She especially emphasized on hand hygiene and several infections which might spread through working hands. Further, she introduced the technique of hand disinfection and several disinfectants commonly beings used in hospitals. She asked students to get vaccinated for HBV with the booster dose and maintain sound immunity. She also talked briefly on sharp injuries such as needle prick and scalpel cut injuries.

Programmes conducted by the Institution

Sl. No.	Name of the programme	Date
National/International Days Celebrated		
1	Tree sapling – Observation of Independence Day	14-08-2023
2	World No Tobacco Day	31-05-2024
3	World Environment Day	25- 07-2023 05-06-2024

Ongoing Projects

Funding Agency	PI/Co PI* & Dept	Collaboration dept	Area of research	Funds in rupees
ICMR	Dr. Devananda D Biochemistry	Paediatrics JSS Dental College	Bone Mineral Density in children consuming reverse osmosis (RO), Non- RO water	20,41,000
	Dr Rajesh Kumar T* Biochemistry	School of Life Sciences	Millet based dietary fiber for protection of allergic asthma	40,00,000
	Dr NayanabaiShabadi	General	Epidemiology study on	36,96,817

	Community Medicine	Medicine	chemical hazards	
	Dr.Rajesh Kumar T Biochemistry	MPH Uni. of Mysuru	Phytoremediation of indoor air pollution	16,75,000
DBT	Dr. Rajesh Kumar T. & Dr.P A Mahesh Biochemistry & Respiratory Medicine	--	Air Pollution Exposures on Lung growth and development of biomarker of lung function	3,50,00,000
Global Infectious Diseases	Global Infectious Disease (GID), Fogarty, NIH	Dr.Mahesh P A Respiratory Medicine	--	USD 1.1 Million (9,16,13,550)
Karolinsk a Institute	Swedish Heart Lung foundation, Karolinska Institute	Dr.Mahesh P A Respiratory Medicine	Molecular patho mechanism of biomass smoke induced chronic obstructive pulmonary disease	65,00,000

Research Projects – Ongoing (JSS AHER)

Sl. No	Title of the Project	Name of the Principal Investigator/Mentor & Department	Grants Sanctioned	Duration
1	Spatial mapping of microbial population in soil surrounding the hospital/industry	Dr.Sumana M N Professor & Head Dept. of MicrobiologyJSSMC, Mysuru	10,00,000.00	5 Yr.
2	The role of air pollution and pollen exposure on asthma Mysore, India	Dr.B.S.Jayaraj Professor JSSMC, Mysuru	10,00,000.00	5 Yr.
3	Respiratory and Environmental Diseases.	Dr. P A Mahesh Professor of Respiratory Diseases	300000.00	3 Yrs.

ICMR & Other Fellowship details

Sl No	Title of the project	Principal Investigator	Funding agency	Amount sanctioned	Duration
1	Oxidized phospholipids and Lipoprotein(a) as a predictor of severity of coronary artery disease in diabetic patients	Ms.Kavya Sugur SRF Dept. of Biochemistry JSS MC, Mysuru	ICMR	9,23,343.00	3 Yrs.
2	Co-targeting key oncogenic signalling cascades regulating breast cancer development using vitamin D and antidiabetic agents	Ms.Chaithanya G B SRF Dept of Biochemistry	ICMR	15,21,600.00	3 Yrs.
3	Effect of vitamin D on angiogenesis and oxidative stress induced changes in the glomerular basement	Ms.Lavanya B R SRF Dept of Biochemistry JSS Medical College Mysuru	ICMR	15,21,600.00	3 Yrs.



UG Student Research Projects – Ongoing

Sl No	Title of the project	PI	Guide	Funding agency	Duration
1.	Relationship of traffic noise exposure and ambient PM 2.5 levels with arterial blood pressure perceived stress and sleep quality among street traders at Mysuru city Karnataka	Mr.Kaustubh Gaur	Dr.Praveen Kulkarni Professor of Community Medicine	ICMR	05 Months



DETAILS OF PATENT


Sl. No.	Patent Application No.	Status of Patent (Published / Granted)	Inventor/s Name	Title of the Patent	Applicant/s Name	Assignee/s Name (Institute Affiliation/s at time of Application)
1	202041053854A	Published	1)NANDLAL, Bhojraj 2)MURTHY, Srinvasa 3)SHIVA MURTHY, Ravindra 4)SETTY, Nagendra Ramakrishna	ULTRAVIOLET SANITIZATION SYSTEM	JSS Academy of Higher Education and Research	JSS ACADEMY OF HIGHER EDUCATION & RESEARCH, MYSURU

GUEST LECTURE DELIVERED BY THE FACULTY

Sl. No.	Name of the faculty	Title	Date & Venue	Certificate / Photos
	Anatomy			
1	Dr. MVSST SubbaRao	Seminar Biological Safety Awareness	21 st July 2023 ESCO Lifesciences group	
2	Dr. Rajesh Kumar T	FDP on Advancement in Biological Sciences for the sustainable development in agriculture, Health and allied sectors	7 th to 11 th August 2023. REVA University, Bengaluru	
3	Dr Sunita Singh	Environmental sanitation and safety	18 th and 19 th August 2023	
4	Dr. Mahesh P A	Air Pollution Exposure & Respiratory Toxicology	2 nd to 4 th January 2024 JSSAHER Mysuru	

FACULTY DEVELOPMENT PROGRAMME [FDP] ATTENDED BY FACULTY

1	Dr Sulochanadvi B C Dr Sreena V, School of Public Health	Open WHO course on 'Air pollution and health: an introduction for health workers	13-01-24 WHO course online	 
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2	Dr Rashmi S, Senior Resident, Department of Community Medicine	Open WHO course on 'Air pollution and health: an introduction for health workers	21/02/2024	
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Publications

1. Thippeswamy Honne Manjunathappa, Devananda Devegowda, Nanditha Kumar Mysore, Prashanth Vishwanath, Prashanth Sathya Narayana. Association between drinking water fluoride and the serum alkaline phosphatase and phosphate levels in pregnant women and newborn infants. *Dent Med Probl.* 2023 Oct-Dec;60(4):569-575.
2. Ravindra B Malabadi, Sadiya M R., Kiran P Kolkar, Raju K Chalannavar. Biodiesel production via transesterification reaction. *Open Access Research Journal of Science and Technology.* 2023;9(2):10-21.
3. Ravindra B Malabadi, Sadiya M R, Kiran P Kolkar, Raju K Chalannavar. Biodiesel production: An updated review of evidence. *International Journal of Biological and Pharmaceutical Sciences Archive.* 2023;6(2):110-113.
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8. Dr. Rashmi S, Dr. Sunil Kumar D, Dr. Amoghashree. Enhancing Wash Infrastructure In Schools: Best Practices For Improved Menstrual Health And Hygiene Among Students. *International Journal of Scientific Research*. 2024 Apr;13(4):11-12.
9. Dr. Srinivasa Murthy D. Impact of Seasonal Variation in Temperature on Dehydration in Neonates. *Indian Pediatrics*. 2024;61:460-462.
10. Umme Hani, Mohammed Ghazwani, Yahya Alhamhoom, Veera Venkata Nishanth Goli, Spandana Tatineni, Sirajunisa Talath, Sathvik Belagodu Sridhar, Farhat Fatima, Osmani Mir Riyaz Ali Mahafez Ali, Umamaheshwari Shivaswamy, Vichitra Chandrasekaran, Dr Gurupadayya B M. Pharmacokinetics and Pharmacodynamics of a Nanostructured Lipid Carrier Co-Encapsulating Artemether and miRNA for Mitigating Cerebral Malaria. *Pharmaceuticals*. 2024;17(4):1-22.
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