



Completion Report: PhD Coursework in Physics

Department of Physics, Tuljaram Chaturchand College Baramati

Duration: December 3, 2023 - February 3, 2024

Mode: Online (4:00 pm - 6:00 pm)

Number of Students: 40

Introduction: The Department of Physics, *Tuljaram Chaturchand College Baramati* organized a Ph.D. coursework in Physics spanning from December 3, 2023, to February 3, 2024. The course aimed to provide foundational knowledge and advanced concepts in various Research areas of physics. in adherence to the university's rules and regulations.

Course Structure: The coursework consisted of lectures, seminars, IPR workshops, and discussions conducted online mode. There are 40 students admitted to the program. These sessions covered a wide range of topics relevant to the field of physics, ensuring a comprehensive understanding of the subject matter and advance techniques in research. There are five course viz

- 1) Course 1 Phy- Ph.D 001 (Research Methodology , Credits :04
 - 2) Course 2 Phy- Ph.D 002 (writing Skills) Credits : 04
 - 3) Course 3 A Phy- Ph.D 003 A (Fundamental of Physics) Credits : 04
 - 4) Course 3 B Phy- Ph.D 003 B (Advances techniques in Physics) Credits : 04
 - 5) Course 4 Phy- Ph.D 004 (Publication Ethics) Credits : 02
- The Total 18 credits are assigned to this course.

Examination Plan: An examination for the Ph.D. coursework students has been scheduled for February 23, 24, 2024, from 11:00 am to 2:00 pm. The examination will be conducted offline, adhering to the university's guidelines and regulations.

Preparation and Execution: Throughout the duration of the coursework, students engaged in rigorous study and preparation under the guidance of experienced faculty members. The transition from online lectures to an offline examination has been meticulously planned to ensure a smooth and fair assessment process.

Conclusion: The completion of the Ph.D. coursework marks a significant milestone in the academic journey of the participating students. It represents their dedication, hard work, and commitment to advancing their knowledge and expertise in the field of physics. The upcoming examination will serve as an opportunity for students to demonstrate their understanding and proficiency in the subject matter.

Acknowledgment: We would like to extend our gratitude to the Principal Prof.(Dr) Avinash Jagtap , Vice Principal and Head of Department Prof Ashok Kalange also I am Thank full to Dean of Science faculty Prof V.C Kakade for their Kind cooperation during the course also Thank full to faculty members, staff, and students for their

active participation and contribution to the successful completion of the Ph.D. coursework in Physics. Special thanks to the college and university administration for their support and guidance throughout the process.

This completion report signifies the culmination of efforts invested in the pursuit of academic excellence and serves as a testament to the commitment of the Department of Physics at Savitribai Phule Pune University to fostering a conducive learning environment for all stakeholders involved.



Coordinator

Dr Ramchandra Sapkal

Date: 24/2/24



Head Department of Physics

Head

Department of Physics
Prof. DR. Ashok Kalange
Tuljaram Chaturchand College
Baramati (Dist-Pune)



Anekant Education Society's

**Tuljaram Chaturchand College of Arts,
Science and Commerce, Baramati**


(AUTONOMOUS)

DEPARTMENT OF PHYSICS

NOTICE

Date: 29/11/2023

All the students who have registered in the Ph. D. program are informed that the Department is going to organize Course-work program from 4th December 2023. Except students exempted from the course-work, it is compulsory for all other candidates. The detailed schedule of the program is given as below


Co-ordinator


Head


Principal

**Head
Department of Physics
Tuljaram Chaturchand College
Baramati (Dist-Pune)**





Tuljaram Chaturchand College of Arts, Science and Commerce, Baramati

(AUTONOMOUS)

DEPARTMENT OF PHYSICS

Time Table for Ph. D. course-work

Date	Day	Time	Subject	Name of Faculty
4/12/2023	Mon	4.00 to 5.00	Adders by HOD	Dr. P. C. Pingale
4/12/2023	Mon	5.00 to 6.00	Introduction	Dr. R. T. Sapkal
5/12/2023	Tue	4.00 to 5.00	Quantum Mechanics	Dr. R. T. Sapkal
5/12/2023	Tue	5.00 to 6.00	Expert High Score	Dr. R. T. Sapkal
6/12/2023	Wed	4.00 to 5.00	Atoms Molecules and Solids	Dr. R. D. Kale
6/12/2023	Wed	5.00 to 6.00	Atoms Molecules and Solids	Dr. R. D. Kale
7/12/2023	Thu	4.00 to 5.00	Advance Experimental Physics	Dr. S. B. Kulkarni
7/12/2023	Thu	5.00 to 6.00	Advance Experimental Physics	Dr. S. B. Kulkarni
8/12/2023	Fri	4.00 to 5.00	Research Methodology/Seminar	Dr. T . P. Gujar
8/12/2023	Fri	5.00 to 6.00	Research Methodology/Seminar	Dr. T . P. Gujar
9/12/2023	Sat	4 to 6	Seminar	Dr R T Sapkal/ Dr S B Kulkarni
11/12/2023	Mon	4.00 to 5.00	Generate CIF	Dr. R. T. Sapkal
11/12/2023	Mon	5.00 to 6.00	Generate CIF	Dr. R. T. Sapkal
12/12/2023	Tue	4.00 to 5.00	Course 2 Writing of Reviews	Dr. V. S. Mohite
12/12/2023	Tue	5.00 to 6.00	Course 2 Writing of Reviews	Dr. V. S. Mohite
13/12/2023	Wed	4.00 to 5.00	Latex	Dr. Jadhav/ Mrs Shinde
13/12/2023	Wed	5.00 to 6.00	Latex	Dr. Jadhav/ Mrs Shinde
14/12/2023	Thu	4.00 to 5.00	Origine	Dr. R T Sapkal
14/12/2023	Thu	5.00 to 6.00	Rietveld analysis	Dr. Madke Suraj
15/12/2023	Fri	4.00 to 5.00	Research Methodology/Seminar	Dr. T . P. Gujar
15/12/2023	Fri	5.00 to 6.00	Research Methodology/Seminar	Dr. T . P. Gujar
16/12/2023	Sat	4.00 to 6.00	Seminar	Dr R D Kale / Dr Mahesh Bhadane

Date	Day	Time	Subject	Name of Faculty
18/12/2023	Mon	4.00 to 5.00	Electrodynamics	Dr. Bagavde J B
18/12/2023	Mon	5.00 to 6.00	Electrodynamics	Dr. Bagavde J B

19/12/2023	Tue	4.00 to 5.00	Quantum Mechanics	Dr. R. T. Sapkal
19/12/2023	Tue	5.00 to 6.00	Quantum Mechanics	Dr. R. T. Sapkal
20/12/2023	Wed	4.00 to 5.00	Atoms Molecules and Solids	Dr. R. D. Kale
20/12/2023	Wed	5.00 to 6.00	Atoms Molecules and Solids	Dr. R. D. Kale
21/12/2023	Thu	4.00 to 5.00	Experimental Techniques	Dr. S. B. Kulkarni
21/12/2023	Thu	5.00 to 6.00	Experimental Techniques	Dr. S. B. Kulkarni
22/12/2023	Fri	4.00 to 5.00	Research Methodology/Seminar	Dr. T . P. Gujar
22/12/2023	Fri	5.00 to 6.00	Research Methodology/Seminar	Dr. T . P. Gujar
23/12/2023	Sat	4.00 to 6.00	Seminar	Dr R T Sapkal/ Dr Kulkarni
25/12/2023	Mon	4.00 to 5.00	Electrodynamics	Dr. Bagavde J B
25/12/2023	Mon	5.00 to 6.00	Electrodynamics	Dr. Bagavde J B
26/12/2023	Tue	4.00 to 5.00	Course 2 Writing of Reviews	Dr. V. S. Mohite
26/12/2023	Tue	5.00 to 6.00	Course 2 Writing of Reviews	Dr. V. S. Mohite
27/12/2023	Wed	4.00 to 5.00	Nuclear and Particle Physics	Dr. Bagavde J B
27/12/2023	Wed	5.00 to 6.00	Nuclear and Particle Physics	Dr. Bagavde J B
28/12/2023	Thu	4.00 to 5.00	Research Methodology : Model 2	Dr. V C Kakade
28/12/2023	Thu	5.00 to 6.00	Research Methodology : Model 2	Dr. V C Kakade
29/12/2023	Fri	4.00 to 5.00	Research Methodology/Seminar	Dr. T . P. Gujar
29/12/2023	Fri	5.00 to 6.00	Research Methodology/Seminar	Dr. T . P. Gujar
30/12/23	Sat	4.00 to 6.00	Seminar	Dr Vijay Mohite/ Dr S Kulkarni
1/1/2024	Mon	4.00 to 5.00	Statistical Mechanics	Dr Vijay Mohite
1/1/2024	Mon	5.00 to 6.00	Statistical Mechanics	Dr Vijay Mohite
2/1/2024	Tue	4.00 to 5.00	Quantum Mechanics	Dr. R. T. Sapkal
2/1/2024	Tue	5.00 to 6.00	Quantum Mechanics	Dr. R. T. Sapkal



Date	Day	Time	Subject	Name of Faculty
3/1/2024	Wed	4.00 to 5.00	Classical Mechanics	Dr. Bagavde J B
3/1/2024	Wed	5.00 to 6.00	Classical Mechanics	Dr. Bagavde J B
4/1/2024	Thu	4.00 to 5.00	Experimental Techniques	Dr. R T Sapkal
4/1/2024	Thu	5.00 to 6.00	Experimental Techniques	Dr. R T Sapkal
5/1/2024	Fri	4.00 to 5.00	Research Methodology/Seminar	Dr. V S Mohite
5/1/2024	Fri	5.00 to 6.00	Research Methodology/Seminar	Dr. V S Mohite
8/1/2024	Mon	4.00 to 5.00	Electrodynamics	Dr. R T Sapkal
8/1/2024	Mon	5.00 to 6.00	Electrodynamics	Dr. R T Sapkal
9/1/2024	Tue	4.00 to 5.00	Course 3 B : Model 2 : Spectroscopic Techniques	Dr. V. S. Mohite
9/1/2024	Tue	5.00 to 6.00	Course 3 B : Model 2 : Spectroscopic Techniques	Dr. V. S. Mohite
10/1/2024	Wed	4.00 to 5.00	Physics & Application of Advanced Materials	Dr. S.B Kulkarni
10/1/2024	Wed	5.00 to 6.00	Physics & Application of Advanced Materials	Dr. S.B Kulkarni
11/1/2024	Thu	4.00 to 5.00	Patent	Dr Ballal Sangli
11/1/2024	Thu	5.00 to 6.00	Patent	Dr Ballar Sangli
12/1/2024	Fri	4.00 to 5.00	Research Methodology/Seminar	Dr. T . P. Gujar
12/1/2024	Fri	5.00 to 6.00	Research Methodology/Seminar	Dr. T . P. Gujar
13/1/2024	Sat	4.00 to 6.00	Seminar	V P College
15/1/2024	Mon	4.00 to 5.00	Quantum Mechanics	Dr. R. T. Sapkal
15/1/2024	Mon	5.00 to 6.00	Quantum Mechanics	Dr. R. T. Sapkal
16/1/2024	Tue	4.00 to 5.00	Experimental Techniques	Dr. R T Sapkal
16/1/2024	Tue	5.00 to 6.00	Experimental Techniques	Dr. R T Sapkal
17/1/2024	Wed	4.00 to 5.00	Classical Mechanics	Dr. R.T Sapkal
17/1/2024	Wed	5.00 to 6.00	Classical Mechanics	Dr. R. T Sapkal
18/1/2024	Thu	4.00 to 5.00	MMP	Dr. T . P. Gujar
18/1/2024	Thu	5.00 to 6.00	MMP	Dr R T Sapkal
19/1/24	Friday		Characterization Techniques	Princ Chakne
19/1/24	Friday		Characterization Techniques	Princ Chakne
22/1/2024	Mon	4.00 to 5.00	Research Methodology/Seminar	Library Session
22/1/2024	Mon	5.00 to 6.00	Research Methodology/Seminar	Library Session
23/1/2024	Tue	4.00 to 5.00	Atoms and Molecules	Dr. Bagavde J B
23/1/2024	Tue	5.00 to 6.00	Atoms and Molecules	Dr. Bagavde J B



24/1/2024	Wed	4.00 to 5.00	Course 3 B : Model 2 : Spectroscopic Techniques	Dr. V. S. Mohite
24/1/2024	Wed	5.00 to 6.00	Course 3 B : Model 2 : Spectroscopic Techniques	Dr. V. S. Mohite
25/1/2024	Thu	4.00 to 5.00	Physics & Application of Advanced Materials	Dr R T sapkal
25/1/2024	Thu	5.00 to 6.00	Physics & Application of Advanced Materials	Dr. R T Sapkal
29/1/2024	Mon	4.00 to 5.00	Noice and Signal	Dr. V S Mohite
29/1/2024	Mon	5.00 to 6.00	Electronics & Instrumentation	Dr. V S Mohite
30/1/2024	Tue	4.00 to 5.00	Research Methodology/Seminar	Dr.R. K Nimat
30/1/2024	Tue	5.00 to 6.00	Research Methodology/Seminar	Dr.R. K Nimat
31/1/2024	Wed	4.00 to 5.00	Course 3 B : Model 2 : Spectroscopic Techniques	Dr. V. S. Mohite
31/1/2024	Wed	5.00 to 6.00	Course 3 B : Model 2 : Spectroscopic Techniques	Dr. V. S. Mohite
1/2/2024	Thu	4.00 to 5.00	Big data analysis	Prof Rahul Shaha
1/2/2024	Thu	5.00 to 6.00	Big data analysis	Prof Rahul Shaha
2/2/2024	Fri	4.00 to 5.00	Simulation	Dr. R. T Sapkal
2/2/2024	Fri	5.00 to 6.00	Bio-materials	Dr. R T Sapkal
3/2/2024	Sat	4.00 to 6.00	Conclusion	Dr. A. E. Kalange /Dr R T Sapka
Nonteaching Staff				
1	All Days		Support service	Mr M. D. Kumbhar
2	All Days		Support service	Mr Y. B. Walke
3	All Days		Support service	Mr Kare R. G.

R. T. Sapkal

Coordinator

[Signature]

Head
Head

Department of Physics
Tuljaram Chaturchand College
Baramati (Dist-Pune)

[Signature]

Principal





**Anekant Education Society's
Tuljaram Chaturchand College, Baramati
Physics Research Centre**

Seminar Time Table


Guide name	External Examiner	Student name	Date/Time
Dr.Bhadane Mahesh S. Dr.Thube Sanjay G.	Dr.Bhadane Mahesh s Dr. R.D.Kale	1.Mr. Amol Rajendrasing Pardeshi 2.Mr. MokansingAspeing Padvi 3.Mr. Pratap Laxman Kamble 4.Mr. Suraj Vasant Haral 5.Mr. Yogesh Arjun Pathak	16/12/2023 4pm to 6pm
Dr. Kulkarni H.R.	Dr. Kulkarni H.R. Dr.Kulkarni.S.B.	1. Athat Sachin Khandu 2. Chavan Sudhakar Abhima 3. ChavareChetank umar Dattatraya 4. Fakir Altaf Isuf 5. Raut Rajaram Baliram 6. Vishwase Rahul Hanumant 7. Lende Kalpana Bharat	23/12/2023 3pm to 6pm
Dr.Pisal S.H.	Dr.V.S.Mohite	1. Bagal Mahesh Govind 2. Bhilare Ramdas Sopan 3. Ghule Pranali Ashok	30/12/2023 3pm to 6pm
Dr.Joshi R.P.		1. Dhamale Shamal Dilip 2. Kurkute Pravin Vilas 3. Morey Ashvini Ramdas	
Dr.Bhise R.B. Dr.Shelke P.N.	Dr Deokate R.J.		06/01/2024 3pm to 6pm

Dr.Katkar A.S		<ol style="list-style-type: none"> 1. Gawade Kiran Dattatray 2. Veer Nandkumar Dnyaneshwar 3. Joshi Nilima Ramdas 4. Pandit Tanuja Mukund 5. KankeVaibhav Swami 6. Tupe Ganesh Haribhau 	
Dr Deokate R.J. Dr J.A.Bagawade	Dr J.A.Bagawade Dr.R.T.Sapkal	<ol style="list-style-type: none"> 1. Mr. Vishal MaljariKhetmalis 2. Mr. Harshad Narayan Vekhande 3. Mr.Vikrant Prakash Lalge 	13/01/2024 4pm to 6pm
Dr. Sanjaykumar Dalvi Dr. S. S. Kekade Dr. P. D. More	Dr. P. D. More Dr. S. S. Kekade	<ol style="list-style-type: none"> 1. Mr.Nitin Suryakant Choudhari 2. Mrs.Trupti Suhas Adhav 3. Mr.Sumit Arvind Lolage 4. Mr Kardile Avadhut Vasudev 5. Miss.Nikam Preethi Amol 	20/01/2024 2 pm to 4 pm
Dr.A.E.Kalange	Dr.V.S.Mohite	<ol style="list-style-type: none"> 1. Mr.Mhaske Sujit Sambhaji 2. Miss.Nikam Preethi Amol 3. Mr.Godase Priyanka Abasaheb 4. Mr.PatelSaddam husen Hamid 	27/01/2023 4pm to 6pm



Dr.R.T.Sapkal Dr.R.D.Kale	Dr.R.T.Sapkal	1. Mr.Sodmise Sagar Kundlik 2. MissWaghm ode Jayshri Vitthal 3. Miss.Jadhav Ashwini Dattatray 4. Miss.Shinde Supriya Jyotiram 5. Mr.Patil Pratik Ashok	03/02/2023 4pm to 6pm
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Coordinator


HOD
Head
Department of Physics
Tuljaram Chaturchand College
Baramati (Dist-Pune)


Principal



List of Student for Phd Course Work

Sr No	Your Name as per Degree certificate	Username
1	Lolage Sumit Arvind	sumit.lolage1@gmail.com
2	Pathak Yogesh Arjun	pathakyogiraj@gmail.com
3	Adhav Trupti Suhas	truptiadhav33@gmail.com
4	Suraj Vasant Haral	surajharal@gmail.com
5	Pranali Ashok Ghule	chaudharipranu20@gmail.com
6	Pandit Tanuja Mukund	tanujapandit228815@gmail.com
7	Joshi Nilima Ramdas	nilimajoshi2@gmail.com
8	Altaf Isuf Fakir	altaffakir1994@gmail.com
9	PARDESHI AMOL RAJENDRASING	amolrp111@gmail.com
10	Khetmalis Vishal Malhari	vkphysics07@gmail.com
11	PATIL PRATIK ASHOK	patilpratik8909@gmail.com
12	Kardile Avadhut Vasudev	kardile.avadhut@gmail.com
13	Padvi Mohansing Aapsing	padavim@gmail.com
14	Patel Saddamhusen Hamid	saddampatel1811@gmail.com
15	Ashvini Ramdas Morey	ashvini111p@gmail.com
16	Dhamale Shamal Dilip	dhamaleshamal@gmail.com
17	Alhat Sachin Khandu	alhatsachin5@gmail.com
18	Sodmise Sagar Kundlik	sagarsodmise257@gmail.com
19	Lalge Vikrant Prakash	vickylalge1122@gmail.com
20	LENDE KALPANA BHARAT	kalpanalende94@gmail.com
21	Tupe Ganesh Haribhau	ganeshtupe.95@gmail.com
22	Waghmode Jayashri Vitthal	jayshreewaghmode1@gmail.com
23	Kanke Vaibhav Swami	vkanke125@gmail.com
24	Chetankumar Dattatraya Chavare	ckumar.chavare9@gmail.com
25	NIKAM PREETHI AMOL	drpreethinikam@gmail.com
26	Chavan Sudhakar Abhiman	mr.sachavan@gmail.com
27	Choudhari Nitin Suryakant	nitinchoudhari30@gmail.com
28	Chavare Chetankumar Dattatraya	ckumar.chavare9@gmail.com
29	Jadhav Ashwini Dattatray	jadhavashwini7654@gmail.com
30	Mahesh Govind Bagal	maheshbagal39@gmail.com
31	Nandkumar Dnyaneshwar Veer	nandkumarveer@gmail.com
32	Kiran Dattatraya Gawade	gawadekiran06@gmail.com
33	Godase Priyanka Abasaheb	go483182@gmail.com
34	Pravin Vilas Kurkute	pravinkurkute5555@gmail.com
35	Sujit sambhaji mhaske	mhaskephysics@gmail.com
36	Kamble Pratap Laxman	pratapkamble1991@gmail.com
37	Raut Rajaram Baliram	raju.raut321@gmail.com
38	Bhilare Ramdas Sopan	ramdas.bhilare@gmail.com
39	VEKHANDE HARSHAD NARAYAN	harshadvekhande3@gmail.com
40	Vishwase Rahul Hanumant	rahulvishwase92@gmail.com

R. S. S. S.



**Tuljaram Chaturchand College of Arts,
Science and Commerce, Baramati**

(AUTONOMOUS)

DEPARTMENT OF PHYSICS

NOTICE

Date: 22/02/2024

All the students who have registered in the Ph. D. program are informed that final examination for the Ph.D. course work is scheduled on 23 and 24 February as per following time table.

Date	Paper	Time	Room No
23/2/24	Course I	11.00 Am to 2 .00 pm	M 215
	Course II	3.00 pm to 6.00 pm	M 215
24/2/24	Course III A	8.00 Am to 11 .00 pm	M 215
	Course III B	11.00 Am to 2 .00 pm	M 215
	Course IV	3.00 pm to 5.00 pm	M 215


Coordinator

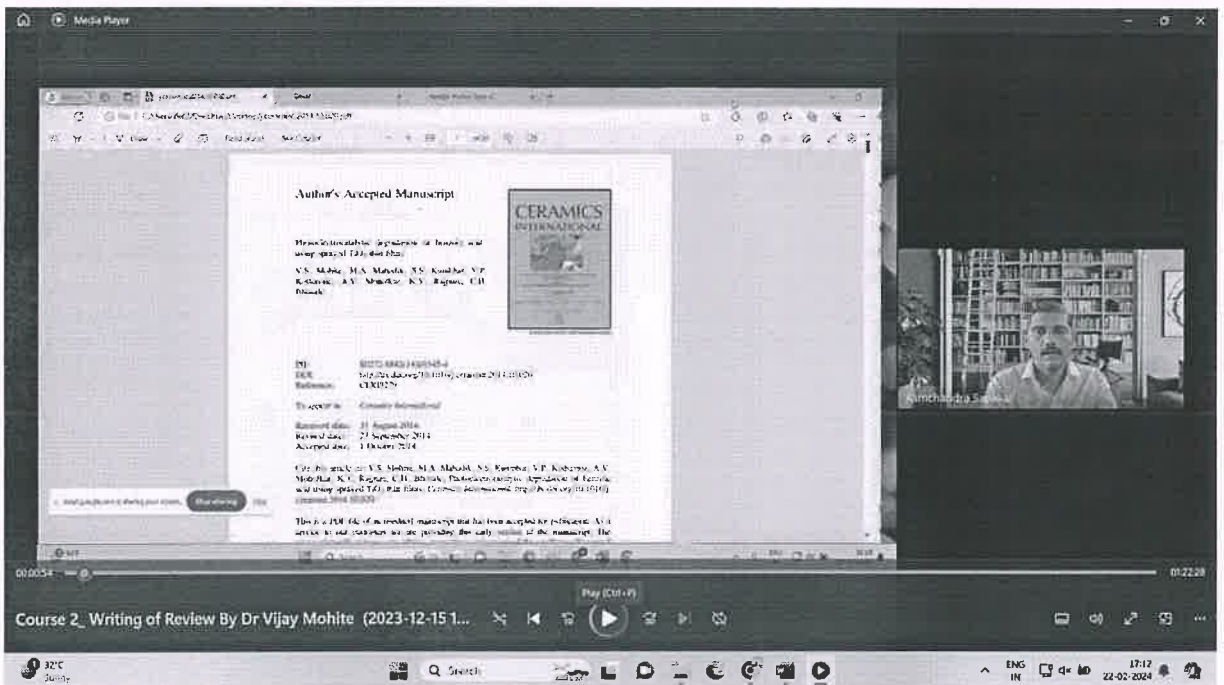

Head
Head

CEO


Principal

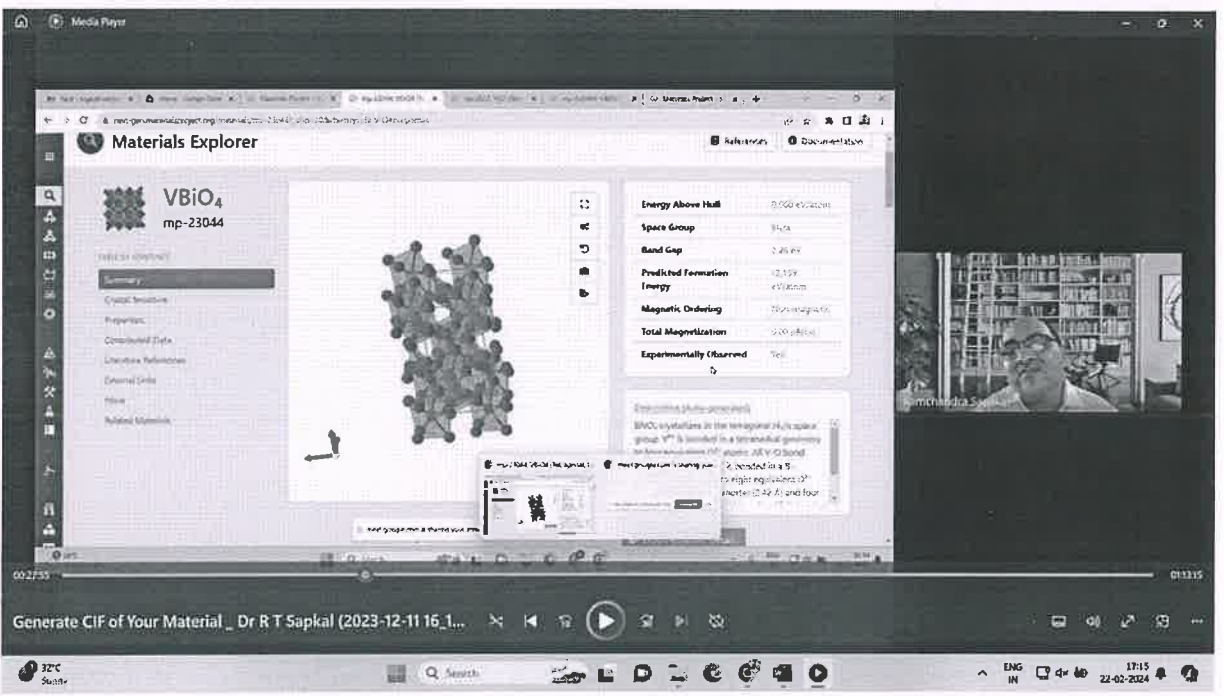
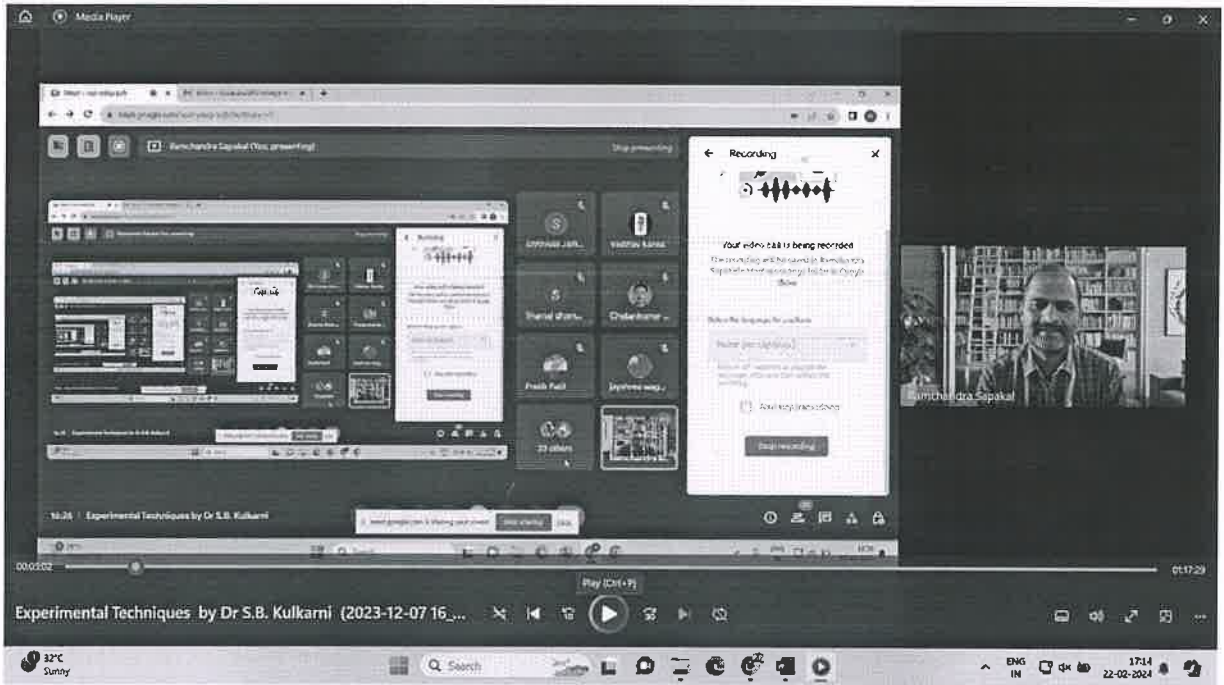
Department of Physics
Tuljaram Chaturchand College
Baramati (Dist-Pune)





Dr. Pratik Patil





Rtsapkal



Media Player

No.	Peak (nm)	Intensity	Area (%)
1	21.000	100.000	1.000
2	21.000	100.000	1.000
3	21.000	100.000	1.000
4	21.000	100.000	1.000
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48	21.000	100.000	1.000
49	21.000	100.000	1.000
50	21.000	100.000	1.000

Ph.D. Course work Hands-on Session (2023-12-05 16_06 GMT...)

32°C Sunny

Search

ENG IN 17:17 22-02-2024

A
Ph.D. Course Work
Seminar
on

"Influence of various parameters on the Photocatalytic Degradation efficiency of Dyes using P25 Degussa TiO₂ nanoparticles"

Department of Physics
Tuljaram Chaturchand College of Arts, Science & Commerce, Baramati.

Mr. Kardile Avadhut V.
 Research Student

Dr. Mene Ravindra U.
 Research Guide
 (A. M. College, Hadapsar 28)

Dr. Borate Haribhau M.
 Research Co-Guide
 (A.W. College, Otur Pune)

Research Center
PDEA's Baburaoji Gholap College Sangvi Pune -27

Avadhut Kardile

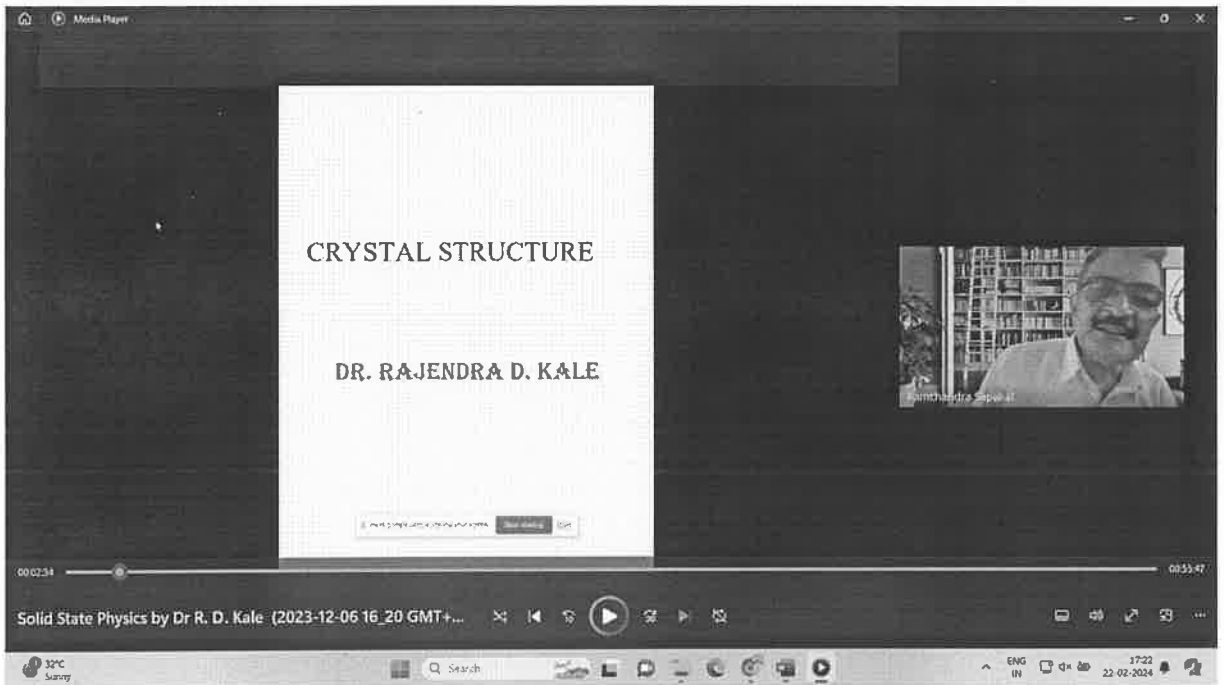
32°C Sunny

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ENG IN 17:18 22-02-2024

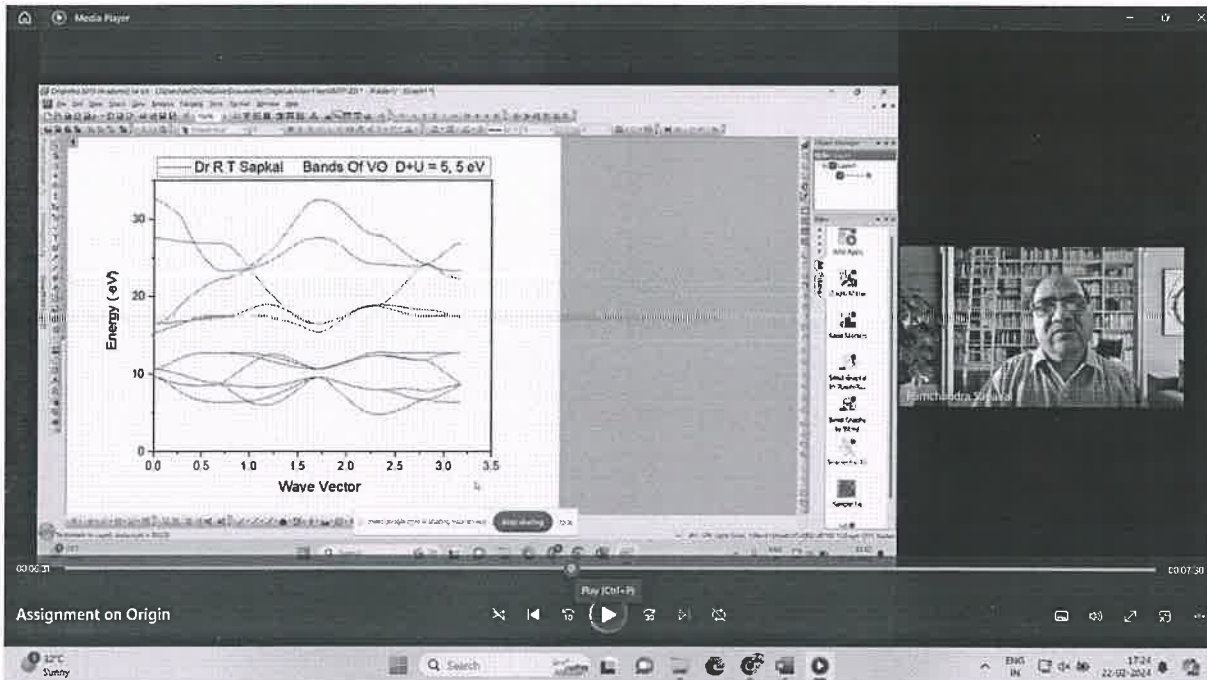
R. S. Kulkarni





Ptsapkal





R. T. Sapkal



Date : 16/02/2024

To,
The Principal
Tuljaram Chaturchand College
of Arts, Science and Commerce
Baramati - 413 102

Subject : A report of Ph. D. Course Work in Botany

Respected Sir,

According to standards and procedure for award of Ph. D. degree of Savitribai Phule Pune University, Pune (Ref. No. PGS/144, Circular No. 14/2017) the course work for Ph. D. student is compulsory. Accordingly with the prior permission of Hon. Principal of our college we have planned to conduct offline – online course work for Ph. D. students in Botany subject during 16/10/2023 to 16/02/2024.

During the course work total 75 lectures of various resource persons were organized. Total 49 beneficiaries get benefitted of this course work.

The syllabus of the course work was as follows:

Ph. D. course work shall be of 16 credits + 02 credits of Research and Publication Ethics (RPE) proposed by UGC.

- Course - 1:** Research Methodology: 04 Credits
- Course - 2:** Writing of Research Proposal: 04 Credits
- Course - 3:** Advances in Botany - I: 04 Credits
- Course - 4:** Advances in Botany – II: 04 Credits
- Course - 5:** Research and Publication Ethics (RPE): 02 Credits



Examination Pattern:

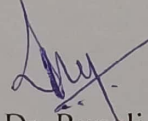
- ❖ **Internal Exam Pattern:** No. of Papers 05, 50 Marks (for each paper)
- ❖ **Distribution of Internal Marks:**

Class Assessment	:	10 Marks
Home Assignment	:	20 Mark
Submission	:	20 Marks
- ❖ **External Exam Pattern : MCQ (Each Question Carries 1 mark)**
- ❖ **No. of Papers : 05, 50 Marks (for each paper)**

After examination, mark sheets and certificates were distributed to the research scholars.

This is for your kind information.

Yours Sincerely



Dr. Rupali Chitale
Course co-ordinator
P.G. Research Centre,
Department of Botany

