

Mahatma Fule Arts, Commerce & Sitaramji Chaudhari Science Mahavidyalaya, Warud

ANNUAL REPORT

Department of Physics

Academic Year 2024-25

The Department of Physics presents its Annual Report for the academic year 2024-25. This report highlights the department's accomplishments in teaching, research, student development, and community engagement during the period from 11th June 2024 to 22nd April 2025.

DEPARTMENT PROFILE

The Department of Physics operates with a team of five dedicated faculty members committed to excellence in teaching, research, and extension activities. The department offers undergraduate and postgraduate programs in Physics, fostering scientific temperament and research aptitude among students.

FACULTY STRENGTH AND RESEARCH CONTRIBUTIONS

Consolidated Faculty Performance (2024-25)

The department takes pride in the research and academic achievements of its faculty members:

Faculty Member	Research Papers	Books/Chapters	Invited Lectures	Patents	Ph.D. Students	Workshops Organized
Dr. Y.S. Tamgadge	07	06	03	00	01	02
Dr. N.N. Sarkar	03	00	01	00	00	00
Miss A.B. Patil	01	02	02	00	00	00
Mr. V.R. Hiranwale	02	05	01	01	00	01
Dr. Reena Y. Bukale	04	02	01	00	00	00
TOTAL	17	15	08	01	01	03

Key Highlights:

- **17 Research Papers** published in peer-reviewed journals
- **15 Publications** including books or book chapters
- **08 Invited Lectures** delivered at conferences and seminars
- **01 Patent** awarded
- **01 Ph.D. Student** under guidance
- **03 Workshops/Training Programs** organized

DEPARTMENTAL INITIATIVES

1. Formation of Physics Society

Date: 31st August 2024

The Department of Physics established the Physics Society to promote scientific thinking, collaborative learning, and academic excellence among students. The society serves as a platform for organizing various academic and co-curricular activities throughout the year.

2. Guest Lecture on Career Opportunities

Title: "Career Opportunities in Physics"

Date: 31st August 2024

Resource Person: Dr. S.A. Waghuley, Head, Department of Physics, SGBAU Amravati

Organized by: Department of Physics

The department organized a guest lecture delivered by Dr. S.A. Waghuley, Head of the Department of Physics at Sant Gadge Baba Amravati University (SGBAU), Amravati. Dr. Waghuley provided comprehensive insights into diverse career prospects in physics, including opportunities in research institutions, industries, teaching, space technology, and emerging fields.

INNOVATIVE TEACHING PRACTICE

"BRAIN DIGGER" - Physics Quiz Board (Best Practice 2024-25)

The Department of Physics introduced an innovative teaching-learning initiative called "BRAIN DIGGER", a Physics Quiz Board designed to stimulate interest in physics and develop analytical thinking among students.

Implementation Strategy:

- Physics quizzes covering diverse topics were displayed on a Quiz Board
- Students were given one month to solve each quiz
- The initiative encouraged self-learning and peer discussions

Student Participation:

Many students actively participated in this initiative. Notable participants include:

1. Mr. Sarthak Taware - B.Sc. III, Semester V
2. Ms. Sumera Parvin Sayyed Imran - B.Sc. II, Semester III
3. Ms. Komal Suresh Gulhane - B.Sc. II, Semester III

Impact:

This best practice successfully created a culture of curiosity and continuous learning, encouraging students to explore physics beyond the prescribed curriculum.

STUDENT ACHIEVEMENTS AND PARTICIPATION

1. Competition Success

Student: Samiksha Gotkar

Achievement: 2nd Prize in Seminar Competition

Organized by: Department of Physics, Nabira College, Katol

Samiksha Gotkar's achievement brought laurels to the department and demonstrated the quality of academic training provided to students.

2. Workshop Participation

Workshop: Scilab Workshop

Venue: Shri Shivaji Science College, Amravati

Participants: 2 students from the department

The students gained valuable experience in computational tools and scientific programming, enhancing their technical skills.

3. Internship and Work Experience Program

Total Participants: 25 students (UG and PG)

Duration: Throughout the academic year 2024-25

Twenty-five students successfully completed internship and work experience programs in various organizations/institutions. This hands-on exposure provided practical insights into real-world applications of physics and enhanced their employability skills.

EXTENSION AND OUTREACH ACTIVITIES

1. "Lab-oratory of Fun" - Community Outreach Program

Date: 21st December 2024

Occasion: 126th Birth Anniversary of Dr. Panjabrao alias Bhausaheb Deshmukh

Target Group: School students from 8th to 11th Standard

Participation Statistics:

- **B.Sc. Student Volunteers:** 30 students
- **School Students:** 50 students from various schools

Activities Conducted:

B.Sc. students prepared and demonstrated:

- Scientific experiments
- Working models
- Interactive physics demonstrations
- Explanations of fundamental concepts

Outcomes:

The program was highly successful in creating awareness about physics among young students. The interactive demonstrations helped demystify complex concepts and inspired many school students to consider physics for higher studies.

2. National Science Day Celebration

Date: 28th February 2025

Theme: Celebration of Scientific Spirit

Activity: Demonstration of Experimental Setups

Coordinators: Mr. V.R. Hiranwale and Dr. N.N. Sarkar

The department celebrated National Science Day with great enthusiasm. Students and faculty members together organized experimental demonstrations showcasing various physics principles. The event emphasized the importance of science in everyday life and encouraged scientific inquiry among participants.

INFRASTRUCTURE AND FACILITIES

The department continues to maintain well-equipped laboratories and learning resources to facilitate quality education and research. Regular upgradation of equipment and learning materials ensures that students receive contemporary education in physics.

CONCLUSION

The academic year 2024-25 has been productive and eventful for the Department of Physics. With significant contributions in research (17 papers), publications (15 books/chapters), and a patent award, the faculty has maintained high academic standards. The innovative "BRAIN DIGGER" initiative, successful extension activities reaching 50 school students, and notable student achievements including 25 internship completions demonstrate the department's commitment to holistic education.

The guest lecture by Dr. S.A. Waghuley from SGBAU Amravati provided valuable career guidance to our students. The department's extension activities, particularly the "Laboratory of Fun" program, successfully bridged the gap between theoretical knowledge and practical application while contributing to community development.

The department extends its gratitude to the college management for their continuous support and encouragement. We remain committed to providing quality education, promoting research culture, and contributing to society through our extension activities.

(Dr. N. N. Sarkar)

(Dr. S. V. Satpute)

(Dr. D. V. Hande)

Shri Shivaji Education Society Amravati

Mahatma Fule Arts, Commerce & Sitaramji Chaudhari Science Mahavidyalaya Warud

Department of Physics

ANNUAL REPORT (2023-24)

Sr. No.	Class	Subject	Student Appeared	Pass	Passing (%)	Teachers Name
1	B.Sc. – I (SEM-I)	Physics	65	22	33.84	All Teacher Unit wise
2	B.Sc. – II(SEM-III)	Physics	49	20	39.18	All Teacher Unit wise
3	B.Sc. – III (SEM-V)	Physics	42	31	73.80	All Teacher Unit wise
4	B.Sc. – I (SEM-II)	Physics	61	27	44.26	All Teacher Unit wise
5	B.Sc. – II(SEM-IV)	Physics	46	18	39.80	All Teacher Unit wise
6	B.Sc. – III (SEM-VI)	Physics	43	36	83.72	All Teacher Unit wise
7	M.Sc.- SEM-I	Research Methodology IPR	06	05	83.33	Dr. N.N. Sarkar
		Mathematical Physics	06	03	50	DR. N.N.Sarkar
		Classical Mechanics	06	03	50	Mr. V.R. Hiranwale
		Quantum Mechanics -I	06	01	16.66	Mr. V.R. Hiranwale
		Computational Method &C program	06	00	00	All Teacher Unit wise
8	M.Sc. SEM-II	Quantum Mechanics II	06	00	00	Mr. V.R. Hiranwale
		Electromagnetic Theory	06	01	16.66	All Teacher Unit wise
		Atomic and Molecular Physics	06	04	66.66	DR. N.N.Sarkar
		Network Theorems and SSD	06	02	33.33	DR. N.N.Sarkar
09	M.Sc. SEM-III	Statistical Mechanics	02	02	100	Mr. V.R. Hiranwale
		Atomic & Molecular Physics	02	02	100	DR. N.N.Sarkar
		Radiation & Plasma Physics	02	02	100	Mr. V.R. Hiranwale

		Condense Matter Physics-I	02	02	100	DR. N.N.Sarkar
10	M.Sc. –SEM -IV	Nuclear and Particle Physics	02	01	50	Mr. V.R. Hiranwale
		OPAMP	02	01	50	Mr. V.R. Hiranwale
		Nano-science	02	01	50	DR. N.N.Sarkar
		Condense MatterPhysics-II	02	01	50	DR. N.N.Sarkar

This session was started from 3rd July 2023 to 28th April 2024. Dr. Naresh N. Sarkar Joined the Department on dated 11/08/2023, Dr. Y.S. Tamgadgehas been transferred to ShriShivaji Arts, Commerce and Science College Motala, Dist.Buldhana. . Dr. Naresh N. Sarkar has been appointed as Head department of Physics. Dr. Y.S. Tamgadge joined the Department of Physics on dated 15/02/2024.

Results.

Name of Teachers: (1) Dr. N.N. Sarkar (**NNS**) (2) Dr. Y.S. Tamgade (**YST**)
(3) Ms. A.B. Patil (**ABP**) (4) Mr. V.R. Hiranwale (5) Dr. R.Y. Bakale (**RYB**)

1. Student Achievement:

Mr.PrathameshWankhade, a final-year B.Sc. student, brought honour to the department by securing the 2nd prize at the Inter-Collegiate University level seminar competition organized by J. D. Patil College, Daryapur, District Amravati. His outstanding performance reflects the department's commitment to nurturing talent and academic excellence among its students.

2. Teachers Achievement:

- Dr. Naresh N. Sarkar has been awarded as a National award for Best Researcher in Physics by the Society for Technologically Advance Material of India, at the Place of SMT. RajkamalBaburaoTidkeMahavidyalayaMouda Nagpur. In a National Conference.
- Dr.Naresh N. Sarkar has been awarded as a National award for Best Teacher In Physics on 5th May 2024 at Raipur Chattisgarh by the Society for Technologically Advance Material of India

3. There are 06 Students have taken admission in M.Sc. Course in Physics in 2023-24 session.

4. Bridge Course for B.Sc. Sem I has been conducted during the session

5. **Invited Talk on Astrophysics - 5/3/2024**

Dr. P. A. Nagpure delivered an engaging talk on cutting-edge developments in astrophysics, elucidating key theories and discoveries shaping the field. His presentation captivated the audience, offering valuable perspectives on the mysteries of the cosmos and the challenges of astrophysical research.

6. Sky watch Activity- 5/3/2024 The Skywatch activity and Invited Talk on Astrophysics held on March 5, 2024, provided a captivating journey into the realm of celestial phenomena and astrophysical research. Dr. P. A. Nagpure, a distinguished Physicist, graced the event with his profound insights and expertise, The Participants were treated to a mesmerizing celestial spectacle as they gazed upon the night sky through telescopes. Observations of celestial bodies, including planets, stars, and nebulae, instilled a sense of wonder and awe, fostering an appreciation for the vastness of the universe, The Skywatch activity and Talk on Astrophysics provided a unique opportunity for students and faculty to delve into the wonders of the universe and engage with forefront research in the field of astrophysics, inspiring a renewed passion for exploration and discovery.

7. World Energy Conservation Day was celebrated on 14th Dec. 2023.

8. Department of Physics has celebrated **National Science Day (NSD)-2024** on 28th February 2024 and organized "Poster Exhibition" on the theme "Global Science for Global Well-being" for the students. Three best posters have been awarded with Memento along with certificates. On this occasion, a movie "Gravity" was screened on dated 28th February 2024 for the students and staff.

9. Bridge Course for B.Sc. Sem II and Sem IV have been conducted during the session

10. Brain Digger Activity

The Brain Digger Activity, conducted monthly throughout the session, served as a platform for nurturing intellectual curiosity and fostering a culture of research excellence within the department. Each Brain Digger Activity encompassed a diverse range of topics, spanning theoretical and experimental domains of physics, and provided opportunities for students to showcase their creativity and analytical skills. The Brain Digger Activity emerged as a cornerstone of academic enrichment within the Department of Physics, empowering students to explore new frontiers of knowledge and make meaningful contributions to the advancement of science.

11. Department of Physics has conducted a **Physics Department Grievance Cell** for immediate and effective redressal to the problems reported by the students and work towards providing a safe and secure atmosphere for the holistic growth of students

12. Research output

Sr.No	Name of Teacher	Articles in UGC CARE	Article in Other Journal	Conference Presentation	Book/ Chapter Published
1	Dr. N.N. Sarkar	0	0	1	0
2	Dr.Y.S.Tamgadge	0	3	1	1
3	Ms. A.B. Patil	0	0	1	0
4	Mr.V.R.Hiranwale	0	0	1	1
5	Dr. R.Y. Bakale	0	1	1	0

Department of Physics all Activity 2023-24

Name of the capability Enhancement program	Date of implementation	Number of Students Enrolled	Name of the agencies/consultants involved with contact detail(if any)
Science Day Celebration & Poster exhibition	28/02/2024	80	Dr. G.N Chaudhari
Sky watch Activity	5/3/2024	80	Dr. P.A. Nagpure
Invited Talk on Astrophysics	5/3/2024	45	Dr. P.A. Nagpure
Brain digger	15/08/2024		

Science Day

Shri. Shivaji Education Society, Amravati's
Mahatma Fule Arts, Commerce & Sitaramji Chaudhari Science College, Warud,
Dist. Amravati

Department of Physics

A Report on National Science Day & Poster Exhibition 2024

Poster Exhibition for the academic session 2023-24 was organized by the Department of Physics on the occasion of National Science Day on 28th February 2024. Large numbers of B.Sc. Students participated in this activity and they actively prepared and presented the posters

on the theme “Indigenous Technologies for viksitbharat”. Approximately 84 students participated and presented 29 posters in the event.

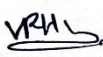
The Program was inaugurated at the hands of Hon’ble Principal Dr.G. N. Chaudhari accompanied by Dr. V. S. Bawane, Mr. R. R. Zoting, Dr. R. Wadhbudhe, Dr.Kondulkar, Dr.G. K. Reddy, etc. Dr. R. P. Ganorkar andDr.Kondulkar were invited as the Judges for the evaluation of best posters. All dignitaries visited the exhibition and encouraged the students for their efforts. Various staff members also visited the exhibition. Best Posters were awarded to following students with Certificate for Rank I, II & III respectively.

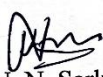
PN	Topic	SN	Name of Student(s)	Class	Rank
05	“Indigenous Technologies for viksitbharat”.		Mr.PrathamWankhade Ku. Rani Galbale Ku. KhushiBhumbar Ku. Rita Gawande	B.Sc. III	I
23	“Indigenous Technologies for viksitbharat”.	1	Ku. Krutika Pickle	B.Sc. II	II
		2	Ku. ChakuliKadu	B.Sc. II	
		3	Ku. Sanjanawadhbudhe Ku. Kalyanikalamkar		
17	G-20		Ku. JanhviBandhe Ku. ShivaniBahurupi Ku. SanjanaJawarkar	Msc. II Zoo	III






Date: 28-02-2024


 (Mr. V. R. Hiranwale)
 Coordinator


 (Dr. N. N. Sarkar)
 Head
 Deptt. of Physics
 Mahatma Fule Arts, Com & Sitaramji
 Chaudhari Science Mahavidyalaya,
 Warud, Dist. Amravati


 (Dr. G.N. Chaudhari)
 Principal,
 Mahatma Fule Arts, Com & Sitaramji
 Chaudhari Science Mahavidyalaya,
 Warud, Dist Amravati

**Mahatma Fule Arts Commerce and Sitaramji Chaudhari Science Mahavidyalaya Warud
National Science Day 2024**

Poster Competition

Date: 28/02/2024

List of Participants

S.No.	Name of students	Class	Subject	Signature
1	Ku.Purva Ande	B.Sc. III		<i>Purva Ande</i>
2	Ku.Sakshi Shende	B.Sc. III		<i>Sakshi Shende</i>
3	Ku.Tanushri Kadu	B.Sc. III		<i>Tanushri Kadu</i>
4	Ku.Samrudhi Babulkar	B.Sc. III		<i>Samrudhi Babulkar</i>
5	Ku.Divya Umekar	B.Sc. III		<i>Divya Umekar</i>
6	Ku.Sakshi Farkade	B.Sc. III		<i>Sakshi Farkade</i>
7	Ku.Vasuda Gawande	B.Sc. III		<i>Vasuda Gawande</i>
8	Mr.Amit Chavhan	B.Sc. III		A.P.C.
9	Ku.Minal Gohad	B.Sc. III		<i>Minal Gohad</i>
10	Ku.Tanushri Pund	B.Sc. III		<i>Tanushri Pund</i>
11	Mr.Vaibhav Khode	B.Sc. III		
12	Mr.Yash Murhekar	B.Sc. III		<i>Yash Murhekar</i>
13	Ku.Sanika Kene	B.Sc. III		<i>Sanika Kene</i>
14	Ku.Rutuja Pachghare	B.Sc. III		<i>Rutuja Pachghare</i>
15	Mr.Pratham Wankhede	B.Sc. III		<i>Pratham Wankhede</i>
16	Ku.Rani Galbale	B.Sc. III		<i>Rani Galbale</i>
17	Ku.Khushi Dhumber	B.Sc. III		<i>Khushi Dhumber</i>
18	Ku.Rita Gawande	B.Sc. III		<i>Rita Gawande</i>
19	Ku.Arti Vinchurkar	B.Sc. III		<i>Arti Vinchurkar</i>
20	Ku.Bhagyashri Banait	B.Sc. III		<i>Bhagyashri Banait</i>
21	Ku.Pranjali Dudhkaware	B.Sc. III		<i>Pranjali Dudhkaware</i>
22	Ku.Bhumika Hete	B.Sc. III		<i>Bhumika Hete</i>
23	Ku.Monishkhatankar	B.Sc. III		<i>Monishkhatankar</i>
24	Ku.Khushali Pachare	B.Sc. III		<i>Khushali Pachare</i>
25	Ku.Akansha Pokle	B.Sc. III		<i>Akansha Pokle</i>
26	Ku.Kamini Ghormade	B.Sc. III		<i>Kamini Ghormade</i>
27	Ku.Ankita Pandhare	B.Sc. III		<i>Ankita Pandhare</i>
28	Ku.Bhavika D.Almast	M.Sc.1	Botany	<i>Bhavika D.Almast</i>
29	Ku.Chaitali A. Tingse Tingane	M.Sc.1	Botany	<i>C.A.Tingane</i>
30	Ku.Minal Maski (Meenal)	M.Sc.1	Botany	<i>Minal Maski</i>
31	Ku.Ksitija Harle (Kobitija)	M.Sc.1	Botany	<i>Ksitija Harle</i>
32	Ku.Utkarsha Satpute	B.Sc. III		<i>Utkarsha Satpute</i>
33	Ku.Priya Kubde	B.Sc. III		<i>Priya Kubde</i>
34	Ku.Sakshi Dhote	B.Sc. III		<i>Sakshi Dhote</i>
35	Mr.Shubham Dhoke	B.Sc. III		<i>Shubham Dhoke</i>
36	Ku.Tejaswini Damodhar Dhanorkar	B.Sc. III		<i>Tejaswini Dhanorkar</i>
37	Ku.Bhagyashri Raut	B.Sc. III		<i>Bhagyashri Raut</i>
38	Ku.Arti Utkhede	B.Sc. III		<i>Arti Utkhede</i>
39	Ku.Sansruti Dharme	B.Sc. III		<i>Sansruti Dharme</i>
40	Mr.Ayush Mishra	B.Sc. II	CPM	<i>Ayush Mishra</i>

Ayush

Sky watch Activity

Mahatma Fule Arts, Commerce & Sitaramji Chaudhari Science Mahavidyalaya, Warud

Report on Sky Watch Activity

Date: March 5, 2024

Time: 7:00 PM to 9:00 PM

Venue: Mahatma Fule Arts, Commerce & Sitaramji Chaudhari Science Mahavidyalaya, Warud

On the evening of March 5, 2024, Mahatma Fule Arts, Commerce & Sitaramji Chaudhari Science Mahavidyalaya, Warud, organized an enriching Sky Watch activity under the auspices of the Department of Physics. This engaging event aimed to provide participants with an opportunity to explore the wonders of the night sky and deepen their understanding of astronomy.

Organizing Committee:

Convener: Dr. Naresh N. Sarkar

Coordinator: Mr. V. R. Hiranwale

Organizing Committee Members: Dr. Y. S. Tamgadge, Mrs. Dr. R. Y. Bakale, Mrs. A. B. Patil

Event Leadership:

Chairperson: Dr. G. N. Chaudhari

Resource Person: Dr. P. A. Nagpure

Dr. P. A. Nagpure, from the Department of Physics at Shri Shivaji Science College, Amravati, served as the distinguished resource person for the Sky Watch activity. With his expertise in astrophysics, Dr. P. A. Nagpure delivered an enlightening session, unraveling the mysteries of the solar system and the galaxy.

Highlights of the Activity:

Dr. P.A. Nagpure captivated the audience with his elucidation of the solar system, shedding light on the celestial bodies that populate it. Furthermore, he delved into the intricacies of galaxies, unraveling their enigmatic nature and expanding the participants' horizons.

In addition to the theoretical insights provided, Dr.Nagpure offered practical guidance on how to observe the sky effectively. He introduced participants to the use of high-resolution telescopes and Sky Map apps, empowering them to explore the night sky with confidence and clarity.

Attendance:

Approximately 60 enthusiastic students actively participated in the Sky Watch activity, eager to absorb the knowledge imparted by Dr.Nagpure. Moreover, the event drew the interest of around 20 visitors from Warud city, who attended with their families, further enriching the experience.

Glimpses of Program





Conclusion:

The Sky Watch activity organized by the Department of Physics at Mahatma Fule Arts, Commerce & Sitaramji Chaudhari Science Mahavidyalaya, Warud, proved to be a resounding success. Through the guidance of Dr. P.A. Nagpure and the dedication of the organizing committee, participants gained valuable insights into the realms of astronomy and astrophysics. The event not only fostered a deeper appreciation for the wonders of the universe but also inspired curiosity and exploration among the attendees. Such initiatives serve as catalysts for the promotion of scientific knowledge and curiosity, paving the way for future endeavors in the field of astronomy.

Convener & HOD

[Signature]
Dr. Naresh N. Sarkar
 Head
 Deptt. of Physics
 Mahatma Fule Arts, Com & Sitaramji
 Chaudhari Science Mahavidyalaya,
 Warud, Dist Amravati

Coordinator

[Signature]
Mr. V. R. Hiranwale

Principal
[Signature]
Dr. G. N. Chaudhari

PRINCIPAL,
 Mahatma Fule Arts, Com & Sitaramji
 Chaudhari Science Mahavidyalaya,
 Warud, Dist Amravati

Shri Shivaji Education Society Amravati

Mahatma Fule Arts, Commerce & Sitaramji Chaudhari Science Mahavidyalaya warud.

Sky Watch Activity

Organize by Department t of Physics

Date 05/03/2024

Sr. No.	Name of Students	Class	Signature of Students
1	Shubham R. Jalpachi	B.Sc. I	<i>[Signature]</i>
2	Prachi K. Wadbude	BSC. II (Pcm)	<i>[Signature]</i>
3	Payal G. Maski	BSC. II (Pcm)	<i>[Signature]</i>
4	Mohini N. Satpute	— / —	<i>[Signature]</i>
5	Kajyami A. Vansutre	— / —	<i>[Signature]</i>
6	Mahak J. Shah	BSC. I (CPM)	<i>[Signature]</i>
7	Muskan D. Kadve	BSC. I (Pcm)	<i>[Signature]</i>
8	Sanjana J. Dobare	B.S.C. - I (CPM)	<i>[Signature]</i>
9	Rahila A. Ansari Khan	BSC. II (Pcm)	<i>[Signature]</i>
10	Aateka Gadaf	BSC. II (Pcm)	<i>[Signature]</i>
11	Javeriya Kazi	BSC. II (CPM)	<i>[Signature]</i>
12	Alma Sheikh	B.S.C. - II (Pcm)	<i>[Signature]</i>
13	Radhika B. Pawar	B.S.C. - III (Pcm)	<i>[Signature]</i>
14	Sakshi D. Dhote	— / — (Pcm)	<i>[Signature]</i>
15	Priya G. Kubade	— / —	<i>[Signature]</i>
16	Sanika M. Kene	— / —	<i>[Signature]</i>
17	Dhanashri B. Wasule	BSC II (Pcm)	<i>[Signature]</i>
18	Mohini D. Patil	— / —	<i>[Signature]</i>
19	Anshika S. Tongare	— / —	<i>[Signature]</i>
20	Chakuli C. Kady	— / —	<i>[Signature]</i>
21	Sanjana Y. Wadbude	— / —	<i>[Signature]</i>
22	Ku. Minal K. Gohad	B.S.C III	<i>[Signature]</i>
23	Ku. Tanushri A. Pand	B.S.C III	<i>[Signature]</i>
24	Ku. Sakshi D. Ingole	B.S.C I st	<i>[Signature]</i>
25	Mahwish Saba H.R. Khem	B.S.C 1st	<i>[Signature]</i>
26	Gayatri Subhash Bhute	B.S.C I	<i>[Signature]</i>
27	Bhagyashri Sanjay Makode.	B.S.C I	<i>[Signature]</i>
28	Ku. Jemal Suresh Gulhare	B.S.C I	<i>[Signature]</i>
29	Yogini D. Thote	B.S.C I	<i>[Signature]</i>
30	Achal S. Somkuwar	B.S.C I	<i>[Signature]</i>
31	Kajal A. Niswade.	B.S.C I	<i>[Signature]</i>
32	Reveti P. Sawade	B.S.C I	<i>[Signature]</i>
33	Devrani B. Kady	B.S.C I	<i>[Signature]</i>
34	Rechikay R. Budwarty	B.S.C I	<i>[Signature]</i>
35	Vedanti H. Hale	BSC 2 nd	<i>[Signature]</i>

Invited Talk on Astrophysics

**Mahatma Fule Arts, Commerce & Sitaramji Chaudhari Science
Mahavidyalaya, Warud**

Report on Invited Talk

Topic: Astrophysics

Date: March 5, 2024

Venue: Mahatma Fule Arts, Commerce & Sitaramji Chaudhari Science Mahavidyalaya, Warud
The Department of Physics at Mahatma Fule Arts, Commerce & Sitaramji Chaudhari Science Mahavidyalaya, Warud, organized an insightful event on **Astrophysics** on March 5, 2024. The distinguished invited speaker for the event was **Dr. P.A. Nagpure**, hailing from the Department of Physics at Shri Shivaji Science College, Amravati.

Organizing Committee:

Convener: Dr. Naresh N. Sarkar

Coordinator: Mr. V. R. Hiranwale

Organizing Committee Members: Dr. Y. S. Tamgadge, Mrs. Dr. R. Y. Bakale, Mrs. A. B. Patil

Event Leadership:

Chairperson: Dr. G. N. Chaudhari

IQAC Coordinator: Dr. Sanjay Satpute

Talk Highlights:

Dr. P.A. Nagpure commenced the event by delving into the fascinating world of Astrophysics. He provided an insightful presentation on how the Indian Calendar is intricately based on the position of the Sun, elucidating its scientific significance. The talk not only offered a glimpse into the cultural and historical aspects of the Indian Calendar but also shed light on its scientific underpinnings.

Attendance:

Approximately 100 students actively participated in the Astrophysics talk and Sky Watch activity. Additionally, the event attracted around 30 visitors from Warud city, who enthusiastically engaged in the activities alongside their families. The collective interest and engagement underscored the success of the event in fostering a community of science enthusiasts.


Glimpses of Program



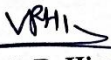
Conclusion:

The invited talk on Astrophysics organized by the Department of Physics, at Mahatma Fule Arts, Commerce & Sitaramji Chaudhari Science Mahavidyalaya, Warud, proved to be a fruitful and engaging endeavor. The collaboration between the organizers, distinguished speaker, and active participation from students and the community created a memorable event that contributed to the promotion of scientific knowledge and curiosity in the field of astrophysics. The success of this event sets a promising precedent for future science outreach initiative

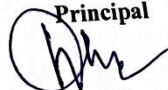
Convener & HOD


Dr. Naresh N. Sarkar
Head
Deptt. of Physics
Mahatma Fule Arts, Com & Sitaramji
Chaudhari Science Mahavidyalaya,
Warud, Dist Amravati

Coordinator


Mr. V. R. Hiranwale

Principal


Dr. G. N. Chaudhari

PRINCIPAL,
Mahatma Fule Arts, Com. & Sitaramji
Chaudhari Science Mahavidyalaya,
Warud, Dist Amravati

Shri Shivaji Education Society Amravati

Mahatma Fule Arts, Commerce & Sitaramji Chaudhari Science Mahavidyalaya warud.

Invited talk on Astrophysics

Organize by Department t of Physics

Date 05/03/2024

Sr. No.	Name of Students	Class	Signature of Students
1)	Ku. Minal Kishor Gohad	B.Sc III	<i>Gohad</i>
2)	Ku. Tanushri Anil Rao Pand	B.Sc III	<i>Tanushri</i>
3)	Ku. Sakshi D. Ingole	B.Sc I st	<i>Ingole</i>
4)	Ku. Sanjana J. Dobare	B.Sc I st	<i>Sanjana</i>
5)	Ku. Bhaarti M. Bawade.	B.Sc I st	<i>Bawade</i>
6)	Ku. Umme Habiba Arif Khan	B.Sc I st	<i>UHabiba</i>
7)	Ku Mahwish Saba H.R. Khan	B.Sc I st	<i>Rahman</i>
8)	Gayatri subhash Bhute	B.Sc I st	<i>Bhute</i>
9)	Bhagyashri Sanjay Mankode	B.Sc I st	<i>S.Mankode</i>
10)	Ku. Komal Suresh Gulhane	B.Sc I st	<i>Gulhan</i>
11)	Ku. Yogini D. Thote	B.Sc I st	<i>Thote</i>
12)	Ku. Adchal S. Samkuwar	B.Sc I st	<i>Samkuwar</i>
13)	Ku Revati P. Salode	B.Sc I st	<i>Salode</i>
14)	Dempani B. Kadu	B.Sc I st	<i>Dempani</i>
15)	Rachika Rajendra Bhatnagar	B.Sc I st	<i>Rachika</i>
16)	Vedanti Harish Hole	B.Sc 2 nd	<i>Hole</i>
17)	Purva Sheshrao Ande	B.Sc - III	<i>Ande</i>
18)	(Poochi G. Deoghare	B.Sc - I	<i>Deoghare</i>
19)	Pooja D. Karde	B.Sc - II nd	<i>Karde</i>
20)	Krutika. H. Pikale	B.Sc - II nd	<i>Pikale</i>
21)	Priya G. Manki	B.Sc - II nd	<i>Manki</i>
22)	Kalyani A. Vansutre	B.Sc - II nd	<i>Vansutre</i>
23)	Tanay A. Sawarkar	B.Sc I st	<i>Sawarkar</i>
24)	Lucky. U. Dabare	B.Sc I st	<i>Dabare</i>
25)	Raksha. C. Dhoke	B.Sc I st	<i>Dhoke</i>
26)	Divya P. Kawatkar	B.Sc I st	<i>Kawatkar</i>
27)	Ku. Tanmayi S. Kawatkar	B.Sc I st	<i>Kawatkar</i>
28)	Ku. Bhumika D. Hete	B.Sc III	<i>Hete</i>
29)	Ku. Peiya B. Nagvanshi	B.Sc III	<i>Nagvanshi</i>
30)	Ku. Chaitali P. Kubde	B.Sc II nd	<i>Kubde</i>
31)	Sanrita M. Belsare	B.Sc II nd	<i>Belsare</i>
32)	Muskan D. Kadve	B.Sc I st	<i>Kadve</i>
33)	Kanchan K. Nichat	B.Sc I st	<i>Nichat</i>
34)	Purva R. Kale	B.Sc I st	<i>Kale</i>
35)	Khushi. R. Jawale	B.Sc I st	<i>Khushi.R. Jawale</i>

Brain Digger

Shri. Shivaji Education Society, Amravati's
Mahatma Fule Arts, Commerce & Sitaramji Chaudhari Science College, Warud, Dist. Amravati

Department of Physics

A Report on

“BRAIN DIGGER” (A Physics Quiz Board: 2023-24)

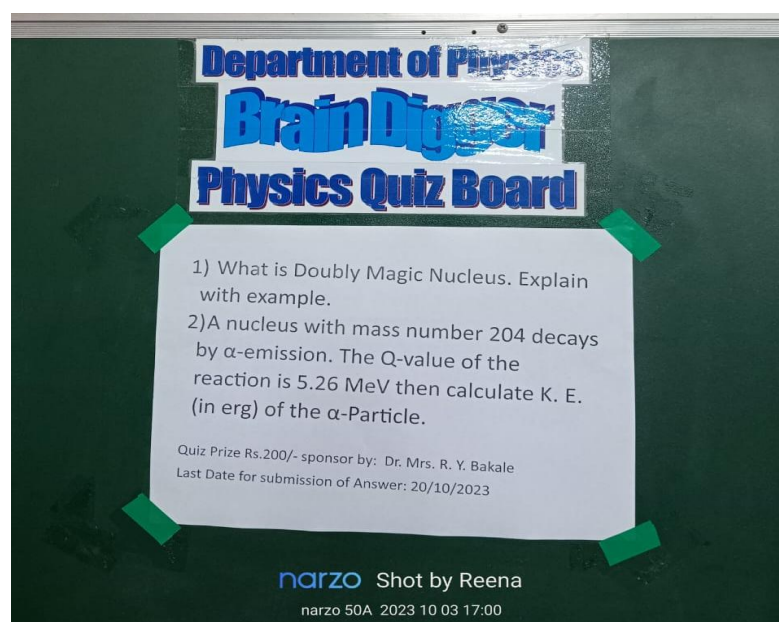
For the academic session 2023-24, the department has organized ‘**BRAIN DIGGER**’ (Physics Quiz Board) as a Best Practice. This innovative Best Practice was implemented on the occasion of **National Science Day 2021**. It was inaugurated at the hands of Hon’ble Principal Dr. J. D. Wadate on 27th February 2021 at 12.00 noon.

Followings are the some interesting features about this Best Practice.

- This quiz is aimed to trigger the logical thinking capabilities of the students.
- The quiz is solely sponsored by the Volunteer Teachers of the department.
- Each Faculty from this department will write a physics quiz which would be of very fundamental kind of nature and student has to dig his brain to solve the quiz thereby understanding the concepts of physics.
- Any B.Sc. student can solve the quiz on the board itself and write his /her name after solving it. If answer is correct, the student will get the prize with the hands of Quiz Sponsoring Teacher.

For the session 2023-24, Three quizzes were put on the Physics Quiz Board. The details of the quiz and students Participation are as follows.

Quiz 1: The first quiz was sponsored by Dr. R. Y. Bakale.



The time period given to solve this quiz was one month. Many students participated to this quiz board activity. Following are names of students who participated to the quiz 1.

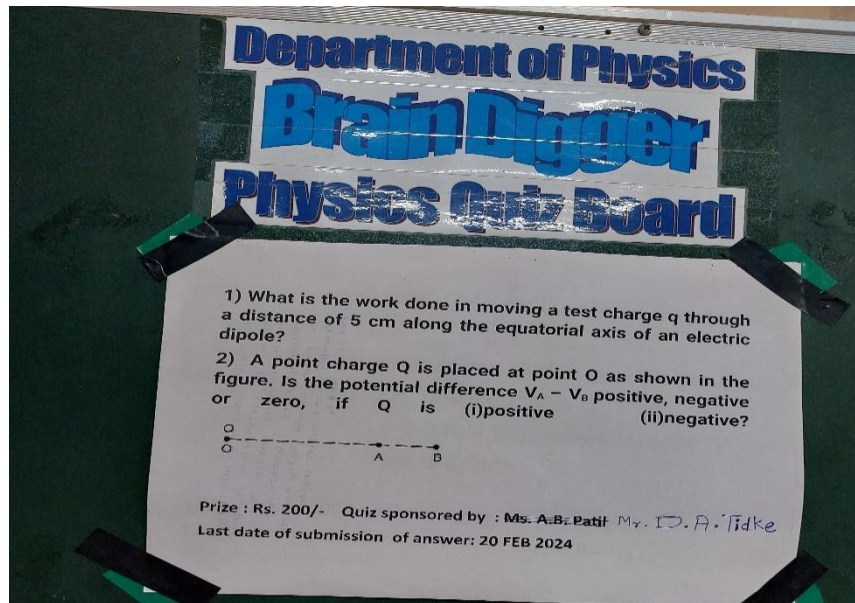
- 1) Mr.PrathamWankhade BSc III Sem V
- 2) Ms.PranjaliNandanwar BSc III Sem V
- 3) Ms.KomalGulhane BSc I Sem I

Among these students the most relevant answer was given by Mr.PrathamWankhade BSc III Sem V.

Mr.PrathamWankhade was invited and felicitated on winning the prize of quiz 1 of the Physics Quiz Board. The prize has been given by the sponsored Volunteer Teacher Dr.Mrs. R. Y. Bakale.



Quiz 2: The 2nd quiz was sponsored by Volunteer Staff Lab Attendant Mr. D. A. Tidke.



The time period given to solve this quiz was one month. Many students participated to this quiz board activity. Following are names of students who participated to the quiz 2.

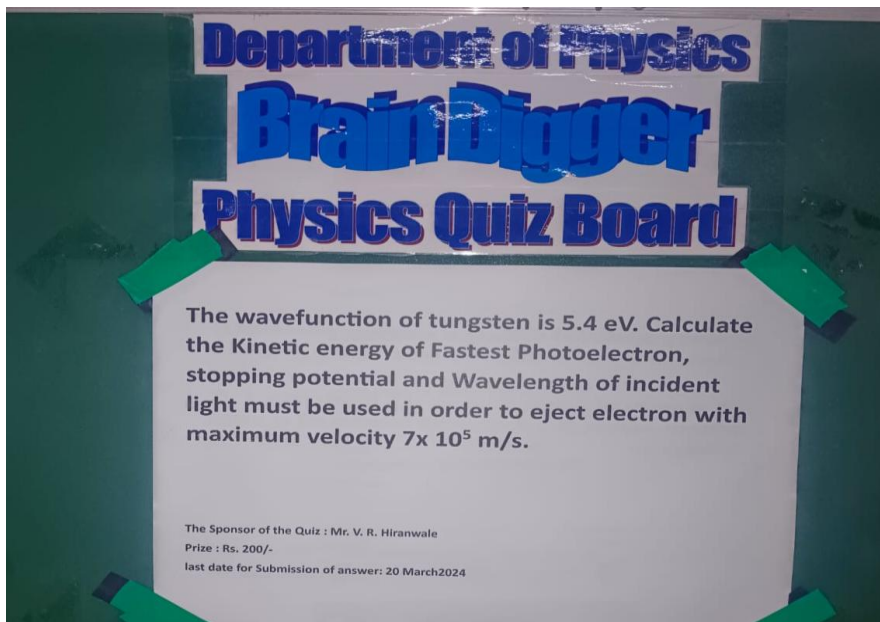
- 1) Mr.PrathamWankhade BSc III Sem VI
- 2) Ms.PranjaliNandanwar BSc III Sem VI
- 3) Ms.JaveriyaKazi BSc II Sem IV

Among these students the most relevant answer was given by Mr.PrathamWankhade BSc III Sem VI.



Mr.PrathamWankhade BSc III Sem VI was felicitated on winning the prize of quiz 2 of the Physics Quiz Board. The prize was given by the sponsored Volunteer Staff Lab Attendant Mr. D. A. Tidke.

Quiz 3: The 3rd quiz was sponsored by Volunteer Teacher Mr. V. R. Hiranwale.



The time period given to solve this quiz was one month. Many students participated to this quiz board activity. Following are names of students who participated to the quiz 3.

- 1) Mr.PrathamWankhade BSc III Sem VI
- 2) Ms.AkankshaPokale BSc III Sem VI
- 3) Ms.JaveriyaKazi BSc II Sem IV

Among these students the most relevant answer was given by Ms.AkankshaPokale BSc III Sem VI.



Ms.Akanksha Pokale BSc III Sem VI was felicitated on winning the prize of quiz 3 of the Physics Quiz Board. The prize was given by the sponsored Volunteer Teacher Mr.V. R. Hiranwale.

Miss. A. B. Patil
(Co-ordinator)

Dr. N. N. Sarkar
(Head)
Head

Dept. of Physics
Mahatma Fule Arts, Com. & Sitaramji
Chaudhari Science Mahavidyalaya,
Warud, Dist. Amravati.

Dr. S. V. Satpute
(IQAC Coordinator)
IQAC Coordinato.
Mahatma Fule Arts, Commerce and
Sitaramji Chaudhari Science
Mahavidyalaya, Warud, Dist. Amravati

Dr. G. N. Chaudhari
Principal
Principal
Mahatma Fule A.C. & Sitaramji
Choudhari Science College, Warud

**Mahatma Fule Arts, Commerce and Sitaramji Chaudhari Science
Mahavidyalaya, Warud, Dist. Amravati-444906**

DEPARTMENT OF PHYSICS

ANNUAL REPORT (2022-23)

This session was started from 01st July 2022 to 27th May 2023. Mr. Amol Parteti, Lab Atnd. has been transferred to Science College, Nagpur on 30-08-2022. Mr. R. S. Bankar, Asst. Professor has been transferred to Jijamata Mahavidyalaya, Buldana on 01-12-2022.

Summary of the activities in the department:

1. Mr. Gaurav Satav, BSc. III (University Rank III, SGBAU Exam Summer 2021) was awarded Gold Medal sponsored by Dr. Y. S. Tamgadge in the Degree Distribution Ceremony on 10-08-2022 for being topper in Physics.

2. Result:

Name of Exam (B.Sc.)	Sem I	Sem II	Sem III	Sem IV	Sem V	Sem VI
Summer 2022		43.47%		70.59%		79.44%
Winter 2022						
Name of Exam (M.Sc.)	Sem I	Sem II	Sem III	Sem IV	Sem V	Sem VI
Winter 2022	100%					

3. Two Students registered themselves for PhD work under the supervision of Dr. Y. S. Tamgadge.
4. Dr. Y. S. Tamgadge was felicitated by the award of excellence by Dyanpath Publications Amravati for authoring a physics practical book at the workshop organized by Amravati University Physics Teachers Association on 28th August 2022.
5. 02 Students have taken admission in M.Sc. Course in Physics in 2022-23 session.
6. Bridge Course for B.Sc. Sem I has been conducted during 22-08-2022 to 27-08-2022.
7. Online guest lecture on “**Solar System & Beyond**” by Dr. Surhud More and Dr. Mrs. Anupreeta More from IUCAA Pune was organized on 2nd October 2022. Approximately 70 students attended the lecture.
8. **World Energy Conservation Day** was celebrated on 14th Dec. 2022. Online Quiz and awareness program was organized on this occasion. Almost 245 students took part in the online quiz.
9. Department of Physics has celebrated **National Science Day (NSD)-2023** on 09th March 2023 and organized “**Poster Exhibition**” on the theme “Global Science For Global Well Being” for the students. Best posters have been awarded by Memento. On this occasion, a movie “**Gravity**” was screened for the students and staff.
10. Bridge Course for B.Sc. Sem II and Sem IV have been conducted during 03-03-2023 to 13-03-2023.
11. Eight Students from department of physics have received industrial training under the **MoU with “SPINKS INDIA PVT. LTD.”** a renowned company in the field of LASERs, at their manufacturing plant in Gurgaon (Haryana).
12. Eight Students from department of physics have received industrial training under the **MoU with “BITS CONTROL AND SOLUTIONS”** Pune a renowned company in Automation Industry, at their manufacturing plant in Pune (Maharashtra).

13. Mr. Vishwas Manohare, Lab Attendant has been transferred from chemistry department to Physics department w.e.f. 27th March 2023.
14. Ms. A. B. Patil has been appointed as Head of Physics Department w.e.f. 28th March 2023.
15. As a part of Best Practice, students of this department have prepared **nine experimental kits** using the raw materials in the department and a total savings of approximately Rs. 21980/- has been achieved in this academic session.

16. **Research output** of the department during this session is as follows:

Sr. No.	Name of Faculty	Articles in UGC-CARE/Scopus journals	Articles in other journals	Conference Presentations (Nat./InterNat.)	Book/Book Chapter Publications
1.	Ms. A. B. Patil	0	0	1 National	0
2.	Dr. R. Y. Bakale	0	0	2 National	0
3.	Mr. R. S. Bankar	0	0	0	1
4.	Dr. Y. S. Tamgadge	0	0	2 National	1 Book 1 Book Editor







(Ms. A. B. Patil)
Assistant Professor & Head
Department of Physics

Dr. S. V. Satpute
(IQAC Coordinator)

Dr. G. N. Chaudhari
(Principal)

**Mahatma Fule Arts, Commerce and Sitaramji Chaudhari Science
Mahavidyalaya, Warud, Dist. Amravati-444906**

DEPARTMENT OF PHYSICS

ANNUAL REPORT (2021-22)

This session was started in the pandemic of COVID-19 and was implemented from 30th August 2021 to 30th June 2022. Shri. A. D. Parteti, Laboratory attendant joined the department on his transfer from Shivaji Science College, Nagpur. Dr. S V Khangar was relieved from this college on her transfer to Science College, Nagpur on 04-01-2022 (A/N).

Summary of the activities in the department:

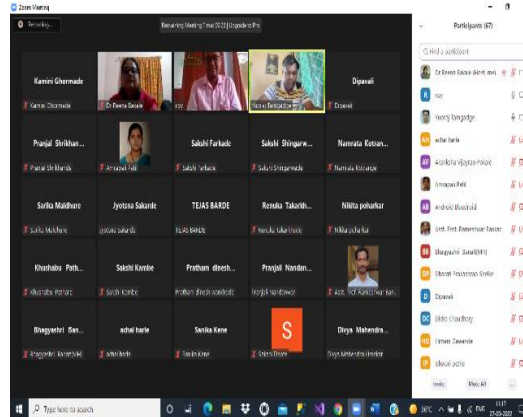
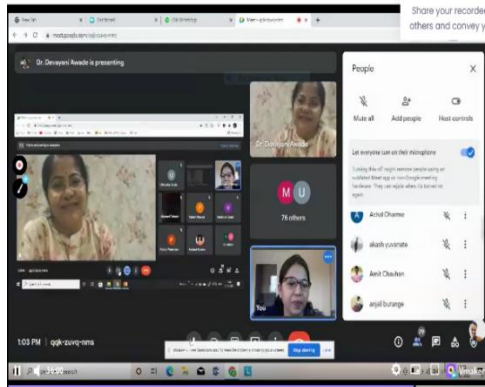
1. NAAC Peer Team visited the department on 2-9-2021. The department was highly appreciated by the Peer Team for its accomplishment in research and overall performance.
2. Department has constituted and implemented “**Students Grievance Cell**” for Physics Department.
3. Dr. Y. S. Tamgadge and Mr. R S Bankar have delivered **guest lectures** at various places.
4. Miss Konal D Agarkar has been awarded SGB Amravati University’s **Late Shri. Shankarrao Govind Joag and Smt. Parvatibai Shankarrao Joag Scholarship of Rs. 250/-** for securing highest marks in Physics in Sem I & II.
5. Online guest lecture on “**Landmark Discovery in Physics: LED Lighting**” by Dr. Mrs. Devayani Awade from Khalsa College, Matunga, Mumbai was organized on 12th December 2021. Approximately 100 students attended the lecture.
6. **World Energy Conservation Day** was celebrated on 14th Dec. 2021. Online Quiz and awareness program was organized on this occasion. Almost 245 students took part in the online quiz.
7. **PhD Research Center** has been granted by Research Center Recognition Committee of SGBAU.
8. Mr. Gaurav Satav stood **Merit 3rd** and Mr. Nakul Nimje stood **Merit 8th** in the S G B Amravati University, Amravati Summer Examination 2021.
9. Department of Physics has established **MoU with “SPINKS INDIA PVT. LTD.”** a renowned company in the field of LASERS and four students has been given training at their manufacturing plant in Gurgaon (Haryana).
10. Department of Physics has celebrated **National Science Day (NSD)-2022** on 28 Feb 2022 and organized “**Poster Exhibition**” on the theme “Integrated approach in science and technology for a sustainable future” for the students. Three best posters have been awarded cash prize of Rs. 500/-, Rs. 300 and Rs. 200 respectively. On this occasion, a movie “**The Man Who Knew Infinity**” was screened for the students and staff.
11. **Physics Moodle Website** was inaugurated at the hands of Principal Dr. U. E. Chaudhari during NSD-2022 celebration.
12. **Bridge Courses** for the students of B.Sc. Sem I, Sem II & Sem IV were conducted by the department.
13. Two students of B.Sc. III have appeared for **JAM entrance examination**.

14. Online guest lecture on “**Thermodynamics**” by Mr Subhadip Roy, Sc-E, CVREDE-DRDO Chennai was organized on 27th March 2022. Approximately 76 students attended the lecture.
15. Department of Physics has established MoU with “**BITS CONTROL AND SOLUTIONS**” Pune a renowned company in Automation Industry and five students has been given industrial training at their manufacturing plant in Pune (Maharashtra).
16. As a part of Best Practice, students of this department have prepared **six experimental kits** using the raw materials in the department and a total savings of approximately Rs. 70100/- has been achieved in this academic session.
17. Dr. Y. S. Tamgadge & Dr. R. Y. Bakale have completed Refresher Courses from HRDC.
18. **Research output** of the department during this session is as follows:

Sr. No.	Name of Faculty	Articles in UGC-CARE/Scopus journals	Articles in other journals	Conference Presentations (Nat./ InterNat.)	Book/Book Chapter Publications
1.	Dr. Y. S. Tamgadge	2	1	0	0
2.	Miss. A. B. Patil	0	1	3 Internat.	0
3.	Dr. R. Y. Bakale	1	1	2 Internat.	0
4.	Mr. R. S. Bankar	0	0	1 State	3 Book Chapter

19. Expert Committee constituted by SGBAU, Amravati have visited the department regarding the grant of permission to start new course (MSc Physics) from session 2022-23.





Mr. Gaurav Satav
3rd Merit



Mr. Nakul Nimje
8th Merit

(Dr. Y. S. Tamgadge)
Assistant Professor & Head
Department of Physics

Dr. S. V. Satpute
(IQAC Coordinator)

Dr. U. E. Chaudhari
(Principal)