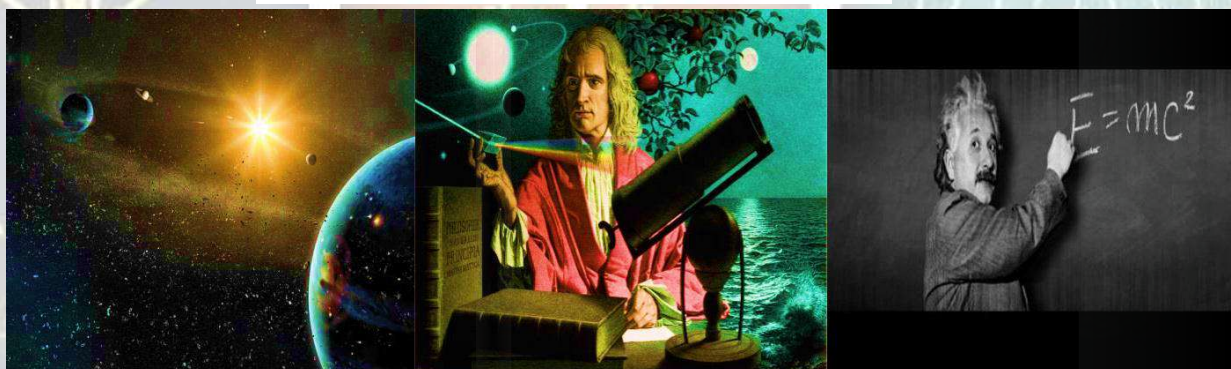




DEPARTMENT OF PHYSICS



VISION

- To produce future scientists for brighter INDIA through scientific and eco-friendly environment.

MISSION

- To develop overall excellence in student that meet an international standard.
- To provide quality education to all by means of sheer hard work, dedication and devotion.
- To ignite young minds towards research and development.
- To enhance career opportunities for students through training and placements.
- To ensure values like truth, honesty, character, science and sacrifice into the students and to curb social exploitation through education amongst them.

About the Department

With the vision of providing education for rural students Anandibai Raorane Arts, Commerce and Science College (ARACS) was established in the year 1992. With untiring efforts of MPSS's members the ARACSC has gained its reputation in very short time.

The Department of Physics started at ARACS in the year 2012-13. Physics is a science that studies laws of nature, space and their magical wonders. With current development of Physics the world has come closer by means of science and technology. Today we are exploring the universe for possible alien life which soon will be a reality. Due to sincere and persistent efforts of MPSS's members, today we have fundamental facilities such as well-equipped general lab and dark room with required instruments.

It is a matter of pride to mention that our two staff members are highly qualified and enthusiastic. The departmental head **Dr. M. A. Chougule** has a teaching experience of more than 23 years and large number of citation index:

Google Scholar Citations (Updated- 22/12/2023) - Citations: 4398, h-index: 43, i10-index: 62

Scopus Citation Overview (Updated – 22-12-2023) - Citations: 2922, h-index: 37

The faculty member **Mr. P. M. Dhere** is a university gold medalist, SET qualified with rank 2 and has teaching experience of 10 years and research experience one and half years in Taiwan.

Whereas the other faculty member **Dr. D. B. Shirgaonkar** has teaching experience 14 years and 7 year research experience. He is former Ph. D. supervisor and Member of Board of Studies of Physics at Dr. Babasaheb Ambedkar Technical University, Lonere, Maharashtra. All work together for the overall development and betterment of the students.

Departmental Faculty

Sr. No.	Name of faculty	Qualification	Designation	Expertise	Teaching Experience	
1.	Dr. M. A. Chougule	M.Sc., M.Phil., Ph.D.	Assistant Professor	Electronics, Solid State Physics	23 years	
2.	Mr. P. M. Dhere	M.Sc., SET.	Assistant Professor	Solid state Physics & Theoretical Physics	10 years	
3.	Dr. D. B. Shirgaonkar	M.Sc., M.Phil., Ph.D.	Assistant Professor	Spectroscopy	14 years	

Supporting Staff

Sr. No.	Name of faculty	Qualification	Designation	
1	Mr. M. G. Raorane	B.Com.	Lab Assistant	
2	Mr. B. L. Bavdane	S.S.C.	Lab Attendant	

Facilities/ instruments/ equipments available at the department

Sr. No.	Particulars	Sr. No.	Particulars
1	Departmental PC with Printer	13	Adequate no. of Various Power Supplies
2	LCD Projector with screen	14	Digital and Analog multimeters
3	Semi dark room	15	CRT with powersupply-1
4	General lab	16	Bread boards and circuit components
5	ResearchOpticalBench-2	17	Sodium and Mercury lamps
6	Mini Optical Bench -1	18	Solid state Laser for expt. purpose
7	Spectrometers- 4	19	Neodymium and ferrite magnets
8	Telescopes - 4	20	Microprocessor virtual simulation program
9	Travelling Microscopes-3	21	DEV C++
10	CRO- 7	22	Educational Videos
11	Electric weighing balance-1	23	E-books
12	Ballistic Gavanometers-2		

Departmental Dimensions (Approx.)

- Physics General Lab area: 40 X 20 =800 Sq. Ft.
- Physics Dark Room area: 15 X 20 =300 Sq. Ft.
- Department staffroom plus Computer Lab area: 10 X 20 =200 Sq. Ft.

Yearwise strength of the Department

Sr. No.	Academic Year	FYBSc	SYBSc	TYBSc	Total	Student Teacher Ratio
1	2013-14	20	04	--	24	24:01
2	2014-15	29	07	08	44	22:01
3	2015-16	17	15	05	37	12:01
4	2016-17	27	12	08	47	24:01
5	2017-18	25	09	07	41	21:01
6	2018-19	34	11	05	50	25: 01
7	2019-20	21	11	10	42	14:01
8	2020-21	19	12	05	36	12:01
9	2021-22	26	10	10	36	12:01
10	2022-23	28	06	07	41	13:01
11	2023-24	36	07	05	48	16:01
12	2024-25					

TYBSc Results analysis

Marks	>=70	>=60 & <70	>=55 & <60	>=50 & <55	>=45 & <50	>=40 & <45	<40
Grade	O	A	B	C	D	E	F
Grade Point	7	6	5	4	3	2	1

Sr. No.	Academic Year	Class	No. of Students Appeared	Semester	Result Analysis							Percentage of Result
					O	A	B	C	D	E	Fail F	
1	2015-16	TYBSc	05/05	V	1	4	0	0	0	0	0	100 %
			05/05	VI	1	3	1	0	0	0	0	100 %
2	2016-17	TYBSc	08/08	V	0	5	1	0	2	0	0	100 %
			08/08	VI	0	3	2	1	1	0	1	87.50 %
3	2017-18	TYBSc	07/07	V	0	3	1	2	0	0	1	85.71 %
			07/07	VI	0	5	1	0	0	0	1	85.71 %

Marks	>=80	>=70 & <80	>=60 & <70	>=55 & <60	>=50 & <55	>=45 & <50	>=40 & <45	<40
Grade	O	A+	A	B+	B	C	D	F
Grade Point	10	9	8	7	6	5	4	0

Sr. No.	Academic Year	Class	No. of Students Appeared	Semester	Result Analysis							Fail F	Percentage of Result
					O	A+	A	B+	B	C	D		
4	2018-19	TYBSc	05/05	V	0	2	1	0	0	0	0	2	60 %
			05/05	VI	0	1	1	2	1	0	0	0	100 %
5	2019-20	TYBSc	06/10	V	0	0	1	4	1	0	0	0	60 %
			10/10	VI	3	7	0	0	0	0	0	0	100 %
6	2020-21	TYBSc	05/05	V	5	0	0	0	0	0	0	0	100%
			05/05	VI	5	0	0	0	0	0	0	0	100%
7	2021-22	TYBSc	10/10	V	1	6	2	1	0	0	0	0	100%
			10/10	VI	1	4	1	2	1	1	0	0	100%
8	2022-23	TYBSc	07/07	V	0	0	0	0	0	0	0	07	0%
			07/07	VI	0	2	3	0	0	0	0	2	71.43%
9	2023-24	TYBSc	05/05	V									
			05/05	VI									

Yearwise TYBSc Departmental Rank Holders

Academic Year	Sr. No.	Name of the student	Departmental Rank	Percentage
2014-15	1	Miss. Hawaldar Jasmin Firoj	1 st	73.62 %
	2	Miss. Sawant Sonam Satyawar	2 nd	67.00 %
	3	Miss. Gandhi Pooja Arvind	3 rd	65.37 %
2015-16	1	Miss. Kadam Shraddha Arun	1 st	81.37 %
	2	Miss. Khandekar Pooja Mahadev	2 nd	77.56 %
	3	Miss. Mengal Savita Bhoru	3 rd	71.45 %

2016-17	1	Miss. Simali Dashrath Sarvankar	1 st	77.62 %
	2	Miss. Suvarna Chandrakant Narkar	2 nd	76.56 %
	3	Mr. Sachin Santosh Gundaye	3 rd	72.37 %
2017-18	1	Mr. Rohit Rajan Kadam	1 st	77.30 %
	2	Mr. Sushant Chandrakant Chavan	2 nd	76.81 %
	3	Mr. Saurav Sunil Kumbhar	3 rd	73.83 %
2018-19	1	Mr. Dipak Pandurang Pawar	1 st	76.00 %
	2	Mr. Sanjay Deepak Panchal	2 nd	71.13 %
	3	Mr. Rohan Santosh Dukhande	3 rd	66.87 %
2019-20	1	Mr. Tushar Kumar Patil	1 st	83.06 %
	2	Mr. Abhishek Dattaram Mestry	2 nd	76.62 %
	3	Miss. Jyotsna Bhaskar Kudalkar	3 rd	72.81 %
2020-21	1	Miss. Vidya Vijay Bavadane	1 st	87.12%
	2	Miss. Manyata Rajaram Sawant	2 nd	87.06%
	3	Miss. Jyoti Giridhar Gawali	3 rd	79.75%
2021-22	1	Mr. Soman Ramkrishna Sarvesh	1 st	79.25%
	2	Miss. Snehal Rajendra Ghadi	2 nd	77.82%
	3	Miss. Tanvi Vilas Takke	3 rd	81.50%
2022-23	1	Miss. Prerana Dilip Kamble	1 st	73.38%
	2	Miss. Siddhi Sanjay Narkar	2 nd	71.13%
	3	Mr. Akshay Santosh Navale	3 rd	67.25%
2023-24	1			
	2			
	3			

Honors, Awards, Rewards and Prizes:

1. Dr. M. A. Chougule

M. Sc., M. Phil., Ph. D.

Head & Assistant Professor, Department of Physics

- Number of papers published in the Journals: **+90**
- No. of Books published : **01**
- No. of chapters in edited volumes-books published: **13**
- No. of book chapter in Proceedings: **50**
- No. of National and International Conferences/ Symposia/ Workshops/ Seminars attended and paper presented: International: **18**, National: **08**
- Certificate of Reviewing - Awarded for 5 reviews between August 2017 and June 2022 -
- Certificate of outstanding contribution in reviewing from Elsevier (January 2018)
- Visited University of Vienna, Austria to participate in the international conference for which



Dr. M. A. Chougule

Google Scholar Citations (Updated- 22/12/2023)
Citations: **4398**, h-index: **43**, i10-index: **62**

Scopus Citation Overview (Updated – 22-12-2023)
Citations: **2922**, h-index: **37**

the travel grant (₹ 60,594) was received from SERB, DST, New Delhi. (15th July -19th July 2018)

- Visited Visegrad, Hungary to participate in the international conference for which the travel grant (₹ 1,28,392) was sanctioned by UGC, New Delhi. (16th June- 21st June 2019)
- Appointed as a **Research Fellow** at **INTI International University, Malaysia** from 15 December 2023 to 31 Dec 2025. The aim of research fellowship program is to enable researchers to pursue excellence in producing quality research outputs in their respective fields and to further enhance our research activities and standards.

2. Mr. P. M. Dhere

M. Sc., SET.

Assistant Professor, Department of Physics

- SET Qualified with Rank 2
- Recipient of NDHU, Hualien, Taiwan Research Scholarship: \$1000
- Number of papers published in the Journals: 01
- No. of National and International Conferences/ Symposia/ Workshops/ Seminars attended and paper presented: International: 02, National: 17
- Gold medalist (Rank 1) in B. Sc. Physics at Shivaji University, Kolhapur
- Recipient of UGC merit Scholarship for University Rank Holder (2008-10)
- Awarded "Late Dr. B. S. Patil Memorial prize" by Shivaji University Kolhapur (2008)
- Awarded "Dr. Jagadish S. Shirke prize" by Shivaji University, Kolhapur (2008)
- Winner of 1st prize in SUSTA quiz, 2006 organized by Shivaji University Statistics Teachers Association.
- Recipient of Shivaji University merit Scholarship, 2009.
- Delivered more than 20 lectures on the topic, '**Career Opportunities after B.Sc and M.Sc Physics**' at University, College and Institute levels.
- Worked as a subject expert for three years at Avishakar Research convention organized by Dr. Balasaheb Sawant Krushi Vidyapeeth Dapoli.



Mr. P. M. Dhere

3. Dr. D. B. Shirgaonkar

M. Sc., M. Phil., Ph.D.

Assistant Professor, Department of Physics

- Number of papers published in the Journals: 08
- No. of chapters in edited volumes-books published: 01
- No. of book chapter in Proceedings: 01
- No. of National and International Conferences/ Symposia/ Workshops/ Seminars attended and paper presented: International: 18, National: 18
- Member of Editorial Board of Journal of Applied Science and Computations (JASC), ISSN No.: 1076-5131.
- Member of Editorial Board of International Journal of Latest Technology in Engineering, Management and Applied Science (IJLTEMAS), ISSN No.: 2278-2540.
- Member of Editorial Board of International Journal of Ionic Research and Engineering Journals (IRE Journals), ISSN No.: 2456-8880.



Dr. D. B. Shirgaonkar

- Member of Editorial Board of International Journal of International Research Journal of Innovations in Engineering and Technology (IRJIET Journals), ISSN No.: 2581-3048.
- Nominated for National Award “Adarsh Vidya Saraswati Rashtriya Puraskar” by Glacier Journal Research foundation, Ahmedabad (GUJARAT).
- Life Member of “The Indian Society for Technical Education” (LM-92090)

Students Achievements

- Our TYBSc student Miss. Sneha S. Sarvankar (2016-17) has represented college at state level debate competition organized by Times Of India 2017 at Pune.
- Miss. Suvarna C. Narkar (TYBSc 2016-17) has represented our college at district level elocution competition and currently works at Fortis Hospital Mumbai as a technician.
- Both Sneha and Suvarna (2016-17) have won several elocution competitions at various levels.
- Our departmental student Mr. Rohit R. Kadam has represented Mumbai University in UTKARSH 2018 at Swami Ramanand Teerth Marathwada University, Nanded and have won a 2nd prize for University of Mumbai.
- A prestigious student of the year award for the academic year 2017-18 has been awarded to our departmental student Mr. Rohit R. Kadam (TYBSc).
- A prestigious student of the year award for the academic year 2018-19 has been awarded to our departmental student Mr. Sanjay D. Panchal (TYBSc).
- Our departmental students Miss. Prajakta S Vichare (2019-20) and Miss. Siddhi S Narkar (2022-23) have been selected in Mumbai Police force.

Departmental Activity

1. Our departmental always encourages the students for PG admission and tries to nurture and guide them.
2. Every year on National Science Day, Department of Physics organizes an activity called “Wonders of Physics” for all the students including school students to UG students.
3. Every year department organizes a career guidance seminar for (PMS) A-group students.
4. On the eve of Silver Jubilee of our college, department has announced the physics prize for FYBSc and SYBSc students :

1st Prize: Sir Isaac Newton Memorial Award: Rs. 2000

2nd Prize: Albert Einstein Memorial Award: Rs. 1000

3rd Prize: Galileo Galilei Memorial Award: Rs. 500

5. Department of physics offers bridge course for newly admitted FYBSc students.
6. Department offers a certificate course in Physics entitled, “soft skills in Physics”
7. The study tours are arranged in the 2nd half of every academic year.

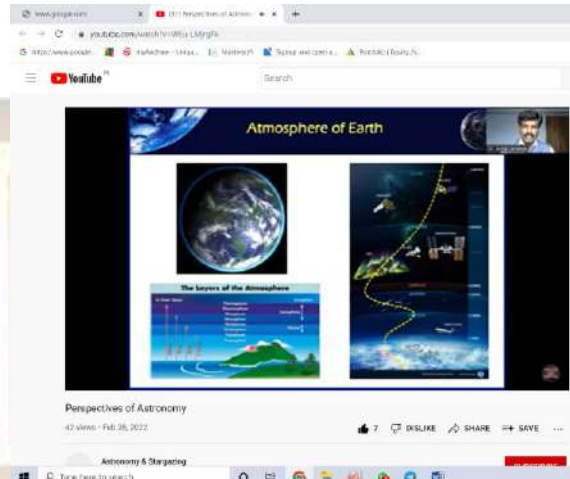
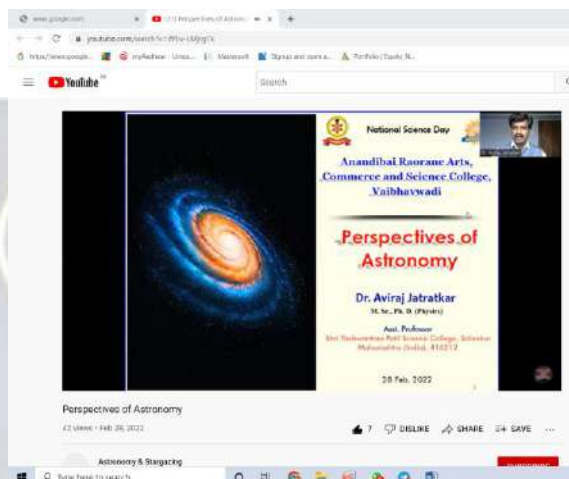
Departmental Events

NATIONAL SCIENCE DAY CELEBRATION UNDER THE PROGRAM ENTITLED 'Wonders of Physics'
(2022-23)



NATIONAL SCIENCE DAY CELEBRATION UNDER THE PROGRAM ENTITLED 'Wonders of Physics'
(2021-22)





NATIONAL SCIENCE DAY CELEBRATION UNDER THE PROGRAM ENTITLED 'Wonders of Physics'



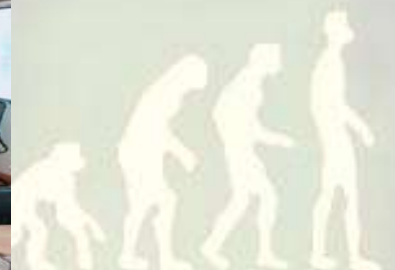


DEPARTMENTAL PRIZE DISTRIBUTION 2021-22



WATSON & CRICK
1928-1916

BOHR
1885



DARWIN
1809

DEPARTMENTAL PRIZE DISTRIBUTION 2017-18



DEPARTMENTAL PRIZE DISTRIBUTION 2018-19



DEPARTMENTAL PRIZE DISTRIBUTION 2019-20



CAREER COUNSELING 2017-18 to 2022-23





OZONE DAY 2018 -19 to 2023-24







Departmental Study Tour



CURIE
1867

NEWTON
1642

EINSTEIN
1879



WATSON & CRICK
1928 1916



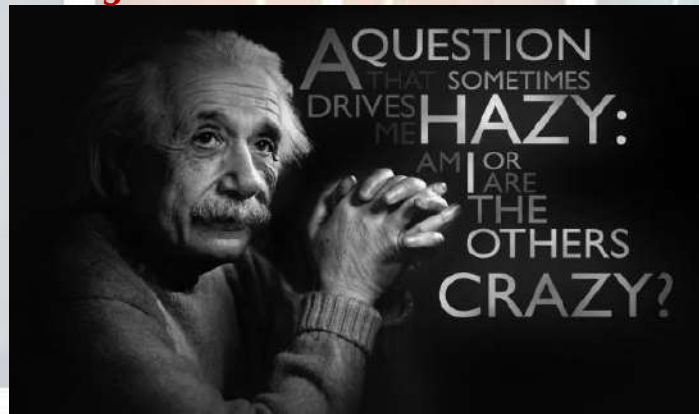
BOHR
1885



DARWIN
1809

Thank You...!!

"Imagination is more important than knowledge. Knowledge is limited. Imagination encircles the world." - Albert Einstein



THE HISTORY OF SCIENCE EVOLUTION THE JOURNEY SO FAR



WATSON & CRICK
1928 1916

BOHR
1885

DARWIN
1809