



J.D.M.V.P. Samaj's, Shri. S. S. Patil Art's, Shri. Bhausaheb T. T. Salunkhe Commerce and Shri. G. R. Pandit Science College, (Nutan Maratha College), Jalgaon.



PHYSICS

DEPARTMENTAL

PROFILE

(2018-2023)

➤ **Vision**

To impart good quality education and knowledge to the students of physics coming from rural areas.

➤ **Mission**

- ❖ To prepare outstanding educators, scholar's to the society.
- ❖ To provide practical exposure to professional career.
- ❖ To develop research aptitude among the students.
- ❖ To explain how physics is related to our day to day life by giving suitable examples.(solar cooker, solar lamp, solar heater & satellite)

❖ **DEPARTMENT OF PHYSICS**

The **Physics department** was established since the inception of the college in **1972**. In its history of **51 years** it has grown considerably with a vision to inculcate scientific temperament and futuristic thinking in students by providing them with extensive and diverse knowledge in the Physics.

Department offers Under Graduate programmers which are innovatively designed and updated to keep pace with global trends. The Department emphasizes on experiential learning through various innovative methodologies which include **seminars, workshops, guest lectures, exhibitions, and projects** for the holistic development of the students.

The strength of the Department is its quality faculty, innovative and flexible curricula with their unique focus on post-graduate education and employability, state-of-the-art facilities with remarkably high and open transparent policies that foster a healthy student-faculty interaction. The department is located in the Humanities building on first floor. The department has language laboratory and received recognition from KBC NMU as Research Center.

1. Highlights of the Department:

- ▶ Courses from Under Graduation to Post Graduation
- ▶ Highly Qualified Staff.
- ▶ Research Activities.
- ▶ Good Infrastructure
- ▶ Physics Activities.
- ▶ Innovative Practical demonstrations

▶ Alumni Activity and Lectures.

▶ Recognized Research Center of Physics by KBC NMU Jalgaon

2. Details of the Programmes Offered by the Department

Sr No	Programme level	Name of the programme	Duration	Entry Qualification	Medium of Instruction
1	UG	B.Sc. Physics	03 Years	H S C	ENGLISH
2	PG	M. Sc. Physics	02 Years	B.Sc. Physics	ENGLISH
3	Ph.D	Ph.D Physics	03 Years	M. Sc. Physics	ENGLISH

3. Departmental Staff:

Post	Sanctioned and filled
Professor	00
Associate Professor	04
Assistant Professor	01
CHB	02
Contractual	06

4. Name and Information of the Teachers of Physics Department:

Sr. No	Name of the Teacher	Qualification	Designation	Mobile No & Email	Research Experience	Date of Appointment and Experience UG to PG
1	PROF.R.B. DESHMUKH (Head of the Department)	M.Sc. PHYSICS	Assistant Professor	9421522872 Email- rb1desh@gmail.com	IN PROGRESS	01/10/1992 31 years
2	PROF. N.B. BAVISKAR	M.Sc. PHYSICS	Associate Professor	9422689000 Email- nitinbaviskar	IN PROGRESS	30/08/1990 33 Years

				2@gmail.com		
3.	DR. K.B. PATIL	M.SC, Ph.D. PHYSICS	Assistant Professor	9325575836 Email:- kbpatil15319 69@gmail.com	8 years	12/09/1992 31 years
4.	PROF. S.T. SALUNKHE (Retired On 31/03/2019)	M.Sc PHYSICS	Associate Professor	7972773385 Email- sitaramsalunk he@gmail.com	--	30/07/1985 34 Years
5.	PROF. P.R. DEVARE (Retired On 31/05/2020)	M.Sc PHYSICS	Associate Professor	9421520760 Email:- devreprakash12 3@gmail.com	--	24/08/1988 32 Years
6.	DR. RAHUL SALUNKE	M.SC, Ph.D. (ELECTRO NICS)	--	7972798539 Email:- rippusalunke @gmail.com	8 Year	01/09/2022 to Till date 2 Years
7.	MR. RAHUL YADAV (2018-19)	M.SC PHYSICS	Assistant Professor	8956289232 Email:- rahulyadavfiz @gmail.com	--	01/11/2019
8.	MISS. PRITI BAGUL (2019-21)	M.SC PHYSICS	--	9403140018 Email:-	--	01/11/2020
9.	MR. ADITYA PATIL (2021-23)	M.SC, SET PHYSICS	Assistant Professor	7875965479 Email:- adityapatil78 75@gmail.com	--	21/09/2022 to 31/05/2023
10.	MR. VISHAL.I.TELI	M.Sc, B.Ed SET (PHYSICS)	---	9503547847	Provisional Registered for Ph.D	01/08/2023 8 Years

				Email- vishalteli555 @gmail.com		
11.	MR. SHIVSHANKAR.H. GAIKAWAD	M.Sc, B.Ed SET (PHYSICS)	---	7507110690 Email:- shivgaikwad9 6@gmail.co m	Provisional Registered for Ph.D	01/08/2023 02 Years
12.	MISS.S.S. .NIMBALKAR	M.Sc,(ELE)	---	8411923196 Email:- Switisonawan e88@gmail.c om	--	01/11/2022 2 years
13.	MISS. A.S. GURCHAL	M.Sc,SET (PHYSICS)	---	7887772851 Email:- anjali21gurch al@gmail.co m	--	01/08/2023

5. Faculty on Academic Bodies of University: **NIL**

6. Meritorious Students:

T.Y.B.Sc.				
Sr. No.	Name of the student	Year	CGPA/ Percentage of Marks	Rank
1	Chincholkar pankaj balaji	2018-19	81.72 % CGPA- 5.72	1
2	Shaikh mohammad asim abdul sattar	2019-20	95.25%	1
3	Wagh purva ashoknath	2020-21	89.17%	1

4	Mahajan chaitali vikas	2021-22	84.54%, CGPA-9.40	1
5	Patil krushnal bhaulal	2022-23	86.11%, CGPA- 9.66	1
M.Sc.				
1	Started first batch	2018-19	--	--
2	Gawande priti nivrutti	2019-20	85.55 %, CGPA- 9.65	1
3	Chaudhari shailesh raghunath	2020-21	83.90 %, CGPA- 9.50	1
4	Shaikh mohammad asim abdul sattar	2021-22	94.65 % CGPA- 10.00	1
5	Ahirao madhumati anil	2022-23	83.03 %, CGPA- 9.50	1

8. Result data of the assessment period:

Sr. No	Year	T. Y. B Sc.			M.Sc.		
		Appeared	Pass	Pass %	Appeared	Pass	Pass %
1	2018-19	17	15	82.23	--	--	--
2	2019-20	23	23	100	11	11	100
3	2020-21	16	16	100	07	07	100
4	2021-22	30	27	90.00	18	17	94.44
5	2022-23	16	05	31.25	05	05	100

9. NET/SET/Govt. Exam and Other Examination Qualified by Students:

Sr. No	Year of Passing	Seat No	Name of the Student	NET/SET/ Govt. Exam
1	2020	355030	MR. HARSHAL M. GANGAWANE	SET

10. Placement of Students:

Sr. No	Name of student	Batch Year	Program	Name of Employer	Package INR
1.	Lalit mahale	2018-19	B.Sc. (physics)	Akriva hcm pvt. Ltd hydrabad	Monthly 75,000/-
2.	Rajeshwari madhukar salunkhe	2019-20	B.Sc. (physics)	Trinesis technology pvt. Ltd. Pune	Yearly 4,50,000/-
3.	Sachin manohar patil	2020-21	B.Sc. (physics)	Marksons pharma. Ltd. Goa	Yearly 3,00,000/-
4.	Chaudhari shailesh raghunath	2020-21	M.Sc (physics)	Asian paints nashik	Yearly 4,60,000/-
5.	Rohan ashok rajput	2020-21	M.Sc (physics)	Police department, buldhana	Monthly 40,000/-
6.	Shaikher thakre	2020-21	M.Sc (physics)	R.r.junior college, jalgaon	Monthly 10,000/
7.	Shaikh irfan shaikh gaffar kasab	2020-21	M.Sc (physics)	Dimond english medium school and jr. College, savada	Monthly 10,000/
8.	Panman harshda suman	2021-22	M.Sc (physics)	Indian post	Monthly 21,000/-

11. List the distinguished Alumni of the department:

Sr No	Name of the Alumni	Present post held
1	Dastagir shaikh	Jr.scientist nasa(worked as under the project of nasa)
2	S.v. patil	Associate professor khydse collegecollege,muktainager
3	Vikas vasant talale	Asst. Registrar(ph.d section) kbc nmu jalgaon

4	V. B. Suryawanshi	Associate professor, shri. V.s naike college raver college
5	Sunil r. Thosre	Associate professor, g.d.m. arts k.r.n. commerce & m.d. science college, jamner
6	Dr. Ramesh harishchandra bari	Professor, g.d.m. arts k.r.n. commerce & m.d. science college, jamner
7	Sunil kashinath patil	Lecturer jr. College, jdmvp's acs college jalgaon
8	Dr. Sachin nandre	Nss officer kbc nmu , jalgaon
9	Shri. Rahul yadav	Assitant professor, raisony institute, jalgaon
10	Shri. Harshal gangavane	Assitant professor, p.o nahta college, bhusawal

12. List of Ph.D students in the department:

DR B.K.SONAWANE (RESEARCH GUIDE)				
Sr No	Name of the Students	PhD/ M Phil	Title of the Thesis	Status
1	MR.PATIL KAILAS BHALERAO DOR: 06-05-2013	PH.D	GROWTH AND CHARACTERIZATION OF DOPED BISMUTH TRI-SULPHIDE CRYSTALS BY GEL METHOD	AWARDED 23-12-2021
DR K .B.PATIL (RESEARCH GUIDE)				
1	MS. PATIL RUPALI MAHENDRA DOR: 14-10-2022	PH.D	SYNTHESIS AND CHARACTERIZATION OF PURE AND DOPED MANGANESE SULFIDE (MNS) THIN FILM	ONGOING
2	MR.TELI VISHAL ISHWAR	PH.D	UNDER PROCESS	ONGOING

13. Research projects by faculty: **NIL**

Sr No	Name of faculty	Title of research project	Funding agency	Status
1				

14. Publications by Faculty: (2018-23)

Sr No	Name of the faculty	Publication in peer reviewed Journal (National)	Publication in peer reviewed Journal (International)	Books/ Book Chapters
1	Dr K.B. Patil	--	19
2	PROF. R.B. DESHMUKH	--	--	01 S.Y.B.SC. (CBCS PATTERN) University level INSTRUMENTATION PHY- 302(B) UNIVERSITY SYLLABUS BOOK ISBN – 978- 93-85028-74-8 (WITH EFFECT FROM JUNE 2019)
3	PROF. N.B.BAVISKAR	--	01	--

15. Seminars/Conferences/Workshops/RC/OC/FDP attended:

Sr No	Name of Faculty	Seminar conference Workshop (State/Uni)	Seminar conference Workshop (National)	Seminar conference Workshop (International)	RC/OC/FDP
1	PROF. R.B. DESHMUKH	10	04	03	--
2.	PROF. N.B. BAVISKAR	07	14	05	--
3	Dr K.B. Patil	03	15	08	FDP = 11

16. Event /Programmes Workshops/Seminars Organize By department:

Department of Physics organised Renewable energy sources guest lecture of Dr. Vikram Kale Aurangabad University on 12/09/2018 on his speech. Which are the renewable energy sources available in India and how to use them in future, for this program HOD of Physics was president and Prof. S.T. Salunkhe, Prof. V.M. Patil, Science Vice-Principal Prof. R.B. Deshmukh other professor of Physics department and 56 student of physics department are present on this lecture ,vote of thanks given by Prof. S.T. Salunkhe





Department of Physics organized Workshop for the Program of Practical Physics in date- 27/12/2018



The Various activities conducted by the Department of physics are highlighted below-

Department of Physics organized to see the solar eclipse by wearing solar goggles there will be 35 students and professors seeing the solar eclipse Perform by Secretary Prof. D.S. Bharambe of Marathi Vigyan Parishad and Prof. R.B. Deshmukh date 26/12/2019 at Morning 9 to 11 a.m.





Department of Physics organized experiment in physics related to how to make physics Theory in simple way, Perform by secretary Prof .D.S .Bharambe of Marathi Vigyan Parishad Jalgaon , there will be 75 student of Physics department will be present on this occasion date- 28/02/2020

Department of Physics organised on line Quiz on General Physics of M.Sc. Physics Students Dated 25/02/2022. There had 14 students of M.sc. participated in quiz competition given info below tables. Getting first price Harshada Vijay second is Shaikh Mohammad Asim, and Mansi Dhumal and Prasad badgujar jointly third price. This all about Conducted by Prof.N.B.Baviskar and Prof.Rupali Pawar Madam.

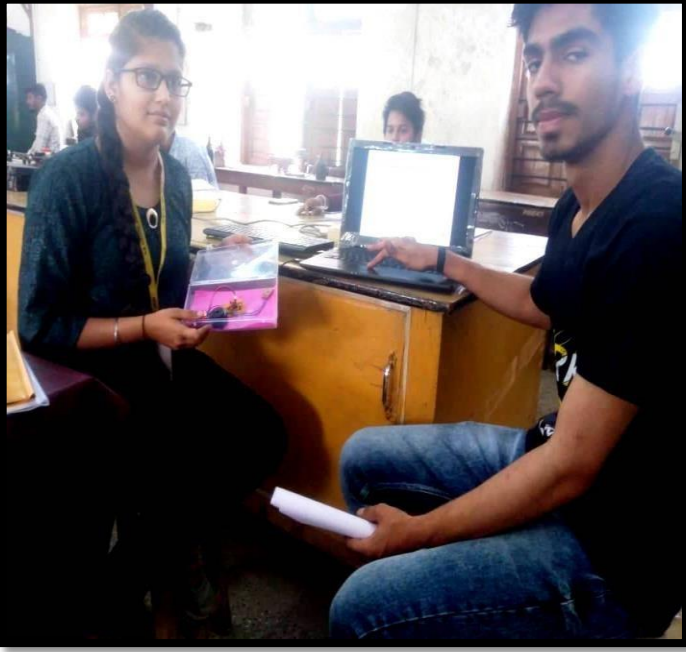
ID	Start time	Completion time	Email	Total points	Enter your full name	Enter your mobile number	Choice your Class	The operator Del square is called as.operator
1	2/25/22 17:44:37	2/25/22 17:50:21	anonymou	40	Nitin B Baviskar	9422689 000	Msc 2nd	Laplacian
2	2/25/22 18:27:14	2/25/22 18:34:40	anonymou	44	Yash Nitin Baviskar	9422689 000	Msc 1st	Laplacian
3	2/25/22 18:52:11	2/25/22 18:54:51	anonymou	50	Rupali d pawar	8551939 885	Msc 2nd	Laplacian
4	2/27/22 10:56:14	2/27/22 11:09:36	anonymou	28	Patil Samruddhi Jivansing	7218194 277	Msc 2nd	Laplacian
5	2/27/22 10:55:43	2/27/22 11:12:08	anonymou	28	Masule --esh Ramprasad	7620585 015	Msc 1st	Laplacian
6	2/27/22 11:04:06	2/27/22 11:13:39	anonymou	22	POOJA KISHOR BODADE	9834669 210	Msc 2nd	Laplacian
7	2/27/22 10:56:11	2/27/22 11:14:35	anonymou	40	SHAIKH MOHAMMED ASIM ABDUL SATTAR	9421215 659	Msc 2nd	Laplacian
8	2/27/22 11:00:48	2/27/22 11:15:08	anonymou	30	Sonawane Damini Gunvantrao	7721948 964	Msc 2nd	Laplacian
9	2/27/22 10:58:29	2/27/22 11:15:10	anonymou	32	Shelke priyanka sanjay	9545017 387	Msc 2nd	Laplacian
10	2/27/22 10:57:35	2/27/22 11:15:19	anonymou	32	Puja Sanjay Sharma	9158262 609	Msc 2nd	Laplacian
11	2/27/22 10:56:35	2/27/22 11:28:02	anonymou	36	Mansi Mangesh dhumal	7385079 978	Msc 2nd	Laplacian
12	2/27/22 11:28:04	2/27/22 11:29:51	anonymou	36	Badgujar prasad ravindra	9960510 231	Msc 2nd	Laplacian
13	2/27/22 10:56:36	2/27/22 11:29:51	anonymou	42	Harshada Vijay Panman	8788703 353	Msc 1st	Laplacian
14	2/27/22 11:28:20	2/27/22 11:33:26	anonymou	14	Kranti chootu Ahire	9689100 757	Msc 2nd	Laplacian
15	2/27/22 11:29:22	2/27/22 11:33:27	anonymou	16	Yogeshwari patil	9823083 094	Msc 2nd	Hamiltonian
16	2/27/22 11:34:18	2/27/22 11:35:23	anonymou	18	Patil Punam Rajendra	9146670 455	Msc 2nd	Laplacian
17	2/27/22 11:35:31	2/27/22 11:36:25	anonymou	20	Patil Amol Ashok	7620641 406	Msc 2nd	Laplacian

Department of Physics organised guest lecture Dr. Bharati Patil Madam, Mumbai for subject Medical Health program with using best nutrition of Dated 25/08/2022 . This all about Conducted by Prof.R.B. Deshmukh, N.B.Baviskar and Prof.Rupali Pawar Madam.





Department of Physics arranged project competition
in date- 06/02/2023



एम.एस्सीचा असीम शेख दहा पॉइंटर मिळवून 'नूतन मराठा'मधून प्रथम

जळगाव | नूतन मराठा महाविद्यालयाचा
विद्यार्थी असीम शेख हा एम.एस्सी फिजिक्समध्ये



महाविद्यालयात प्रथम आला.
त्याला ९४.६५ टक्के मिळून
सीजीपीए दहा पॉइंटर मिळाले
आहेत. समृद्धी पाटील या
विद्यार्थिनीने महाविद्यालयात
द्वितीय आली आहे. तिला ८७.६५
टक्के तर सीजीपीए ९.८५ पॉइंटर मिळाले आहेत.
उत्तीर्ण विद्यार्थ्यांचे प्राचार्यांनी कौतुक केले आहे.

Aseem Shaikh has done M.Sc. Took first rank
in Physics by getting 10 pointers.

Aseem Shaikh, a student of Nutan Maratha
College, is an M.Sc. Took first in college in
physics and got CGPA 10 pointers with 94.65
%. Also Patil Samriddhi came second in the
college and got 87.65% CGPA- 9.85 pointer.
The principal of both of them, Dr. L. P.
Deshmukh Sir, Vice Principal Dr. Madhuri
Patil Head of Department of Physics Prof. R.
B. Deshmukh Sir, Head of Department of
Electronics and P. G. Coordinator Dr. K. B.
Patil congratulated

17. Infrastructure of the Department: Physical Facilities:

Sr No	Room/ Laboratory	Dimension	Utilization for
1	Lab-I	40'x30'	F.Y.B.Sc.
2	Lab-II	20'x30'	S.Y. & T.Y.B.Sc.
3	Darkroom	10'x10'	All of above classes
4	PG Research Lab	20'x10'	M.Sc. , Ph.D.

18. Major Equipment in the Laboratory:

Sr.No.	Name of Equipment	Number
1	Laser source unit (green laser , red laser)	3
2	P.A system	3
3	Ultrasonic Interferometer	1
4	Single Pan Balance	1
5	G.M Counter apparatus with source	1
6	Gauss meter	1
7	Electromagnet	2
8	Four Probe unit	2
9	Hall effect unit	2
10	Michelson interferometer	1
11	Constant deviation spectrometer	1
12	Optical Bench	1
13	C.R.O	6
14	Spectrometer	4
15	Oven	1
16	Furnace	1
17	Vacuum unit	1
18	Planck's constant apparatus	1
19	Newton's Ring apparatus	3
20	Signal generator	4
21	Travelling microscope	8
22	Platinum resistance thermometer	4
23	Kundts Tube apparatus	3
24	Mercury source (35 watt)	2
25	Sodium source (55 watt)	3
26	Feby perot apparatus	1

27	Magnetic Stirrer with hot plate	1
28	Study of power vs. load characteristics of solar PV System	1
29	Determination of Curie temp. of given sample	1
30	Study of the dielectric behaviour of BaTiO ₃ sample.	1
31	Bandwidth of optical fibre.	1
32	Magneto optical experiment set without power meter & optical bench.	1
33	Absorption spectrum of iodine vapour without spectrometer	1
34	Determination of Fermi energy in copper	1
35	Chemical bath unit	1
36	Spin Coating Unit	1

19. Departmental Library Facilities:

Sr. No	Books	Journals	Project Report
1	200	03	125

20. Computers and other peripherals:

Sr No.	Item	Description	Number
1	COMPUTER	P3,P4 & I5	10
2	PRINTER	CANON & HP	02

20. Special facilities of the Department:

1. Extra guidance for NET/SET
2. Recognized Research Center of KBC NMU Jalgaon for UG/ PG and Research Student.

21. Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department:

Strengths:

- ❖ **Well experienced and qualified staff**
- ❖ **Post graduate department with Recognized Research center**
- ❖ **Friendly interaction of teachers with the students**

Weakness:

- ❖ **Lack of placement**
- ❖ **Constrain in research facility**

Opportunities:

- ❖ **Teaching learning method can be improved with learning resources**
- ❖ **Ample scope for extending research projects**

Challenges:

- ❖ **To attract students by projecting opportunities in Physics.**

22. Future Plans:

- ❖ **More MOU for Department**
- ❖ **To organize more co-curricular and extracurricular activities for the students**
- ❖ **To organize national conference on Nanomaterials and Solar energy**
- ❖ **To apply for research projects and funding for it**

