



**Bharati Vidyapeeth's**  
**Dr. Patangrao Kadam Mahavidyalaya, Sangli**  
**Department of Physics**



**One-Day Online Teachers' Training Workshop on New Changed Syllabus of B.Sc.-III  
Physics (CBCS Pattern)**

**P. No. XI DSE-E3 Classical Mechanics and Electrodynamics,  
P. No. XIV Solid State Physics**

**Organized by**

**Department of Physics and IQAC,**

**Bharati Vidyapeeth's Dr. Patangrao Kadam Mahavidyalaya, Sangli**

**Sponsored by Shivaji University, Kolhapur Organized**

**Date:** 12<sup>th</sup> February, 2021

**Time:** 11 am to 3.20 pm

**Reference:** Letter- Shivaji University/Seminar/0245 issued on 08<sup>th</sup> Jan, 2021

**Introduction:**

The changed syllabus is introduced by Shivaji University, Kolhapur for T. Y. B. Sc. 2020-21. There was a need to orient faculties in their respective subject content and revised paper pattern. In this regard, the College had organized one day online teachers' training workshop on New changed syllabus of B.Sc. III for Paper No. XI DSE-E3 Classical Mechanics and Electrodynamics, Paper No. XIV DSE F2 Solid State Physics.

**Objectives:** The basic objectives are:

- To enlighten the respective faculties about syllabus up-gradation
- To discuss each and every contents of the syllabus and take comments and suggestions from participated faculties on the same.

One-Day Online Teachers' Training Workshop on New Changed Syllabus of B.Sc.-III  
Physics (CBCS Pattern)

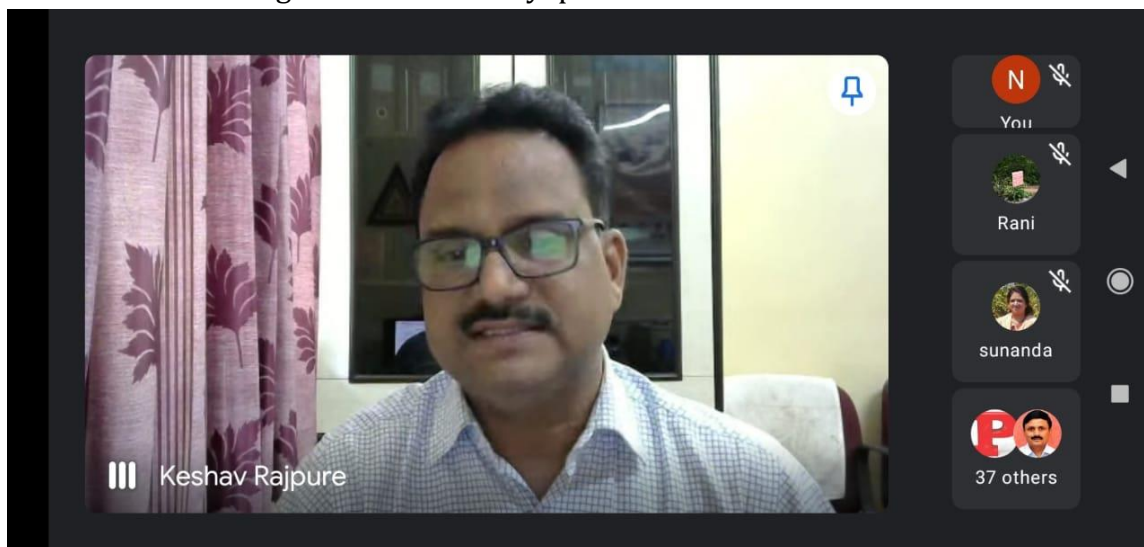


**Preparations:**

- Request letter was sent to University for seeking permission to conduct a workshop. After University approval received regarding the date fixing call.
- Subject wise Resource persons' availability was confirmed via calls and invitations were sent through emails.
- Brochures and invitations were prepared and send to all colleges.
- Programmed schedule, resource person list was prepared.
- Work was allocated by forming the participants so as make arrangements.



**Principal Dr. D. G. Kanase** (President and Organizing Chairperson) addressed to the Faculty members of Physics regarding importance of Changed Syllabus workshop and information of college and Bharati Vidyapeeth as well.



**Prof. (Dr.) K. Y. Rajpure** (Chairman of BoS, Physics and Head, Department of Physics, SUK) has given keynote speech as Chief Guest.



## Detailed Report

### Inauguration Session:

<b>Guest of Honours</b>	Respected <b>Prof. (Dr.) K. Y. Rajpure</b> , Chairman of BoS, Head, Department of Physics, Shivaji University, Kolhapur.
<b>President and Organizing Chairman</b>	Respected <b>Prof (Dr.) D. G. Kanase</b> , MC Member, SUK Principal, Bharati Vidyapeeth's Dr. Patangrao Mahavidyalaya Sangli.
<b>Resource Persons</b>	<ol style="list-style-type: none"> <li>1. For Classical Mechanics, <b>Dr. P. D. Kamble</b>, The New College, Kolhapur.</li> <li>2. For Electrodynamics and Relativity, <b>Dr. N. S. Shinde</b>, Karmaveer Bhaurao Patil College, Islampur.</li> <li>3. For Solid State Physics, <b>Dr. S. C. Yadav</b>, Miraj Mahavidyalaya, Miraj and</li> <li>4. For Solid State Physics, <b>Dr. R. K. Nimat</b>, Balasaheb Desai College Patan, Satara</li> </ol>
<b>Chair Persons</b>	<ol style="list-style-type: none"> <li>1. For Classical Mechanics <b>Dr. M. M. Tonape</b>, Smt. Kasturbai Walchand College, Sangli</li> <li>2. For Electrodynamics and Relativity <b>Dr. J. S. Ghodake</b>, Padmabhushan Dr. Vasantodada Patil Mahavidyalaya, Tasgaon.</li> <li>3. For Solid State Physics, <b>Dr. C. E. Patil</b>, Matoshri Bayabai Shripatrao Kadam Kanya Mahavidyalaya, Kadegaon</li> <li>4. For Solid State Physics, <b>Dr. V. V. Killedar</b>, Rajashri Chhatrapati Shahu College, Kolhapur.</li> </ol>

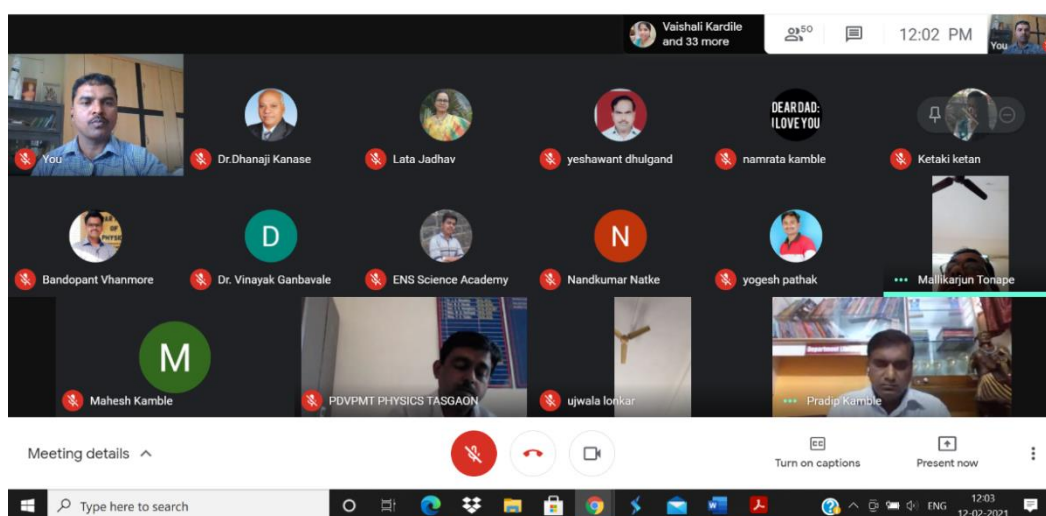
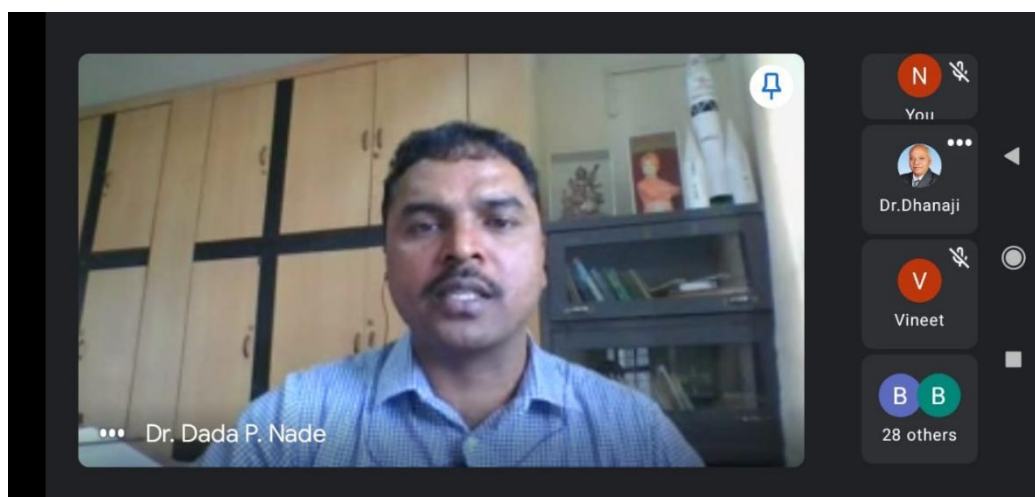
### Inauguration:

Inauguration of one day online workshop was started at 11:00 am through google meet link <https://meet.google.com/vfv-fkwm-xie> with welcoming the guests. Total 92 participants were present online for this workshop. Following eminent personality graced the occasion.

- ✚ The workshop co-ordinator **Dr. Dada P. Nade**, Head, Department of Physics briefed about the workshop.



- Respected Principal **Dr. D. G. Kanase**, in his speech, welcomed the invitees and participants and being **Manangement Council Member** spoke about the need of organizing such type of workshop.
- Respected **Dr. K. Y. Rajpure**, Head, Department of Physics, Shivaji University, Kolhapur and **Chairman, Board of Studies of Physics**, showing gratitude for inviting, praised for organizing such workshop and conveyed best wishes for the workshop. On his keynote speech, he pointed out the applications of whole syllabus and gave details about changed structure of Classical Mechanics and Classical Electrodynamics as well as Solid State Physics over power point presentation.
- The inauguration session ended with a Vote of Thanks by Secretary of Workshop, **Mr. N. N. Natke**.



Keshav Rajpure is presenting

Dr. Vaishali Mane and 39 more

11:47 AM

What we study with XRD ?

1. XRD is non-destructive technique
2. To determine crystal structure (atomic arrangement)
3. To determine structural properties such as Lattice parameters, strain, grain size

1. To measure thickness of thin films and multi-layers

2. To study Biological micro molecular crystallography

Reciprocal lattice: The reciprocal lattice is created by interplanar spacings

X-RAY DIFFRACTION METHODS

- 1. Laue (Polychromatic Beam Fixed Angle)
- 2. Powder (Monochromatic Beam Variable Angle)
- 3. Rotating Crystal (Monochromatic Beam Variable Angle)

The Ewald Sphere construction

$n\lambda = 2d_{hkl} \sin\theta_{hkl}$

$\sin\theta_{hkl} = \frac{\lambda/2}{d_{hkl}} = \frac{1/d_{hkl}}{2/\lambda}$

This is Bragg's equation in reciprocal space

Crystal related information is present in reciprocal crystal

The Ewald sphere construction generates the diffraction pattern

Chooses part of the reciprocal crystal which is observed in an experiment

Radiation related information is present in Ewald Sphere

Meeting details

Turn on captions

Keshav Rajpure is presenting

Pradip Kamble is presenting

Rani Pawar and 33 more

12:35 PM

and

$$\frac{\partial f}{\partial y} = \frac{y}{\sqrt{1+y^2}}$$

The equation (1) therefore reduces to

$$\frac{d}{dx} \left[ \frac{y}{\sqrt{1+y^2}} \right] = 0,$$

or

$$\frac{y}{\sqrt{1+y^2}} = a \text{ constant}$$

from which

$$y = ax + b.$$

where  $a$  is constant, giving

Meeting details

Turn on captions

Pradip Kamble is presenting

Dada Nade and 22 more

12:43 PM

Meeting details

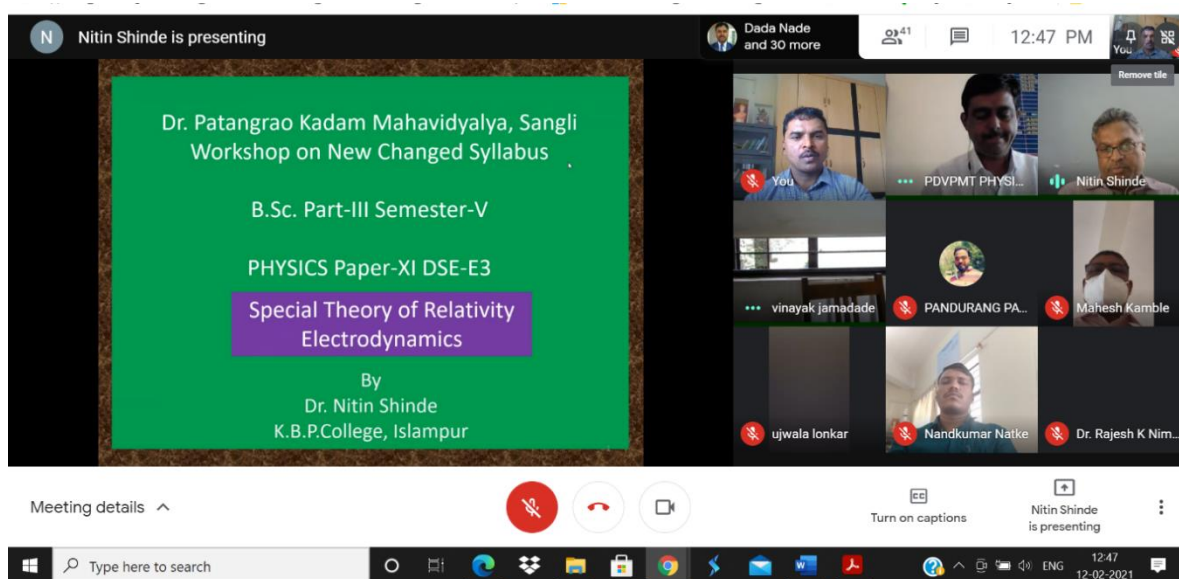
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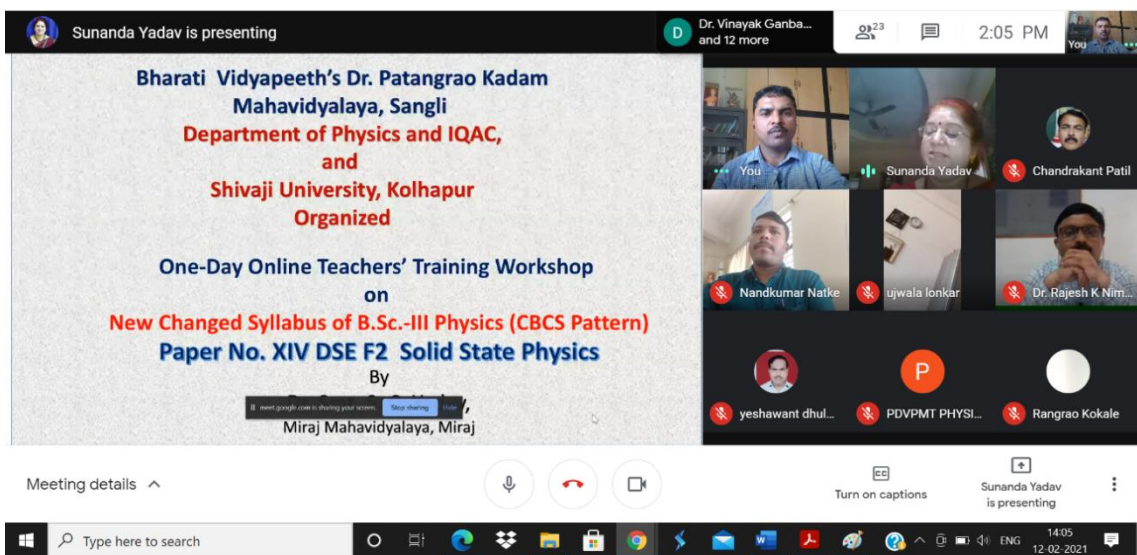
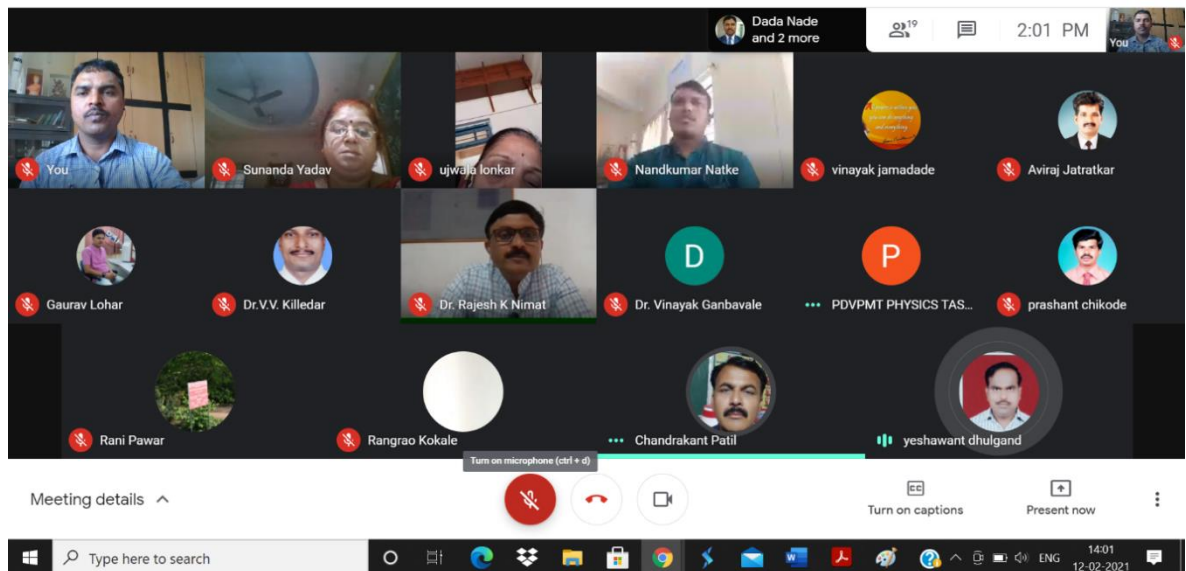
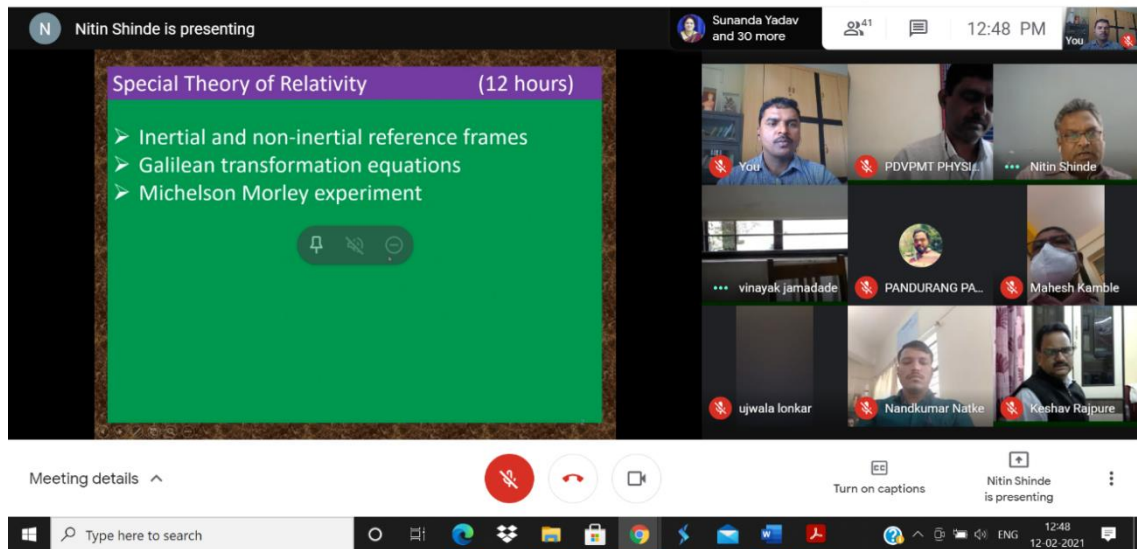
Present now



### Technical Session:

- Technical session of Physics workshop began with the Introduction of the revised syllabus of Classical Mechanics by **Dr. P. D. Kamble**. He presented and explained the contents of subjects and syllabus of Classical Mechanics over power point presentation followed by discussion. He also mainly focused on changed part of syllabus and explain how to communicate the contents to the students. The chairperson of this technical session was **Dr. M. M. Tonape**.
- The subject of Electrodynamics was explained by **Dr. N. S. Shinde**. He explained the new concepts introduced in changed syllabus and their relevance in contemporary times. He has given nice demonstration of the relativity concept through cartoon animation. The session was chaired by **Dr. J. S. Ghodake** followed by discussion.
- Solid State Physics was explained by **Dr. Mrs. S. C. Yadav**. She covered first two topics of Solid State Physics. He has explain on the important contents of changed syllabus. The session was chaired by **Dr. C. E. Patil** followed by discussion.
- Remaining two topics of Solid State Physics were delivered by **Dr. R. K. Nimat**. He presented and explained the contents and how to deliver it in the classroom. The session was followed by the discussion. The chairperson of this session was **Dr. V. V. Killedar**.





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Sunanda Yadav is presenting

**Basic Definitions**

**Lattice**

- Linear Lattice
- Plane Lattice
- Space Lattice

• An infinite array of points  
• Each point will have identical surrounding.

**Lattice** : Arrangement of infinite number of imaginary points in space with each point having identical surrounding.  
**Space Lattice**: finite array of points three dimension with every point has identical environment.

**Basis**: The structural unit of a crystal called basis. It may consist of atom, ion or molecule.  
**Crystal Structure**: When basis is attached to every point of lattice

Lattice + Basis = Crystal structure

Parvin Shaikh and 16 more

2:52 PM

Meeting details

Participants: You, Dr.V.V. Killedar, Dr. Rajesh K Nimat, Sunanda Yadav, Mukundrao Jadhav, Bharmana Patil, Balaso Harale, Rani Pawar, namrata kamble, Vaishali Kardile, yeshawant dhulgand, ujjwala lonkar, Digambar Sawant, Gaurav Lohar, PDVPMT PHYSICS TASG..., Chandrakant Patil

Dr. Rajesh K Nimat is presenting

Dada Nade and 14 more

3:09 PM

**Classical Langevin Theory of Diamagnetic Materials**

Concept of magnetic moment  
In absence of magnetic field

Centripetal force = electrostatic force

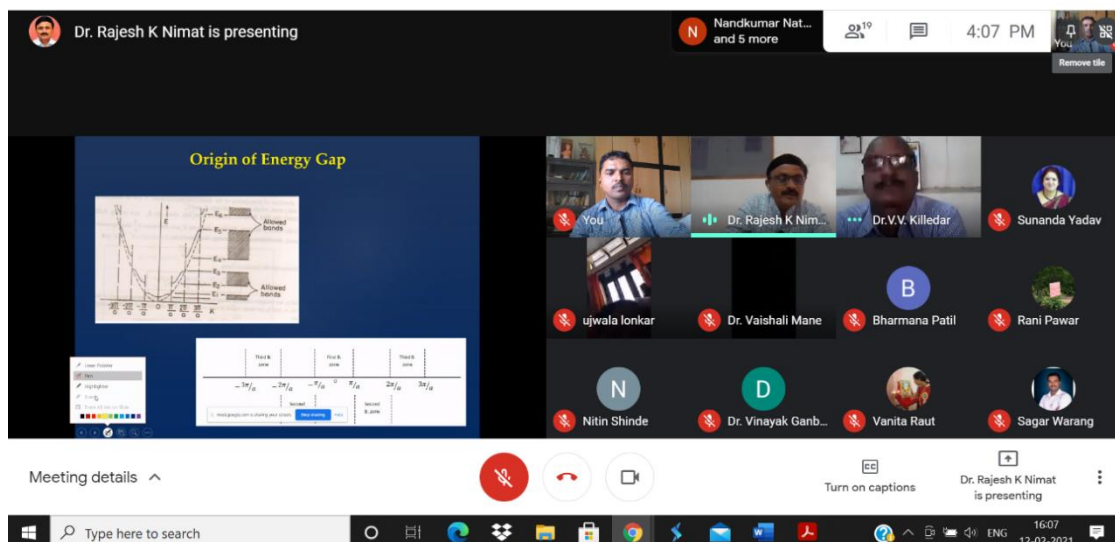
$$\text{current} = \frac{\text{charge}}{T}$$

$$-ef = \frac{-e}{2\pi} \times \omega_0 = \frac{-ev}{2\pi r}$$

Magnetic moment = current  $\times$  area

$$= \frac{-ev}{2\pi r} \times \pi r^2 = \frac{-evr}{2}$$







### Valedictory Session:


- ❖ All the technical sessions were ended with vote of Thanks by **Mr. Y. C. Dhulgand**.
- ❖ Online feedback was taken from all the participants through google form.
- ❖ The online certificates were distributed to all the participants after filling the feedback form.
- ❖ The Hard Copy of the Certificates printed and delivered to each and every participants.

### Improvements to be made:

Due to Covid Pandemic the conducting mode of this work was online therefore participants were facing technical difficulty, internet speed and data shortage, while attending the workshop on full day. So there is need to arrange such workshop again through offline mode, so that all the faculties can take benefit of this in their teaching.

  
 (Dr. D. P. Nade)  
 HEAD,  
 Department of Physics  
 Dr. Patangrao Kadam Mahavidyalaya,  
 SANGLI 416 416



  
 (Dr. D. G. Kanase)  
 PRINCIPAL,  
 Dr. Patangrao Kadam Mahavidyalaya,  
 Sangli - 416416 (Sangliwadi)



‘Social Transformation Through Dynamic Education’  
**Bharati Vidyapeeth's**  
**Dr. Patangrao Kadam Mahavidyalaya, Sangli**  
 Affiliated to Shivaji University, Kolhapur  
 Accredited with “B++” Grade by NAAC, Bengaluru (CGPA-2.96)  
 DST-FIST Funded College (Level-0)



Department of Physics and IQAC, Bharati Vidyapeeth's Dr. Patangrao Kadam Mahavidyalaya, Sangli  
 and Shivaji University, Kolhapur Organized

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P. No. XI DSE-E3 Classical Mechanics and Electrodynamics, P. No. XIV Solid State Physics

**Program Schedule**

**Date: 12<sup>th</sup> February, 2021**

### Session-I: Inauguration of Workshop

Time	Description	Person
10:30 to 10:35 am	Introduction	<b>Dr. Dada P. Nade</b> (Coordinator of the Workshop)
10:35 to 10:50 am	Principal Address	<b>Prof. (Dr.) D. G. Kanase</b> (Principal, Dr. Patangrao Kadam Mahavidyalaya, Sangli)
10:50 to 11: 20 am	Keynote Address	<b>Prof. (Dr.) K. Y. Rajpure</b> (HOD Physics, Shivaji University, Kolhapur)
11:20 to 11:25 am	Vote of Thanks	<b>Mr. N. N. Natke</b> (Secretary of Workshop)

### Session-II: Invited Talks

Time	Subject	Resource Person	Chairperson
11:30 to 12:00 pm	Classical Mechanics	<b>Dr. P. D. Kamble</b> (The New College, Kolhapur)	<b>Dr. M. M. Tonape</b> (Smt. Kasturbai Walchand College, Sangli)
12:00 to 12:15 pm	Discussion		
12:15 to 12:45 pm	Electrodynamics	<b>Dr. N. S. Shinde</b> (Karmaveer Bhaurao Patil College, Islampur)	<b>Dr. J. S. Ghodake</b> (Padmabhushan Dr V. Patil Mahavidyalaya, Tasgaon)
12:45 to 01:00	Discussion		
<b>Short Break (01:00 to 02:00 pm)</b>			
02:00 to 02:30 pm	Solid State Physics	<b>Dr. S. C. Yadav</b> (Miraj Mahavidyalaya, Miraj)	<b>Dr. C. E. Patil</b> (M. B. S. Kadam Kanya Mahavidyalaya, Kadegaon)
02:30 to 02:15 pm	Discussion		
02:15 to 02:45 pm	Solid State Physics	<b>Dr. R. K. Nimat</b> (Balasaheb Desai College Patan, Satara)	<b>Dr. V. V. Killedar</b> Rajarshi Chhatrapati Shahu College, Kolhapur
02:45 to 03:00 pm	Discussion		

### Session-III: Valedictory Function

Time	Description	Person
03:00 to 03:25 pm	Feedback from Participants	
03:25 to 03:30 pm	Vote of Thanks	<b>Mr. Y. C. Dhulgand</b>

Registration Link: <https://forms.gle/2Av3yTz3oa3W9BnJ8>

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### List of participants to the One Day Online Workshop on New Changed Syllabus of B.Sc. III

Sr.No	Name of the Participant	College Name	Mobile No.
1	Dr. Santosh Tanaji Mane	Bharati Vidyapeeth's Dr. Patangrao Kadam Mahavidyalaya Sangli	8421960620
2	Dr. Mallikarjun Mahadev Tonape	Smt. Kasturbai Walchand College Sangli	9422411560
3	Mr. Deepesh Sampatrao More	Dahiwadi College Dahiwadi	9096415416
4	Dr. Dadaso Jaypal Shetti	Smt. Kasturbai Walchand College, Sangli	9860688077
5	Dr. Rahul Bharamgonda Patil	Yashwantrao Patil Science College, Solankur	9503962022
6	Mr. Sandip Shripati Patil	Shri Vijaysinha Yadav College Pethvadgaon	9359027702
7	Mr. Rangrao Gangaram Kokale	Raja Shripatrao Bhagwantrao Mahavidyalaya Aundh	7397810768
8	Mr. Udayraj Tukaram Pawar	Smt. Kasturbai Walchand College Sangli	8805831993
9	Mr. Ketankumar Rameshbhai Gayakvad	K.J. Somaiya College of Science and Commerce, Mumbai.	9766944708
10	Dr. Rani Pandurang Pawar	Sanjay Ghodawat University Kolhapur	9657619324
11	Dr. Archana R. Patil	R. C. Shahu College, Kolhapur	9403825243
12	Mr. SANJAY GANPATI HAJARE	Shrimant Babasaheb Deshmukh Mahavidyalaya Atpadi Dist Sangli	9421124870
13	Dr. Dhanaji Suresh Dalavi	Krishna Mahavidyalaya, Rethare BK	9527350402
14	Dr. Vijay Sampat Mohite	Tuljaram Chaturchand College, Baramati	9604110745
15	Mr. Vineet Vishnu Jakhalekar	Sanjay Ghodawat University Kolhapur	9604487470
16	Dr. Sanjay Subhash Latthe	Raje Ramrao Mahavidyalaya Jath	7030310947
17	Dr. Vinayak Vasant Ganbavle	Dattajirao Kadam Arts Science and Commerce College Ichalkaranji	9960073358
18	Dr. Chandrakant Ekanath Patil	B. V. Matoshri Bayabai Shripatrao Kadam, Kanya Mahavidyalaya, Kadegaon	9850520349
19	Mr. Tanaji Shankar Patil	Bhagawati Mahavidyalaya, Kurukali	9665714552
20	Miss. Shraddha Shrikant Katkar	Shikshanmaharshi Dr. Bapuji Salunkhe college, Miraj	7028426448
21	Dr. Appasaheb Kundalik Bhosale	Raje Ramrao College Jat Sangli	9421048645
22	Dr. Sachin Jagadeo Pawar	Shri Vijaysinha Yadav College, Peth Vadgaon	7020305351
23	Miss. Dipali Sadashiv Burud	SMMPsir, Gandhinagar, Gujarat	9106434287
24	Mr. BALU SIDRAM HARALE	P D V P MAHAVIDYALAYA, TASGAON, DIST: SANGLI.	7588238239
25	Mr. Pandurang Dattatray Patil	Amdar Shashikant Shinde Mahavidyalaya Medha	9673831413
26	Dr. Onkar Bharat Gurav	Department of Physics, Bharati Vidyapeeth (Deemed to be University), Yashwantrao Mohite College of Arts, Science and Commerce, Pune, 411038, Maharashtra, India	8208174251
27	Miss. Sunita Sidram Kadam	Sunita Sidram Kadam	09975290079
28	Dr. Vijayalaxmi Balbhim Mamlayya	Dahiwadi College Dahiwadi	9325476520
29	Dr. Parvin Arif Shaikh	Dahiwadi College, Dahiwadi	9850558890
30	Dr. Aruna Ganpatrao Bhosale	Smt. Kusumtai Rajarambapu Patil Kanya	9421991677

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		Mahavidyalaya, Islampur.	
31	Dr. Chidanand Murageppa Kanamadi	DEVCHAND COLLEGE ARJUNNAGAR	8806599144
32	Dr. Lata D. Jadhav	Rajaram College, Kolhapur	9890694409
33	Dr. Pradip Dattatray Kamble	The New College Kolhapur	9356233478
34	Miss. Vaishali Shankar Dhoble	D. K. A. S. C. College Ichalkaranji Kolhapur	08482883577
35	Mr. KSHITIJ RAJARAM KHARAT	Prof.Dr.N.D.Patil Mahavidyalaya Malkapur Tal-Shahuwadi Dist-Kolhapur	9970018496
36	Dr. Tukaram Jaysing Shinde	Smt. Kusumtai Rajarambapu Patil Kanya Mahavidyalaya Islampur	9860735543
37	Dr. Sudhir Nilkanth Kulkarni	Doodhsakhar Mahavidyalaya Bidri	9422628048
38	Mr. Pramod Shantaram Naik	Prof. Dr. N D Patil mahavidyalaya Malkapur	9730579833
39	Mr. Anilkumar Rajaram Chavan	Yashwatrao Chavan Mahavidyalaya. Halkarni	9448920719
40	Mr. Bharmana Maruti Patil	R.B.Madkholkar College, Chandgad	9421112995
41	Miss. Namrata Jaywant Kamble	Dr. Patangrao Kadam Mahavidyala, Ramanandnagar (Burlī)	9075765869
42	Dr. Vanita Shivaji Raut	Dr. Patangrao Kadam Mahavidyalaya, Ram anand nagar (Burlī)	09284599411
43	Dr. Jeevan Shivaji Ghodake	Padmabhushan Dr Vasanttraodada Patil Mahavidyalaya Tasgaon	9834093257
44	Dr. Bharati Balasaheb Patil	Maharaja Jivajirao Shinde Mahavidyalaya, Shrigonda, Ahmednagar	8459857403
45	Dr. Nitin S. Shinde	K. B. P. College, Islampur	9860438208
46	Mrs. Ujwala Bhanuvilas Lonkar	Mudhoji college lhaltan	9890588554
47	Mr. Anurath Nagnath Gore	Shikshanmaharshi Dr.Bapuji Salunkhe College, Miraj	7020515067
48	Mr. Bhagwan Bhanudas Navale	Vidnyan Mahavidyalaya Sangola	9860477067
49	Miss. Shrutkirti Panjabarao Patil	Y.c.college islampur	7498017210
50	Mr. Yeshawant Chimaji Dhulgand	Bharati Vidyapeeth's Dr.Patangrao Kadam Mahavidyalaya Sangli.	9763564285
51	Mr. MAHENDRA RAGHUNATH WAIKUL	Shri Shiv Shahu Mahavidyalaya, Sarud , Tal- Shahuwadi	7588837005
52	Dr. PRASHANT P. CHIKODE	DR PRASHANT P CHIKODE	9422408462
53	Dr. Rajesh Ajit Ghorpade	Yashwantrao Chavan Mahavidyalaya, Halkarni	9420459426
54	Mr. Sagar Yashwant Warang	Shri Shiv Shahu Mahavidyalaya, Sarud	9527304407
55	Dr. Shridhar N. Mathad	KLE Institute of Technology	9886347873
56	Mr. Maqsood Rafique Waikar	Padmabhooshan Vasanttraodada Patil Institute of Technology, Bhudgaon, Sangli, Maharashtra	9860861758
57	Mr. Sandeep Ambadas Kardile	D. K. A. S. C. College Ichalkaranji	9823632950
58	Dr. Vinayak Shivajirao Jamadade	D.P.Bhosale College Koregaon Dist-Satara	9503660762
59	Miss. Priyanka Sambhaji Shinde	Balwant College Vita	9325309964
60	Dr. Subhash Dadaji Pawar	Arts Commerce and Science College Palis	08483983657
61	Miss. Arati Pradip Dhotre	Y. C. College Islampur	7666198141
62	Mr. Jagannath Gulab Nanavare	Raja Shripatrao Bhagwantrao Mahavidyalay, Aundh	9604804765
63	Mr. Yogesh Arjun Pathak	Balwant College Vita	9850297297
64	Mrs. Swati Sahebrao Patil	A.C.S.College Palus	8788704390
65	Dr. Sunil Jagannath Lade	Y. C. Warana Mahavidyalaya	9763360954

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		Warananagar	
66	Dr. Namdev Shankar Harale	Sadguru Gadage Maharaj College Karad	09763988097
67	Miss. Sunita Sidram Kadam	Krantisinh Nana Patil College, Walwa	9975290079
68	Dr. Satish Vitthal Gaikwad	Abasaheb Garware College, Pune	9284996520
69	Mr. Sandeep Bhaskar Wategaonkar	Sanjay Ghodawat Polytechnic	9922448786
70	Dr. Anup Jibhau More	VVM's S. G. Patil Art's Science and Commerce College Sakri Dist Dhule	9604290566
71	Dr. Gauri Rahulkumar Patil	Dr Parangarao Kadam Mahavidyalay, Ramanandnagar (Burli)	7720669666
72	Dr. Aviraj Arun Jatratar	Shri Yashwantrao Patil Science College, Solankur	9960041340
73	Dr. Vaishali Vinod Mane	Shri. Venkateshwara College of Science, Peth	99753 30547
74	Dr. Jalindar Laxman Bhosale	Shikshanmaharshi Dr. Bapuji Salunkhe College, Miran	9421224603
75	Mr. VILAS SHAMRAO PATIL	Yashwantrao Chavan Warana Mahavidhyalaya Waranananagar	9423282718
76	Miss. Mayuri Raghunath Sutar	Adarsh college vita	7768985908
77	Dr. Rajesh K. Nimat	Balasaheb Desai College Patan	7588378030
78	Dr. Chandrakant Rohade	Dr. Chandrakant Rohade	09503847031
79	Mr. SUJITKUMAR TATYASO MANE	Amruteshwar Art's Commerce And Science College, Vinzar	9890631496
80	Mrs. Radhika Santosh Desai	Krishna Mahavidyalaya, Rethare bk.	9921350571
81	Dr. RAVINDRA DAMODAR MANE	Jaysingpur college, Jaysingpur	7588260164
82	Dr. Sikandar Hamid Tamboli	Shri Yashwantrao Patil Science College Solankur	09764557155
83	Dr. Sunanda Chandramohan Yadav	Miraj Mahavidyalaya Miraj	9403456220
84	Dr. Bandopant Daryappa Vhanmore	Sanjay Ghodawat University Kolhapur	9960832954
85	Mr. NAVNATH KASHINATH CHAVAN	Shri. Vijaysinha Yadav College Pethvadgaon	9403867356
86	Dr. Jalindar Laxman Bhosale	Shikshan Maharshi Dr. Bapuji Salunkhe College Miraj	9421224603
87	Dr. Heramb Prabhakar Gaikwad	Shikshan Maharshi Dr. Bapuji Salunkhe College, Miraj	9766887202
88	Miss. Amruta Annasaheb Suryavanshi	Shikshanmaharshi Dr. Bapuji Salunkhe College, Miraj	9970355523
89	Miss. Urmila Vishnu Bandgar	Kranti Agrani G.D. Bapu lad Mahavidyalaya, Kunda	8177928319
90	Mr. Gajanan Balgounda Patil	Secondary School & Jr. College, Bhilawadi.	9420591726
91	Mr. Abhijit Udaykumar Pandit	Adarsh College, Vita	9130806932
92	Dr. Vijayalaxmi Balbhim Mamlayya	Dahiwadi College Dahiwadi	9325476520

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*"Social Transformation Through Dynamic Education"*



**Bharati Vidyapeeth's  
Dr. Patangrao Kadam Mahavidyalaya, Sangli**

**Online Teachers' Training Workshop on  
"New Changed Syllabus of B.Sc.-III Physics"**

**Organised by  
Department of Physics and IQAC  
Sponsored by Shivaji University, Kolhapur**

**Certificate**

This is to certify that << S >> << F >> << M >> << L >>  
of << College Name >> has participated in Online Teachers'  
Training Workshop on "New Changed Syllabus of B.Sc.-III  
Physics (CBCS Pattern), Paper-XI DSE-E3 Classical Mechanics  
and Electrodynamics and Paper-XIV DSE-F2 Solid State  
Physics" held on 12<sup>th</sup> February, 2021.

**(Mr. N. N. Natke)  
Secretary**

**(Dr. D. P. Nade)  
Coordinator**

**(Prin. Dr. D. G. Kanase)  
Organising Chairman**

One-Day Online Teachers' Training Workshop on New Changed Syllabus of B.Sc.-III  
Physics (CBCS Pattern)

