



**Prof. Dr. Avinash S. Jagtap**  
M.Sc. Ph.D.  
PRINCIPAL

E-mail : principal.tccollege@gmail.com

॥ सिद्धिरनेकान्तात् ॥

Anekant Education Society's

# **TULJARAM CHATURCHAND COLLEGE**

**of Arts, Science and Commerce, Baramati - 413102.**

Dist. Pune. Maharashtra, India.

**Empowered Autonomous Status**

Religious Minority Institute

NAAC Reaccredited 'A+' Grade, CGPA 3.55

## **Criterion VII: - Institutional Values and Best Practices**

**7.2.1**  
**Q1M**

### **Best Practice-I** **Green Initiatives**

#### **INFRASTRUCTURAL DEVELOPMENT MEASURES:**

#### **ENERGY CONSERVATION**

##### **1. Roof-top Grid Connected Solar Power Plants:**

The college has started its energy conservation by installing 20kW and 2kW solar power plant on the rooftop of Administrative Building and Library respectively. Both Solar Photovoltaic (SPV) systems are estimated to afford an annual energy generation of 32,880 units ( $5\text{units} \times 22\text{kWp} \times 320\text{days}$ ) for captive use under ideal conditions. The energy output of the solar panels meet the energy requirement of the college and excess power produced by the solar panels are supplied to the power grid of MSEB.



**Solar Panel at rooftop of administrative building with 16 modules**





**Solar Panels at rooftop of administrative building with 40 modules**

## 2. Solar Water Heaters at Roof-top:

Solar water heaters use natural sun light to heat water. The girls and boys hostels of the college are equipped with solar water heaters with storage facility, ensuring hot water supply at all times. There are 26 units of solar heaters on the rooftop of Girls' Hostels providing hot water for bathing. Also, there are 18 units of solar heaters on the rooftop of Boys Hostel providing hot water for bathing.

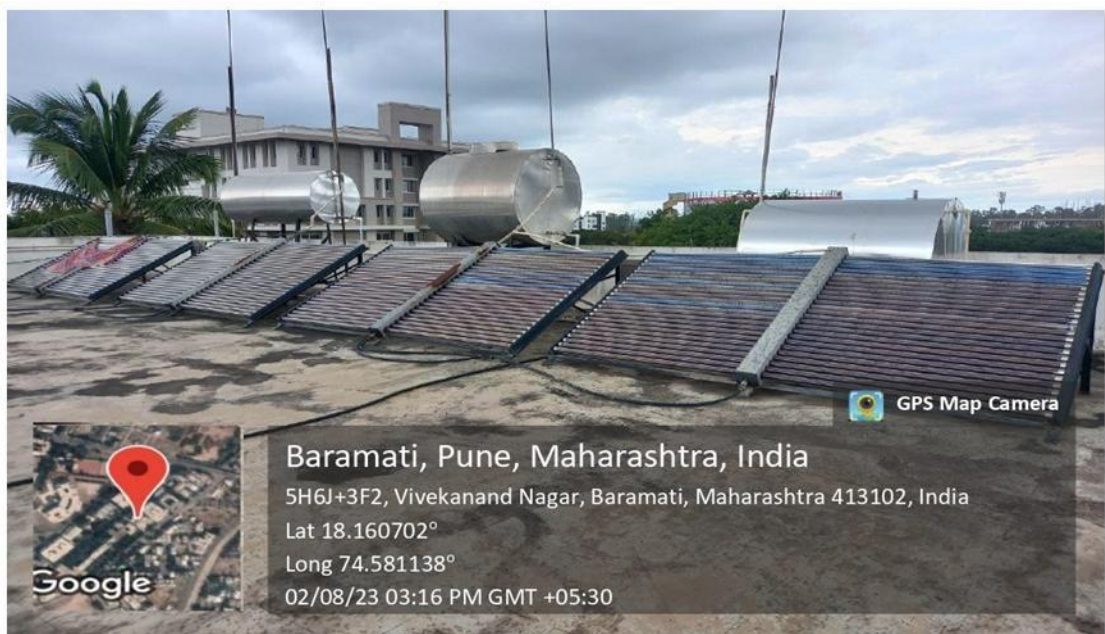
Sr. No.	Name of Hostel Wing	No. of Units	Capacity (in Liter)
1.	Girls' Hostel New Wing	10	5000
2.	Girls' Hostel A Wing	04	4800
3.	Girls' Hostel B Wing	04	6000
4.	Girls' Hostel C Wing	04	4800
5.	Girls' Hostel D Wing	04	2000
6.	Boy's Hostel	18	9000
<b>Total</b>		<b>44</b>	<b>31600</b>







**Solar Heater at Rooftop of ‘New’ Wing of Girl’s Hostel**



**Solar Heater at Rooftop of ‘A’ Wing of Girl’s Hostel**





**Solar Heater at Rooftop of 'B' Wing of Girl's Hostel**



**Solar Heater at Rooftop of 'C' Wing of Girl's Hostel**







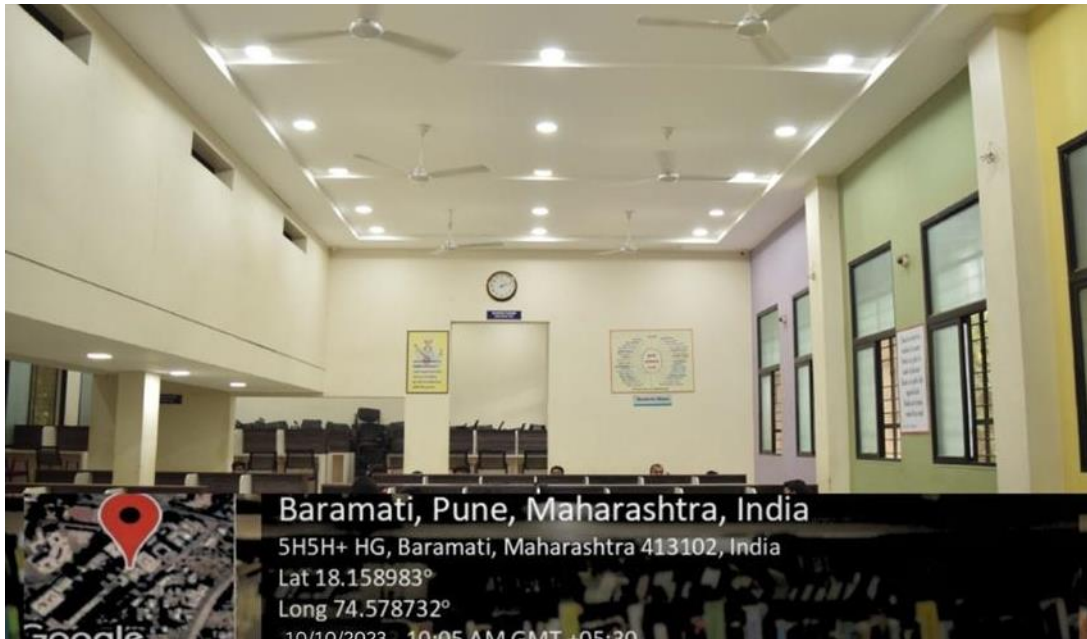
**Solar Heater at Rooftop of 'D' Wing of Girl's Hostel**



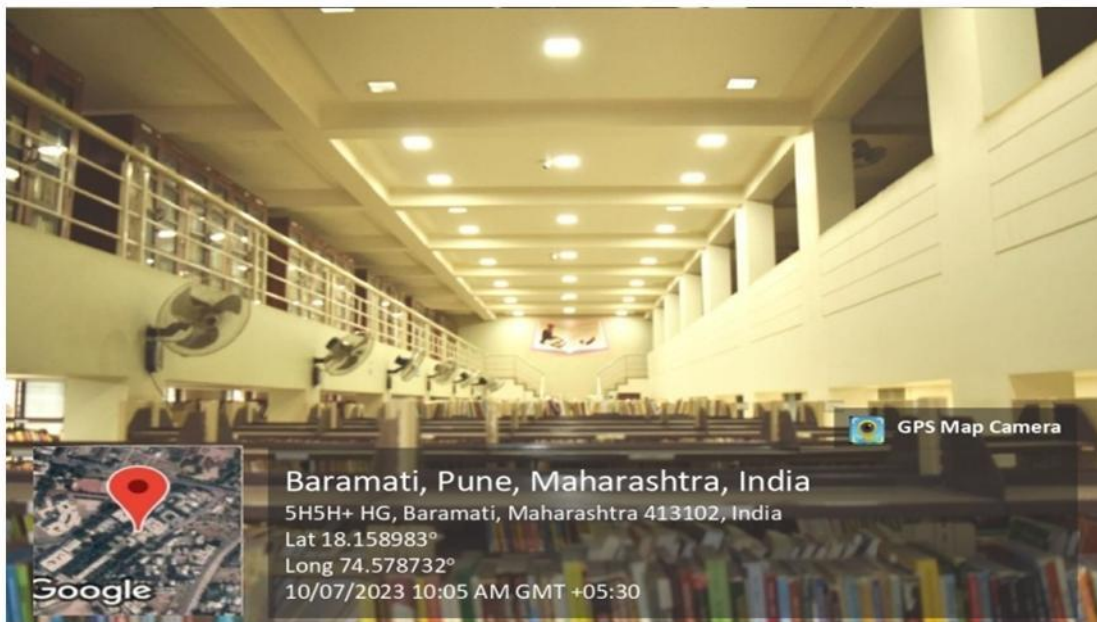
**Solar Heater at Rooftop of Boy's Hostel**



### 3. Sensor based Energy Conservation



**Sensor based energy conservation at Library (Reading Hall)**



**Sensor based energy conservation at Library (Book Section)**

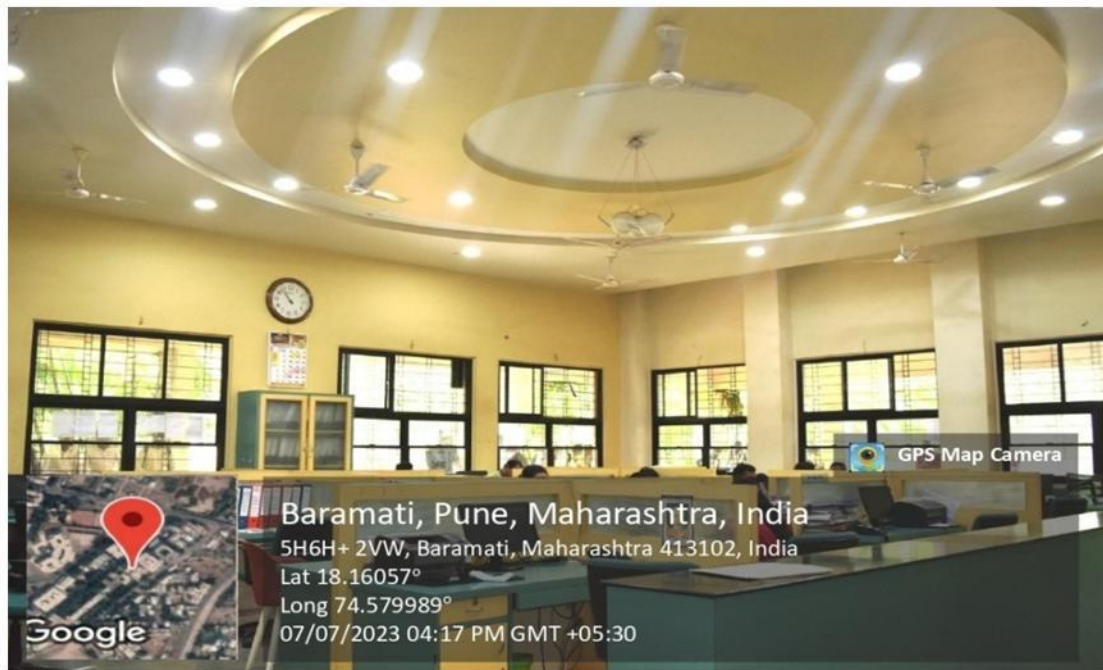




## 1. Use of LEDs/Power-Efficient Equipments



**LED lights in front of Principal's cabin**



**LED lights in Administrative office**



## WATER CONSERVATION

### ❖ Water Conservation in the College:

The college has very effective water conservation and distribution system in the campus. The water bodies in the campus are well maintained and utilized with proper cultivation practice. We have the following water conservation facilities in the campus.

### ❖ Rain Water Harvesting:

The college has rain water harvesting system to conserve the rain water. The earth water level is increased with Rain water harvesting which helped to have water to our college bore well. It increases natural storage of water, and helps the college in getting water for various purposes.

The following are the details of rainwater harvesting systems constructed in the campus.

Sr. No.	Location	No. of harvesting tank	Capacity in liter
1.	Prerna Building	02	100000
2.	Near Microbiology Dept	01	300000
3.	New Building	02	100000
4.	Junior College Building	01	60000
5.	Girls' Hostel	01	60000
6.	Behind Prashasan Bhavan	01	60000
<b>Total</b>		<b>08</b>	<b>680000</b>





**Rain water harvesting System near main building 3, 00,000 Lt. Storage Capacity**



**Underground Storage Water tank in the college**



**Physics-Micro Department: Rain Water Harvesting System**



## SOLID WASTE MANAGEMENT

### ❖ **Waste Management:**

The college has implemented a comprehensive waste management system that emphasizes the reduction, reuse, and recycling of waste. Effective waste management is crucial for maintaining environmental sustainability and ensuring community health. Students are actively involved in these efforts, and waste management has been integrated into the academic curriculum. Below is an overview of handling of various types of waste.

### ❖ **Solid Waste Management:**

In the solid waste there are two types of waste:

- **Dry Waste**
- **Wet Waste**

#### **Dry Waste Management:**

The college has a MoU with the local municipality for segregating, collecting, transporting, treating, and disposing of solid waste. The college has made available the Penguin-dustbins to collect plastic and garbage in the key-places like girls' waiting room, administration building, girls' hostel, Auditorium, etc. Non biodegradable materials such as plastic wrappers and bags, broken glass pieces, dishes, etc and Biodegradable materials such as paper cups, paper dishes etc. are collected by the waste pick-up van from Baramati Municipal Council. The college has an agreement with local scrap dealer for collection and disposal of waste papers, plastic scrap and other waste materials.

#### **Wet Waste Management:**

Wet Waste especially from Canteen and Mess kitchens, such as vegetable refuses; food scraps etc. are disposed-off in biogas and Vermi-compost plant.





## BIOGAS PLANT

As a part of kitchen waste management plan a biogas plant has been set up in the campus. Its processed capacity is 150 kg kitchen waste per day and its gas generation capacity is 45kg per month.



**Biogas Plant at Hostel Mess**



## VERMI-COMPOST PLANT

Vermi-compost unit is developed and monitored by the department of Botany. The garden and laboratory waste is used to feed the earthworms. Vermi-compost produced in the unit is used as a fertilizer for the plants and trees in the college garden. It helps to keep the campus eco-friendly.



**Vermi-compost plant in the college**





## PLASTIC COLLECTION BINS

The college has installed smart bins in various corners of the campus. These bins are labeled properly for discarding the paper and plastic trash.



Colored Bins for trash collection





### MoU with Baramati Municipal Council

The college has established a Memorandum of Understanding (MoU) with Baramati Municipal Council for collecting solid waste from the college campus and generating awareness among the students about solid waste management as an effort to protect the college campus and conserve its environment.



Collection of dry waste from the college campus by Baramati Municipality workers





## LIQUID WASTE MANAGEMENT

### ❖ Liquid Waste Management:

Each department has designated collection points or drains for liquid waste, which is segregated based on its type. Sewage and industrial effluents are treated separately to ensure proper disposal. Liquid waste from departments such as Chemistry, Microbiology, Botany, and Zoology is treated in a centralized effluent treatment plant. The plant is installed at a proper place in the college garden so that the treated water is reused for gardening, reducing dependence on municipal water sources. The liquid waste management system is regularly monitored to ensure compliance with environmental standards.

### ❖ Specification of the Effluent Plant:

**Establishment Year** - 2015

**Cost** – 2.65 Lakhs

**Capacity** – 2000 liters/day to 5000 liters/day



**Effluent Treatment Plant**





**Effluent Treatment Plant in the college garden**





## E- WASTE MANAGEMENT

### ❖ E-Waste Management:

The college has partnerships with authorized recyclers to manage electronic waste. The damaged or out-dated computers, CDs and other e-equipment's are sorted out and sent to the college central store. These e-equipment's are sold out by means of a tendering process. Collection points are available where students and staff can dispose of old electronic devices for recycling. Awareness programs are conducted to educate the community about responsible e-waste disposal. The college organizes e-waste collection drives in association with TATA cromax. This drive is conducted every year with an aim to promote responsible disposal practices and contributing to the circular economy. The institution also promotes the refurbishment and reuse of electronic devices whenever feasible.

### ❖ Details of E-Waste Management Programs organized in 2023-24

Sr. No.	Name of the Program	Date and Year	No. of Participants
1.	E-Waste Collection Drive	23/01/2024	107



Students submitting their e-waste goods at the collection point





Collected E-waste materials are kept in a big box for recycle

### KAVIVARYA MOROPANT BOTANICAL GARDEN

- ❖ The college has a well maintained and spacious Botanical garden. It is named after well known Marathi poet, *Kavi Moropant*, who lived in Baramati during 18<sup>th</sup> century and is known for his mastery over *Arya*. The Botanical Garden of the college is one of the best gardens in the affiliated colleges of Savitribai Phule Pune University, Pune. The college has also set up a medicinal plant garden where different medicinal species are nurtured, conserved and cultivated for research and educational activities related to plant species known for medicinal purposes. In the botanical garden, the college has also built up Butterfly plant section which helped in the pollination of plants and shrubs. Moreover, there is a section for Cacti and Succulents where endangered species of cacti and succulents are preserved and conserved for research purposes. The botanical garden also encompasses a nursery shed. The nursery unit houses a variety of fruits, vegetables and decorative plants. On the occasion of Independence Day and Republic Day the decorative plants from the nursery are offered for selling-cum





display on the college ground. The landscape of trees and plants in the botanical garden enriches the biodiversity of Baramati and also produces a tranquil ambiance to the college campus and creates a soothing environment.

❖ **Details of *Kavivarya Moropant* Botanical Garden**

Sr. No.	Particulars	Page No.
1.	Entry point and passage way to various sections	2-4
2.	Trees planted by NAAC Peer Team-2017	5-6
3.	Medicinal Plant Garden	7
4.	Butterfly Garden	8
5.	Cacti and Succulent plant section	9
6.	Bonsai plant section	10
7.	Fernery	11
8.	SurabhiNursery	12-13
9.	Lotus Pond	14-18



**Entry Gate of *Kavivarya Moropant* Botanical Garden**







**Avenue of the Botanical Garden**



**Greenery of the garden**







**Passage way to various sections of the garden**



**Right side passage way of the garden**







Left side passage way of the garden

### Trees Plantation by NAAC Peer Team 2017



Tree planted by Prof. K. Muthuchelian, Chairman NAAC Peer Team 2017







**Tree planted by Prof. R.G. Alaagi, Coordinator NAAC Peer Team 2017**



**Tree Plantation Prof. M. Venkateshwar, Member, NAAC Peer Team 2017**







**Tree Planted by a distinguished guests**

## Medicinal Plant Garden



**Medicinal Plants Section**







**Medicinal Plants in the Garden**

## Butterfly Plant Garden



**Butterfly Section**







**Butterfly Plant Section**

**Bonsai Plant Garden**



**Bonsai Plant Section**







**Bonsai Plants in the garden**

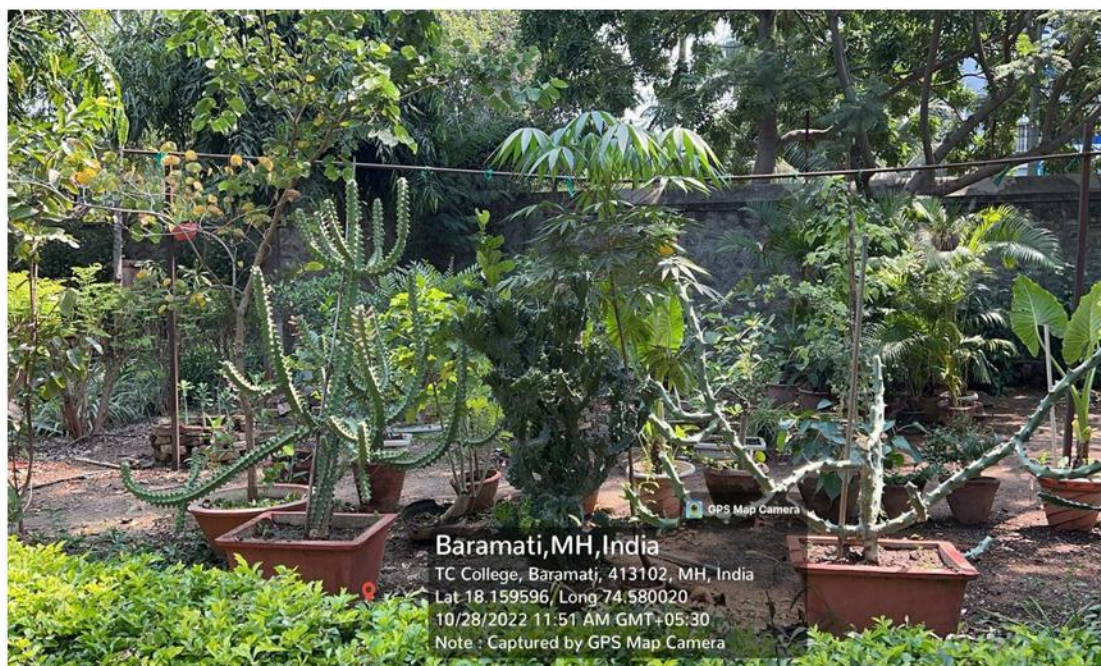
## **Succulent Plant Section**



**Succulent Plant Section**







**Cactus in succulent section**

## Fernery



**Fernery section in the Botanical Garden**





## Surabhi Nursery

Surabhi Nursery of the college is also located within the botanical garden. Various plants are propagated in this nursery. The college organizes an exhibition cum selling of decorative plants nurtured in the Surabhi Nursery on Independence Day and Republic Day at Gymkhana of the college. Teachers and students always give a big response to this activity.



**Surbhi Nursery of the Botanical Garden**



**Plant saplings in the Nursery**







**Exhibition cum selling of plants prepared at Surbhi Nursery**



**Staff members buying plants in exhibition**

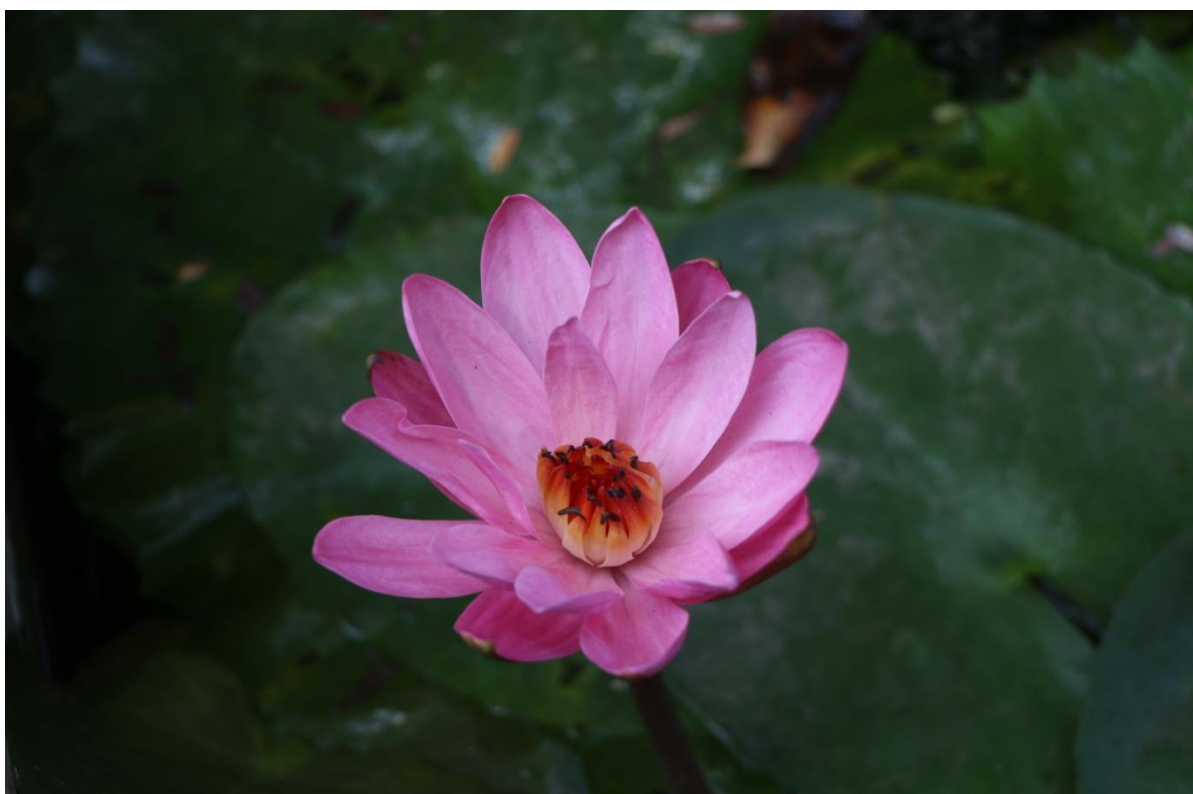




## Lotus and Water Lily Tank

One of the landmarks of the *KavivaryaMoropant* Botanical Garden is the water lily tank and lotus tank, giving a wonderful sight as soon as one enters in the garden. Located at the middle of the botanical garden, the tank is full of floating white water lilies. The garden also makes space for two lotus tanks. These tanks are specially designed to hold lotus flowers in full bloom, a mix of white and pink colors. The given below video links and photos capture the breathtaking beauty of these lotuses and water lilies in the garden.

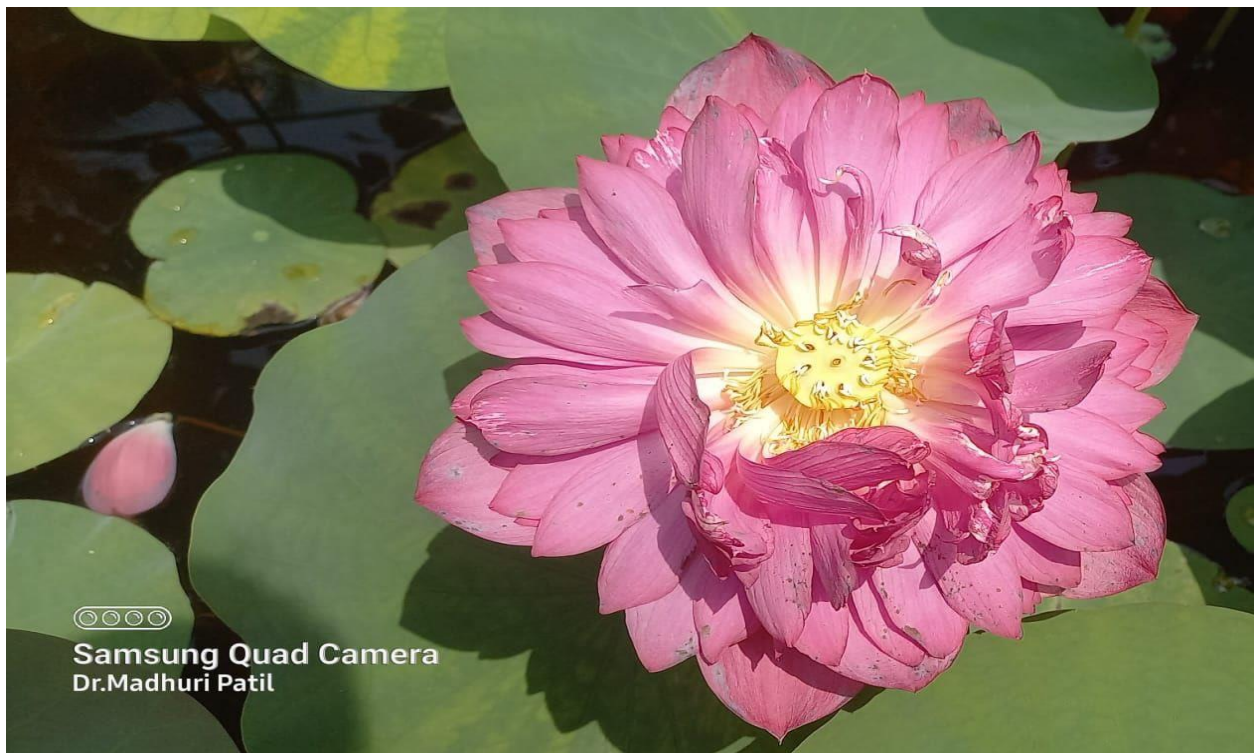




**Lotus in Moropant Botanical Garden**





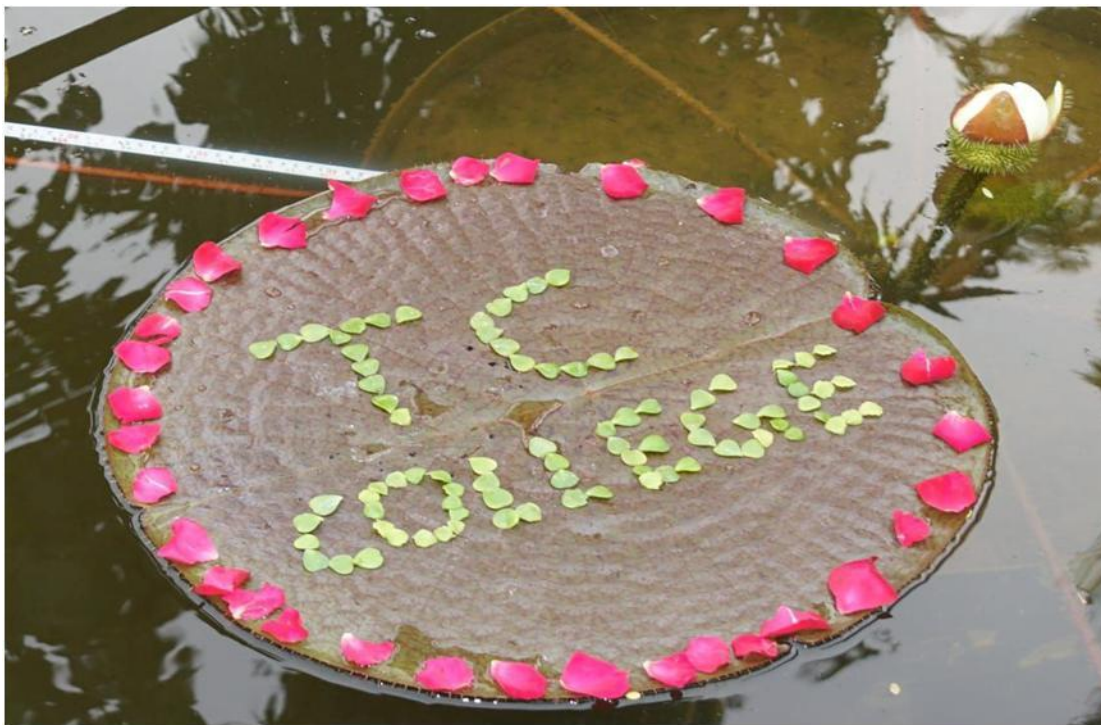


**Bloomed Lotus in the garden**





**Blooming lotuses in the garden**



**Lotus Tank in Kavivarya Moropant Botanical Garden**





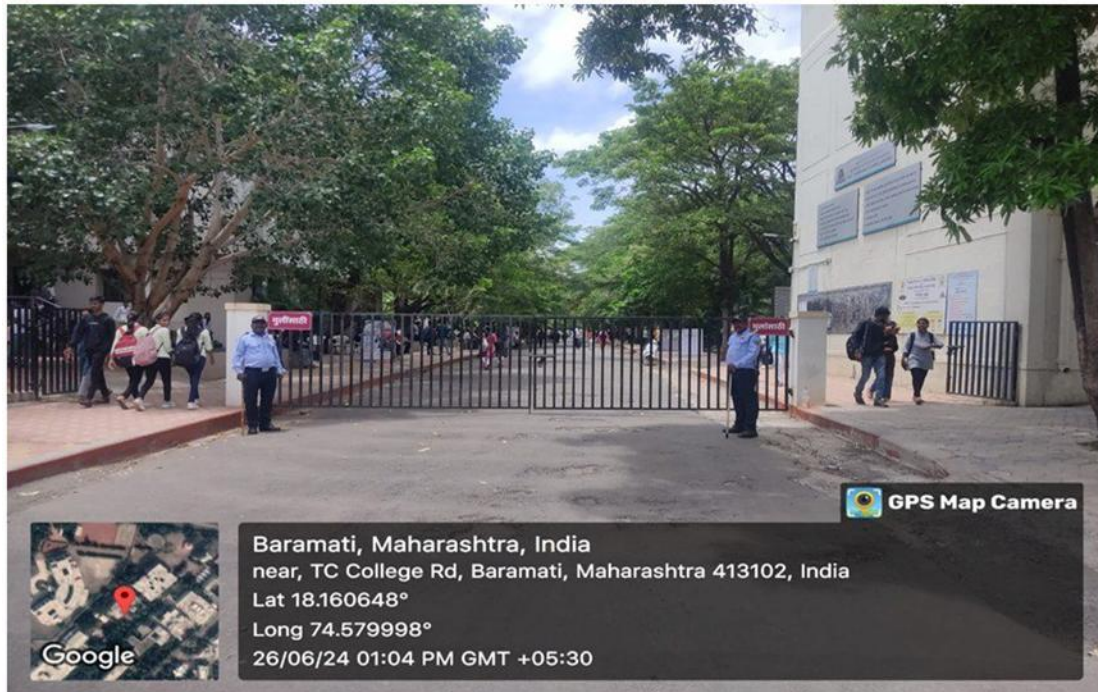
## Greenery and Landscaping

The campus of the college is beautifully landscaped in a lush of green stretch of 38 acres land. Out of 38 acres land, 11.3 acres are under canopy. The college maintains the greenery of the campus by regular planting of large number of plants. Evergreen trees, planted on the both sides of pedestrian friendly pathways, add aesthetic quality to the campus beauty and create a conducive learning environment for the students. The well designed campus landscape of the college not only captures the attention of visiting people but also boost mental health and wellness of students and faculty.

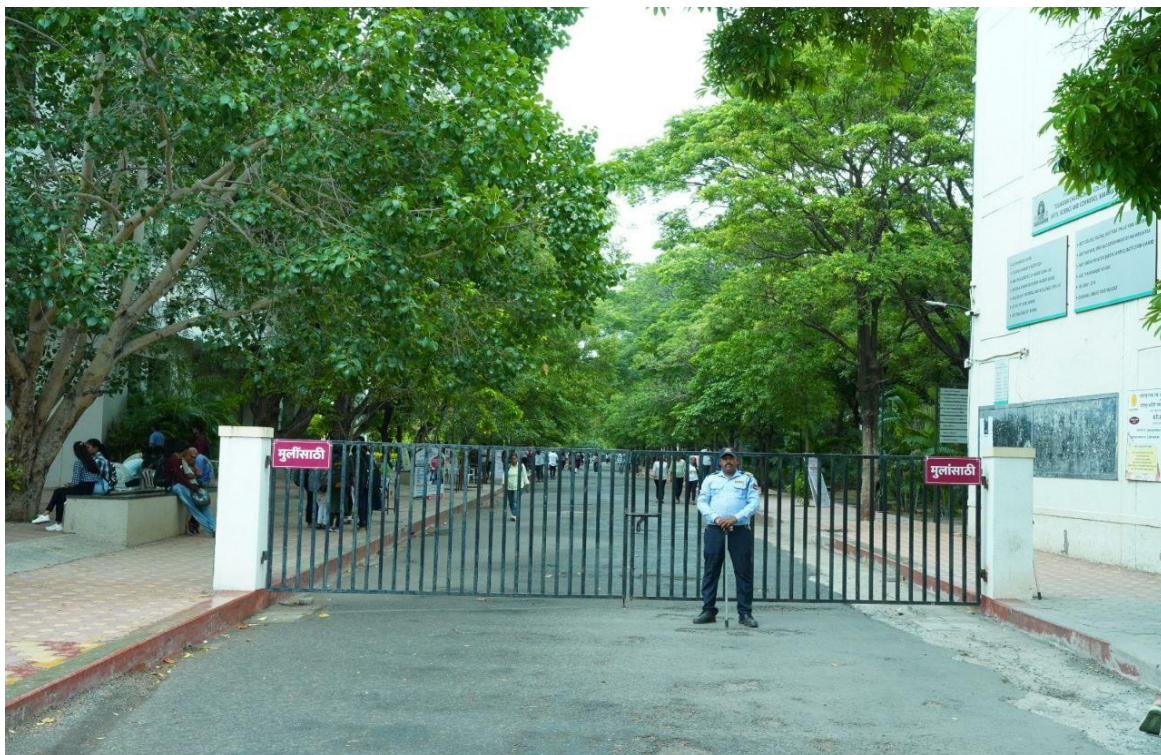


**Main Gate of the College**





**Internal Entrance Gate**



**No entry Vehicle point**







**Inside view of landscaping from second entrance gate**



**View of landscaping on the pathway**







**Inside view of pathway**



**Administrative building lawn**







**Landscaping near Administrative Building**



**Landscaping near Main Building**







**Greenery and landscaping behind main building**



**Vocational Centre Landscaping**







**Prerna Bhavan**



**Examination Centre Building**



## Tree Census and QR Coding of Plants

As a part of Green Initiatives, the college has done digitalization of plants on the campus. Tree census has been done wherein systematic survey of plants that collect data about trees in a college campus area often with the goal of understanding tree populations and biodiversity.

With QR codes linked to detailed plant profiles, our tree census fosters a deeper connection between the campus community and the natural environment surrounding them. Total 130 plants in campus area are mapped with QR code. After scanning QR code of plant it provides Botanical name, English name, Marathi name family and its medicinal uses. The generated QR code is mapped to a distinct tree species that is shown in the following photo. It provides an interactive way for people to access information about trees using their smart phones.



QR code for plant identification







**QR Coding of Plants in the campus**



**QR coded tree in the garden**





**Prof. Dr. Avinash S. Jagtap**  
M.Sc. Ph.D.  
PRINCIPAL

E-mail : principal.tccollege@gmail.com

॥ सिद्धिरनेकान्तात् ॥

Anekant Education Society's

**TULJARAM CHATURCHAND COLLEGE**  
of Arts, Science and Commerce, Baramati - 413102.

Dist. Pune. Maharashtra, India.

**Empowered Autonomous Status**

Religious Minority Institute

NAAC Reaccredited 'A+' Grade, CGPA 3.55

## Criterion VII: - Institutional Values and Best Practices

**7.2.1**  
**Q1M**

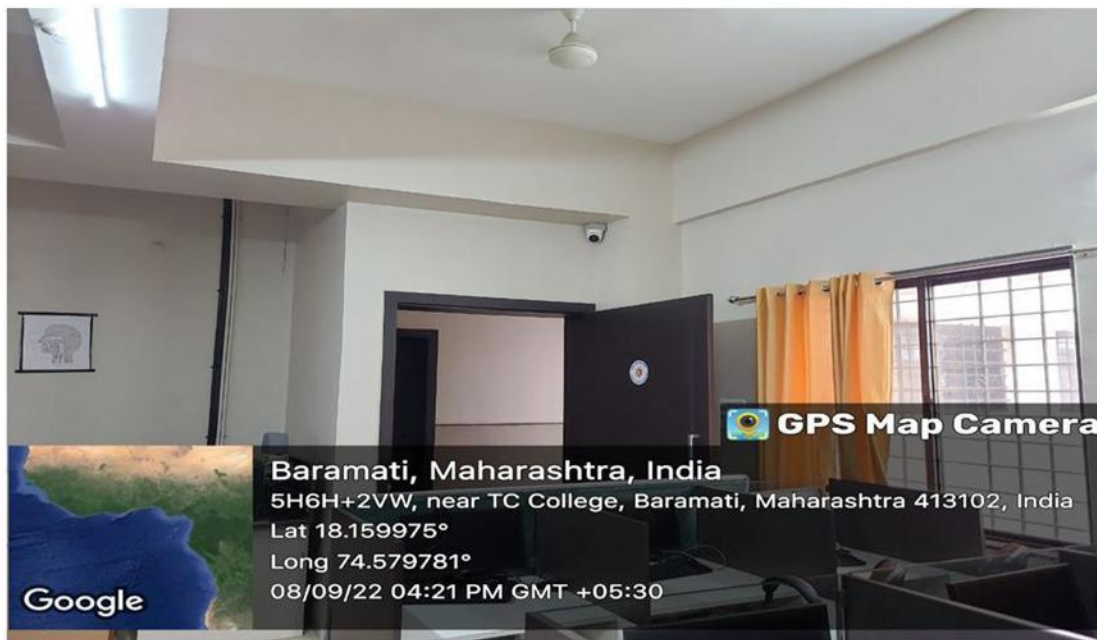
### **Best Practice-II** **Women Empowerment**

#### **INFRASTRUCTURAL DEVELOPMENT MEASURES**

##### **Safety and Security**

The college is committed to the goal of developing a safe and secure environment for women in the campus. The college is well equipped with a comprehensive CCTV system comprising 230 CP Plus cameras, monitored via five screens, installed at most of the places such as class rooms, central library, parking, administrative building, hostels, laboratories and corridors. The college has appointed four male and two female security guards in the campus. To address the grievances of lady students, the college has installed complaint boxes at appropriate places where students can drop their grievances. The institute is fully equipped with fire safety mechanism ensuring the safety and well-being of all individuals in the premises. Fire extinguishers are installed at corridors of all the buildings for safety against fire hazard.

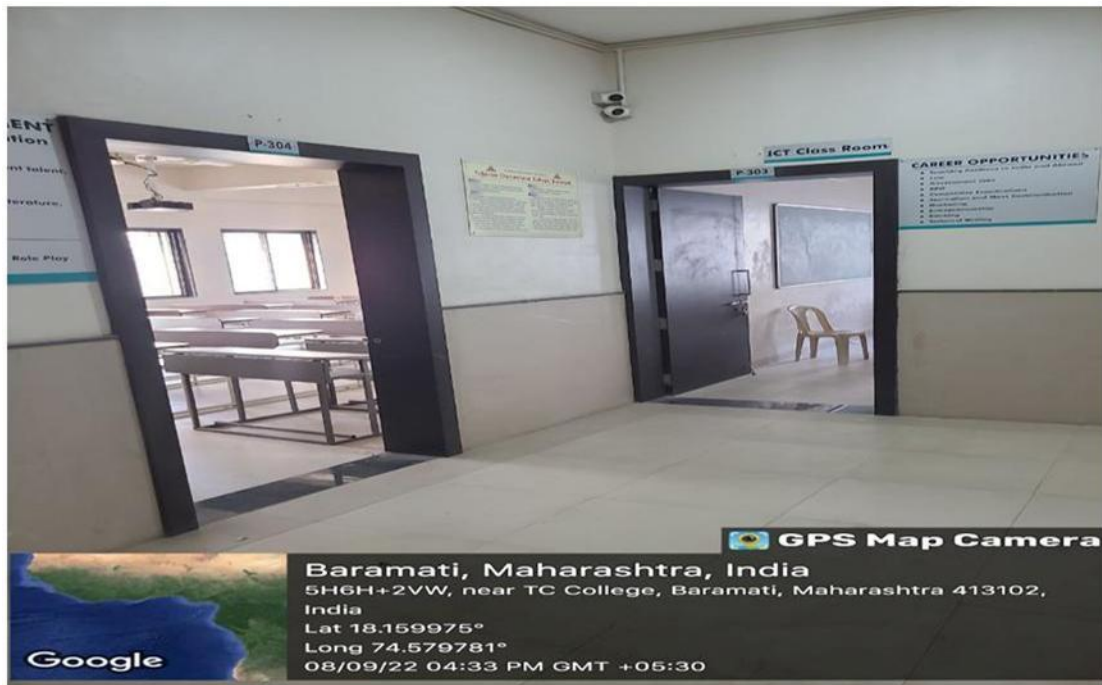
##### **CCTV Surveillance:**



**CCTV equipped classrooms**







CCTV at outside classroom



CCTV Surveillance monitor





**Centralized CCTV Surveillance Monitoring**

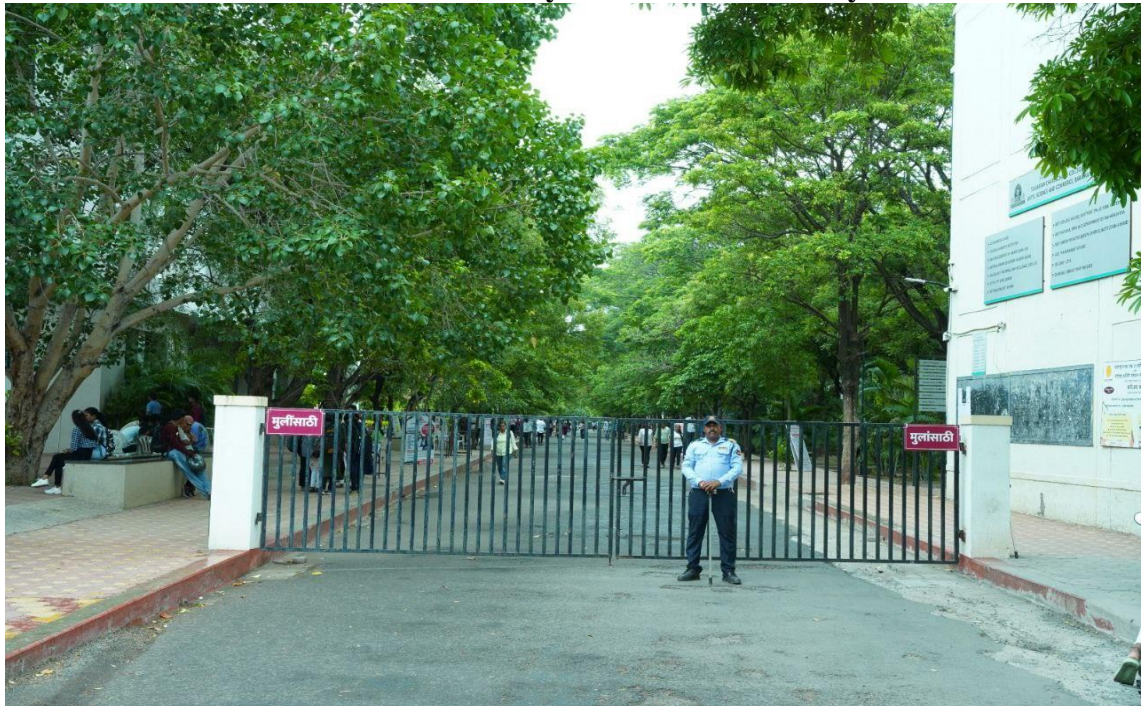




## SECURITY GUARDS



**Male and Female Security Guard at Main Entry Gate**



**Guard at Internal Security Gate**



## FIRE EXTINGUISHER



Fire Safety System





## COMPLAINT BOX



**Complaint Box at Administrative Building**

## Hostels for Girls and Working Women

The college has five women's hostels on the campus, four for students and one for working women with capacity of 1000 and 30 respectively. All these hostels are well furnished with the facilities like security, well managed and hygienic mess, RO drinking water, recreational hall with television and newspapers, Gym for physical fitness , health center with first aid kit. For safety and security of hostellers the 24 hr security is provided by the college. Additionally, biometric system is installed at entry and exit gate of each hostel wing. Spacious open space and parking facility is available at all girl's' hostels.





**Girls Hostel Wing No. 1**



**Hostel Wing 2**







**Hostel Wing 3**



**Hostel Wing 4**



**Hostel Wing 5**

**HOSTEL MESS**



**Dining Hall at Girl's Hostel**





## RECREATIONAL HALL AND GYM



**Recreational Hall at Girl's Hostel**



**Evening Prayer at Recreational Hall**





**Gym at Girls' Hostel**



**Girls doing workout in the gym**





## Health and Hygiene

As per UGC guidelines, the college has established "Student's Counseling Centre " comprising of a Professional Psychiatrist and two senior faculty of the institution to address the issues related to sexual harassment and other genders specific problems. The college has a well maintained Yoga Hall for meditation and Yoga practice. The girls' common room is made available for girl students to take rest and other personal and medical needs. This room is located in on ground floor itself for better and easy access. Availability of washroom, with 24 hour tap water, soap, covered dustbins, 'sanitary pads vending machine' and 'disposal machine' are ensured in the common room. Sanitary female staff is deployed to keep the ladies common rooms and washrooms clean and hygienic. Regulars health check-up and screenings are conducted to monitor student well being. The college maintains a separate sick room equipped with essential first aid and medical assistance.



**Counseling Cell for Mental Health**



## Yoga for Mindfulness



**Yoga Hall for Meditation and Health**



**Guided meditation at Yoga Hall**





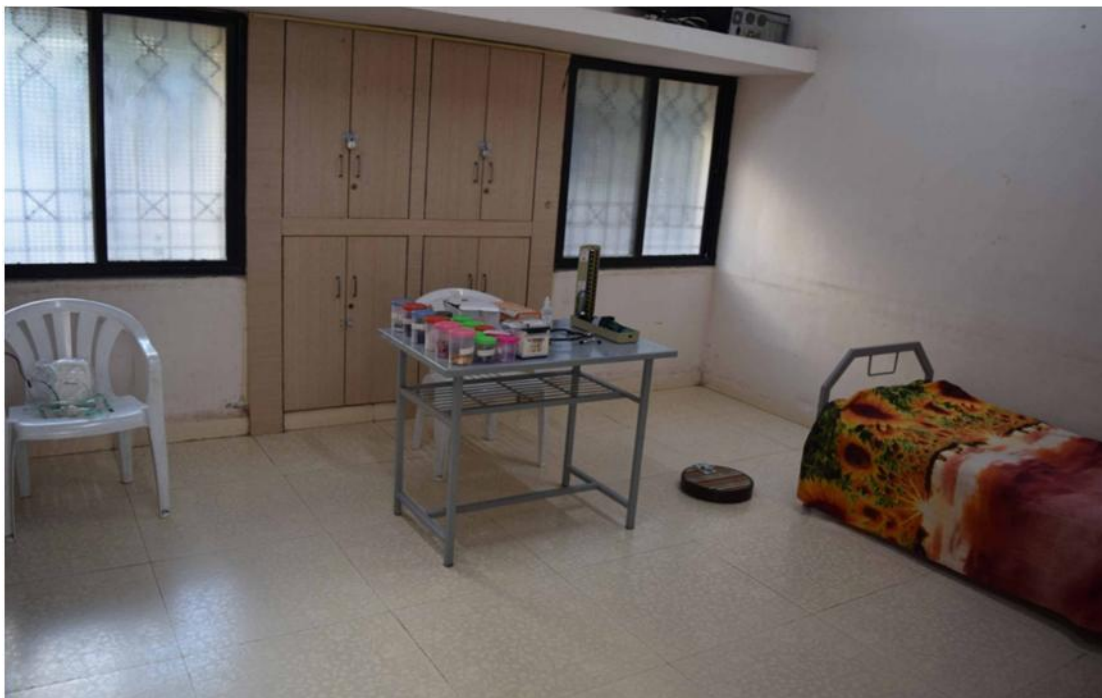
## Cultural Hall for Recreation



Students preparing for cultural performance



## Medical Health Centre



**Health Center with Primary Medical Aid**



**Free medical check-up for girls and women on the campus**





## Common Rooms and Washrooms



Rest Room for girl students



Rest Room for Women staff





**Washrooms for women at every floor**

