

## InfrastructureFacilities:

Facilities	Numbers	Facilities	Numbers
Built up Area	3,240 sq.ft	Optical bench	02
Laboratories	02	CRO	05
Dark Room	01	Digital balance	01
HOD Cabin	01	Digital Multimeters	11
Staff Room	01	Audio oscillators	05
Computers with internet facility	02	Planck's Constant apparatus	02
Printer	01	Spectrometer	03
GM Counters	26	Hall effect apparatus	01
Charts	16	Generator	01
e-Journalsande-books	INFLIBNET ( N-LIST)	Amplifier with sound system	01

## FacultyProfile:

Nameof faculty	Qualification	Designation	Experience
Prof. K Nagi Reddy	M.Sc., M.Phil.,	Asso. Professor	34Years
Miss Soumyashree V.D	M.Sc.,	Asst.Professor	03Years
Miss Sushmita S Damoji	M.Sc.,	Asst.Professor	01Years
Miss Preeti S Patil	M.Sc.,	Asst.Professor	01Years
Sri Sanjay J Kengre	BA	Menial staff	22Years

## Students Strength:

Year	CLASS	BOYS	GIRLS	Total	Grand Total
2021-22	B.Sc-I	38	18	56	<b>235</b>
	B.Sc-II	35	56	91	
	B.Sc-III	40	48	88	
2022-23	B.Sc-I	27	22	49	<b>183</b>
	B.Sc-II	37	16	53	
	B.Sc-III	31	50	81	
2023-24	B.Sc-I	13	23	36	<b>134</b>
	B.Sc-II	24	20	44	
	B.Sc-III	37	17	54	
2024-25	B.Sc-I	46	71	117	<b>172</b>
	B.Sc-II	05	20	25	
	B.Sc-III	13	20	33	

## Students Final Year Results:

Year	Semester	Total No. of Students Appeared	Total No. of Students Passed	1 <sup>st</sup> Class with Distinction	First Class	Second Class	Pass Class	Fail	Pass percentage
2021-22	V sem Paper I	94	89	45	25	18	01	05	94.68
	V sem Paper II	94	90	49	27	09	05	04	95.74
	VI sem Paper I	99	95	37	39	15	04	04	95.95
	VI sem Paper II	99	97	78	14	04	01	02	97.98
2022-23	V sem Paper I	78	75	43	28	3	1	3	96.2
	V sem Paper II	77	69	28	35	5	1	8	89.6
	VI sem Paper I	78	66	40	24	02	00	12	84.61
	VI sem Paper II	79	75	47	23	05	00	04	94.93
2023-24	V sem Paper I	42	41	32	06	02	01	01	97.61%
	V sem Paper II	43	42	34	07	01	00	01	97.67%
	VI sem Paper I	41	41	37	03	00	01	00	100%
	VI sem Paper II	41	41	36	04	01	00	00	100%

## ACTIVITIES:

### 1. Invited talk: IQAC Initiative an invited talk on Nano Materials

Department of physics organized IQAC initiative an invited talk on Nano materials on 13<sup>th</sup> June 2023. The event started at 12.30 pm and it was witnessed by 150 students of B.S, course The speaker of day was Dr Siddalinga Matteppanavar, Associate professor, BK College Chikodi. The programme was started with invocation song by Preeti Gujare and Rakshita Khot. Followed by it welcome speech presented by Prof. K Nagi Reddy HOD of Physics . Speaker of the day Dr Siddalinga Matteppanavar was introduced by Mr Rahul A Patil Assistant professor, Department of physics. Beloved principal Dr B.S.Kamble addressed the gathering by touching upon the importance of Nano materials and their applications.

Invited speaker of the day Dr Siddalinga Matteppanavar delivered a wonderful talk about the preparation of nanomaterials, their analysis, and their applications in the various fields. Specially stressed upon recent developments and their applications in the field of medicine and communication. The Talk was very informative and benefitted to our B.Sc students for their academic point of view.

### PHOTO GALARY





## Outcome of the Event

It was a great opportunity for students to enhance their domain knowledge in the field of nanoscience and nanotechnology, and they were motivated to learn more on these subjects. The Lecture also offered a deeper insight into the applications of nanotechnology in the field of science and technology.

## 2.Group discussion

On 7<sup>th</sup> July 2023 IQAC, Department of Physics organized Inauguration of Group discussion Activity for UG Students as per NEP Module. The event started at 10.30 am and it was witnessed by 55 students of B.S, course . Inaugural program me was presided by our beloved principal Dr B.S.Kambale.

The programme was started with invocation song by Kum. Sneha Kattimani. Followed by it, welcome speech presented by Shri. Rahul Patil.

Dr. B.S.Kambale, Principal of SSMS College was introduced by Prof. K. Nagi Reddy HOD of Department of physics.

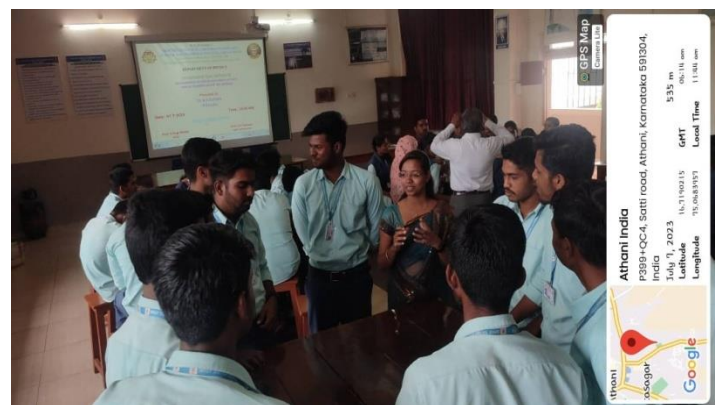
Prof. K. Nagi Reddy HOD of Department of physics, was addressed skeleton of the Group discussion activity Respected IQAC co-ordinator Prof.S.N.Talwar addressed the gathering by touching upon the importance of Group Discussion Activity.

Dr B.S.Kambale stressed upon Group Discussion guidelines as per NEP Module.

Miss Pooja B Chougala delivered vote of thanks.

Inaugural programme was anchored by Miss Soumyashree V.D

## Photo Gallery



This group discussion was held for B.Sc IV sem students as group activity as per NEP syllabus to assign internal marks.

Entire class is divided into five groups. For each group one topic is allotted for their discussion. For Each group assigned one Faculty as group guide and one among group as team leader.

#### **Outcome of the Event**

- It was a good way to engage the participants in a fruitful discussion
- Group discussion generates a creative thinking in all participants, something beyond the obvious answers and solution to a specific problem
- Generate more ideas and a structured presentation of a topic
- Improves analytical abilities to think on a particular given topic
- Enabled profound and in-depth understanding of the subject
- Provided different approaches to a topic
- Chance to listen, know and understand diverse opinions on a particular matter
- Help to improve confidence in public speaking platform

### **3. EDUCATIONAL TRIP TO GOA GOA SCIENCE CENTRE & DIGITAL PLANETARIUM**



A complete report based on the Science centre & Digital planetarium organized by **Department of Physics** on **13<sup>th</sup> 14<sup>th</sup> August, 2023**. A batch of 4<sup>th</sup> semester students along with faculties visited **Science & Digital Planetarium Centre** at Miramar, Panaji in Goa. In order to enhance their practical stimulation and to let them having an overview on the activities related to “**Scientific researches**” as well as phenomenon involved in creation and evolution of Solar system, Universe & Galaxies etc.,

#### **➤ Visited places**

##### **1) GOA SCIENCE CENTRE & DIGITAL PLANETARIUM CENTRE :**

On 13<sup>th</sup> August, 2023 morning at 10:30 A.M. we visited the **Science Centre & Digital Planetarium Centre**. It started with a 3-Dimensional Show, an unparalleled experience which displays the world of ocean & the creatures in it. By utilizing advanced stereo projection and polarized spectacles, the



show creates the illusion that the objects on the screen are right in front of you. The **3-D show** was about 15 minutes.

we visited the **Digital Planetarium** show which describes the perfect explanation of creation and evolution of the Universe, Galaxies as well as nature of all the planets present in the solar system. Equipped with the latest full dome digital video projection system, the planetarium offers an immersive experience that takes us on a journey through the sky. It is fantastic opportunity to gain knowledge about the mysterious universe and to look at the beauty of the night sky. The show lasts for half an hour i.e., 30 minutes.

The Science Centre consists of a park with exotic flowers, where visitors can learn and interact with large exhibits of **principles of Physics**. Quite a few programs are also conducted to demonstrate scientific principles to the student. The Science centre had amazing displays inside as well as outside. It features a range of interactive exhibits covering different scientific disciplines; we can also find scientific gadgets, books & souvenirs related to science and astronomy.

In Science centre the **Mirror Magic Gallery** boasts thirty interactive exhibit that allow us to delve into the world of images through reflection. We can experience the wonder of seeing our own images reflected in Curved mirrors, resulting in **peculiar** and distorted shapes. We were amazed at the power of the mirrors to transform and distort reality. We were surrounded by an endless a ray of reflections and the **kaleidoscope** exhibit, which creates a mesmerizing and ever-changing pattern of shapes and colors.

## 2) AGUADA FORT:

On 13<sup>th</sup> August 2023, at 3:30 P.M, we visited the **Aguada Fort** which is a massive and **marvelous Citadel** defining the landscape of Goa. The fort together with its lighthouse is one of the most visited attractions in Goa situated in Candolim. Aguada fort stands overlooking the Arabian Sea and offers mesmerizing views of the surrounding areas. The fort is categorized into two parts – the upper part and the lower part. The Upper part was designed to serve as a fort and huge watering station. The lower part extended a safe berth for ships belonging to the ancient rulers. The fort also features a gunpowder room, bastions, and a moat. Aguada fort holds a lot of attractions for visitors which includes the **lighthouse**, the **colossal water reservoir** and the **ammunition room** etc,

## 3) BASILICA OF BOM JESUS:

On 14<sup>th</sup> August 2023, morning at 10 A.M, we visited the **Basilica of Bom Jesus** (Church) it is a **world heritage site**. The main attraction of this most popular church in Goa is that it's architecture. The basilica is rich in history, art as well as in architecture. It is the only basilica that is **unplastered**. There is also a modern art gallery with paintings depicting various pictures. The architecture of Basilica of Bom Jesus is a classic form of plane architectural style. It is a **three-storied** structure that has an influence of **baroque** architecture.

## 4) ARCHAEOLOGICAL MUSEUM OF GOA:

On 14<sup>th</sup> August 2023, at 10:45 A.M, we visited the **Archaeological Museum of Goa**; one of the most important museums in Goa. The Museum has **eight galleries** that display a wide range of collection of beautiful artifacts of the Portuguese rule in India. The Museum also boasts a large collection of stamps and religious artifacts. Major highlights of the museum are –

- i) Fragments of sculpture from **Hindu temple** sites in Goa.
- ii) Postage **stamps** and **coins** issued by several **Hindu, Muslim** and **Portuguese** rulers.
- iii) Collection of Portuguese weapons like **rifles, swords** and **daggers**.
- iv) Upper and middle **Paleolithic** stone tools, **Microliths** and **Neolithic** Celts from Goa
- v) Ground plan of an ancient **Brahmanical** temple.
- vi) A statue of **Surya dev** dated to the 12<sup>th</sup> Century.

## 5) Shri Mangesh Temple:

On 14th August 2023, at 12:30 P.M we visited the **Shri Mangesh Temple**. The architecture of Mangesh Temple reflects a mix of Hindu, Christian and Muslim influences, and is illuminated during the annual **Jatra**, which is held in January. Domes, pilasters & balustrades are prominent features of the temple. Other notable features of the temple are:

Multi Story **Deepstambh** (multi storied lamp tower) Chandelier (inside the main hall of the temple) Water Tank & Canteen (which serves only vegetarian food). The main festival celebrated in Mangesh Temple is the annual Jatra, held in January. The presiding deity is taken out in a **palanquin** & paraded in enormous **chariots** during the festival. It is attended by thousands of devotees.

### 6) **The Harvalem Falls:**

On 14th August 2023, at 3:30 P.M we visited the **The Arvalem falls**, also known as the **Harvalem falls**, are located near Mapusa in North Goa. The falls themselves are in beautiful and majestic surroundings with the hilly slopes being coated in the **verdant greenery**, so characteristic of the Goa forests. The government has built and maintained a park near the waterfall. This is a great place to enjoy a serene look at the falls. Although it is not as imposing a sight as the famous Dudhsagar falls, it is less strenuous and easier to get to than the Dudhsagar falls, making it the perfect choice for a fun trip.

The intensity, with which the water crashes into the lake below, is a sight that remains etched in our memory for a long time. What is especially enjoyable is the fact that we are able to enjoy viewing the waterfall from a very close distance, thanks to the walkway with **secured railings** that takes us quite near to it.

### 7) **The Arvalem Caves:**

On 14th August 2023, at 5 P.M the group visited the **Arvalem caves**, also known as **Harvalem caves** in Goa, are human-made, rock-cut caves where the five exiled **Pandava** princes are said to have lived for a while. They prayed to **Lord Shiva** here and to this day there are **five** chambers here, each with a Shivalinga of its own.

There is also an alternative narrative that speaks of the **Buddhist** origins of the cave. The presence of a giant Buddha in the vicinity and the architectural style lend some credence to this theory. However, there is no confirmation, since the caves have the mystifying **Shivalingas**. This ambiguity gives these caves a **mysterious aura**.

History, archaeology, mythology, and beauty - everything comes together here at the **Arvalem caves**.

## PHOTO GALLERY







### Outcome of the trip:

The students experienced a unique knowledge and enriched themselves about Goa science & planetarium and other places, hence refreshed their minds by the end of the study Tour.

## 4. OUTREACH PROGRAMME:

### Objectives:

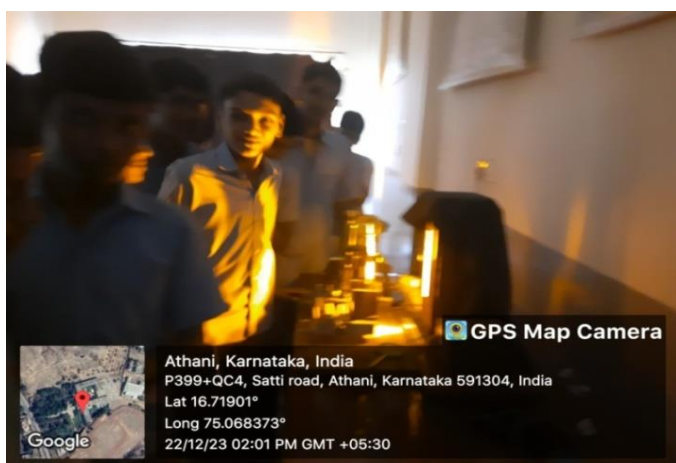
- The Students of 10<sup>th</sup> class from GHS (RMSA) TANGADI, visited to the Department of Physics, KLE Society's SSMS College Athani on 22/12/2023.
- To create awareness of communication skills and to make the students understand about practical experience.
- To enhance the students knowledge and provide them with proper understanding in practical skills and its importance.
- Without well practical knowledge members of Physics department were explained about experiments related to 10<sup>th</sup> class syllabus and students, learned the basics of electricity, light and magnetism.

In this Programme from our college the faculty members Shri. R. A. Patil, Miss. Pooja Chougala & Miss. Soumyashree .V. Deshinge. The HOD of Physics department Prof. K. Nagireddy delivered the lecture with practical demonstration of experiments in Physics. Total 39 students were visited Physics laboratory and were benefited by the practical knowledge. It was the most engaging practical for students to learn application physics. Some hints and techniques were given to the students about how to understand the physics and how to do practicals in Physics.

### PHOTO GALLERY OF OUTREACH PROGRAMME







## Outcomes:

- It creates awareness about basic practical experiments for 10<sup>th</sup> standard students.
- By physical demonstration of experiments the school children's are actively involved, impressed & benefited for their examination.
- As it is hands on programme students were explored towards the importance of basic science.
- The teachers asked few questions regarding applications and practical skills that time the response of the students was overwhelming.
- Students were satisfied by the lecture and they have expressed that they learnt new things in this lab and it was a new experience to them.

## 5. EXTENSION ACTIVITY

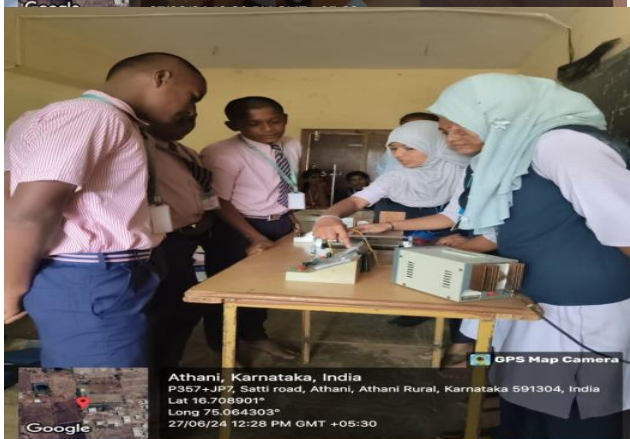
The department of physics visited and conducted extension activity in Morarji Desai residential school Madabhavi. The activity was conducted on 27/06/2024 for 10<sup>th</sup> class students related to their syllabus. It was conducted to create awareness of communication skills and to make the students understand about practical experience and enhance the students knowledge and provide them with proper understanding in seminar skills and its importance. At all levels of education students must be able to understand effectively. Without well practical knowledge students may face difficulties. Keeping this in mind physics department organized this particular activity to aware stude

In this activity from our college 15 students participated along with the faculty members Miss. Soumyashree Deshinge, Miss. Sushmita S. Damoji, Miss. Preeti S. Patil. The HOD of Physics department Prof. K. Nagireddy delivered the lecture with practical demonstration of experiments in Physics. Total 49 students were present in the class and were benefited by the class. It was the most engaging class for students to learn application physics. Some hints and techniques were given to the students about how to understand the physics and how to do practicals in physics. The class was followed by the interaction session with the students and the teachers asked few questions regarding applications and practical skills that time the response of the students was overwhelming. Students were satisfied by the lecture and they expressed that they learnt new things in this class and it was a new experience to them. The school authorities and staff cooperation was good. The extension activity was helpful to the school as well as our college. We express sense of gratitude to the authorities and all the staff members of the school.

## Out Come of the activity:

- By physical demonstration of experiments the school children's are very much impressed especially 10<sup>th</sup> standard students are much benefitted which are useful for their examination.
- By this activity students were explored towards the importance of basic science.
- Our college B.Sc students also benefitted and they learned methods teaching , communication skills and stage courage.

## PHOTO GALLERY OF EXTENSION ACTIVITY





## 5.. IQAC Initiative an invited talk on Waveform Generators & Filters

Department of physics organized IQAC initiative an invited talk on “Waveform Generators & Filters” on 22<sup>nd</sup> & 23<sup>rd</sup> July 2024. The event started at 12.30 pm and it was witnessed by 150 students of B.Sc, course. The speaker of day was Prof. Rajkumar M. Badiger, Associate professor, JT College Gadag.

The programme was started with invocation song by Kumari. Sneha Kattimani. Followed by it, welcome speech presented by Miss. Soumyashree V. Deshinge Assistant professor, Department of physics .

Speaker of the day Prof. Rajkumar M. Badiger was introduced by Prof. K. NagiReddy HOD of physics.

Beloved principal Dr B.S.Kamble addressed the gathering by touching upon the importance of Waveform Generators & Filters and their applications.

Invited speaker of the day Prof. Rajkumar M. Badiger delivered a wonderful talk about the Waveform Generators & Filters, their analysis, and their applications in the various fields. Specially stressed upon Networks, Filters and their applications in the field of network. The Talk was very informative and benefitted to our B.Sc students for their academic point of view.

### PHOTO GALARY



## 6. STUDENT SEMINAR:

The department of physics organized Student seminar as a part of internal assessment as per NEP guidelines. The student seminar was conducted from 09/12/2024 to 12/12/2024 for B.Sc V sem (P-I & P-II) students related to their syllabus. It was conducted to create awareness of communication skills and to make the students courageous and enhance the students knowledge and provide them with proper understanding in seminar skills and its importance. B.Sc V sem students must be able to explain the concepts effectively. Without well basic knowledge about Physics concepts students may face difficulties. Keeping this

in mind Physics department organized this Student seminar to aware studen

## Outcome of the Event

- It was a good way to engage the students in communication & presentation skills.
- Students gained basic knowledge on a particular topic.
- Improves analytical abilities to think on a particular given topic
- Enabled profound and in-depth understanding of the subject
- Provided different approaches to a topic.
- Chance to listen, know and understand diverse opinions on a particular matter
- Help to improves confidence in public speaking platform

## PHOTO GALLERY OF SEMINAR ACTIVITY

