

## Department of physics

- **Year of Establishment**
  - Under Graduate-November 1986
  - Post Graduate-Session 2016-17
- **Name of program offered**
  - UG –B. Sc.
  - PG- M. Sc. Physics
- **Name of affiliated University;**
  - Atal Bihari Vajpaiyee University Bilaspur a state university Chhattisgarh
- **System of program/course condition**
  - UG –Annual System
  - PG –Semester System
- **Number of Teaching post sanctioned and filled**

Post	sanction	filled
Professor	01	Nil
Assistant Professor	01	01

- **Number of Academic Staff sanctioned and filled**

Post	sanction	filled
Lab-Technician	01	01
Lab-Attendant	01	01

- **Faculty Profile**

sn	Name	Designation	Qualification	Area of Specialization	Teaching Experience
1	Narottam Kumar Puraley	Assistant Professor	M. Sc. Physics	Electronics	UG-8 year PG-4 year
			M Phil physics	Solid state physics	

- **Temporary/Guest Faculty**

1. Saurabh Gaurha

- **Academic Staff Profile Teacher Profile**

sn	Name	Designation	Qualification	Area of Specialization	Teaching Experience	Appointment Year
1	Panch Ram Chandrakar	Lab – Technician	M.Sc. Physics	Electronics	-	1990
2	Indu Bala Banjare	Lab Attendant	M.Sc. Math	-	-	2015

## Seat availability for UG & PG Program

- UG-60
- PG-25

## Present details about infrastructure facilities

- Library facilities- Departmental library is functioning with 421 books.
- **Internet facilities for staff and students:**
- Internet facility with Wi-Fi is available.

- **Students' laboratory facilities (Program/Course wise information with major equipment)**

- Well-equipped Laboratory facilities available as UG &PG
- Lab-1, PG Lab-1, Dark room-1, computer lab-1

## Major equipments

- Spectrometer
- LCD Projector
- Polari meter
- Telescope
- Solar cell
- Cathode rays oscilloscope
- Muffle furnace
- Light emitting diode
- Tunnel diode, Zener Diode and Laser Diode
- P-N Junction Diode, Optical bench
- Light Dependence Resistance
- SCR
- Testing & Measuring System (CRO, LCR Bridge, VTVM etc.)
- Logic gate board ,PNP & NPN Transistor training board
- D/A &A/D Converter board, DE Morgan theorem training board
- Regulated power supply
- e/m Thomson method, Stefan constant
- R-C coupled amplifier cum Feedback amplifier
- Amplitude Modulation and Demodulation
- Hybrid parameters of a transistor
- Hartley, Colpitts, AND clap p Oscillator

- Stewart and Gees Apparatus
- Sonometer
- Bending of Beam
- Lees apparatus
- Clement and Desormes apparatus
- BCD to Excess -3 code converter
- BCD to 7 Segment board
- Charging and Discharging of condenser
- Millikans apparatus
- Stokes method apparatus
- Flywheel apparatus
- Different Flip-Flops (R-S,D, T and J-K Flip- Flopp) training board
- FET & MOSFET Training board
- Compound, Simple and Torsional pendulum
- Cantilever, Spring constant, Maxwell Niddle and Bortons apparatus
- 4- Bit Ripple Counter and Shift Resister training board
- Half wave and Full wave rectifier
- Photo Voltic cell
- Computers, Printers
- And many more....

• **PG Student Progress profile;**

Year	Received application	Admitted 1 <sup>st</sup> SEM	Appeared 4 <sup>th</sup> SEM	Pass percentage Fourth semester	Remark
2016-17	03	03	-	-	
2017-18	58	15	02	02	
2018-19	197	23	10	10	
2019-20	215	25	17	17	
2020-21	230	25		-	

• **Achievements of the department**

The following projects by the students of post graduate class are done under the supervision of Assistant Professor Mr. N.K. Puraley.

• **Session – 2017-18**

S.N.	NAME OF STUDENTS	PROJECT TITLE
01	Ganesh Prasad	To study of semiconductor material and there optical properties
02	Samini Dewangan	Study of laser in communication

- **Session – 2018-19**

S.N.	NAME OF STUDENTS	PROJECT TITLE
01	Garima Pathak	To Study The Characteristics Of Multiplexer And De-Multiplexer
02	Tarkeshwar	To Study The Characteristics Of Light Emitting Diode (Led)
03	Kamakshi Sharma	To Study Of Zener Diode And Their Characteristics Curves
04	Aman Sonkar	To Study The Characteristics Of Light
05	Dharmendra Kaushik	To Study The Characteristics Of J k Flip Flop
06	Naval Das Patrey	To Study Of Rs Flip-Flop
07	Ajay Sahu	To Study The Characteristics Of Mosfet
08	Suryakant	To Study The Characteristics Of Silicon Controlled Rectifier (SCR)
09	Dishi Patel	To Study Of Solar Cells And Their Properties
10	Shailendra Kurre	To Study Of Fundamental Of Logic Gates Material And There Optical Properties

- **Session – 2019-20**

S.N.	NAME OF STUDENTS	PROJECT TITLE
01	Shubham Patel	To Study About Radio Communication System & F.M. Radio Receiver
02	Ankit Jaiswal	To Study The Characteristics Of Half Sub-tractor & Full Sub-tractor
03	Vindhyvasini Rajput	To Study The Characteristics Of Half Wave And Full Wave Rectifier
04	Yashoda Koshale	To Study Of Automatic Solar Tracking System
05	Poonam Tamboli	To The Study Of Characteristics Of The Half Adder And Full Adder
06	Ishwar Sahu	To The Study Of The Characteristics Of Exclusive –OR And Exclusive- NOR Gate
07	Suman Kumar Sony	To The Study Of Microphone System
08	Ekta Gupta	To Study The Characteristics Of Regulated Power Supply
09	Bharat Sahu	To Study The Characteristics Of Wireless Mobile Charger
10	Hemant Kumar Nishad	To The Study Of Solar Mobile Charging System
11	Shyam Chand Baghel	To Study The Characteristics Of Light Dependent Resistance
12	Gajendra Pal Diwakar	To Study The Characteristics Of 4 Bit Up Counter Using J-K Flip Flop
13	Kiran Sahu	To Study Characteristics Of RC Phase Shift Oscillator
14	Raghunath Jaiswal	To Study About Radio Transmitter Circuit And Design
15	Shivam Pandey	To Study The Characteristics Of Charging And Discharging of Capacitors
16	Sangita Baghel	To Study The Characteristics of Wien Bridge Oscillator
17	Arvind Kumar	To Study the LPG Gas Leakage Detector b Alarm System

- **Departmental Activities;**

- The department of Physics makes an Association of Students every year. The students are given the post of president, vice-president, secretary and a treasurer.
- An orientation programme is organized for first Semester students every year in the department.
- We celebrate science day every year.
- Our department celebrated international Ozone's day on 16 September.
- Our department celebrated the Birthday of Dr. A.P.J. Abdul Kalam 15 October.
- Our department celebrated international Earth-day 22 April.
- Our department also participates in each and every programme of the college, as; Plantation programme, Teacher's day celebration, Career guidance programme, Health awareness programme, Annual day's functions, Games and Sports activities.
- Our department participates in workshops and seminars of other departments. And the other departments also participate in workshops and seminars of our department.
- We conducted an online programme on Tobacco prohibited and covid-19-vaccination awareness on 31<sup>st</sup> may 2021.

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