



# Annual Report for Academic Year 2023-24

**Department of Physics** 

Shri Shivaji Education Society Amravati's

# **SCIENCE COLLEGE**

NAGPUR

# S. S. E. S. AMRAVTI'S SCIENCE COLLEGE, NAGPUR

## Annual Report for the Session 2023-24

### **Department of Physics**

Year of Establishment: UG: 1960, PG: 2011-12, CoC: 2013-14, Ph. D /Lab Recognition: 2014-15, 2020-21

- 1. No of Certificate / Diploma / Advanced Diploma / PG Diploma Courses run by Departments: 00
- 2. Total Number of students

| UG        |     | PG      |    | Ph. D. | Others |  |
|-----------|-----|---------|----|--------|--------|--|
| B.SC. I   | 98  | M.Sc. I | 07 | 02     |        |  |
| B.SC. II  | 110 | M.Sc.   | 10 |        |        |  |
|           |     | II      |    |        |        |  |
| B.SC. III | 123 | MCA-I   |    |        |        |  |
| BCA-I     |     | MCA-II  |    |        |        |  |
| BCA-II    |     | -       |    |        |        |  |
| BCA-III   |     | -       |    |        |        |  |
| Total     | 438 | Total   | 17 | 02     |        |  |

3. Faculty profile of Regular / Permanent Teaching Staff with name, qualification, designation.

| Name                      | Highest<br>Qualificati<br>on | Designation         | Teaching<br>Experience |
|---------------------------|------------------------------|---------------------|------------------------|
| 1. Prof. S. W. Anwane     | Ph.D.                        | Professor           | 25 Yrs                 |
| 2. Dr R N Pathare         | Ph.D.                        | Assistant Professor | 18 Yrs                 |
| <b>3</b> . Dr S V Khangar | Ph.D.                        | Assistant Professor | 05 Yrs                 |
| 4. Mr B T Kumbhare        | M.Sc.,SET                    | Assistant Professor | 05 Yrs                 |
| 5. Dr S K Sayyad          | Ph.D.                        | Assistant Professor | 05 Yrs                 |
| 6. Dr. G. L. Jadhav       | Ph.D.                        | Assistant Professor | 05 Yrs                 |

4. Faculty profile of Ad-hoc / Contributory Teaching Staff with name, qualification.

| Name                         | Highest<br>Qualificati<br>on | Designation                     | Teaching<br>Experience |
|------------------------------|------------------------------|---------------------------------|------------------------|
| 1. Ms Swapnil Belkhude       | M. Sc.<br>SET                | Assistant Professor<br>(Ad-hoc) | 02 Yrs                 |
| 2. Ms Kanchan<br>Jiwnapurkar | M.Sc.                        | Assistant Professor<br>(Ad-hoc) | 02 Yrs                 |
| 3. Ms Chanda Jatgade         | M.Sc.                        | Assistant Professor<br>(Ad-hoc) | 02 Yr                  |
| 4. Mr. Sarang Daf            | M.Sc.                        | Assistant Professor<br>(CHB)    | 8 Yrs                  |
| 5. Yograj Choudhary          | M.Sc.                        | Assistant Professor<br>(CHB)    | 06 Yrs                 |
| 6. Manish Dhawle             | M.Sc.                        | Assistant Professor<br>(CHB)    | 03 Yrs                 |

### 5. Details of Administrative and Technical staff

| Sr No | Name of the staff | Designation   | Permanent          |
|-------|-------------------|---------------|--------------------|
|       |                   |               | /Temporary/ Daily- |
|       |                   |               | wages              |
| 1     | D.S.Wankhade      | Lab.Assistant | Permanent          |
| 2     | D.G.Fuke          | Lab.Attent    | Permanent          |
| 3     | Roshan Naik       | Attendant     | Daily Wages        |
| 4     | Nikhil Bhurse     | Attendant     | Daily Wages        |

## 6. Faculty recognized as a Supervisor / No of Students Registered

| Sr.<br>No | Name of the Supervisor | No of<br>Students | Whether Ph. D.<br>Awarded |
|-----------|------------------------|-------------------|---------------------------|
|           |                        | Registered        | Awarded                   |
| 1         | Dr S W Anwane          | 01                | 02*                       |
| 2         | Dr R N Pathare         | 01                | _                         |

\*Mrs Ruhi Naz- Understanding of oxy-ion conductivity of La2  $_{-x} A_x Mo2 _{-y} B_y O_9 _{\delta}$  system: in view of electrolyte for IT-SOFCs (Registered on 12-01-2017 and thesis **submitted** on 30-8-2021,**Viva Voce** on 17-4-2023, **AWARDED** doctorate vide Notification No.:RTMNU/Ph.D.(Cell)/01/660 dated 04-05-2023).

7. Results of the RTM Nagpur university examinations Winter -2023

| Class          | Total No of<br>Students<br>admitted | Appeared | Passed | Fail | Distinction | Pass % |
|----------------|-------------------------------------|----------|--------|------|-------------|--------|
| B.SC. Sem- I   | 98                                  | 98       | 59     | 39   | 05          | 60.02  |
| B.SC. Sem-III  | 110                                 | 110      | 85     | 25   | 12          | 77.27% |
| B.SC. Sem-V    | 123                                 | 120      | 100    | 20   | 20          | 83.33% |
| M. Sc. Sem-I   | 07                                  | 07       | 01     | 06   |             | 14.00% |
| M. Sc. Sem-III | 10                                  | 10       | 04     | 06   |             | 40.00% |

8. Results of the RTM Nagpur university examinations Summer 2024

Till writing this report on 20th May 2024 the examinations were in process and results are out of question.

| Class         | Total No of<br>Students<br>admitted | Appeared | Passed | Fail | Distinction | Pass % |
|---------------|-------------------------------------|----------|--------|------|-------------|--------|
| B.SC. Sem- II |                                     |          |        |      |             |        |
| B.SC. Sem-IV  |                                     |          |        |      |             |        |
| B.SC. Sem-VI  |                                     |          |        |      |             |        |
| M. Sc. Sem-II |                                     |          |        |      |             |        |
| M. Sc. Sem-IV |                                     |          |        |      |             |        |

# 9. Awards / Recognition's (Merits, Gold Medal, Silver Medal etc.) received by students:

| Sr. | Name of the Students | Class           | Title                   |
|-----|----------------------|-----------------|-------------------------|
| No. |                      |                 |                         |
| 1   | Ma Aishwamya         | B. Sc. SEM IV   | secured 2nd position in |
| 1   | Ms. Aishwarya        | D. SC. SEIVI IV |                         |

|   | Mendwade                   |               | Inter University student seminar competition<br>organized by Vidharbha University's Physics<br>Teacher's Association (VUPTA) in<br>Government Science College, Gadchiroli on<br>24 - 25 Feb'24  |
|---|----------------------------|---------------|---|
| 2 | Ms. Anushka<br>Palandurkar | B. Sc. SEM-IV | secured 1st position in elocution competition<br>organized by <b>VUPTA</b> -2024  |
| 3 | Ms. Divyani Daware         | B. Sc. SEM-II | secured 3rd position in <b>VUPTA</b> students<br>seminar competition -2024  |
| 4 | Ms. Sneha Sharma           | B. Sc. SEM-VI | bagged consolation prize in <b>VUPTA</b> students<br>seminar competition  |
| 5 | Mr. Kshitij Gupta student  | B. Sc. SEM IV | begged 3rd Prize- Certificate and Cash prize of<br>500/- in Late Smt. Shantabai Shekdar<br>Intercollegiate Seminar Competition organized<br>by LAD & smt.R.P. College, Shankar Nagar,<br>Nagpur.  |
| 6 | Ms. Anushka<br>Palandurkar | B. Sc. SEM IV | secured first prize, "cash Prize of 1000/-, Gold<br>medal and certificate of excellence" in 'State<br>level Seminar competition in Physical<br>sciences' organized by Mathuradas Mohata<br>College of Science Nagpur  |
| 7 | Mr. Yugansh Kanoje         | B. Sc. SEM II | Yugansh's Project work is shortlisted in the<br>first 30 students for the representation of Dept<br>of Physics Shri Shivaji Science College-<br>Nagpur in Science Expo and Innovation<br>Fest, arranged by Raman Science Centre<br>and Planetarium, Nagpur during 19 to 23<br>December 2023. He is facilitated at the<br>hands of Dr P K Gupta, Scientist, Regional<br>Director, Atomic Minerals Division,<br>Nagpur. |
| 8 | Mr. Yugansh Kanoje         | B. Sc. SEM II | Selected in Top 10 in National Photo Essay<br>Competition in Physics<br>As a part of the celebration of National<br>Science Day, organized by Bajaj College of<br>Science in collaboration with Sub Regional  |

|    |                      |               | Council 08-E (Vidarbha) region of Indian<br>Association of Physics Teachers (IAPT)                                    |
|----|----------------------|---------------|---|
| 9  | Mr. Shrivatsa Pitale | B. Sc. SEM VI | He has been placed among Center Top 10% in<br>National Graduate Physics Examination<br>(NGPE) -2024 organized by IAPT |
| 10 |                      |               |   |

# 10. Awards / Recognition received by faculty:

| Name of the   | Details of the awards/ | International / National / | Year |
|---------------|------------------------|----------------------------|------|
| Faculty       | recognitions           | State / University/ Dist/  |      |
|               |                        | College Level              |      |
| Dr S W Anwane | Nominated on the Board | Waterloo Maple Inc for     |      |
|               | of MAPLE Ambassador    | STEM Education             |      |
|               | for SAARC              |                            |      |
|               |                        |                            |      |

11. Faculty participation in conferences/seminar/workshop and symposium:

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|---|----|
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| 71.         |  |             |   |                        |   |
|-------------|--|-------------|---|------------------------|---|
| Name of the | Title of Conference/   | Period      | Level   | Whether                | Whether   |
| Faculty     | Seminar/ workshop<br>Attended  |             | Internation<br>al/<br>National/St<br>ate<br>/University<br>/College | Presented papers       | abstract /paper<br>published in<br>Souvenir/Abst<br>ract Book |
| S W Anwane  | Understanding<br>General Relativity<br>with Maple's<br>Visualizations:<br>Equations and<br>Tensors Simplified<br><u>https://www.youtube.</u><br><u>com/watch?v=bW_S</u><br>JTT_Wj0&t=1071s | 29-4-<br>24 | National  | Delivered<br>a webinar |   |
| S W Anwane  | Organized One Day National<br>which is a joint venture of IA<br>SEC-08 E and Department o  | APT Sub F   | Regional Counci   | il of Maharashtra (VI  | DARBHA)   |

|             | resource persons were Prof Sreerup Raichaudhuri (TIFR-Mumbai), Prof Rajinder Moudgil<br>(Kurukshetra University) and Prof P K Ahluwalia (Himachal Pradesh University). About 100<br>students and teachers participated in this Seminar. 27 January 2024. (i)<br><u>https://www.youtube.com/watch?v=Fj0Lf0pkFeg&amp;t=23s</u> (ii)<br><u>https://www.youtube.com/watch?v=SbdHTwbpk50&amp;t=2224s</u> |                               |                   |   |  |  |  |  |
|-------------|---|-------------------------------|-------------------|---|--|--|--|--|
| S W Anwane  | Participated in TWO DAYs<br>IAPT Maharashtra State<br>Convention 2024 and<br>Conference on Physics<br>Education under NEP 2020<br>Organized by at PDEA's<br>Anantrao Pawar College,<br>Pirangut, Pune.  | 13-14<br>Jan<br>2024          | State Level       | No  |  |  |  |  |
| S W Anwane  | <b>37th Indian Association of</b><br><b>Physics Teachers (IAPT)</b><br><b>Conclave</b> Organized by<br><b>Jaipur National University</b><br>in asso- ciation with <b>IAPT</b> at<br>Jaipur-Rajasthan.   | (7-10<br>Octob<br>er<br>2023) | National          | Yes<br>Delivered talk on<br>"Special<br>Relativity using<br>Perplex<br>Numbers" at the                | Shri Shivaji<br>Education<br>Society<br>Amravati's<br>SCIENCE<br>COLLEGE<br>Nagpur |  |  |  |
| S W Anwane  | at the 2nd National Seminar<br>on Discovery and Detection<br>of Gravitational Waves<br>Organized by Jaipur National<br>University in association<br>with Indian Association of<br>Physics Teachers (IAPT).  | 15/9/2<br>023                 | National          | Yes<br>Delivered<br>Lecture on<br>"Estimation of<br>the Lagrange<br>Point L1 in Sun-<br>Earth system" | Shri Shivaji<br>Education<br>Society<br>Amravati's<br>SCIENCE<br>COLLEGE<br>Nagpur |  |  |  |
| S W Anwane  | Participated in ONE DAY<br>National Symposium on NEP<br>- A Globle Perspective for<br>HEI Organized by<br>MANTHAN - For Academia.   | 16/12/<br>2023                | National          | No  |  |  |  |  |
| R N Pathare | International Conference on<br>Advanced Sustainable<br>Futuristic Materials<br>organized by<br>Kamla Nehru<br>Mahavidyalaya, Nagpur,<br>Sharda University, Greater<br>Noida, and CSIR-National<br>Environmental Engineering   | 26,27<br>May<br>2024          | Internation<br>al | Review on<br>Electrospinning for<br>photoluminescent<br>polymers fibres.                              |  |  |  |  |

|                     | Research Institute (CSIR-<br>NEERI), Nagpur   |   |   |   |                                       |
|---------------------|---|---|---|---|---------------------------------------|
| R N Pathare         | Workshop on Basic Concepts<br>in Physics For B Sc I Sem<br>student at Santaji<br>Mahavidyala Nagpur   | 3rd<br>Feb<br>2024                                    | National  | Guest Lecture   |                                       |
| R N Pathare         | Training Program on<br>Computer-Interfaced Science<br>Experiments using ExpEYES<br>conducted by Inter-<br>University Accelerator<br>center, New Delhi   | 6-11<br>May<br>2024                                   |   |   |                                       |
| B. T.<br>Kumbhare   | International Conference on<br>Advanced Sustainable<br>Futuristic Materials<br>organized by Kamla Nehru<br>Mahavidyalaya, Nagpur,<br>Sharda University, Greater<br>Noida, and CSIR-National<br>Environmental Engineering<br>Research Institute (CSIR-<br>NEERI), Nagpur | 26-27,<br>April<br>2024                               | International   |   |                                       |
| B. T.<br>Kumbhare   | One Week Online National<br>Level FDP on Advanced<br>Materials & Quantum<br>Technology organized by<br>Department of Applied<br>Physics, YCCE, Nagpur   | 4-9<br>Dec,<br>2023                                   | National  |   |                                       |
| Dr G. L.<br>Jadhav  | International Symposium on<br>Intellectual property Rights<br>2024  | 26th<br>April to<br>27th<br>April<br>2024             | International   |   |                                       |
| Dr. G. L.<br>Jadhav | Organized One Day National<br>which is a joint venture of IA<br>SEC-08 E and Department of<br>resource persons were Prof St<br>(Kurukshetra University) and I<br>students and teachers participa  | APT Sub I<br>f Physics, a<br>reerup Rai<br>Prof P K A | <b>Regional Counc<br/>SSESA's SCIEN</b><br>chaudhuri (TIFR<br>hluwalia (Himac | il of Maharashtra (VI<br>NCE COLLEGE, Nagj<br>R-Mumbai), Prof Rajino<br>hal Pradesh University) | DARBHA)<br>pur wherein<br>ler Moudgil |
| Dr. S. K.<br>Sayyad | International Conference on<br>Advanced Sustainable<br>Futuristic Materials<br>organized by Kamla Nehru   | 26-27,<br>April<br>2024                               | International   | Yes Poster Presentation   |                                       |

|                      | Mahavidyalaya, Nagpur,<br>Sharda University, Greater<br>Noida, and CSIR-National<br>Environmental Engineering<br>Research Institute (CSIR-<br>NEERI), Nagpur   |   |   |   |  |  |
|----------------------|--|---|---|---|--|--|
| Dr. S. K.<br>Sayyad  | Online Short term faculty<br>development programme for<br>CAS on "Emotional<br>Intelligence for teacher in<br>Higher Education" organized<br>by Career Katta and UGC<br>Malaviya Mission Teacher<br>Training Centre SGBAU  | 16-25<br>Novem<br>ber<br>2023                               |   |   |  |  |
| Dr. S. V.<br>Khangar | International Conference on<br>Advanced Sustainable<br>Futuristic Materials<br>organized by Kamla Nehru<br>Mahavidyalaya, Nagpur,<br>Sharda University, Greater<br>Noida, and CSIR-National<br>Environmental Engineering<br>Research Institute (CSIR-<br>NEERI), Nagpur    | 26-27,<br>April<br>2024                                     | International   | Yes, Oral Presentation  | Yes, Abstract  |  |
| Dr. S. V.<br>Khangar | Role:- Organizer: Physics- So<br>Physics Society convener in <i>O</i><br>venture of <b>IAPT Sub Region</b><br><b>Department of Physics, SS</b><br>persons were Prof Sreerup<br>(Kurukshetra University) and F<br>students and teachers participat                          | online moo<br>al Counc<br>ESA's S(<br>Raichau<br>Prof P K A | de on Life and V<br>il of Maharash<br>CIENCE COLI<br>dhuri (TIFR-M<br>hluwalia (Himac | Work of S N Bose wh<br>tra (VIDARBHA) SE<br>EGE, Nagpur wher<br>umbai), Prof Rajinc<br>hal Pradesh University | tich is a joint<br>EC-08 E and<br>rein resource<br>ler Moudgil |  |
| Dr. S. V.<br>Khangar | Organized One Day Workshop   | on OJT  |   |   |  |  |
| Dr. S. V.<br>Khangar | Attended Online Two week Refresher Course in Physics organized by Teaching Learning<br>Centre Ramanujan College, University of Delhi (Accredited Grade 'A++' by NAAC) under<br>the aegis of Malaviya Mission Teacher Training Programme from (30/03/2024 to<br>12/04/2024) |   |   |   |  |  |
| Dr. S. V.<br>Khangar | 12 week NPTEL online certifi<br>October 2023   | cation cou  | ırse in Nuclear a   | nd Particle Physics Du  | uration: July-   |  |

12. Details of Major / Minor Projects and Research funds sanctioned and received from various funding agencies, industry and other organizations

| Name of the      | Major/ Minor | Duration  | Funding | Grant      | Grant     | Whether    |
|------------------|--------------|-----------|---------|------------|-----------|------------|
| Faculty          | Any other    | From -To  | Agency  | sanctioned | Received  | Completed/ |
|                  | (Specify)    |           |         |            |           | Ongoing    |
| Dr.D.K. Burghate | Major        | 2012-2015 | UGC     | 11,42,800  | 11,42,800 | Completed  |
| Dr.S.B.Kondawar  | Major        | 2008-2011 | UGC     | 8,19,300   | 8,19,300  | Completed  |
| Dr.H.K.Dahule    | Minor        | 2010-2012 | UGC     | 1,20,000   | 1,20,000  | Completed  |
| Dr S W Anwane    | Minor        | 2009-2011 | UGC     | 1,55,000   | 1,55,000  | Completed  |
| Dr S S Darokar   | Minor        | 2009-2011 | UGC     | 1,65,000   | 1,37,500  | Completed  |
| Dr S W Anwane    | CoC          | 2013-2018 | UGC     | 9,00,000   | 9,00,000  | Completed  |
| Dr Shahin K      | Minor        | 2024-26   | RTMNU   | 2,00,000   | Yet to    | On going   |
| Sayyad           |              |           | RPS     |            | received  |            |
|                  |              |           |         |            |           |            |

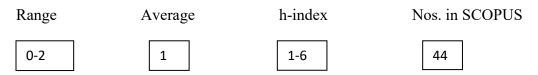
# 13. No of research publications:

| Name of the    | Peer Review Journals |      | Non   | Non-Peer Review |         | Conference |         |             |       |
|----------------|----------------------|------|-------|-----------------|---------|------------|---------|-------------|-------|
| Faculty        |                      |      |       |                 | Journal | s          | pro     | proceedings |       |
|                | Interna              | Nati | Other | Interna         | Nati    | Other      | Interna | Nati        | Other |
|                | tional               | onal |       | tional          | onal    |            | tional  | onal        |       |
| Dr S W Anwane  | 25                   | 00   | 00    | 00              | 01      | 00         | 00      | 00          | 00    |
| Dr R N Pathare | 13                   | 00   | 00    | 00              | 00      | 00         | 10      | 00          | 00    |
| Dr S K Sayyad  | 15                   | 00   | 00    | 00              | 00      | 00         | 00      | 00          | 00    |
| Dr S V Khangar | 14                   | 00   | 00    | 00              | 00      | 00         | 00      | 00          | 00    |
| Dr G L Jadhav  | 04                   | 00   | 00    | 00              | 00      | 00         | 00      | 00          | 00    |
| Mr. B. T.      | 01                   | 00   | 00    | 00              | 00      | 00         | 01      | 00          | 00    |
| Kumbhare       |                      |      |       |                 |         |            |         |             |       |

# 14. No of research publications listed in International Database (SCOPUS / Google Scholar)

| Name of the<br>Faculty | No of<br>research<br>publications<br>in SCOPUS | No of<br>research<br>publicat<br>ions in<br>Google<br>Scholar | Citation<br>s | h-<br>index | i10-index |
|------------------------|--|---|---------------|-------------|-----------|
| Dr S W Anwane          | 15   | 20  | 91            | 5           | 4         |
| Dr R N Pathare         | 10   | 13  | 222           | 6           | 6         |
| Dr S K Sayyad          | 13   | 15  | 75            | 3           | 1         |
| Dr S V Khangar         | 04   | 12  | 06            | 1           | 0         |
| Dr G L Jadhav          | 02   | 04  | 33            | 2           | 1         |
| Mr. B T Kumbhare       | 00   | 01  | 18            | 1           | 1         |

15. Details on Impact factor of publications:



16. Details of publication of Chapter in Book/ Book Edited/ Book Published by the faculty

| Name of the Faculty | Chapter<br>in Book | Book<br>Edited |   | Year of<br>Publication      |                      |              |
|---------------------|--------------------|----------------|---|-----------------------------|----------------------|--------------|
| Tacuity             |                    | Eulicu         | Title of the Book<br>Published                                | ISBN/ISSN                   | Publisher            | 1 ublication |
| Dr G. L.<br>Jadhav  | 01                 |                | Thin Films By<br>Spray Pyrolysis:<br>A versatile<br>Technique | ISBN: 978-81-<br>970491-2-5 | Rushi<br>Publication | 2024         |

17. Areas of consultancy and Revenue generated through consultancy

| Areas of<br>consultancy | Revenue generated through<br>consultancy before the<br>assessment period | Revenue generated through<br>consultancy during the assessment<br>period |
|-------------------------|--|--|
| Characterization        | Rs 24,200/-  | Rs 25,800/-  |
| of Samples              |  |  |

18. Conferences/Seminar /workshop/Guest Lect. organized by the Department.

The department celebrated the following academic events to commemorate 125<sup>th</sup> Birth Anniversary of Dr Panjabrao alias Bhausaheb Deshmukh

- The department celebrated the following academic events to commemorate 125<sup>th</sup> Birth Anniversary of Dr Panjabrao alias Bhausaheb Deshmukh
- Inauguration of the Physics Society: On the auspicious day of October 13, 2023, Shri Shivaji Science College-Nagpur celebrated a significant milestone as the Physics Society was officially inaugurated, with dedicated student members assuming key roles as office bearers. The event, conducted in a formal setting, saw the investiture of these student leaders, who took an oath pledging their commitment to the society's ideals.
- Students Seminar as a part National Science Day Celebration: The Physics Society at the Department of Physics, Shri Shivaji Education Society's Science College, Nagpur, organized a seminar

on "Raman Spectroscopy" on March 5th, 2024. The seminar was conducted by **Ms. Anushka Palandurkar**, a student of B.Sc. Semester IV, who had previously won a prize in an inter-university contest.

- **VUPTA Seminar at Gadchiroli (24th and 25th, 2024):** The Inter-University student seminar competition, organized by the Vidarbha University's Physics Teacher's Association (VUPTA), took place at Government Science College, Gadchiroli on February 24th and 25th, 2024. Eight students from the Department of Physics at Shivaji Science College, Nagpur, participated in this prestigious event. Among them, the following students received recognition for their outstanding performances:
  - Ms. Divyani Daware (BSc sem 2) secured the 3rd position in the seminar competition.
  - Ms. Aishwarya Mendwade (BSc sem 4) secured the 2nd position in the seminar competition.
  - Ms. Anushka Palandurkar (BSc sem 2) secured the 1st position in the elocution competition.
  - Ms. Sneha Sharma (BSc sem 6) received a consolation prize in the seminar competition.
  - Ms. Riya Faldu and Ms. Anchal Mohurle (MSc sem 4) presented their poster.
  - Mr. Kshitij Gupta (BSc sem 4) presented his poster on the topic "Queen of Flatland of Crystals: Graphene."
- One Day Workshop on On Job Training (OJT): The Department of Physics, Shri Shivaji Education Society Amravati's SCIENCE COLLEGE, Nagpur recently organized a one-day workshop (13/02/2024) on *On Job Training* (OJT) in collaboration with V S Informatics Pvt Ltd, Nagpur. The workshop aimed to introduce postgraduate students of M.Sc. Physics, B Sc IIIrd year students, and Physics Society Members to the company's profile and the opportunities available in the fields of PCB designing, Embedded Systems, and IoT (Internet of Things). Mr. Sandeep Sonskar, Director, and Mr. Kunal Khawashi, R&D Engineer, represented the company and delivered insightful talks.
- Industry Institute Interaction with V S Informatics on 7-2-2024: The formal interaction with Mr. Kunal Khawshi from V S Informatics, Nagpur was organized to introduce postgraduate students of M.Sc. Physics to the opportunities available for On Job Training (OJT) in PCB designing, Embedded Systems, and IoT (Internet of Things). Additionally, the importance of Industry-Institute interactions, as emphasized by Dr. S W Anwane, was discussed in view of the National Education Policy.
- Online National Seminar @ Shri Shivaji Science College concluded to urge IUPAP to redesignate 'h' as the PEB (Planck-Einstein-Bose) constant: A one-day National Seminar, conducted online, delved into the profound topic of "S N Bose Life & Work," organized by the Indian Association of Physics Teachers Sub Regional Council (SRC) of Maharashtra (Vidarbha) SRC-08 E in collaboration with Shri Shivaji Education Society Amravati's SCIENCE COLLEGE, Congress Nagar, Nagpur on January 27, 2024. Distinguished speakers included (i) Hon'ble Prof. P. K. Ahluwalia, President IAPT, former Professor at Himachal Pradesh University, (ii) Guest of Honor - Prof. Mahendra Dhore, Principal - Shri Shivaji Education Society Amravati's SCIENCE COLLEGE Nagpur, (iii) Prof. Sreerup Raychaudhuri, a renowned Professor of Physics and Dean (Administration) at TIFR Mumbai, (iv) Dr. Rajinder Moudgil, Professor of Condensed Matter Physics from Kurukshetra University, and (v) IAPT President for RC Maharashtra Prof. R. M. Shewale, Ex-Professor of Physics at Dhule. The establishment of the Sub Regional Council for VIDARBHA, SRC-08E, was approved during the meeting of the

Central EC of IAPT on December 10, 2023, following discussions at the 37th National Convention of IAPT in Jaipur from October 8-10, 2023. Dr. R. M. Shewale highlighted the significance of SRC-08E for Vidarbha, Maharashtra. A quiz, prepared in collaboration with Dr. V. Renganayaki & Dr. Uthra Dorairajan from Regional Council of Tamil Nadu & Pondicherry RC-13, marked the end of the seminar. Certificates with quiz scores and participation certificates for the National Seminar on Life and Work of S N Bose were issued to the participants in online mode.

- Intra College Seminar and Quiz Competition: The Department of Physics at Shivaji Science College Congress Nagar, Nagpur, organized an impressive Seminar and Quiz Competition on the 16th of October, 2023, with the support of the Physics Society. The first prize in the Seminar Competition was secured by Shradha Raut, a first-year M.Sc. student. The second prize was clinched by Sneha Sharma, a third-year B.Sc. student, and the third prize was awarded to Yugansh Kanoje, a first-year B.Sc. student. In order to motivate the participants, four consolation prizes were also awarded to Shrivats Pitale, Mandar Sulakhe, Ayesha Jabeen, and Soksham Dhok, all of whom exhibited competitive spirit. The Quiz Competition was dominated by the Maxwell Group, comprising students Shreevatsa Pitale (B.Sc. III year), Sneha Sharma (B.Sc. III year), Jatin Karde (B.Sc. I year), and Divyani Daware (B.Sc. II year). The entire event was skillfully coordinated by Mr. Yash Chaube, a second-year M.Sc. student, and office bearers of Physics Society.
- Resource Person for external activity: Inauguration of Physics Society and Guest Lecture by Professor S.W. Anwane The Physics Society of Shri Shivaji Science College, Amravati, was inaugurated with great fervor on 9th September 2023. The event also featured the commencement of the departmental activity AVISHKAR, aimed at providing a platform for students to display innovative projects and prepare for university-level competitions. The inaugural ceremony was graced by the esteemed presence of Dr. G.V. Korpe, the Principal of Shri Shivaji Science College, Dr. W.S. Barde, the Head of the Department of Physics, and Dr. Swapnil Adsad, the Convener of Physics Society, along with all the dedicated faculty members of the Physics department.
- Yugansh Kanoje (student of B.Sc. First Year PCG) represented Shri Shivaji Science College-Nagpur in Science Expo and Innovation Fest, arranged by Raman Science Centre and Planetarium, Nagpur during 19 to 23 December 2023. Among more than 200 projects his project entitled "Small Scale Particle Linear Accelerator with Machine Learning & Sound Card Based Detection" has been shortlisted for further presentation.
- Ms. Anushka Palandurkar, a fourth-semester B.Sc. student, emerged victorious by clinching the first prize, along with a cash prize of 1000/-, a Gold Medal, and a Certificate of Excellence, in the 'State-level Seminar Competition in Physical Sciences.' The competition was held at Mathuradas Mohata College of Science, Nagpur, on March 7, 2024. Her presentation titled "Experimental Techniques in Physics: Raman Spectroscopy" garnered acclaim and recognition.
- A team of 6 teachers along with 14 boys & 18 girls visited Aryabhatta Research Institute of Observational Sciences (ARIES), Nainital on 11<sup>th</sup> March 2024 to explore its cutting-edge research in

observational astronomy and astrophysics, promised an immersive stargazing experience under the pristine night sky.

- The faculty members in the department has contributed two MOOCs courses on UDEMY platform wherein 4000 students are enrolled across the globe. The instructor of the course Prof S W Anwane has gifted free coupons to the students as the Course contents and the RTM Nagpur University syllabus is covered for Semester VI. The following students have submitted certificate of completion in due time. https://bit.ly/3Ap9rSn
- Delivered webinar on "Understanding General Relativity with Maple's Visualizations: Equations and Tensors Simplified" organized by Binary Semantics Ltd. Bangalore. About 100 individuals attended this Webinar in the capacity of being on Board of MAPLE Ambassador. (29th April 2024) <u>https://www.youtube.com/watch?v=bW\_SJTT\_Wj0&t=1071s</u>

# 19. Academic Activities for students and Faculty members of the Department

Udemy link to click: https://bit.ly/3wOTC3V

- Udemy has recently approved and launched the course titled *A Boot Camp to the Special Theory* of *Relativity* on November 23, 2021. This course caters to both beginners and under- graduate students interested in delving into the subject. The course commences with an explo- ration of the historical background behind the formulation of the special theory of relativity, culminating in the derivation of Einstein's iconic equation,  $E = mc^2$ . It is designed to comprehensively cover the syllabi of various universities, ensuring alignment with the interests of students. Traditional topics integral to the subject are systematically addressed throughout the course. Spanning over **8.5 hours** of video lecture content, the course is divided into four sections comprising a total of **27 lectures**. Each lecture is followed by a quiz to reinforce learning and assess comprehension. Additionally, the final lecture introduces the Relativistic Lagrangian, facilitating a swift transition to the concepts of energy and relativistic momentum. **2371 STUDENTS 4.62 RATING 60 REVIEWS in June 2023**
- Udemy has recently launched the course *A BootCamp to Nuclear Physics*, which went live on May 23, 2022. This course caters to both beginners and undergraduate students enrolled in Physical Sciences and Medical Sciences programs. Featuring a total of **48 lectures** spread across 7 sections, the course offers approximately **10 hours** of video lecture content. Each section is complemented by a quiz to reinforce learning and assess comprehension. Covering a wide range of topics traditionally included in undergraduate programs at universities, participants can expect a comprehensive exploration of nuclear physics. Designed to appeal to physics enthusiasts and individuals with a passion for the subject, this online program pro- vides an excellent opportunity for amateurs and enthusiasts to deepen their understanding and satisfy their curiosity about nuclear physics. **1423 STUDENTS 4.49 RATING 60 REVIEWS in June 2023**

# YouTube Channel- a way to reach students at large

S W Anwane:

The You Tube channel http://bit.ly/37UDXoq offers about 116 Video Lectures on a variety of topics in Undergraduate Physics. The major playlists are as following:

- Band Theory & Semiconductors [UG Level, 04 Lectures 4.5 hrs]
- Simple Harmonic Motion [UG Level, 3.5 Lectures 6 hrs]
- Complex Numbers [PG Level, 23 Lectures 16 hrs]
- Differential Equations using Maple [Invited Talk in FDP-2020 Webinar, 1.5 hr]
- Black Holes & Complementarity [Invited Talk in National Conference, 1 hr]
- Special Relativity using Perplex Numbers [Research Level, 5 Lectures 1.5 hrs]
- Quantum Mechanics [UG Level, 11 Lectures, 4 hrs]
- Fluid Mechanics [UG Level Engg, 10 Lectures, 5.5 hrs]
- Gravitation [UG Level, 6 Lectures, 2.5 hrs]
- Quantum Mechanics [UG Level, 11 Lectures, 4 hrs]
- Statistical Mechanics [UG Level, 5 Lectures, 5.5 hrs]
- Time Varying Fields [UG Level, 13 Lectures, 4 hrs]
- Electrostatics & Dielectrics [UG Level, 3 Lectures, 3 hrs]
- MAPLE [Cert Course, 7 Lectures, 3.75 hrs]
- Introduction to Black Holes [UG Level, 2 Lectures, 0.5 hr]
- Crystallography [UG Level, 3 Lectures, 0.75 hr]
- Finding L1 of Sun-Earth <u>https://www.youtube.com/watch?v=A8DGE\_tDubc&t=652s</u>
- Colinear L Points <u>https://www.youtube.com/watch?v=3CbubohH7A8&t=1s</u>
- Exploring Exponential <u>https://www.youtube.com/watch?v=V7XWYJ3Z36Y&t=24s</u>
- Euler's Identity <u>https://www.youtube.com/watch?v=HCP9x5th17E&t=16s</u>
- Relativistic QM <u>https://www.youtube.com/watch?v=siUxbFguVzE&t=3651s</u>
- GR in Maple <u>https://www.youtube.com/watch?v=bW\_SJTT\_Wj0&t=1071s</u>
- •

# G L Jadhav:

- Interference of Light (1) https://youtu.be/XmX12S57pBk
- Interference of Light (2) https://youtu.be/VjtYhjoNg3E
- Interference of Light (3) https://youtu.be/oyRZTBSNpmY
- Interference of Light (4) https://youtu.be/\_uMFSo56ypA
- Interference of Light (5) https://youtu.be/gDHd-CS2IAA
- Interference of Light (6) https://youtu.be/hZ-QmhhVnO4
- Interference of Light (7) https://youtu.be/yAhzGDD dC4
- Field Effect Transistor (1) https://youtu.be/fdhh9aURsRM
- Field Effect Transistor (2)
- https://youtu.be/bzOmac2yivo
- Field Effect Transistor (3) https://youtu.be/afhYEGTCpLM
- Polarization of Light https://youtu.be/QuTH33peSuo

# Dr. Sugandha V. Khangar (Wagh) -

- Links of YouTube lecture and LMS are given below:
- LMS link for B. Sc. SEM-I & SEM-II: https://class.ssesa.live/b/mah-0xa-bit-n1p

- LMS link for B. Sc. SEM-III & SEM-IV: https://class.ssesa.live/b/mah-skk-vvr
- B.Sc. SEM-II Laws of thermodynamics Carnot's cycle You Tube link: https://www.youtube.com/watch?v=Elix1XVKU80&t=233s
- B.Sc. SEM-III "Atmosphere and Geophysics" YouTube links:
- https://www.youtube.com/watch?v=IS1Emq5lveo&t=45s
- https://www.youtube.com/watch?v=SEYc513ZE\_g&t=1s
- https://www.youtube.com/watch?v=\_5CqpvONfVQ&t=54s
- https://www.youtube.com/watch?v=BHD7JqG8swU&t=55s
- https://www.youtube.com/watch?v=G6sSF1SAVCc&t=5s
- https://www.youtube.com/watch?v=OHj1IcO5MMc&t=50s
- https://www.youtube.com/watch?v=lyVM1lrP1Xs&t=451s
- https://www.youtube.com/watch?v=pUeBi2MZ0MY
- https://www.youtube.com/watch?v=0cuUZ7M1Wtw&t=19s
- https://www.youtube.com/watch?v=fiqw3c7D80o
- B.Sc. SEM-IV "LASER and OPTICAL FIBER" YouTube links:
- https://www.youtube.com/watch?v=rk79l8ykQyw&t=119s
- https://www.youtube.com/watch?v=xLmjAZUsGt8&t=32s
- B. Sc. SEM-I Experiments YouTube links
- Modulus of Rigidity:
- https://www.youtube.com/watch?v=qqaeiRKcEYg&t=9s
- Moment of Inertia of fly wheel: https://www.youtube.com/watch?v=RbZr85SkjOs&t=334s
- Study of Phase shift oscillator

# Dr. S K Sayyad -

- FTIR : https://youtu.be/GOha8uVvoVg
- Hydrothermal method: https://youtu.be/e-Fv94L7gYU
- 20. Details on student enrichment programs (special lectures/workshops/seminar) with external experts:

| Title/ Topic of the<br>Program | Whether<br>lectures/<br>workshops/se<br>minar /other                    | Name of the external experts | Details of the external experts      | Period of<br>Program |
|--------------------------------|---|------------------------------|--------------------------------------|----------------------|
| RAMAN<br>SPECTROSCO<br>PY      | Students<br>Seminar as a<br>part National<br>Science Day<br>Celebration | Miss. Anushka<br>Palandurkar | B. Sc. SEM-IV students               | 5/03/2024            |
| On Job Training<br>(OJT)       | One Day<br>Workshop   | 1)Mr. Sandeep<br>Sonskar     | Director<br>V S Informatics Pvt Ltd, | 13/02/2024           |

|   |                                      | 2) Mr. Kunal<br>Khawashi         | Nagpur<br>R&D Engineer<br>V S Informatics Pvt Ltd,<br>Nagpur                  |                     |
|---|--------------------------------------|----------------------------------|---|---------------------|
| Interaction On<br>Job Training<br>(OJT) in PCB<br>designing,<br>Embedded<br>Systems, and IoT<br>(Internet of<br>Things) | Industry<br>Institute<br>Interaction | Mr. Kunal Khawshi                | R&D Engineer<br>V S Informatics Pvt Ltd,<br>Nagpur                            | 7-2-2024            |
| re-designate ' <i>h</i> ' as<br>the PEB (Planck-<br>Einstein-Bose)<br>constant  | Online<br>National<br>Seminar        | 1) Prof. P. K.<br>Ahluwalia      | President IAPT, former<br>Professor at Himachal<br>Pradesh<br>University      | January 27,<br>2024 |
| (S N Bose Life &<br>Work)   |                                      | 2)Prof. Sreerup<br>Raychaudhuri, | Professor of Physics and<br>Dean (Administration) at<br>TIFR Mumbai           |                     |
|   |                                      | 3) Dr. Rajinder<br>Moudgil,      | Professor of Condensed<br>Matter Physics from<br>Kurukshetra University       |                     |
|   |                                      | 4)<br>Prof. R. M. Shewale        | IAPT President for RC<br>Maharashtra &Ex-<br>Professor of Physics at<br>Dhule |                     |

|  |   | 5)Dr. V.<br>Renganayaki& Dr.<br>Uthra Dorairajan | from Regional Council of<br>Tamil Nadu &<br>Pondicherry RC-13           |                             |
|--|---|--|---|-----------------------------|
| Intra College<br>Seminar and Quiz<br>Competition | Intra College<br>Seminar and<br>Quiz<br>Competition | Dr. Atul Bobade                                  | Head of the department of<br>Zoology, Shivaji Science<br>College Nagpur | 16th of<br>October,<br>2023 |

21. Participation in Institutional Social Responsibility (ISR) and Extension activities:

| Name of<br>the faculty | Details of<br>participation<br>in co-<br>curricular<br>activities         | Details of<br>participation<br>in<br>extracurricular<br>activities | Details of participation in<br>extension activities including<br>institutional social responsibilities  | Details<br>with<br>dates and<br>period |
|------------------------|---|--|---|--|
| Dr S W                 | Member of   |  | Coordinator of CPE Programme and  | Session                                |
| Anwane                 | IQAC, Member<br>of Criterion-V<br>(Student<br>Support and<br>Progression) |  | Convener of Planning and Follow-Up<br>Action Committee<br>(UGC/CPE/RUSA/ALLOCATION<br>AI\D MAINTENANCE) | 2023-24                                |
| Dr S W<br>Anwane       | Coordinator<br>STUDENTS<br>INDUCTION<br>PROGRAMME                         | A week long<br>programme<br>organized                              | Detailed report is posted on the website  | 2023-24                                |
| Dr S W<br>Anwane       | Consultancy<br>Generated  |  |   | 2023-24                                |
| Dr S W<br>Anwane       | SPOC,<br>SWAYAM   |  |   | 2023-24                                |
| Dr S W<br>Anwane       | BoS RTMNU   |  |   | 2023-24                                |

| Dr S W             | President SRC-  |  | Organized National Level activity on Life   | 2023-24            |
|--------------------|---|--|---|--------------------|
| Anwane             | 08E IAPT  |  | and Worke of S N Bose. A detailed report is posted on the website   |                    |
| Dr S W             |   |  |   | 2023-24            |
| Anwane             | the students as syllabus is cove  | the Course conte   | <i>W</i> Anwane has gifted free coupons to<br>ents and the RTM Nagpur University<br>VI. The following 120 students have<br>in due time.               |                    |
| Dr R N             | Member of   |  |   | Session            |
| Pathare            | Admission<br>committee,<br>Member of<br>Student Council<br>committee,<br>Magazine<br>commitee                                 |  |   | 2022-23            |
| Dr S V<br>Khangar  | Member of<br>Admission<br>committee,<br>Member of<br>Magazine<br>committee  |  | Co-officer of NSS committee   | Session<br>2023-24 |
| Mr B T<br>Kumbhare | Member of<br>Admission<br>committee,<br>Member of<br>College Exam<br>committee  |  | Member of NSS committee   | Session<br>2023-24 |
| Dr S K<br>Sayyad   | Convenor Carrer<br>Katta<br>committee,<br>Member of PG<br>Admission<br>committee,Mem<br>ber of Teacher<br>mentor<br>committee |  |   | Session<br>2023-24 |
| Dr G L<br>Jadhav   | Student Council<br>Member,<br>Admission<br>Committee<br>Member  | Convener of<br>Publicity &<br>Digitalization<br>Committee,<br>Member of<br>Training and<br>Placement Cell,<br>Value Education<br>and Extension<br>Activities | Convener of Internal Committee<br>(Provision of Right of Persons with<br>Disability Act 2016), Convener of Value<br>Education & Extension Activities, | Session<br>2022-23 |
| Dr G.              | Participation   |  | During 24 Dec To 28 December various  | Session            |
| L .Jadhav          | 125th birth   |  | programme were arranged in the college<br>Like Elocution Competition, Sports  | 2023-2024          |

|                      | anniversary of<br>Dr. Punjabrao<br>alias Bhausaheb<br>Deshmukh, the<br>founder<br>president of Shri<br>Shivaji<br>Education<br>Amravati,  | Activities etc,  |                      |
|----------------------|---|--|----------------------|
| Dr G. L.<br>Jadhav   | Participation in<br>the 125th birth<br>anniversary of<br>Dr. Punjabrao<br>alias Bhausaheb<br>Deshmukh, the<br>founder<br>president of Shri<br>Shivaji<br>Education<br>Amravati, | On the occasion of the 125th birth<br>anniversary of Dr. Punjabrao alias<br>Bhausaheb Deshmukh, the founder<br>president of Shri Shivaji Education<br>Amravati, six lectures were organized at<br>various places in Maharashtra on behalf of<br>the Science college Congress Nagar<br>Nagpur Actively participated in this<br>lecture series under the guidance of<br>Honorable Principal sir. | Session<br>2023-2024 |
| Dr. S. V.<br>Khangar | Member of<br>College<br>Research Cell   | Collection of Institutional data regarding<br>conferences, Workshops, seminars,<br>MOUs etc. Data reporting to IQAC  | Session<br>2023-2024 |

# 22. List of Alumni of the Departments:

| Sr | Name and available details                                       |
|----|--|
| No |  |
| 1  | Ashish A. Mahabal Senior Research Scientist At Cal. Tech. U.S.A. |
| 2  | Appulingam Shriram Working in NABARD                             |
| 3  | Dr. Ashish A. Deshmukh Puesuing Ph.D. IISC Bangalore             |
| 4  | Mr.Prafulla D.Vairagade M.Sc. Applied Geology IIT Mumbai.        |
| 5  | Ku.Pooja Pingale Canara Bank Mumbai                              |
| 6  | Ku.Roopa Singh. IIM  |
| 7  | Dr.Kamlesh Moon M.P. Deo Science College, Nagpur                 |
| 8  | Dr.S.N.Patil M.Sc.Physics ,Associate Prof .Nashik.               |
| 9  | Shri Rahul D.Khade Advocate High Court Nagpur                    |
| 10 | Dr.Vikas Bangre, Institute of Science, Mumbai                    |
| 11 | Mr. R. J. Sasan Indian Air Force                                 |
| 12 | Mr. A. M. Lele Multinational Based Elect. Space Company U.S.A.   |
| 13 | Mr. G. Agarwal IIT Guwahati                                      |
| 14 | Mr. V. S. Marathe UK   |
| 15 | Ku. Sandhya U.S.A.   |
| 16 | Mr. Joshi S. S. Indian Air Force                                 |

| 1 | 17       | Dr. Varambhe Prof. Food & Tech LIT Nagpur  |
|---|----------|--|
|   | 18       | P. V. Dhanodkar System Engg. United Bank Of India Pune   |
|   | 19       | Shri Jayant M. Borade NIC Nagpur   |
|   | 20       | Shri. Arora Programmer UK  |
|   | 21       | Dr. Satish Sangode Scientist E Wadia Inst. of Himalaya Geology Dehradun (UP)                           |
|   | 22       | Shri V. K. Patkhmode Hydrologist GSDA Pune   |
|   | 22       | Shri Devendra Mahajan Hydrologist Sahara India, Lonawala   |
|   | 23       | Shri Anup Fartode Lecturer KDK Engg. College, Nagpur   |
|   | 25       | Appulingam Shriram Geologist Nabard Patna Bihar  |
|   | 26       | Shri D. M. Kolte ,Nagpur   |
|   | 20       | Shri. Ravi Bhoyar Adv. High Court Nagpur   |
|   | 28       | Shri. Arora Programmer UK  |
|   | 28<br>29 | Shri V. K. Patkhmode Hydrologist GSDA Pune   |
|   | 30       | Shri Devendra Mahajan Hydrologist Sahara India, Lonawala   |
|   | 30       | Shri Anup Fartode Lecturer KDK Engg. College, Nagpur   |
|   | 32       | Appulingam Shriram Geologist Nabard Patna Bihar  |
|   | 32       | Shri D. M. Kolte ,Nagpur   |
|   | 33<br>34 | Shiri D. M. Kone, Nagpur<br>Shri. Ravi Bhoyar Adv. High Court Nagpur                                   |
|   | 34<br>35 |  |
|   | 35<br>36 | Shri. Arora Programmer UK<br>Dr S. N. Patil M. S. a. Physica, Acception Braf, Nachik                   |
|   | 30<br>37 | Dr.S.N.Patil M.Sc.Physics ,Associate Prof .Nashik.<br>Dr.Kamlesh Moon M.P. Deo Science College, Nagpur |
|   | 37<br>38 | $\mathbf{c} \rightarrow \mathbf{c}_1$  |
|   | 38<br>39 | Mr. Malke Govt Poly,Sadar Nagpur.<br>Mr. C.G.Pande WCL   |
|   | 39<br>40 |  |
|   |          | Mr. Y.S. Tijare, Nagpur.   |
|   | 41       | Mr.Mukwane Meyo Hospital, Nagpur<br>Ku.Nikita Mathankar Enthrall Tech Pune                             |
|   | 42       |  |
|   | 43       | Ku.Renuka Raut Enthrall Tech Pune  |
|   | 44       | Padwe Prathesh madhukar  |
|   | 45       | Harshal Ravindra Zilpe   |
|   | 46       | Padmakshi Naresh Parwe   |
|   | 47       | Ghodmare Anjali Krishnaji  |
|   | 48       | Anjali Fulkar  |
|   | 49<br>50 | Aishwarya Sawarkar   |
|   | 50       | Anuj Chandrasekhar Ghatate   |
|   | 51<br>52 | Pranay Babalu Billore<br>Gauray s. Nirwan  |
|   | 52       | Rahul Borkar   |
|   | 53<br>54 | Ankita C. Bandhekar  |
|   | 54<br>55 |  |
|   | 55<br>56 | Pratik Surendra Ghorpade<br>Shweta Kuntawar  |
|   | 50<br>57 | Amruta Arvind Dadmal   |
|   | 57<br>58 | Ragini Sunil Meshram   |
|   | 58<br>59 | Bhakti Jaywant Deshpande   |
|   | 59<br>60 | Shriya Shrikant Patankar   |
|   | 60<br>61 | Paris Sudesh More  |
|   | 61<br>62 |  |
|   | 62<br>63 | Aditya Shekhar Jogwar  |
|   | 63<br>64 | Apurva Tiwari  |
|   | 04       | Anjali Agrawal   |

# 65 Vishwajit Manohar Gaikawad

- 23. Plan for the Current Academic Session (2023-24): To strengthen academic activities in the department for various courses viz; UG, PG, CoC, Research Centre.
- 24. Future plan for Next Academic Session (2024-25) :

To strengthen academic activities in the department for various courses viz; UG, PG, CoC and Research Centre.

25. Any other information: -

Dr. S. W. Anwane Professor and Head Department of Physics Shri Shivaji Education Society Amravati's SCIENCE COLLEGE Congress Nagar, Nagpur.

> Signature Head Department of Physics

Date: 20-5-2024

#### **Enclosure-1**

# e-learning by Students through International Platform UDEMY

### Following B.Sc. Semester VI students have completed the MOOCS UDEMY Certificate Courses as following:

The *instructor* of the course *Dr S W Anwane* has gifted free coupons to the students as the Course contents and the RTM Nagpur University syllabus is covered for Semester VI. The following 120 students have submitted certificate of completion in due time.

| Sr.<br>No. | Name                      | Course                                      |
|------------|---------------------------|---|
| 1          | Gargi Jaunjal             | A Boot Camp to Special Theory Of Relativity |
| 2          | Tanushka Anand kadu       | A Boot Camp to Nuclear Physics              |
| 3          | Diksha Ravindra Gedam     | A Boot Camp to Nuclear Physics              |
| 4          | Dhanshree Choudhari       | A Boot Camp to Nuclear Physics              |
| 5          | Isha Dhole                | A Boot Camp to Nuclear Physics              |
| 6          | Anjali lodhikar           | A Boot Camp to Special Theory Of Relativity |
| 7          | Anjali lodhikar           | A Boot Camp to Nuclear Physics              |
| 8          | Jayshree Prakash Yadav    | A Boot Camp to Nuclear Physics              |
| 9          | Ritika Balodiya           | A Boot Camp to Nuclear Physics              |
| 10         | Sapna Yadav               | A Boot Camp to Special Theory Of Relativity |
| 11         | Sapna Yadav               | A Boot Camp to Nuclear Physics              |
| 12         | Aayesha Ashfaque Siddique | A Boot Camp to Nuclear Physics              |
| 13         | Khushi Kanoje             | A Boot Camp to Special Theory Of Relativity |
| 14         | Khushi Kanoje             | A Boot Camp to Nuclear Physics              |
| 15         | Amisha bilkar             | A Boot Camp to Nuclear Physics              |
| 16         | Amisha bilkar             | A Boot Camp to Special Theory Of Relativity |
| 17         | Rohan Mahajan             | A Boot Camp to Special Theory Of Relativity |
| 18         | Romit Chaudhury           | A Boot Camp to Nuclear Physics              |
| 19         | Mohit Bhakte              | A Boot Camp to Nuclear Physics              |
| 20         | Janhvi Kayarkar           | A Boot Camp to Special Theory Of Relativity |
| 21         | Janhvi Kayarkar           | A Boot Camp to Nuclear Physics              |
| 22         | Disha Vijay Raut          | A Boot Camp to Special Theory Of Relativity |
| 23         | Disha Vijay Raut          | A Boot Camp to Nuclear Physics              |
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| Type of site        | Online education  |
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| Traded as           | Nasdaq: UDMY 🖉  |
| Founded             | May 11, 2010; 13 years ago  |
| Headquarters        | San Francisco, California, U.S.   |
| Created by          | Eren Bali<br>Gagan Biyani<br>Oktay Çağlar <sup>[1]</sup>  |
| Key people          | Greg Brown (CEO)  |
| Industry            | E-learning  |
| Revenue             | ▲ US\$516 million (2021) <sup>[2]</sup>   |
| Operating<br>income | ▼ US\$-78 million (2021) <sup>[2]</sup>   |
| Net income          | <b>V</b> S\$-80 million (2021) <sup>[2]</sup>   |
| Total assets        | ▲ US\$740 million (2021) <sup>[2]</sup>   |
| Total equity        | ▲ US\$390 million (2021) <sup>[2]</sup>   |
| Employees           | 1,238 (December 2021) <sup>[2]</sup>  |
| URL                 | www.udemy.com   |
| Commercial          | Yes   |
| Registration        | Required  |
| Users               | 52 million (2022) <sup>[3]</sup>  |
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