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SEWAGE TREATMENT PLANT

NESAPAKKAM

DATE: 5/1/2026

BATCH: 2024-2026 (Post Basic B.sc Nursing) &

BATCH: 2023-2027 (B.sc Nursing)

INTRODUCTION

We, the Post Basic B.Sc. Nursing 2nd year students and B.Sc. Nursing 3rd year students of Sree Balaji College of Nursing, commenced our community visit on ***05/01/2026 at 9:00 a.m.*** We travelled by college bus along with students to fulfill our community visit requirements

and reached the destination at 10:00a.m. The visit was assisted by our staff tutor Mrs.Elizabeth Rani.

BACKGROUND:

Nesapakkam is a residential locality in Chennai, Tamil Nadu, located within the K.K. Nagar zone and surrounded by areas such as Virugambakkam and Ramapuram. The locality is part of a rapidly

urbanizing region with increasing demand for efficient water management and sanitation infrastructure.

The Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB) operates several centralized Sewage Treatment Plants (STPs) across Chennai city to manage wastewater generated from urban households. These treatment plants function in accordance with the revised discharge standards prescribed by the Central Pollution Control Board (CPCB) and the Tamil Nadu Pollution Control Board (TNPCB) to ensure environmental safety and sustainability. Under the current wastewater management initiatives, large volumes of used water are being recycled through advanced treatment processes involving design, engineering, construction, operation, and maintenance systems. The treated effluent is disinfected using appropriate chlorination methods

before being safely discharged into natural water bodies such as the Adyar River, in compliance with regulatory norms.

The project is implemented as part of ongoing efforts by CMWSSB to strengthen sewage treatment capacity, promote water reuse, and reduce environmental pollution. The work has been entrusted to an experienced consortium and is progressing in a phased manner, with continuous monitoring to ensure quality standards, timely execution, and long-term operational efficiency.

INTRODUCTION TO SEWAGE TREATMENT PLANT

Sewage is produced from residential, institutional, commercial, and industrial establishments as a result of daily human activities. It mainly consists of wastewater from households such as toilets, bathrooms, kitchens, sinks, and washing areas, which is conveyed through sewer systems. In urban areas, sewage may also include liquid waste generated from commercial establishments and selected industrial activities.

In recent years, improved wastewater management practices have gained importance due to increasing urbanization and water scarcity. The separation of household wastewater into grey water and black water is becoming more common, especially in planned developments. Treated grey water is increasingly reused for non-potable purposes such as gardening, landscaping, and toilet flushing, thereby conserving fresh water resources.

Modern sewage treatment plants are designed to treat wastewater through multiple stages to ensure environmental protection and public health safety. Sewage treatment generally involves three main stages: primary, secondary, and tertiary treatment, each serving a specific function in the purification process.

Primary treatment involves the physical removal of large and heavy solids by temporarily holding sewage in sedimentation tanks. During this process, heavier particles settle at the bottom as sludge, while lighter materials such as oil and grease float on the surface and are skimmed off. The partially treated wastewater is then directed to the next stage for further treatment.

Secondary treatment focuses on the biological removal of dissolved and suspended organic matter. This process utilizes naturally occurring microorganisms that break down organic pollutants under controlled conditions. After biological treatment, the water may undergo clarification to separate microbial biomass before being discharged or subjected to advanced treatment processes.

With advancements in technology and stricter environmental regulations, sewage treatment plants today emphasize efficient treatment, reuse of treated water, and minimization of environmental pollution, contributing to sustainable urban water management.

Tertiary treatment refers to advanced treatment processes carried out after primary and secondary treatment to further improve the quality of treated wastewater.this stage is especially important when the treated water is to be discharged into environmentally sensitive or ecologically fragile areas.in present day treatment system, tertiary treatment commonly includes physical, chemical, and advanced filtration or disinfection methods such as chlorination, ultraviolet (UV) treatment, or membrane filtreation.these processes help in removing remaining nutrients, pathogens, and fine suspended particles from the treated water.when treated to higher standards, the water can also be used for groundwater recharge and selected agricultural applications, contributing to sustainable water resource management.

SEWAGE TREATMENT PLANT PROCESS

UNIT OPERATION OF WASTE WATER

INLET CHAMBER

For the collection of waste water, inlet chamber provided, in three the chambers process take place. The fresh sewage is generally brownish colour and the time passes becomes black in colour A Screen chamber in a sewage treatment plant is the crucial first step, a channel containing inclined bars that physically block and remove large debris like rags, plastics, wood, and leaves from raw sewage, protecting downstream equipment (pumps, valves) from damage and clogging, and preventing treatment interference. these screens can be coarse large opening 6mm.

Grit chamber within its septage (fecal sludge) decanting facility, designed to settle out heavy inorganic solids like sand and gravel from incoming sewage/septage before further treatment, using a covered tank and screens,crucial for preventing blockages and improving overall treatment efficiency, with the plant itself being a significant, long standing facility that has seen upgrades, including adopting German technology for renovation.

PRIMARY SEDAMENTATION TANK & AREATION TANK

Wastewater from the grit chamber is conveyed to the primary sedimentation tank, where heavier suspended solids are allowed to settle by gravity. In this treatment plant, a circular primary settling tank with a diameter of 32 meters and an average sludge volume depth of 3.5 meters is provided.

The detention time of wastewater in the primary sedimentation tank ranges between 2.5 to 3 hours, which is sufficient for effective settling of suspended particles. A mechanical scraper mechanism is installed at the bottom of the tank to collect the settled sludge. The accumulated sludge is periodically removed and conveyed to the sludge digester for further treatment and stabilization.The primary sedimentation process significantly reduces the suspended solids load and organic matter, thereby improving the efficiency of subsequent biological treatment processes.

SECONDARY SEDIMENTATION TANK

After the aeration process, the treated wastewater is directed to the secondary sedimentation tank for further clarification. This tank facilitates the settling of biological flocs formed during the aeration process.

The secondary sedimentation tank provided has a diameter of 32 meters, similar to the primary tank. The detention time is maintained between 2.5 to 3 hours.

However, the consistency of sludge in the secondary sedimentation tank is comparatively lower than that of the primary sedimentation tank.

A scraper mechanism is also provided to collect the settled biological sludge. The collected sludge is removed through sludge drains and transferred to the sludge digester. The clarified effluent from

the secondary sedimentation tank is discharged for further treatment or disposal as per standards.

SLUDGE DIGESTER

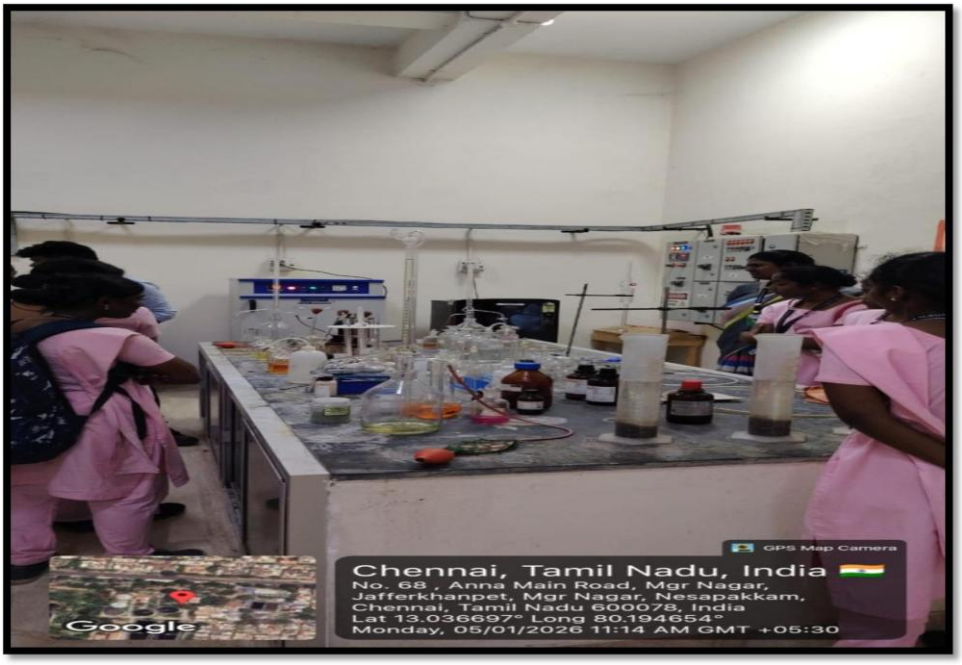
CMWSSB is a significant facility that treats sewage and sludge, featuring anaerobic digester for biogas production used for power generation, significantly contributing to the plants energy needs. It processes sewage from south Chennai and also receives septage from registered desludging

trunks, employing advanced processes like screening, sedimentation, aeration, digestion ,and chlorination, with sludge treated in thickners and drying beds to produce biogas and electricity.

.BELT FILTER PRESS ROOM

A belt filter is a bio solids/ sludge dewatering device that applies mechanical pressure to a chemically conditioned slurry, which is sandwiched between two tensioned pours belt, by passing those belts through a serpentine of decreasing diameter rollers.

Water is then removed the slurry and a non- liquid material is produced called cake. Typically, a belt filter press receives slurry range from 1-4% feed solids and produces a final product of 14-34%cake solids. Performance depends on the nature of the solids being processed.



FIELD VISIT REPORT ON WATER TREATMENT PLANT

CHEMBARAMBAKKAM

DATE: 7/1/2026

BATCH: 2024-2026(Post Basic B.sc Nursing) &

BATCH: 2023-2027(B.sc Nursing)

INTRODUCTION

We, the Post Basic B.Sc. Nursing 2nd year students and B.Sc. Nursing 3rd year students of Sree Balaji College of Nursing, commenced our community visit on ***07/01/2026 at 9:00 a.m***. We travelled by college bus along with students to fulfill our community visit requirements and reached the destination at 10:00 a.m. The visit was assisted by our staff tutor Mrs. Gayathri.

BACKGROUND

Chennai, the capital city of Tamil Nadu in India, is the fourth-largest metropolitan city in the country, covering a total area of 184.88 km². According to the 2011 Census, the city has a population of about 7.09 million. The estimated water requirement of Chennai, including industrial consumption, for the year 2021 is projected at 1,980,000 m³ per day. Organized water supply in the city began in 1872, while a protected water supply system was introduced in 1914. At present, Chennai is served by seven water treatment plants (WTPs) that treat and distribute potable water.

Chembarambakkam WTP (CWTP) has the capacity of 530,000 m^3 /day and is the India's second largest single stage water treatment facility and is unconventional treatment plant with Pulsator clarifier and Aquzur V- filters. It is located at Nazarathpet, 25 km away from Chennai city and is very close to its raw water source, Chembarambakkam Lake (CL). CL receives rainwater from its own catchment and also from Krishna water source located in the adjacent state of Andhra Pradesh through an open canal. CWTP is owned by Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB) and it was constructed in the year 2007 by Degremont company and is being operated and maintained by the company. This plant supplies treated water to southern part of the city.

CWTP makes use of state-of-the-art, proven technologies of Pulsator clarifiers and Degremont's patented Aquazur V filters and provides highly efficient treatment with minimal water losses and a small overall footprint.

WATER TREATMENT PROCESS FLOW:

The main processes involved in the water treatment unit are as below (Figure 1).

- Raw water is drawn from Chembarambakkam Lake and conveyed through raw water pumping units to a cascade aerator via pipelines. The aerated water then enters the coagulation tank, followed by the distribution chamber. Subsequently, the water passes through the pulsator clarifier and Aquazur V-filters for clarification and filtration. Disinfection is carried out through post-chlorination, after which the water flows into the chlorine contact tank and is stored in the clean water reservoir. The treated water is finally pumped and distributed to the supply network.
- **Sludge Treatment:** Sludge produced in the pulsator clarifier is conveyed to the sludge thickener. The wastewater generated from the Aquazur V-filters is initially collected in a wastewater recovery tank, from which the recovered water is routed back to the distribution chamber. The sludge separated from this process is also sent to the sludge thickener. The thickened sludge is further dewatered using a centrifuge unit. The dewatered sludge is ultimately disposed of by landfilling in low – lying areas.

CHEMICALS USED

Alum and liquid chlorine are the two main chemicals used at CWTP. The alum solution is prepared by mixing alum blocks (each tank consist of 20 kg's of 200 blocks and gives 5% concentration alum solution) in alum preparation tanks, filled with water and thoroughly mixed with air blower.

Raw water is abstracted from Chembarambakkam Lake through an intake structure fitted

Figure 3. Cascade Aerator

with a bar screen and is pumped to the water treatment plant. At the initial stage, the raw water passes through an elevated cascade aerator, where the concentrations of dissolved gases such as carbon dioxide (CO_2) and hydrogen sulphide (H_2S) are reduced. The cascade aerator comprises three steps, with each step having a drop of 0.5 m. The intake tower has a withdrawal capacity of 675,000 m^3 per day. Following alum dosing for coagulation, the water is conveyed to the distribution chamber and subsequently directed into the pulsator clarifiers

PULSATOR CLARIFIER

The Pulsator clarifier (Figure 4) operates on the sludge blanket principle and includes a vacuum chamber along with a flat-bottomed tank. At the base, a network of perforated distribution pipes fitted with deflectors ensures uniform distribution of incoming water across the tank bottom. The unit is also equipped with channels for the collection of clarified water.

The coagulated water from distribution chamber flows to the upper part of the vacuum chamber. To provide an intermittent supply to the distribution pipes the air is sucked from the top of the vacuum chamber with a blower. As a result, the water level is lifted gradually inside the vacuum chamber. When it reaches a specified level above the water level in the clarifier, the vacuum break valve gets open which allows atmospheric air into the vacuum chamber (Figure 5 & 6).

Due to the atmospheric pressure, the water level in the vacuum chamber is lowered and the coagulated water rushes into the distribution pipes with deflectors (baffle plates) at high velocity and correspondingly the level in the vacuum chamber drops. When the water level inside the vacuum chamber reaches the lower set point, the vacuum break valve is closed and the cycle continues

The water then flows upward through sludge blanket and the clarified water is collected by the clarified water collection channels provided at the top of the Pulsator (Figure 7), to flow evenly and to prevent any velocity irregularities within the tank.

The sludge blanket located at the bottom of the pulsator clarifier undergoes rhythmic vertical movements resembling a heartbeat. It expands briefly for about 10–15 seconds (adjustable) when water enters at high velocity and then contracts during the flow interruption period of approximately 30–50 seconds (adjustable). The pulsator clarifier does not employ any mechanical sludge mixing mechanism; instead, the sludge blanket itself remains in continuous motion, repeatedly expanding and contracting within short intervals during the operation of the vacuum system. This dynamic action promotes rapid and complete floc

formation and facilitates effective entrapment of flocs during the expansion phase of the sludge blanket.

Over time, the volume of the sludge blanket gradually increases due to the accumulation and settling of flocs from the coagulated water. As a result, the thickness of the sludge blanket steadily rises, and excess sludge from the upper layer flows into the concentrators, from where it is periodically withdrawn into the sludge sump. The pulsator clarifier at the Chembarambakkam Water Treatment Plant has a detention time of about 2 hours and achieves an average suspended solids removal efficiency of approximately 80%.

TREATMENT PROCESSES POSING MOST DIFFICULTY FOR DAILY OPERATION

Chembarambakkam Lake is prone to water pollution as no regulation and monitoring mechanism exists for controlling the dumping of wastewater in it. Agricultural activity in its catchment also contaminates the lake water due to the runoff of agricultural waste in the lake.

In 2007 government has planned to build an industrial park near the Chembarambakkam Lake which can further pollute the source water. Moreover during the rainy season the sewer water gets mixed with the lake water which makes the treatment process expensive.

3. WATER SERVICES MANAGEMENT GENERAL POSING MOST DIFFICULTY AT THE MOMENT

- One of the environmental groups has raised a question about the threat from industrial effluents as Tamil Nadu lacks regulation on industrial effluents which could lead to contamination of source water in future[3] . Thus, Chembarambakkam
- Lake could see the rise of persistent organic effluents which could threaten the quality of the treated water in future.
- The WTP is presently operated at 50% design capacity, since the second 1200 mm
- dia. clear water pumping main is under construction.
- During floods, the turbidity increases to about 50 NTU which is higher than the normal level.

ADVANCED TECHNOLOGY USED IN THIS WATER TREATMENT PLANT OR ANY POINTS TO IMPROVE THE PROCESS, WATER QUALITY AND CAPACITY

Chembarambakkam WTP Plant operation is fully automated and managed using SCADA system with the support of Program Logic Controller (PLC)

PLANT LAYOUTS

The visit was completed at **12:00 PM** and it helped us to get more knowledge and understanding about the complete process and steps involved in water treatment plant, unit plans, chemicals used, difficulties in management and daily operation advanced technologies used and how it functions. We would also express our sincere gratitude and thanks to our Dean cum Principal **Dr.V.Hemavathy**, our staff **Mrs.Gayathri**, tutor, who accompanied us during the visit and the plant process engineer who explained and share the details in a structured way, which made us easy to understand the process. This visit was much informative, and it will definitely help us to gain more practical knowledge for our students.

PONGAL CELEBRATION
14.01.2026

Pongal is the harvest festival of Tamil Nadu, celebrated on the first day of 'Thai' (Tamil month). A festival to thank God for all his goodness and mercies and to look forward to a prosperous year. It usually falls on the 14th or 15th of January in the English calendar. Sree Balaji college of Nursing celebrated Pongal on the 14th of January for the year 2024. The students arrived in traditional dhotis and sarees to mark the occasion. The celebration started around 10:30 am and the college was adorned with flowers, thoranam sugarcane stacked to grace the occasion. The entrance of the college was decorated with colorful Rangoli. It was an ambience filled revelry, music; dance and the joyful faces reverberated with big smiles.

PHOTO GALLERY


SML
GPS Map Camera
Chennai, Tamil Nadu, India
W4f8+3p9, Mes Rd, East Tambaram, Tambaram, Chennai, Tamil Nadu 600059, India
Lat 12.922486° Long 80.117908°
Wednesday, 14/01/2026 11:23 AM GMT +05:30
Google


SREE BALAJI
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AAVIN MILK FACTORY

We the students of M.sc Nursing 1st year and B.Sc nursing 3rd year students from SREE BALAJI COLLEGE OF NURSING. Started out Field visit on ***21.01.2026 at 9.00 am*** by our college bus and we reached there at 10.00 am. We were guided by our staff Prof. Mrs. Dhanalakshmi and Associate Prof. Mrs. Uma Maheshwari. We went for an educational trip to Aavin milk factory at Shollinganallur on 21.01.2026 . We were excited about the trip , First we were taken to a big room with big containers in which the milk was collected from different places.

DIARY PROCESSING SYSTEM:

For the factory milk is collected from different parts of (TN). The milk collected by testing and only the samples with good composition is selected with proper compensation for the farmers. The density of the milk is measured and sample is tested with lactometer.

Milk is brought to industry in large insulated tankers twice a day. The choice of individual processes and sequences will depend upon end product being manufactured.

UNIT PROCESSES

All dairy products start with raw milk obtained from the farm. The raw milk generally is transport with tankers.

FILTRATION

To ensure that milk is free of contamination, milk is filtered with the help of large cotton-louses to remove any sorts of huge foreign products like insects, leafs etc. Milk is then passed to a standardization process.

SEPARATOR

A separator is a centrifugal device that separates milk into cream and schemed milk. Manual rotation of the separator handle turn a worm gear mechanics which causes the separator bowl to spin at thousands of rpm. When spun, the heavier milk is pulled outward and the lighter cream is separated towards the centre. Thus cream and milk flow out of separate paths

STANDARDIZATION

When the raw milk is brought for standardization, it is again taken to a centrifuge to ensure no more particulates are in the milk and cooled to 4 degree Celsius. Now stored raw milk is kept at 4 degree Celsius prior to processing, usually by way of a jacketed storage tank. The first step is standardization whose objective of which is to ensure proper fat contents and solid non- fat contents (SNF). Ensuring proper fat content can be done one of two ways.

Both processes use a centrifuge to separate the low fat content and dense scheme protein from the high fat content and dense cream portion.

PASTEURIZATION

The object of pasteurization is to inactivate micro organisms and pathogens. These contents can spoil the milk. Pasteurization doesn't kill spores or some thermophilic micro organisms which leads to relatively short shelf life and refrigeration requirement of most pasteurized dairy products. The pasteurization and sterilization was done at the same time by the batch process where a tank of milk is heated to a specific temp and held for a specific length of time by steam. The product is then heated for at least 69 degree Celsius. And then held for 30 minutes to satisfy legal requirements for Pasteurization.This process kills the pathogens and microbes present.

HOMOGENIZATION

The homogenition should take place at pasteurization temperature. Milk is composed of water soluble components. And also fat soluble components that will separate if not homogenized. This results in phenomenon of creaming. The purpose of homogenation is to break of the fat globules into smaller sizes and disperse them in the water soluble components. This prevents them from coalescing and forming the separate layer. Homogenation provides major work in ice cream manufacturing process by giving smoother increase resistance in melting, increased surface area of ice cream. This is done using a 3 piston pump to create a large pressure drop across a small opening that the milk steam is forced through.

COLD STORAGE

Cold storage is used for most dairy products after production. Refrigerated storage for milk, curd, cheese butter and other products is used to delay the growth of pathogens that can damage the final products, It is used to prevent undesirable physical and chemical changes such as drying, oxidation or deformation of yogurt, butter and ice cream.The milk is boiled at high temperature to kill the bacteria and then it was allowed to cool. Before sending it to the packing zone the milk is

differentiated, as fat, medium fat and fat free milk. Next we saw how the butter was being melted and then added to milk and later chilled and sent to the packing area. The packing area was astonishing.

THE PACKETS WERE OF DIFFERENT SIZE AND DIFFERENT COLORS.

- BLUE - FAT 3%, SNF 8.5%
- VIOLET - FAT 3.5%, SNF 8.5%
- GREEN - FAT 4.5%, SNF 8.5%
- ORANGE - FAT 6%, SNF 9.5%
- PINK - DOUBLE TONE MILK THAT WILL BE AVAILABLE IN THE EVENING.

INFECTIOUS DISEASES HOSPITAL TONDIARPET

PLACE OF VISIT:- 30/39, Kasipuram, Tondiarpet, Chennai, Tamil Nadu 600081, India DATE OF VISIT:22.01.2026

TYPE OF HOSPITAL: GOVERNMENT

NATURE OF HOSPITAL: COMMUNICABLE DISEASES HOSPITAL

TIMINGS: Monday to Saturday 8:00 AM to 8:00 PM, Sunday 8:00 AM to 12:00 PM

INTRODUCTION

We the M.sc nursing 1" year students of Sree Balaji College of Nursing staring out infectious diseases hospital on ***22.01.2026 at 9.00am*** by our college bus with M.sc nursing and b.sc nursing students for our community requirement and reached there at 11.00 am. we were guided by our staff Mrs. Dhanalakshmi and Mrs. Uma mams.

INTRODUCTION INFECTIOUS DISEASES HOSPITAL

Cholera Hospital in Tondiarpet, Chennai, plays a vital role in combating cholera and other Communicable diseases in the region. As a dedicated facility, it provides essential medical care to individuals affected by these diseases. This report aims to provide an overview of the hospital's services, infrastructure, and effectiveness in managing cholera cases. It will also examine the hospital's strengths and weaknesses, highlighting areas for improvement. Cholera Hospital in Tondiarpet, Chennai, is a specialized healthcare facility dedicated to providing quality medical care to patients suffering from cholera and other communicable diseases. Established to address the growing need for targeted healthcare services, this hospital plays a critical role in controlling outbreaks and ensuring public health safety.

LOCATION AND ACCESSIBILITY:

The hospital is easily accessible by public transportation, with several bus stops nearby, including T.B. Hospital Tondiarpet, Tondiarpet Bus Depot, and Tondiarpet. The nearest metro station is New Washermen pet, which is an 8-minute walk away

LANDMARKS:

Tondiarpet Bus Depot (0.5 km)

New Washermen pet Metro Station (1.2 km)

Tondiarpet Railway Station (1.5 km)

Chennai Port (2.5 km)

1. Fort St. George (4.5 km)

TRANSPORTATION:

1. Bus: MTC buses (Tondiarpet Bus Depot)
2. Train: Chennai Suburban Railway (Tondiarpet Railway Station)
3. Metro: Chennai Metro (New Washermen pet Metro Station)
4. Auto-rickshaws, taxis, and private vehicle

OBJECTIVE:

The objective of this report is to:

1. Provide an overview of Cholera Hospital, Tondiarpet's infrastructure and services.
2. Evaluate the hospital's effectiveness in managing cholera cases.
3. Identify areas for improvement.

SERVICES:

The hospital offers a range of services, including:

- Diagnosis and treatment of cholera and other communicable diseases
-Emergency care
-Inpatient and outpatient services
-Laboratory testing
- Imaging services

SCOPE:

This report will cover:

1. Hospital infrastructure and facilities
2. Staffing and personnel management
3. Patient statistics and disease trends
4. Service delivery and quality of care
5. Challenges and recommendations for improvement

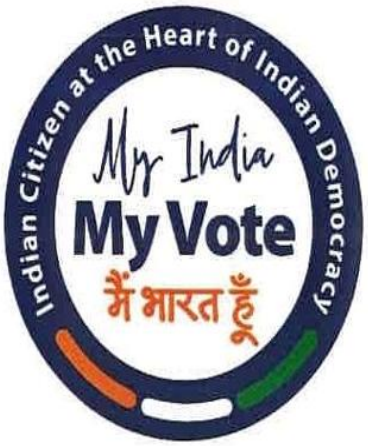
CONCLUSION:

Cholera Hospital, Tondiarpet, plays a vital role in combating cholera and other communicable diseases in Chennai. The hospital's infrastructure, services, and staff have been instrumental in providing quality healthcare to patient.

NATIONAL VOTERS DAY-2026

Every year on January 25, India marks National Voters' Day, a significant occasion to encourage active participation in the democratic process. This day holds immense importance, reminding citizens of their fundamental right to vote and its crucial role in shaping the nation's future. The t**heme** for National Voters' Day 2026 is "**My India, My Vote**" with a tagline of Citizen at the Heart of Indian. The main purpose of the National Voters Day celebration is to encourage, facilitate and maximize enrolment, especially for the new voters. Dedicated to the voters of the country, the day is utilized to spread awareness among voters and for promoting informed participation in the electoral process. Also the pledge for National Voters' Day is taken by the Principal , staff and students on **23 January 2026** this activity planned and coordinated by NSS unit of Sree Balaji college of Nursing

National Voters Day (NVD)- Pledge



வாக்காளர் உறுதிமொழி

இந்திய குடிமக்களாகிய நாம், ஜனநாயகத்தில் உறுதியான நம்பிக்கை கொண்டவர்களாக, நமது நாட்டின் ஜனநாயக மரபுகளையும், சுதந்திரமான, நியாயமான மற்றும் அமைதியான தேர்தல்களின் மாண்பையும் காக்க உறுதியளிக்கிறோம்.

மதம், இனம், சாதி, சமூகப் பிரிவு, மொழி அல்லது எந்தவொரு தூண்டுதலாலும் பாதிக்கப்படாமல், ஒவ்வொரு தேர்தலிலும் அச்சமின்றி, பொறுப்புணர்வுடன், நமது வாக்குரிமையைப் பயன்படுத்துவோம் என உறுதிமொழி எடுத்துக்கொள்கிறோம்.

Voters' Pledge

"We, the citizens of India, having abiding faith in democracy, hereby pledge to uphold the democratic traditions of our country and the dignity of free, fair and peaceful elections, and to vote in every election fearlessly and without being influenced by considerations of religion, race, caste, community, language or any inducement"

PATENT DETAILS

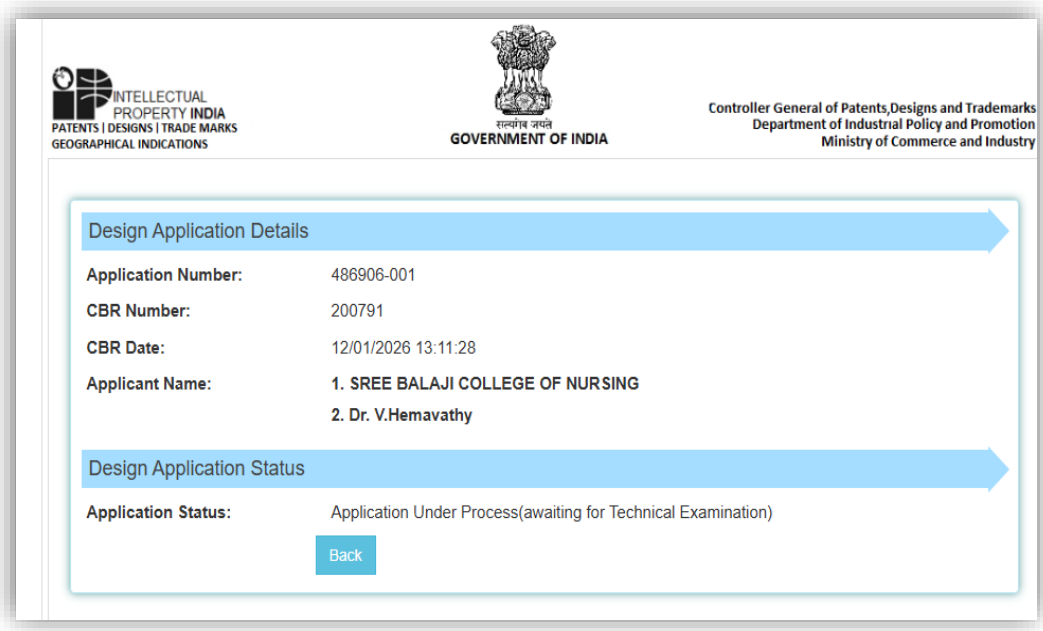
JANUARY- 2026

Innovation and technological advancement play a crucial role in addressing contemporary challenges across healthcare, engineering, biotechnology, and allied sciences. Patents serve as a vital instrument for protecting intellectual property by granting exclusive rights to inventors for their novel, useful, and non-obvious inventions. Filing a patent not only safeguards originality but also promotes research, commercialization, and societal development.

The present patent was **filed in January 2026**, marking the formal initiation of intellectual property protection for the proposed invention. The invention arises from an in-depth analysis of existing limitations in the current system and aims to offer an improved, efficient, and practical solution. By integrating innovative design, methodology, or formulation, the invention demonstrates significant advancement over prior art and fulfills unmet needs in the respective domain.

The detail are as follows

S.NO	NAME	TOPIC	NATURE OF PATENT	PATENT NO	PUBLISHED
1	DR.V. HEMAVATHY	PORTABLE VITAL SIGNS KIT	DESIGN	486906-001	PROCESSING
2	DR.K.R. VASANTHA KOHILA	NOISE-REDUCING HOSPITAL TROLLEY WHEEL DESIGN	DESIGN	487916-001	PROCESSING
3	DR.NIMMI R	MULTI-PURPOSE NURSING UTILITY BELT	DESIGN	487914-001	PROCESSING
4	MRS.PAPPY YUVARANI	POST-OPERATIVE PAIN ASSESSMENT INDICATOR DEVICE	DESIGN	487915-001	PROCESSING
5	DR.S.SEMMALAR	ERGONOMIC IV STAND WITH FOLDABLE MEDICINE TRAY	DESIGN	487920-001	PROCESSING
6	DR.RAMANI	HANDS-FREE PATIENT TURNING AID FOR NURSES	DESIGN	487919-001	PROCESSING
7	DR.AJITHA NANCY RANI	PATIENT TURNING AND POSITIONING ASSIST HANDLE	DESIGN	487918-001	PROCESSING
8	DR. AJITHAKUMARI G	NURSE FRIENDLY IV LINE ORGANIZER CLIP	DESIGN	487917-001	PROCESSING



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Ministry of Commerce and Industry

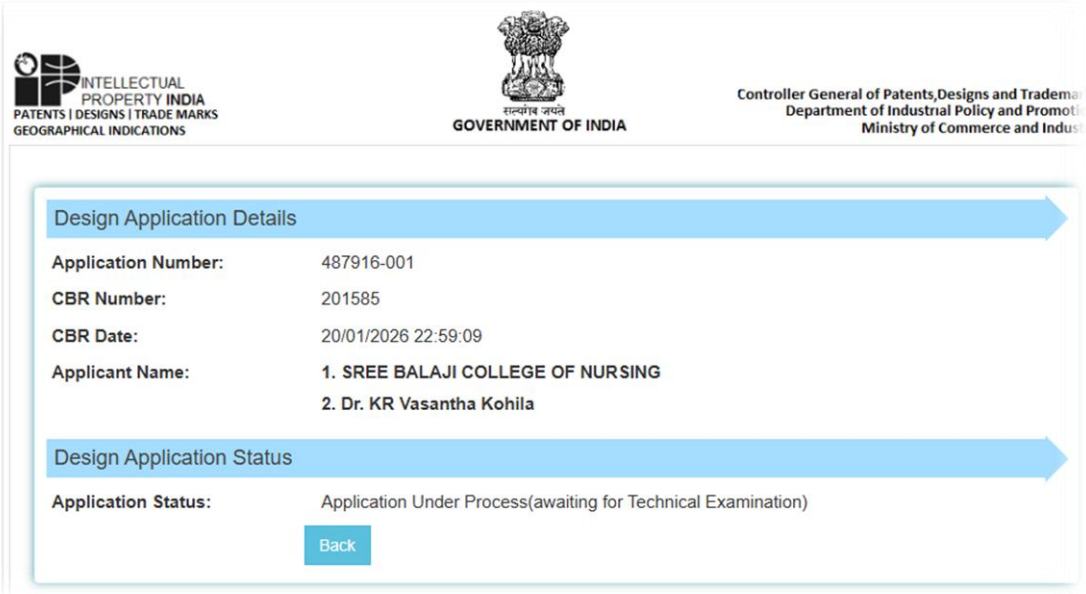
Design Application Details

Application Number:	486906-001
CBR Number:	200791
CBR Date:	12/01/2026 13:11:28
Applicant Name:	**1. SREE BALAJI COLLEGE OF NURSING** **2. Dr. V.Hemavathy**

Design Application Status

Application Status:	Application Under Process(awaiting for Technical Examination)

Back



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Ministry of Commerce and Indus

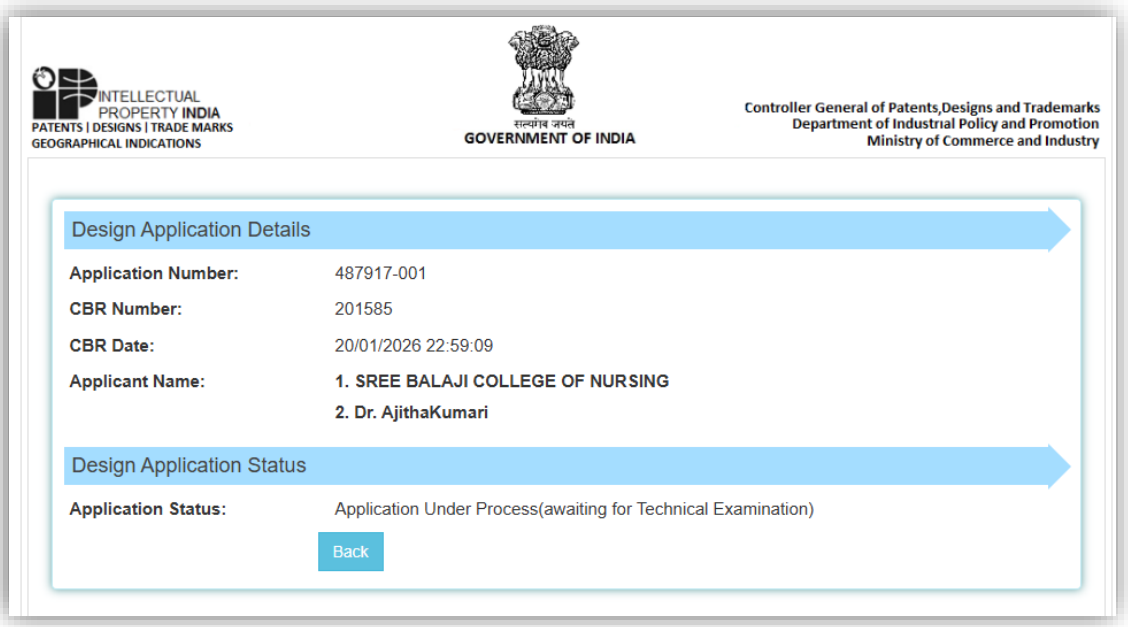
Design Application Details

Application Number:	487916-001
CBR Number:	201585
CBR Date:	20/01/2026 22:59:09
Applicant Name:	**1. SREE BALAJI COLLEGE OF NURSING** **2. Dr. KR Vasantha Kohila**

Design Application Status

Application Status:	Application Under Process(awaiting for Technical Examination)

Back



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Ministry of Commerce and Industry

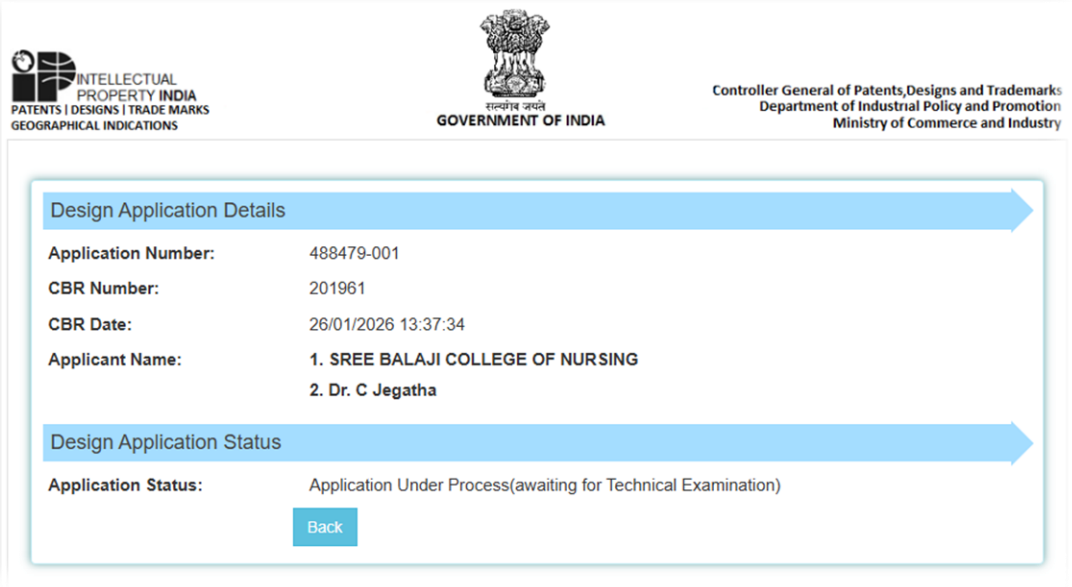
Design Application Details

Application Number:	487917-001
CBR Number:	201585
CBR Date:	20/01/2026 22:59:09
Applicant Name:	**1. SREE BALAJI COLLEGE OF NURSING** **2. Dr. AjithaKumari**

Design Application Status

Application Status:	Application Under Process(awaiting for Technical Examination)

Back



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Ministry of Commerce and Industry

Design Application Details

Application Number:	488479-001
CBR Number:	201961
CBR Date:	26/01/2026 13:37:34
Applicant Name:	**1. SREE BALAJI COLLEGE OF NURSING** **2. Dr. C Jegatha**

Design Application Status

Application Status:	Application Under Process(awaiting for Technical Examination)

Back

IEEE PUBLICATION RECOGNITION

Faculty of Sree Balaji College of Nursing published research papers in an IEEE -indexed conference, marking a significant academic milestone- Dr.V.Hemavathy received an IEEE publication certificate for the paper-**"Artificial Neural Network Model for Lung Disease Detection from Patient Health Records"** published in an IEEE Recognized conference

Faculty of Sree Balaji College of Nursing published research papers in an IEEE -indexed conference, marking a significant academic milestone- Professor S. Uma maheswari received an IEEE publication certificate for the paper-**"Deep learning – Based for Accurate of Hypertension Risk Using Health Data"** published in an IEEE Recognized conference

2026 International Conference on Smart Futuristic Technology (ICSFT)

IEEE BANGALORE SECTION

2nd – 3rd January, 2026

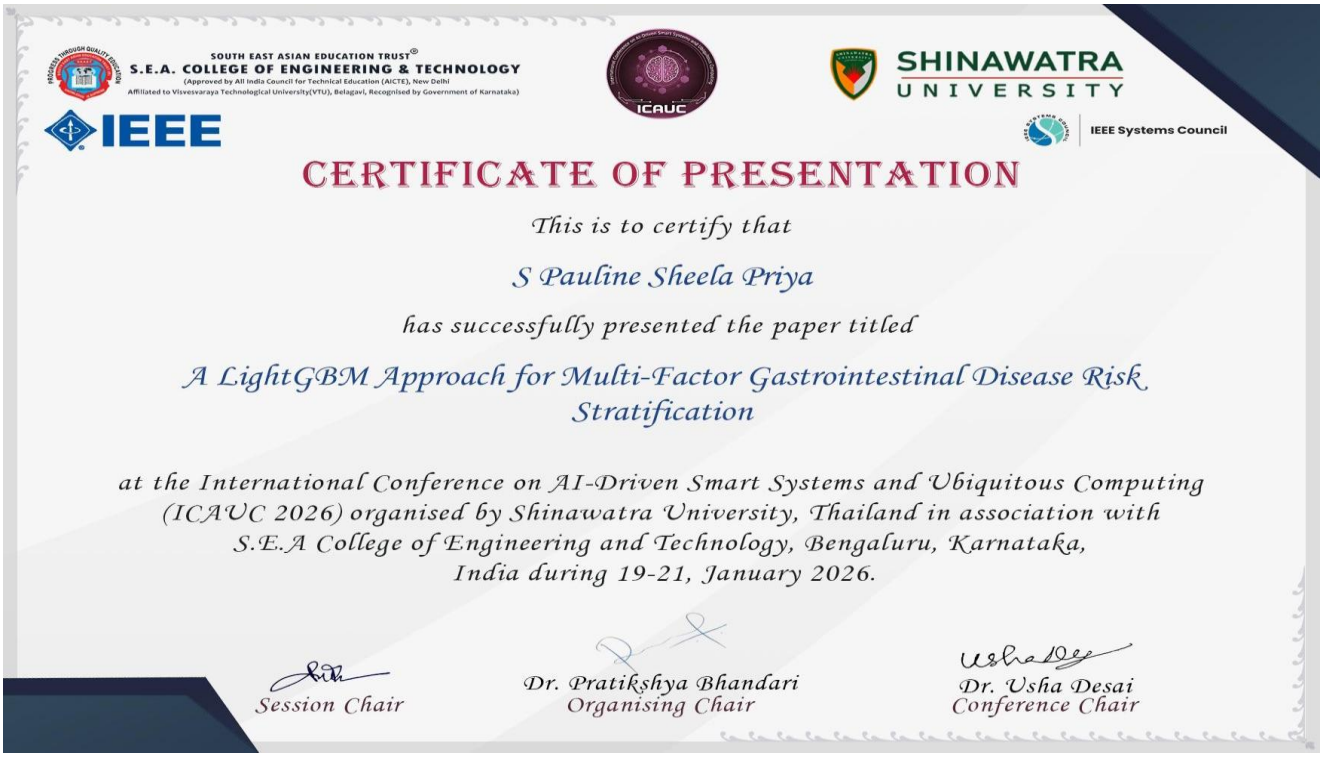
Certificate

This is to certify that Dr./Prof./Mr./Ms. S.Uma Maheswari has presented paper entitled Deep Learning-Based for Accurate Estimation of Hypertension Risk Using Health Data in 2026 International Conference on Smart Futuristic Technology (ICSFT) during 02nd to 3rd January 2026.

Dr. N S Kumar
General Chair

Dr. Dilshad Begum
Organizing Chair

Faculty of Sree Balaji College of Nursing published research papers in an IEEE -indexed conference, marking a significant academic milestone- Professor Pauline Sheela Priya.S received an IEEE publication certificate for the paper- **"A Light GBM Approach for Multifactor Gastro intestinal Disease risk, Stratification"** Using Health Data published in an IEEE Recognized conference.


SOUTH EAST ASIAN EDUCATION TRUST®
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(Approved by All India Council for Technical Education (AICTE), New Delhi
Affiliated to Visvesvaraya Technological University(VTU), Belagavi, Recognised by Government of Karnataka)
ICAUC
SHINAWATRA UNIVERSITY
IEEE
IEEE Systems Council

CERTIFICATE OF PRESENTATION

This is to certify that

S Pauline Sheela Priya

has successfully presented the paper titled

A LightGBM Approach for Multi-Factor Gastrointestinal Disease Risk Stratification

at the International Conference on AI-Driven Smart Systems and Ubiquitous Computing (ICAUC 2026) organised by Shinawatra University, Thailand in association with S.E.A College of Engineering and Technology, Bengaluru, Karnataka, India during 19-21, January 2026.

Session Chair

Dr. Pratikshiya Bhandari
Organising Chair

Dr. Usha Desai
Conference Chair

Faculty of Sree Balaji College of Nursing published research papers in an IEEE -indexed conference, marking a significant academic milestone- Tutor N. Muthammal received an IEEE publication certificate for the paper- **"MobileNetV3 Deep Learning Model for Skin Lesion Classification in Dermatology Applications"** Using Health Data published in an IEEE Recognized conference

2026 International Conference on Smart Futuristic Technology (ICSFT)

IEEE BANGALORE SECTION

2nd – 3rd January, 2026

Certificate

This is to certify that Dr./Prof./Mr./Ms. Muthammal N has presented paper entitled MobileNetV3 Deep Learning Model for Skin Lesion Classification in Dermatology Applications in 2026 International Conference on Smart Futuristic Technology (ICSFT) during 02nd to 3rd January 2026.

Dr. N S Kumar
General Chair

Dr. Dilshad Begum
Organizing Chair

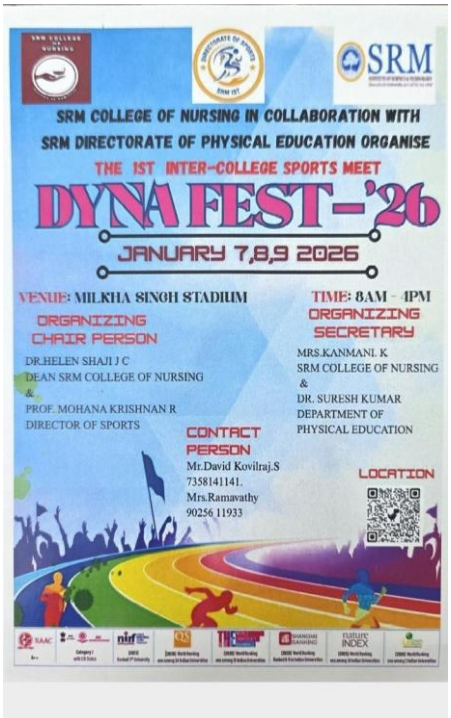
BOOK PUBLICATION

The Management congratulates the principal and faculty members of Sree Balaji college of nursing on successfully publishing the book and encourages continued scholarly contribution that enhance the institution's academic reputation. Total number of Books published in the year of 2025 is **33**

INTER-COLLEGE SPORTS MEET

SRM UNIVERSITY-JANUARY 7-9,2026

Sports play an important role in maintaining physical fitness and mental well-being. Participation in sports helps students develop discipline, teamwork, leadership, and confidence. For nursing students, sports activities are essential to reduce stress and improve stamina and overall health. The event provided a good opportunity for students to showcase their sports talents, interact with students from other colleges, and promote sportsmanship. The sports meet encouraged a healthy competitive spirit and contributed to the overall development of nursing students.



ACTIVITIES DAY 1 (7th JANUARY 2026):

The first day of DYNA FEST '26 commenced at 9:00 a.m. with the inauguration ceremony. The event was formally inaugurated in the presence of dignitaries, faculty members, and participating students. After the inauguration, various preliminary sports events were conducted. Athletic events such as

running races were organized, and students actively participated with enthusiasm. The schedule was well coordinated, and participants followed the rules and instructions given by the organizing committee. The day concluded successfully with active participation and good sportsmanship.

DAY 2 (8TH JANUARY 2026):

The second day of the sports meet focused mainly on outdoor and team events. Games such as kabaddi and football were conducted. Students from different colleges competed with great energy and teamwork. The matches were closely contested and encouraged unity, discipline, and cooperation among the players. Athletic events including long jump and running events were also conducted. The participants demonstrated physical fitness, coordination, and determination throughout the day.


GPS Map Camera
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Srm University, R2cw+qj2, Potheri, Srm Nagar,
Kattankulathur, Tamil Nadu 603203, India
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Google


GPS Map Cam
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GPS Map Camera
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Kattankulathur, Tamil Nadu 603203, India
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Thursday, 08/01/2026 11:49 AM GMT +05:30
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DAY 3 (9TH JANUARY 2026):

The final day of DYNA FEST '26 included remaining athletic and field events. Events such as 100 meters race, 200 meters race, relay (4 × 100 meters), shot put, discus throw, and long jump were conducted. The students showcased their strength, speed, and skills in various competitions. Winners were selected based on performance, and prizes were distributed during the valedictory session. The sports meet concluded successfully with a sense of achievement, joy, and memorable experiences for all participants.


GPS Map Camera
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Kattankulathur, Tamil Nadu 603203, India
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Friday, 09/01/2026 11:38 AM GMT +05:30
Google


SRM COLLEGE OF NURSING IN COLLABORATION WITH
SRM

CERTIFICATE

The Inter-College Sports Meet – DYNA FEST '26 concluded successfully with active participation and great sportsmanship from all students. The event provided a valuable opportunity for nursing students to demonstrate their physical abilities, teamwork, and competitive spirit. The students of Sree Balaji College of Nursing participated enthusiastically and represented the institution with pride.

In the field events, Jerfin won the first prize in Shot Put, and Godwin secured the third prize in Long Jump. Their achievements brought honor to the college and motivated other

students to participate in sports activities. Overall, the sports meet was a memorable and enriching experience that promoted physical fitness, discipline, and unity among students.

TAMIL NADU APEX SKILL DEVELOPMENT CENTRE

Tamil Nadu Apex Skill Development Centre for Healthcare organized an educational exposure program for Government School students at **Sree Balaji Medical & Nursing College** on ***28th and 29th January 2026***. The objective of this initiative was to introduce school students to the healthcare sector, provide basic skill-oriented knowledge, and motivate them to explore career opportunities in nursing and allied healthcare fields.

As part of this program, students from various Government Schools were grouped and scheduled for different learning sessions. Prof. Mercy was provided with an opportunity to handle the session for the **first group of students**, where Prof. Mercy conducted a class on the topic **"Basic Nursing Care."** This session was designed to give students a foundational understanding of nursing practices, patient care, and the importance of healthcare professionals in the medical system.

The session was conducted using a **balanced approach of both theoretical explanation and practical demonstration**. Key concepts such as personal hygiene, patient comfort, basic patient handling, vital signs awareness, and fundamental nursing responsibilities were explained in a simple and student-friendly manner. Practical demonstrations were carried out to help students understand real-time application of nursing care practices, which enhanced their learning experience and engagement.

More than **50 students from different Government Schools** actively participated in the session. The students showed keen interest throughout the class, listened attentively, and interacted confidently during discussions. To further motivate the students and encourage active participation, a **question-and-answer session** was conducted at the end of the class. Students who answered proactively and demonstrated understanding of the topic were appreciated and rewarded with **chocolates as a token of encouragement**. This gesture created a positive learning atmosphere and boosted the students' confidence and enthusiasm.

Overall, the session was **highly effective and beneficial** for the students. It not only enhanced their basic knowledge of nursing care but also helped them gain exposure to the healthcare environment and practical skills at an early stage.

In conclusion, this initiative by the Tamil Nadu Apex Skill Development Centre for Healthcare proved to be a meaningful and impactful experience for Government School students. Such programs play a crucial role in skill development, career guidance, and early exposure to professional fields. Prof. Mercy strongly believe that **similar sessions should be continued in the**

future to empower students with practical knowledge, inspire career aspirations, and strengthen the healthcare skill ecosystem in Tamil Nadu.

SCHOOL HEALTH PROGRAMME

III Yr B,Sc Nursing Students Conducted School Health Programme along with Padappai Rural Health Centre at kanchivakkam panchayat union primary school for the Students 1st std to 5th standard

INTERACTION WITH STUDENTS

HEALTH EDUCATION ON PERSONAL HYGIENE

ANTHROPOMETRIC MEASUREMENT (HEIGHT, WEIGHT)