EXPERT DETAILS

DR. RAHUL MUKHERJEE ASSISTANT PROFESSOR HOD, BSH

DR. MRINMOY GOSWAMI ASSOCIATE PROFESSOR

MR. BUBAI DUTTA
ASSISTANT PROFESSOR

COURSE IS FOR

B.TECH
B.Sc.
DIPLOMA
ITI
HIGHER SECONDARY (Class XI & XII)

REGISTRATION FEES

Rs. 200/-

COURSE HIGHLIGHTS:

- Developing fundamental concepts of Physics
- Learning Physics through hands-on experiment
- Familiarity with common laboratory equipment
- Gaining knowledge in various experimental techniques
- Encouraging creativity and problem-solving skills
- Finding connectivity between Physics and Engineering
- Skill enhancing for competitive exams

CONTACT DETAILS:

Mr. Bubai Dutta

Mobile No: +91 8944906817

Mrs. Soma Karmakar Mobile No: +91 8016624374

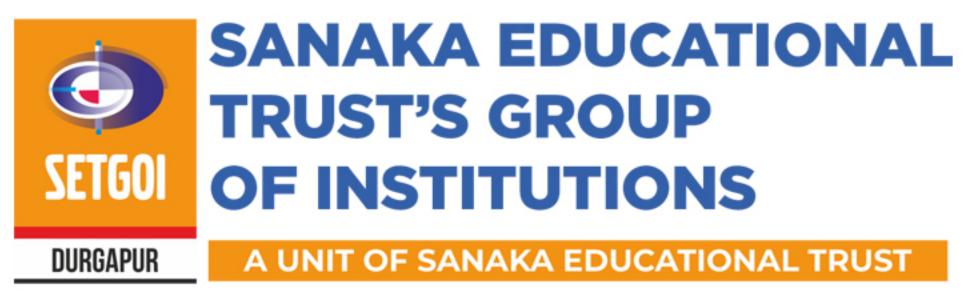
REGISTRATION

Scan the QR Code for Registration



SHORT TERM____CERTIFICATE COURSE

EXPERIMENTAL PHYSICS



MALANDIGHI, DURGAPUR - 713212

DEPARTMENT OF

BASIC SCIENCE AND HUMANITIES

www.icampus.setgoi.ac.in

Day 1

Inaugural Session

Lab Safety and Equipment: Introduction to lab safety protocols and familiarization with essential lab equipment.

Experiment - 1:

- Hands-on practice with Vernier Calipers,
 Screw Gauge
- Learning how to calculate least count, vernier constant.
- Determination of thickness and volume of a given a geometrical body.

Day 2

Lecture on "Basic Electricity and Magnetism" focusing on its applications.

- Knowledge on electric field and charges; Coulomb's Law
- Ohm's law & Kirchhoff's law
- Electric circuits and its components
- AC & DC current and their inter-conversion
- Magnetic field and its effects
- Magnetic Materials- Diamagnetic, Paramagnetic, Ferromagnetic, Hysteresis Loop

Experiment - 2:

Determining the resistance of a wire and verifying Ohm's law.

Day 3

Lecture on "Elastic Properties of Materials"

- Definition of elasticity
- Stress & Strain
- Hooke's Law
- Elastic Moduli Young Modulus, Shear Modulus, Bulk Modulus
- Poisson's ratio
- Limitations of elastic behaviour
- Applications of elastic properties of a material

Experiment - 3:

Evaluating the Young Modulus of an Iron Bar and Rigidity Modulus of a wire.

Day 4

Lecture on "Wave Optics and Laser"

- What is light?
- Particle and wave nature of light
- Key concepts on Interference, Diffraction, and Polarisation of light with examples
- What is laser and its working principle
- Applications of laser

Experiment - 4:

Finding an unknown wavelength of light using laser diffraction technique.

Day 5

Quiz based on the acquired knowledge from the workshop.

Valedictory session.