



Academic Audit Report
for Academic Year
2023-24

Department of Physics

Shri Shivaji Education Society Amravati's

SCIENCE COLLEGE

NAGPUR

Shri Shivaji Education Society Amravati's
Science College, Congress Nagar, Nagpur

Internal Quality Assurance Cell

DEPARTMENT OF PHYSICS

INTERNAL ACADEMIC AUDIT

2023-2024

1. A. Faculty Strength:

Faculty	Recruited	Vacant	Remarks
Regular	06	02	
CHB	04	00	
Ad-hoc	03	00	
Non-teaching	02+03		

B. Faculty profile

Name	Highest Qualification	Designation	Specialization	Teaching Experience
1. Prof. S. W. Anwane	Ph.D.	Professor	Materials Science	24 Yrs
2. Dr R N Pathare	Ph.D.	Assistant Professor	Materials Science	17 Yrs
3. Dr S V Khangar	Ph.D.	Assistant Professor	Ultrasonics, Condensed Matter Physics	5 Yrs
4. Mr B T Kumbhare	M.Sc.,SET	Assistant Professor	Materials Science	05 Yrs
5. Dr S K Sayyad	Ph.D.	Assistant Professor	Materials Science	05Yrs
6. Dr. G. L. Jadhav	Ph.D.	Assistant Professor	Electronics	05Yrs
Ms Swapnil Belkhude	M.Sc., SET	Assistant Professor (Ad-hoc)	General	02 Yrs
Ms Kanchan Jiwnapurkar	M.Sc.	Assistant Professor (Ad-hoc)	General	02 Yrs
Ms Chanda Jatgade	M.Sc.	Assistant Professor (Ad-hoc)	General	02 Yr

Mr. Sarang Daf	M.Sc.,SET	Assistant Professor (CHB)	Materials Science	8 Yrs
Yograj Choudhary	M.Sc.,SET	Assistant Professor (CHB)	General	04 Yrs
Manish Dhawle	M.Sc.,SET	Assistant Professor (CHB)	General	02 Yrs

2. Student's strength

Year	Group	Number of Students Admitted
B.Sc. Semester I	PCM	29
	PEM	11
	PCsM	51
	PCG	07
	Total	98
B.Sc. Semester III	PCM	35
	PEM	16
	PCsM	43
	PCG	16
	Total	110
B.Sc. Semester V	PCM	37
	PEM	21
	PCsM	51
	PCG	14
	Total	123
M.Sc. Semester I		07
M.Sc. Semester III		10
Ph.D.		02
Value Added Program		00
	TOTAL	

P. G. STUDENT INDUCTION PROGRAMME[1-3]	Yes, No
ACADEMIC PLANNINGS	Yes, No
BRIDGE COURSE TAUGHT	Yes, No
REMEDIAL COURSE TAUGHT	Yes, No

3. Student Performance

A. Result Analysis (Winter 2023) UG & PG

Programme Name	Number of students who appeared in the final year examination	Number of students who passed in final year examination	Pass Percentage
B.SC. Sem- I	98	59	60.02
B.SC. Sem-III	110	85	77.27%
B.SC. Sem-V	120	100	83.33%
M. Sc. Sem-I	07	01	14.00%
M. Sc. Sem-III	10	04	40.00%

B. Result Analysis (Summer 2024) UG & PG

Programme Name	Number of students who appeared in the final year examination	Number of students who passed in final year examination	Pass Percentage
B.SC. Sem- II			
B.SC. Sem-IV			
B.SC. Sem-VI			
M. Sc. Sem-II			
M. Sc. Sem-IV			

C. Achievements

A- (Medals/Awards/Prizes at University level)

Sr. No.	Name of the Students	Class	Title
1	Ms. Aishwarya Mendwade	B. Sc. SEM IV	secured 2nd position in Inter University student seminar competition organized by Vidharbha University's Physics Teacher's Association (VUPTA) in Government Science College, Gadchiroli on 24 - 25 Feb'24

2	Ms. Anushka Palandurkar	B. Sc. SEM-IV	secured 1st position in elocution competition organized by VUPTA - 2024
3	Ms. Divyani Daware	B. Sc. SEM-II	secured 3rd position in VUPTA students seminar competition -2024
4	Ms. Sneha Sharma	B. Sc. SEM-VI	bagged consolation prize in VUPTA students seminar competition
5	Mr. Kshitij Gupta student	B. Sc. SEM IV	bagged 3rd Prize- Certificate and Cash prize of 500/- in Late Smt. Shantabai Shekdar Intercollegiate Seminar Competition organized by LAD & smt.R.P. College, Shankar Nagar, Nagpur.
6	Ms. Anushka Palandurkar	B. Sc. SEM IV	secured first prize, "cash Prize of 1000/-, Gold medal and certificate of excellence" in 'State level Seminar competition in Physical sciences' organized by Mathuradas Mohata College of Science Nagpur
7	Mr. Yugansh Kanoje	B. Sc. SEM II	Yugansh's Project work is shortlisted in the first 30 students for the representation of Dept of Physics 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. He is facilitated at the hands of Dr P K Gupta, Scientist, Regional Director, Atomic Minerals Division, Nagpur.
8	Mr. Yugansh Kanoje	B. Sc. SEM II	Selected in Top 10 in National Photo Essay Competition in Physics As a part of the celebration of National Science Day, organized by Bajaj College of Science in collaboration with Sub Regional Council 08-E (Vidarbha) region of Indian Association of Physics Teachers (IAPT)
9	Mr. Shrivatsa Pitale	B. Sc. SEM VI	He has been placed among Center Top 10% in National Graduate Physics Examination (NGPE) -2024 organized by IAPT
10			

B- Merit Position of UG Students in RTMNU

Sr. No.	Name of the Students	Merit Position

C- Merit Position of PG Students in RTMNU

Sr. No.	Name of the Students	Merit Position

4. Student's Progression:

No. of students enrolling in higher Education	Name of institution joined	Name of program admitted to
UG to PG (3)	PGTD Physics RTMNU	M.Sc. Physics
PG to Research (1)	VNIT, Nagpur	Ph. D. Programme
Placement		
On-Campus		
Off-Campus		

(i) Students' publication in Conferences/ Journals:

Title of the Paper	Name of Author	Title of journal	Year of publication

(ii) Students' participation in Seminar/ Conferences:

Sr. No.	Name of the Students	Class	Title
1			
2			

(iii) Students' Extension Activity/ Extracurricular activity

Sr. No.	Name of the activity	The number of students who Participated
1	Udemy has recently approved and launched the course titled <i>A Boot Camp to the Special Theory of Relativity</i> on November 23, 2021. This course caters to both beginners and undergraduate students interested in delving into the subject. The course commences with an exploration 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	2371 STUDENTS 4.62 RATING 60 REVIEWS in June 2023

	concepts of energy and relativistic momentum.	
2	Udemy has recently launched the course <i>A BootCamp to Nuclear Physics</i> , 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 provides 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
3	Running SWAYAM NPTEL Single Point of Contact SPOC for Local Chapter at Shri Shivaji Education Society Amravati's SCIENCE COLLEGE, Congress Nagar NAGPUR.	

(iv) Participation of Students in online/MOOCs courses/ NPTEL/ SWAYAM

Sr. No.	Name of the Students	MOOCs / NPTEL/ SWAYAM
1	Soksham Nishant Dhok	NPTEL (Atomic and Molecular Physics)
2	Huzefa Khuzema Arviwala	NPTEL (Atomic and Molecular Physics)
3	120 students of B Sc Sem VI students of 2023-24 batch completed Udemy Course on (i) SPECIAL THEORY of RELATIVITY and (ii) Bootcamp to NUCLEAR PHYSICS as noted on 3 rd April 2024. The list is attached <u>Enclosure-1</u>	

(v) Participation of Teachers in online/MOOCs courses/ NPTEL/ SWAYAM

Sr. No.	Name of the Teacher	MOOCs / NPTEL/ SWAYAM
1	B. T. Kumbhare	NPTEL (Solid State Physics)
2	Dr. S. K. Sayyad	NPTEL (Solid State Physics)
3	Dr. S. V. Khangar	NPTEL (Nuclear and Particle Physics)
4	Dr. S. V. Khangar	Refresher Course in Physics RAMANUJAN College Delhi (30 March-12 April 2024)
5.	Dr R N Pathare	The Training Program on Computer-Interfaced Science Experiments Using ExpEYES, which held at the Inter-University Accelerator Centre in New Delhi (6 May to 11 May 2024)
6		
7.		

5. Faculty

I. Research Paper Publications

A. Total Number of publications:

i) International **05**

ii) National **00**

B. Bibliometrics of the publications during the last Academic year based on average citation index in Scopus/ Web of Science or PubMed/ Indian Citation Index

Title of the Paper	Name of Author	Title of journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self-citation
A Lead-free Flexible Polymer/Ceramic Based Nanocomposites Thin Film for Electronic Application, DOI: 10.1080/00150193.2023.2269153	Shahin Sayyad, S. A. Acharya, S. A. Pande, Tanveer Quazi & S. W. Anwane,	Ferroelectrics 616:9-19	2023.		Shri Shivaji Education Society Amravati's SCIENCE COLLEGE Nagpur	
Study of [Pb(Fe _{1/2} Nb _{1/2})O ₃]- (SiO ₂ -B ₂ O ₃) by sol-gel technique DOI: 10.1080/00150193.2023.2269151	Tanveer Quazi, Shahin Sayyad, S. A. Acharya, Kamal Singh & Mohammad Anwarul Siddique	FERROELECTRICS, VOL. 616, 1-8	2023		Shri Shivaji Education Society Amravati's SCIENCE COLLEGE Nagpur	
Wet chemical synthesis and photoluminescence properties of NaSrPO ₄ :Dy ³⁺ and NaSrPO ₄ :Eu ³⁺ phosphors for near UV-based w-LEDs https://doi.org/10.1007/s12596-023-01387-4	C. M. Nandanwar · N. S. Kokode · A. N. Yerpude · R. M. Yerojwar · S. K. Sayyad	J Opt,01387-4	2023		Shri Shivaji Education Society Amravati's SCIENCE COLLEGE Nagpur	6
Ultrasonic and Spectroscopic investigation of aqueous polyvinyl alcohol (PVA)	S. V. Khangar, O. P. Chimankar, Y. S. Tamgadge	R. P. Trends in Applied sciences by Research	2023		Shri Shivaji Education Society Amravati's SCIENCE	

solutions	& R. Y. Bakale	Plateau e-ISSN: 2583-7486 Vol.2 No. 4 pp 78-83			COLLEGE Nagpur	
Optical Properties of Polymethyl methacrylate/Polyvinyl chloride Blends	R. Y. Bakale, Y. G. Bakale, Y.S Tamgadge, R. P. Ganorkar & S. V. Khangar,	R. P. Trends in Applied sciences by Research Plateau e-ISSN: 2583-7486 Vol.2 No. 4 pp 84-89	2023		Shri Shivaji Education Society Amravati's SCIENCE COLLEGE Nagpur	

C. Faculty participation in conferences/seminars/workshops and symposia:

Name of the Faculty	Title of Conference/ Seminar/ workshop Attended	Period	Level International/ National/State /University /College	Whether Presented papers	Whether abstract /paper published in Souvenir/Abstract Book
S W Anwane	Understanding General Relativity with Maple's Visualizations: Equations and Tensors Simplified https://www.youtube.com/watch?v=bW_SJTT_Wj0&t=1071s	29-4-24	National	Delivered a webinar	No
S W Anwane	Organized One Day National Seminar in Online mode on Life and Work of S N Bose which is a joint venture of IAPT Sub Regional Council of Maharashtra (VIDARBHA) SEC-08 E and Department of Physics, SSESA's SCIENCE COLLEGE, Nagpur wherein resource persons were Prof Sreerup Raichaudhuri (TIFR-Mumbai), Prof Rajinder Moudgil (Kurukshetra University) and Prof P K Ahluwalia (Himachal Pradesh University). About 100 students and teachers participated in this Seminar. 27 January 2024. (i) https://www.youtube.com/watch?v=Fj0Lf0pkFeg&t=23s (ii) https://www.youtube.com/watch?v=SbdHTwbpk50&t=2224s				

S W Anwane	Participated in TWO DAYs IAPT Maharashtra State Convention 2024 and Conference on Physics Education under NEP 2020 Organized by at PDEA's Anantrao Pawar College, Pirangut, Pune.	13-14 Jan 2024	State Level	No	
S W Anwane	37th Indian Association of Physics Teachers (IAPT) Conclave Organized by Jaipur National University in association with IAPT at Jaipur-Rajasthan.	(7-10 October 2023)	National	Yes Delivered talk on " <i>Special Relativity using Perplex Numbers</i> " at the	No
S W Anwane	at the 2nd National Seminar on Discovery and Detection of Gravitational Waves Organized by Jaipur National University in association with Indian Association of Physics Teachers (IAPT).	15/9/2023	National	Yes Delivered Lecture on "Estimation of the Lagrange Point L1 in Sun-Earth system"	No
S W Anwane	Participated in ONE DAY National Symposium on NEP - A Global Perspective for HEI Organized by MANTHAN - For Academia.	16/12/2023	National	No	

R N Pathare	International Conference on Advanced Sustainable Futuristic Materials organized by Kamla Nehru Mahavidyalaya, Nagpur, Sharda University, Greater Noida, and CSIR-National Environmental Engineering Research Institute (CSIR-NEERI), Nagpur	26,27 May 2024	International	Review on Electrospinning for photoluminescent polymers fibres.	
R N Pathare	Workshop on Basic Concepts in Physics For B Sc I Sem student at Santaji Mahavidyala Nagpur	3rd Feb 2024	National	Guest Lecture	
B. T. Kumbhare	International Conference on Advanced Sustainable Futuristic Materials organized by Kamla Nehru Mahavidyalaya, Nagpur, Sharda University, Greater Noida, and CSIR-National Environmental Engineering Research Institute (CSIR-NEERI), Nagpur	26-27, April 2024	International		
B. T. Kumbhare	One Week Online National Level FDP on Advanced Materials & Quantum Technology organized by Department of Applied Physics, YCCE, Nagpur	4-9 Dec, 2023	National		
Dr G. L. Jadhav	International Symposium on Intellectual property Rights 2024	26th April to 27th April 2024	International		

Dr. G. L. Jadhav	Organized One Day National Seminar in Online mode on Life and Work of S N Bose which is a joint venture of IAPT Sub Regional Council of Maharashtra (VIDARBHA) SEC-08 E and Department of Physics, SSESA's SCIENCE COLLEGE, Nagpur wherein resource persons were Prof Sreerup Raichaudhuri (TIFR-Mumbai), Prof Rajinder Moudgil (Kurukshetra University) and Prof P K Ahluwalia (Himachal Pradesh University). About 100 students and teachers participated in this Seminar. 27 January 2024.				
Dr. S. K. Sayyad	International Conference on Advanced Sustainable Futuristic Materials organized by Kamla Nehru Mahavidyalaya, Nagpur, Sharda University, Greater Noida, and CSIR-National Environmental Engineering Research Institute (CSIR-NEERI), Nagpur	26-27, April 2024	International	Yes Poster Presentation	
Dr. S. K. Sayyad	Online Short term faculty development programme for CAS on “ Emotional Intelligence for teacher in Higher Education” organized by Career Katta and UGC Malaviya Mission Teacher Training Centre SGBAU	16-25 November 2023			
Dr. S. V. Khangar	International Conference on Advanced Sustainable Futuristic Materials organized by Kamla Nehru Mahavidyalaya, Nagpur, Sharda University, Greater Noida, and CSIR-National Environmental Engineering Research Institute (CSIR-NEERI), Nagpur	26-27, April 2024	International	Yes, Oral Presentation	Yes, Abstract

Dr. S. V. Khangar	Role:- Organizer: Physics- Society Convener- Organized One Day National Seminar as a Physics Society convener in Online mode on Life and Work of S N Bose which is a joint venture of IAPT Sub Regional Council of Maharashtra (VIDARBHA) SEC-08 E and Department of Physics, SSESAs's SCIENCE COLLEGE, Nagpur wherein resource persons were Prof Sreerup Raichaudhuri (TIFR-Mumbai), Prof Rajinder Moudgil (Kurukshetra University) and Prof P K Ahluwalia (Himachal Pradesh University). About 100 students and teachers participated in this Seminar. 27 January 2024.
Dr. S. V. Khangar	Organized One Day Workshop on OJT

D. Awards to Faculty members

Name of Teacher	Title of the Award	Title of Agency/ Conference	National / International
S W Anwane	Nominated on the Board of MAPLE Ambassador for SAARC region to inspire and educate others about the benefits that Maple brings to STEM Education.	Binary Semantics, Bangalore Partner of Waterloo MapleSoft CANADA	International

6. Number of functional MoUs with institutions, other universities, industries, corporate houses, etc. during the year

The organization with which MoU is signed	Year of signing MoU	Duration	List the actual activities under each MOU year wise	Number of students/teachers who participated under MoUs
SHRI MATHURADAS MOHTA SCIENCE COLLEGE, NAGPUR	2022	Five Years	—	—
V S Infotech, Nagpur	2024	Five Years		

7. Research funds sanctioned and received from various agencies, industries and other organizations

Nature of the Project	Duration	Name of funding Agency	Amount Sanctioned	Amount Received
Minor	2 years	RTMNU-RDC URPS	3,00,000/-	

8. Books Published

	Book		Book Edited
	Title	ISBN and Date	Chapter
Dr G L Jadhav		ISBN: 978-81-970491-2-5	Thin Films By Spray Pyrolysis: A versatile Technique

9. Research Guidance by Faculty during the year

Name of the guide	Ph.D		
	Awarded	Submitted	Registered
S W Anwane	01*	00	01
R N Pathare	00	00	01

Name of Student: Mrs Ruhi Naz **Title:** *Understanding of oxy-ion conductivity of La_{2-x}AxMo_{2-y}ByO_{9-δ} 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).

10. Generation of funds through internal and external sources such as donations, consultancy, self-financing courses and so on.

Name of the non-government funding agencies/ individuals/ self-financing courses /consultancy service.	Purpose of the Grant/Fund	Fund generated in rupees.
Provided PL, FTIR characterization Services to a large number of Students (258 samples) of the college and others professionally @ Rs 100/- per sample and generated consultancy. This promotional rate can be raised to Rs 200 per specimen from 1-1-2025. By (i) S W Anwane and (ii) S K Sayyad	To maintain the laboratory contingency expenses and improvement of facilities	Rs. 25,800/-

11. Alumni Engagement

- Contributes significantly to the development of the institution through financial and other support.

12. Action Plan of the Department

- (i) Enhance classroom teaching to achieve excellence.
- (ii) Foster student curiosity through hands-on laboratory experiences.
- (iii) Initiate extension activities such as the Shivaji Space Explorer Club and visits to the Regional Science Centre.
- (iv) Expand consultancy activities to broaden departmental reach.
- (v) Support students in transitioning back to the classroom environment and actively involve them in the teaching and learning process following post-COVID trauma.

13. Best Practices of the department

- (i) Conducting regular student seminars
- (ii) Closely monitoring students and rewarding marks for tests, attendance, assignments, and performance in practicals.
- (iii) Encouraging projects leading to fabrication of devices and working models
- (iv) Consultancy activity using SIL initiated.
- (v) Identifying the students and making them participate in different competitions. like seminar competitions, and poster presentations.
- (vi) Giving exposure to the students through the different activities run by the Physics Society.


14. SWOC Analysis

S-The department fosters a conducive atmosphere, promoting openness for various activities. It boasts excellent infrastructure and is supported by a team of highly qualified staff. The presence of a sophisticated Instrumentation Laboratory enhances practical learning experiences. Additionally, the Physics Society serves as a platform for all stakeholders to engage and collaborate effectively. Faculty members have collectively developed an e-resource, further enriching the educational environment. The department's student-centric approach underscores its commitment to nurturing the academic growth and success of its students.

W- Securing placements in Physics beyond the teaching domain can be challenging due to limited connections with industry and the absence of research projects.

O-Utilizing the Sophisticated Instrumentation Laboratory for research and consultancy purposes offers significant potential. Its diverse applications across various fields can capture the interest of both students and teachers alike. Additionally, being designated as 2(f) and 12(B) opens avenues for securing research grants.

C-In a post-COVID scenario, attracting students to engage in learning poses a challenge due to decreased interest.



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

Date:8-5-2024

Head of the Department

Additional Information

S W Anwane is Co-opted on Board of Studies as a member for **Applied Sciences and Humanities (0119)** under the **Faculty of Science and Technology** under category 40(2)(a) by RTM Nagpur University, Nagpur.

Note: Category 40(2)(a)- Head of the department who is recognized for imparting teaching to postgraduate students in an affiliated college or a recognized institution having post graduate teaching in that subject. RTMNU Notification No: Acad./BOS-Co-op/2399(A) dated 18 March 2023.

S W Anwane is nominated to the Board of Studies of Physics as a member for three years at Bajaj College of Science Wardha which is an autonomous college. This term ended in Dec 2023

S W Anwane is Nominated on editorial board as an **Associate Editor** of the ***Bulletin of INDIAN ASSOCIATION OF PHYSICS TEACHERS*** - a monthly journal of education in Physics and related areas (ISSN 2277-8950).

S W Anwane is **President**, Sub-Regional Council of Maharashtra for Vidarbha Region (SRC-08 E) Indian Physics Teachers Association (Since Dec 2023)

S W Anwane is **Member**, EC Regional Council of Maharashtra (RC-08) Indian Physics Teachers Association (Since Dec 2023)

S W Anwane worked as *Chief Supervisor* at Center No 100 Shri Shivaji Science College, Nagpur for Summer 2023 RTMNU Examination (22-05-2023 to 14-08-2023).

S W Anwane is nominated on the Board of MAPLE Ambassador for SAARC region to inspire and educate others about the benefits that Maple brings to STEM Education. 2023-25

S W Anwane is contributing questions for setter paper for MPSC (2024)

S W Anwane is running SWAYAM NPTEL Single Point of Contact SPOC for Local Chapter at Shri Shivaji Education Society Amravati's SCIENCE COLLEGE, Congress Nagar NAGPUR.

S W Anwane initiated, enrolled and instructed for MOOCS Course completion of 120 B.Sc. Sem VI students in academic year 2023-24.

S W Anwane has contributed to University assignments by working for LEC expert committee as a member at (i) GH Raison College of Commerce, Science & Technology, Nagpur (ii) Vidya Vikas Shikshan Sanstha's Tulaskar Institute of Science & Technology, Hinganghat

S W Anwane delivered a Lecture on “*Entropy of Blackholes*” to inaugurate Physics Society at the Department of Physics, Shri Shivaji Education Society Amravati’s **SCIENCE COLLEGE, Amravati** and inaugurate the Physics Society. (9-9-2023)

S W Anwane delivered a 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)

S W Anwane delivered a talk on “Special Relativity using Perplex Numbers” at the 37th Indian Association of Physics Teachers (IAPT) Conclave Organized by Jaipur National University in association with IAPT. About 300 members of IAPT attended this programme at Jaipur-Rajasthan. (7-10 October 2023)

S W Anwane delivered Lecture on “Estimation of the Lagrange Point L1 in Sun-Earth system” at the 2nd National Seminar on Discovery and Detection of Gravitational Waves Organized by Jaipur National University in association with Indian Association of Physics Teachers (IAPT). About 200 students of UG and PG and 100 faculty members joined this programme in online and offline mode. (15/9/2023)

S W Anwane delivered a Lecture on “Entropy of Blackholes” and inaugurate Physics Society at the Department of Physics, Shri Shivaji Education Society Amravati’s **SCIENCE COLLEGE, Amravati** and inaugurate the Physics Society. About 150 students of UG and PG participated. (9/9/2023)

S W Anwane delivered an invited talk on Special Relativity using Complex Numbers in “37th National IAPT Convention” Organized by Jaipur National University, Jaipur. (10-12 Oct 2023)

YouTube Channel- a way to reach students at large

S W Anwane:

The YouTube 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 https://www.youtube.com/watch?v=A8DGE_tDubc&t=652s
- Colinear L Points <https://www.youtube.com/watch?v=3CbubohH7A8&t=1s>
- Exploring Exponential <https://www.youtube.com/watch?v=V7XWYJ3Z36Y&t=24s>
- Euler's Identity <https://www.youtube.com/watch?v=HCP9x5th17E&t=16s>
- Relativistic QM <https://www.youtube.com/watch?v=siUxbFguVzE&t=3651s>
- GR in Maple https://www.youtube.com/watch?v=bW_SJTT_Wj0&t=1071s
-

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/_uMFS056ypA
- 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=SEYc5l3ZE_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=qqaieiRKcEYg&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>

To provide link of supporting document(s)

Item Number	Document Reference	Link of Document uploaded on your Google Drive ENSURE PROPER ACCESS for Download	Remark
C	RNP	https://drive.google.com/file/d/1wHl8L0ombOeb635Gd2BMxVE9krtkT6kt/view?usp=drive_link	
C	RNP	https://drive.google.com/file/d/1mDKEQh1GqL1cE42I7zPORfjw_D4aE4U1/view?usp=sharing	
4-(iv)-3	SWA Enclosure-1	https://drive.google.com/file/d/10SgsYMLxM4DAL1CvucG2pnnlB1v7gl4g/view?usp=sharing	
4 -(v)-3	SVK-NPTEL	https://drive.google.com/file/d/1tVQWoaJnb318BAsozbmSwxoAPnMQoVwW/view?usp=sharing	
4-(v)-4	SVK- Refresher	https://drive.google.com/file/d/1Vp2mC0nwqXEb4u3WRCvu37l8cMcmQOSl/view?usp=sharing	
5-(B)-4	SVK- Research Paper	https://drive.google.com/file/d/1vB-nJb3auVP9nGMa4qpo_c4E5jUGmsil/view?usp=sharing	
5-(B)-5	SVK-Research Paper	https://drive.google.com/file/d/1prAaVS10jtwEK9mDI04sH08o34K5mCky/view?usp=sharing	
4-(v)-1	BTK-NPTEL	https://drive.google.com/file/d/1U0T4iH_GpPdRKXQ2GDqSN7Ymas7JitbS/view?usp=sharing	
5-(B)	BTK-Conference	https://drive.google.com/file/d/1WJm4aFYnWrIJYZcrFD9YRKE6irccu9L8/view?usp=sharing	
5-(B)	BTK-FDP	https://drive.google.com/file/d/1eprXr1Ahk4FMY0wGmIcEicEQ2_9YaVBR/view?usp=sharing	
4-(v)-2	SKS-NPTEL	https://drive.google.com/file/d/1BIHmuiwAS2D-_Dxg07EBPZBlXxcfA_Wx/view?usp=sharing	
5(B)-1	SKS-Research Paper	https://drive.google.com/file/d/1XIPNmhaFJ9LITECbctUACN1zjKH8ZJUU/view?usp=sharing	
5(B)-2	SKS-Research Paper	https://drive.google.com/file/d/1r8_WzIKigkuMm359CnMLonB54L3A55Eh/view?usp=sharing	
5(B)-3	SKS-Research Paper	https://drive.google.com/file/d/182m7i7bhJh7KtvZWDbdGDhO_kEb4GmHb/view?usp=sharing	
5(C)-13	SKS-conference	https://drive.google.com/file/d/1axeUst5E3aKyNlbnfRiIaB1g1hDjKpQo/view?usp=sharing	

5(C)-14	SKS-FDP	https://drive.google.com/file/d/1btdpFxqVs1CrTkA9WM9gjHFWSjgrKsJo/view?usp=sharing	
7	SKS-Project	https://drive.google.com/file/d/1i-TC6yKCSEfScKV-nL97FDATQQfS9vrr/view?usp=sharing	

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 students have submitted certificate of completion in due time.

Sr. 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
24	Pratham shrivas	A Boot Camp to Special Theory Of Relativity
25	Pratham shrivas	A Boot Camp to Nuclear Physics
26	Shweta Sunil Charpe	A Boot Camp to Nuclear Physics

27	Sweth Pimpalkar	A Boot Camp to Special Theory Of Relativity
28	Sweth Pimpalkar	A Boot Camp to Nuclear Physics
29	Sneha sharma	A Boot Camp to Nuclear Physics
30	Sneha sharma	A Boot Camp to Special Theory Of Relativity
31	Munesh RavindraSingh Chaudhary	A Boot Camp to Special Theory Of Relativity
32	Munesh RavindraSingh Chaudhary	A Boot Camp to Nuclear Physics
33	Diksha Ravindra Gedam	A Boot Camp to Special Theory Of Relativity
34	Manya Ganesh Pimple	A Boot Camp to Nuclear Physics
35	Sanskriti Rajendra M	A Boot Camp to Special Theory Of Relativity
36	Nishant Dushyant Meshram	A Boot Camp to Special Theory Of Relativity
37	Chaitrali Ganeshrao Shende	A Boot Camp to Nuclear Physics
38	Vinku Moundekar	A Boot Camp to Nuclear Physics
39	Akansha Subhash Sangole	A Boot Camp to Special Theory Of Relativity
40	Riddhi chandrashekhar Kohad	A Boot Camp to Special Theory Of Relativity
41	Shraddha Baban Bagde	A Boot Camp to Special Theory Of Relativity
42	Pranav Bhupesh lakhe	A Boot Camp to Nuclear Physics
43	Sanskriti Rajendra M	A Boot Camp to Nuclear Physics
44	MAHEK Pramod Mishra	A Boot Camp to Nuclear Physics
45	Rohan Mahajan	A Boot Camp to Nuclear Physics
46	Janhvi Kayarkar	A Boot Camp to Special Theory Of Relativity
47	Yashwant Raju Paunikar	A Boot Camp to Nuclear Physics
48	Amisha	A Boot Camp to Special Theory Of Relativity
49	Akansha Subhash Sangole	A Boot Camp to Nuclear Physics
50	Manya Ganesh Pimple	A Boot Camp to Special Theory Of Relativity
51	Sanjana Jangade	A Boot Camp to Special Theory Of Relativity
52	Mohit Bhakte	A Boot Camp to Special Theory Of Relativity
53	Nishant Dushyant Meshram	A Boot Camp to Nuclear Physics
54	Devesh Patle	A Boot Camp to Nuclear Physics
55	Krunal Gajanan Bhagat	A Boot Camp to Nuclear Physics
56	Janhvi Kayarkar	A Boot Camp to Nuclear Physics
57	Pranav Bhupesh lakhe	A Boot Camp to Special Theory Of Relativity
58	Tanmay Pramod Nagrale	A Boot Camp to Nuclear Physics
59	Devendra jaipurkar	A Boot Camp to Special Theory Of Relativity
60	Devesh Patle	A Boot Camp to Special Theory Of Relativity

61	Gaurav shekhar kumare	A Boot Camp to Nuclear Physics
62	Mohini Bhaskar Bhute	A Boot Camp to Special Theory Of Relativity
63	MAHEK Pramod Mishra	A Boot Camp to Special Theory Of Relativity
64	Shraddha Baban Bagde	A Boot Camp to Nuclear Physics
65	Ruchi Meena	A Boot Camp to Nuclear Physics
66	Ruchi Meena	A Boot Camp to Special Theory Of Relativity
67	Krunal Gajanan Bhagat	A Boot Camp to Special Theory Of Relativity
68	Amisha	A Boot Camp to Nuclear Physics
69	Yashwant Raju Paunikar	A Boot Camp to Special Theory Of Relativity
70	Vinku Moundekar	A Boot Camp to Special Theory Of Relativity
71	Sweth Pimpalkar	A Boot Camp to Nuclear Physics
72	Chaitrali Ganeshrao Shende	A Boot Camp to Special Theory Of Relativity
73	Sanskruti kadu	A Boot Camp to Nuclear Physics
74	Swati FattuDhabekar	Empower Women Elevate the World
75	Sakshi Mangesh Raut	A Boot Camp to Special Theory Of Relativity
76	Sanchit Joshi	A Boot Camp to Nuclear Physics
77	Madhura Pathak	A Boot Camp to Nuclear Physics
78	Nikhil Milind Bansod	A Boot Camp to Nuclear Physics
79	Sanchit Joshi	A Boot Camp to Special Theory Of Relativity
80	Manasvi dange	Life & Work of S. N. Bose
81	Madhura Pathak	A Boot Camp to Special Theory Of Relativity
82	Nikhil Milind Bansod	A Boot Camp to Special Theory Of Relativity
83	Divyashri Surendra Gajbhiye	A Boot Camp to Nuclear Physics
84	Kalyani Motilal Nagapure	A Boot Camp to Special Theory Of Relativity
85	Jay dailkar	A Boot Camp to Nuclear Physics
86	Nidhi Shailesh Bawangade	A Boot Camp to Special Theory Of Relativity
87	Pranali Porchattiar	A Boot Camp to Nuclear Physics
88	Shreyash Lakde	A Boot Camp to Nuclear Physics
89	Shrinay Bhiwgade	A Boot Camp to Nuclear Physics
90	Vaishnavi Dhadse	A Boot Camp to Nuclear Physics
91	Jay madhukar shende	A Boot Camp to Special Theory Of Relativity
92	Dikshant Wasnik	A Boot Camp to Special Theory Of Relativity
93	Osheen Darshan Arora	A Boot Camp to Special Theory Of Relativity
94	Pranali Porchattiar	A Boot Camp to Special Theory Of Relativity

95	Manasvi dange	A Boot Camp to Nuclear Physics
96	Pranjal Vijay Agarkar	A Boot Camp to Special Theory Of Relativity
97	Gargi Jaunjal	A Boot Camp to Special Theory Of Relativity
98	Muskan pathak	A Boot Camp to Nuclear Physics
99	Jay madhukar shende	A Boot Camp to Nuclear Physics
100	Bhushan Mourya	A Boot Camp to Nuclear Physics
101	Sweta Sandeep Naidu	A Boot Camp to Special Theory Of Relativity
102	Gargi Jaunjal	A Boot Camp to Nuclear Physics
103	Osheen Darshan Arora	A Boot Camp to Nuclear Physics
104	Muskan pathak	A Boot Camp to Special Theory Of Relativity
105	Dikshant Wasnik	A Boot Camp to Nuclear Physics
106	Vedanti Doble	A Boot Camp to Nuclear Physics
107	Divyashri Surendra Gajbhiye	A Boot Camp to Special Theory Of Relativity
108	Saurav chaple	A Boot Camp to Nuclear Physics
109	Geetanjali Prakash Jatgade	A Boot Camp to Nuclear Physics
110	Vaishnavi Dhadse	A Boot Camp to Special Theory Of Relativity
111	Lokesh shriniwas Patel	A Boot Camp to Special Theory Of Relativity
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115	Sakshi Raut	A Boot Camp to Nuclear Physics
116	Ritika Balodiya	A Boot Camp to Nuclear Physics
117	Nidhi Shailesh Bawangade	A Boot Camp to Nuclear Physics
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120	Khushi Rahul Aglawe	A Boot Camp to Special Theory Of Relativity



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



Screenshot [\[show\]](#)

Type of business	Publicly traded
Type of site	Online education
Available in	English · French · Spanish · Turkish · Portuguese · German · Japanese · Polish · Korean · Russian · Italian · Chinese
Traded as	Nasdaq: UDMY ↗
Founded	May 11, 2010; 13 years ago
Headquarters	San Francisco, California, U.S.
Created by	Eren Bali Gagan Biyani Oktay Çağlar ^[1]
Key people	Greg Brown (CEO)
Industry	E-learning
Revenue	▲ US\$516 million (2021) ^[2]
Operating income	▼ US\$-78 million (2021) ^[2]
Net income	▼ US\$-80 million (2021) ^[2]
Total assets	▲ US\$740 million (2021) ^[2]
Total equity	▲ US\$390 million (2021) ^[2]
Employees	1,238 (December 2021) ^[2]
URL	www.udemy.com ↗
Commercial	Yes
Registration	Required
Users	52 million (2022) ^[3]
Current status	Active