



Shri Durga Shikshan Sanstha Arjuni/Mor.

SHIVPRASAD SADANAND JAISWAL COLLEGE

(Arts, Commerce & Science)

Arjuni/Mor. Dist- Gondia (MS)

Jointly organized with

**Vidarbha University Physics Teacher Association
(VUPTA)**

Students Seminar-2023



Date:- 20 & 21 February - 2023

Dear Sir / Madam,

It gives us immense pleasure to inform you that Shivprasad Sadanand Jaiswal College Arjuni/Mor. Dist-Gondia in association with Vidarbha Universities Physics Teacher's Association (VUPTA) organizes VUPTA Students Seminar-2023 and Poster/Chart Competition in Physics at Shivprasad Sadanand Jaiswal College Arjuni/Mor. Dist-Gondia, 441701 on 20th and 21st February 2023. All B.Sc. and M.Sc. students of Physics and teachers of UG/PG colleges are cordially invited to participate in this event.

About College

Shivprasad Sadanand Jaiswal College, has been established in the year 1990 by Shri Durga Shikshan Sanstha, Arjuni Morgaon Dist. Gondia. The institution is permanently affiliated with Rashtrasant Tukadoji Maharaj Nagpur University Nagpur and recognized under sections 2(f) and 12(B) of the UGC Act of 1956. Our college is reaccredited with 'B' grade by the National Assessment & Accreditation Council (NAAC) in 2019 in the 3rd cycle. Shivprasad Sadanand Jaiswal College intends to contribute the finest careers and bright future for the students. With uninterrupted guidance, the students upgrade their knowledge and make them be fit for obtaining Career Opportunities. The College offers BA, B.Sc., and B.Com. along with various certificate courses,

value added and skill based courses for the students to pursue education in and out of the classroom. Outstanding teaching methodology, knowledgeable and research-oriented faculty, a well-structured and a lush green campus – all contribute to the making of competent and innovative students and transformational citizens for the future. The extensive use of ICT tools for the effective delivery of the syllabi has transformed the students learning capacity and outcomes. The institution's motivation is based on the noble concept derived from the Rigveda, "आनो भद्रा ऋतवो यन्तु विश्वतः" It means "Let all knowledge in the world come to us." By adhering to this vision, the institution is pursuing qualitative outcomes and excellence in higher education in Maharashtra's eastern region.

About Arjuni/Morgaon

Arjuni-morgaon is a Town in Arjuni Morgaon Taluka in Gondia District of Maharashtra State, India. It belongs to Vidarbha region. It is located 80 KM towards South from District head quarters, Gondia and about 130 km from Nagpur towards east. Some places of interest around Arjuni/morgaon are Navegaon National park, Navegaon - Nagzira Tiger Reserve (NNTR), Tibetan refugee Camp, Dam & Buddhist Temple at Gothangaon and Mahadeo temple Pratapgad.

Patron



**SHRI. LUNKARANJI
CHITLANGE
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**SHRI. MUKESHJI
JAISWAL
SECRETARY
SHRI DURGA SHIKSHAN
SANSTHA ARJUNI/MOR.**

Organizing Committee



**Prof. Ishwar S. Mohurley
Principal & Convener
SSJ College Arjuni/mor.**



**Prof. K. G. Rewatkar
President, VUPTA &
Principal, V V College
Samudrapur**



**Prof. J. N. Ramteke
Secretary, VUPTA &
HOD, M.M. Science
College, Nagpur.**



**Dr. K. J. Sibi
IQAC Co-Ordinator**



**Dr. D. L. Chaudhari
Organizing Secretary**



**Mr. P. N. Ukey
Co-Ordinator**

PROGRAM DETAILS

20/02/2023 (MONDAY)

- Registration and Breakfast : 09:30 a.m. to 11.30 a.m
- Inauguration : 11:30 a.m to 12:30 p.m.
- Lunch : 12:30 p.m. to 01:30 p.m.
- Screening Test : 01:40 p.m. to 03:40 p.m.
- Popular Talk : 04:00 p.m. to 05:30 p.m.
- Elocution Competition : 05:30 p.m. to 06:30 p.m.
- Dinner : 07:15 p.m.
- Cultural Activity

21/02/2023 (TUESDAY)

- Tea and Breakfast : 08:30 a. m. to 09:00 a.m.
- Seminar Talk : 09:00 a.m. to 01:00 p.m.
- Lunch : 01:00 p.m. to 02:00 p.m.
- Valedictory function : 02:00 p.m. to 03:00 p.m.

RULES FOR SEMINAR COMPETITION

- Each student is allowed to deliver a seminar talk for 7 minutes and 2 minutes will be given for question-answers.
- Judge's decision will be final.
- Traveling expenses are not admissible.
- Six participants will be allowed from each colleges for seminar.
- The student's from M.Sc. (Physics) may prepare any topic of their choice.

All the Colleges must confirm their participation by submitting google form or on mobile number given below on or before 15/02/2023.

Registration details

Category	Registration fees
Students	350/-
Teachers	500/-

Registrationlink

<https://forms.gle/TeT2DoK4BfKMqguE7>

for any query feel free to contact us on



9923399834, 8329486516, 8329810904



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TOPICS FOR VUPTA SEMINARS-2023

B. Sc. – SEM- II

1. Simple Harmonic Motion (Diff. Eqn. and its solution)
2. Lissajous's Figures and their demonstration by C.R.O.
3. Forced oscillation (Diff. Eqn. and its solution)
4. Estimation of molecular diameter and mean free path

5. Kepler's laws of planetary motion
6. Carnot's Heat Engine, its efficiency and Carnot's Theorems
7. Thermodynamic scales of temperature.
8. Joule-Thomson Porous plug experiments
9. Maxwell's general thermodynamic relationships and their applications
10. Bernoulli's theorem and its applications
11. Magnetic properties of materials (B, H, etc.)
12. Magnetic Materials (Ferro, Ferri and Anti-Ferromagnetic Materials)
13. Distance between planets by Parallax method
14. Gauss's law of magnetism
15. Transport Phenomenon in gases
16. Cathode Ray Oscilloscope (C.R.O.)
17. Cyclotron
18. Solar Cell

B.Sc. SEM- IV

1. Crystal structures (Bravais lattice)
2. Crystal structures NaCl, Diamond and CsCl
3. X- Ray spectra
4. Applications of X- ray in various fields
5. Bragg's spectrometer and its application
6. Laue's theory of X- ray diffraction
7. Laser system and its applications
8. Raman effect
9. Rotational and vibrational spectra
10. Junction Field Effect Transistors (JFET)
11. MOSFETs
12. h- parameters and Equivalent circuits at low frequencies for CE-mode transistor
13. Diatomic molecules as a harmonic oscillator
14. Vector atom model
15. Distinction between MB, BE and FD statistics
16. Bias Stabilizing Circuits

17. NMR and ESR
18. Stern-Gerlach experiment
19. Solar Cell

B.Sc. SEM-VI

1. Michelson and Morley experiment
2. Liquid drop model
3. G M counter
4. Nuclear fission
5. Lorentz transformation
6. Spectrophotometer
7. OP-AMP
8. Phase shift/ Hartley oscillator
9. De-Morgan's theorem
10. Half adder and full adder
11. Amplitude Modulation
12. Frequency Modulations
13. Frequency Spectrum in FM
14. Propagation of Light through Optical fibers
15. Application of OPAMP as inverting amplifier
16. Action Potentials of the Human Body
17. Electroencephalogram (EEG)
18. Quantum Dots

FOR POSTERS/CHARTS

Topics for Posters

- i. Recent Developments in Physics
- ii. Impact of Physics on Science & Society

- Students should prepare a poster of Size (1m x 1m) clearly depicting their idea.
- A team of two students will be allowed to present a poster.
- Registration of all the students is mandatory.
- A student presenting a poster will not be allowed to participate in seminar competition.
- There is no restriction of number of participants for poster competition



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VUPTA STUDENTS SEMINAR-2023

REGISTRATION FORM

Name of College:-

Name of Affiliated University

Name of Teachers :-.....

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Details of Students

Sr. No.	Full Name of Students (in Capital Letters)	B Sc. SEM-II / IV /VI & M Sc Sem-II/ IV	Seminar (S) / Poster (P)	Signature of participant
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Total Amount:

Sign of Teacher In-charge

FOR COLLEGE USE ONLY

Receipt No. :

Total Amount:

Name & Sign of Receiver