Sir P. T. Sarvajanik College of Science

(AUTONOMOUS)

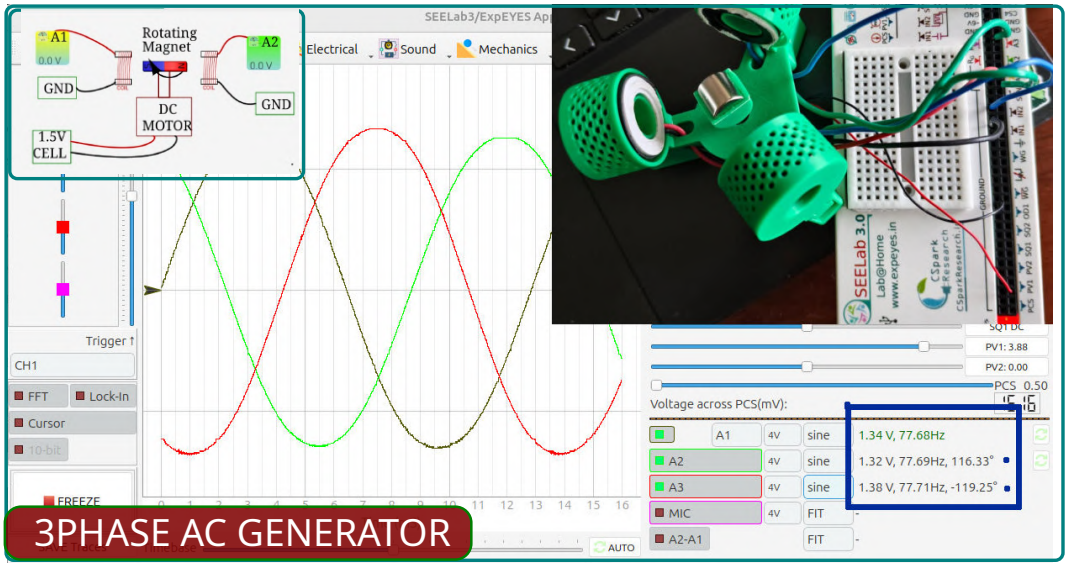
Re-Accredited `A+` with CGPA 3.35

PRESENTS

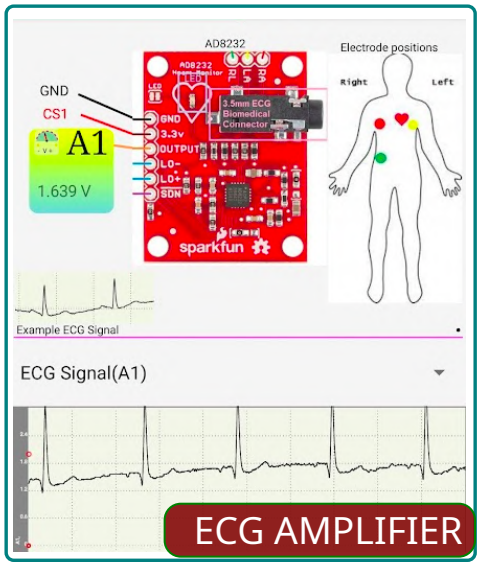
Training program on
Computer Interfaced Science Experiments

12-13 December

The Future of Hands-On Science



3PHASE AC GENERATOR



ECG AMPLIFIER

Transform your approach to teaching science with this intensive two day workshop, designed to equip you with the skills to facilitate genuine discovery and exploration in the classroom. We shall focus on crucial learning takeaways such as real-time data acquisition and analysis, critical thinking through experimental design, and advanced graphical interpretation of physical phenomena. Leveraging the incredible computing power of modern mobile phones alongside affordable, multi-functional instruments for measurement and signal generation, such as the SEELab 3.0, this workshop will equip teachers, students, and citizen science enthusiasts to augment their experimental research !

TARGETED PARTICIPANTS

Faculty and students of Science/ Engineering disciplines

REGISTER BY: 05/12/2025

COORDINATOR

Dr. Dhiraj Shah +91 94291 60805

Registration Link

Rs 800 for Teachers, 200 for Students

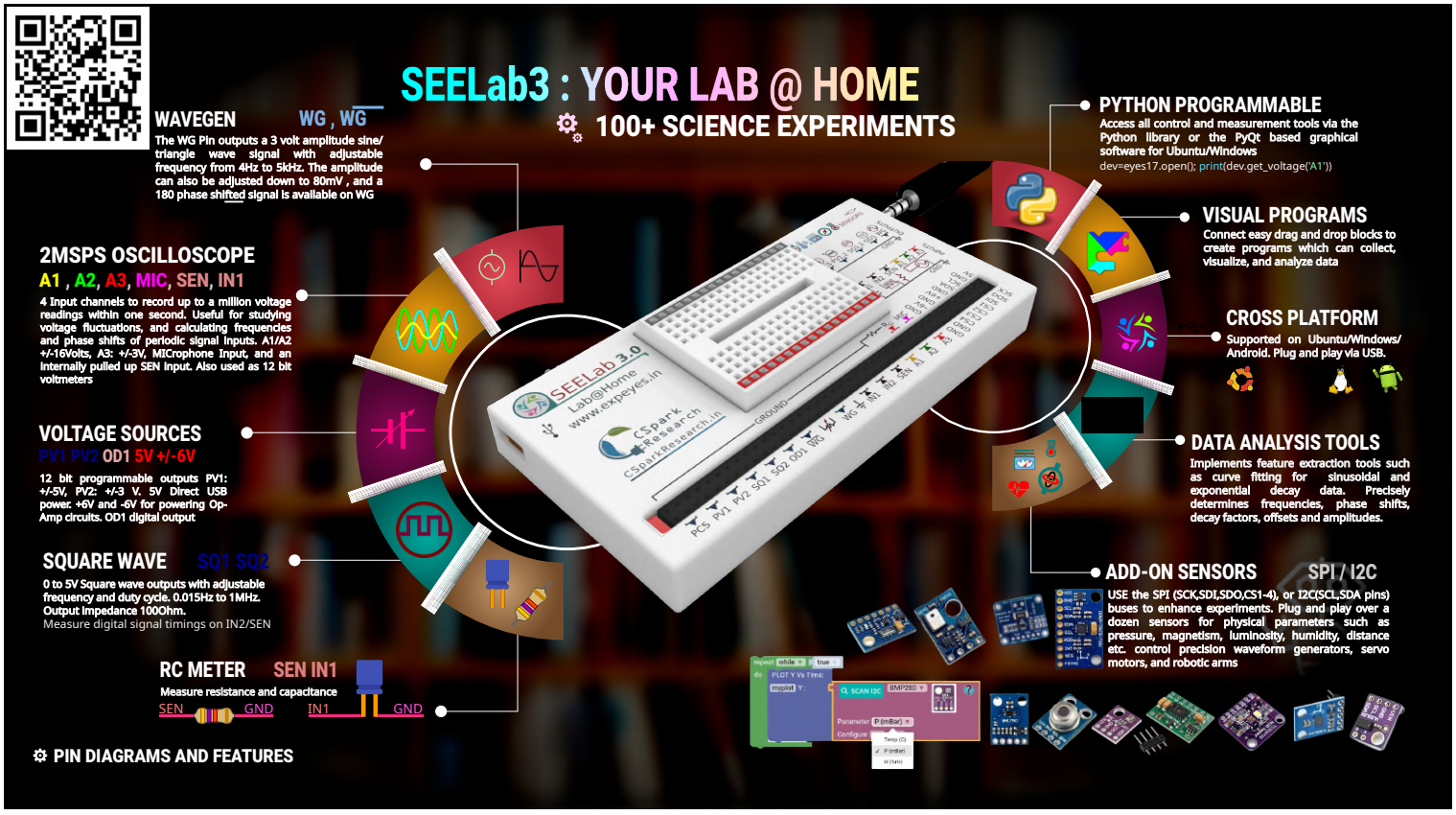
VENUE

12 TH DECEMBER 2025
13 TH DECEMBER 2025

Sir P. T. Sarvajanik College of Science

Athwalines, Surat 395001, Gujarat

Familiarisation with test and measurement tools and software



OUTLINE

- Basic Circuits
- Mechanics
- Electrical
- Electronics
- Acoustics
- Sensors
- Programming

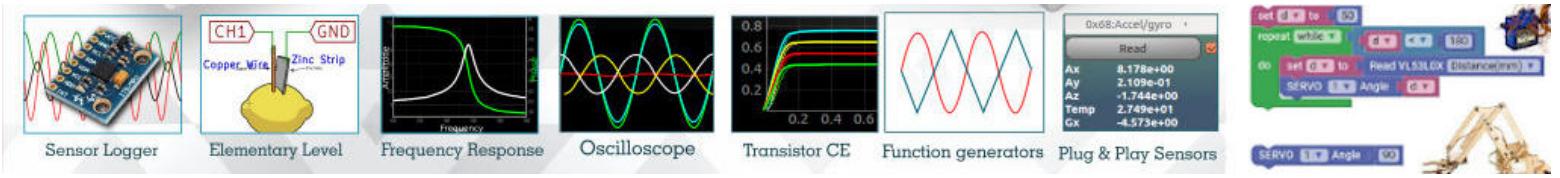
DAY 1

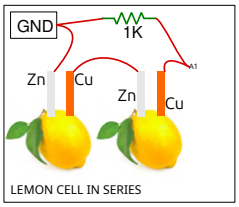
+ Introduction to test and measurement tools
+ Electronic characterisation and plotting
+ RC/LC Transient and Steady State Response
+ Digitization of a simple pendulum
+ EM Induction & AC generator. 3Phase demo
+ Acoustics : Measurement of Speed of sound, interference, and fourier transforms.
+ Add-on Sensors: Pressure, T, rH, Magnetism

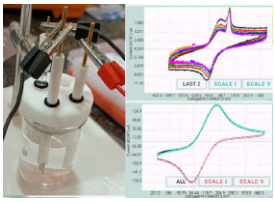
+ Introduction to KiCAD EDA circuit design
+ Designing 3D printable parts with FreeCAD

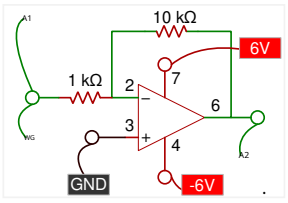
DAY 2

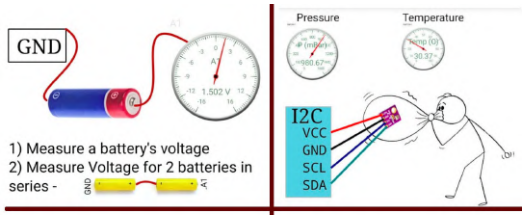
+ Measure Gravity from time of flight (create your own setup)
+ Modification of Flywheel experiment Plot S,V,A !
+ Introduction to Programming : Python & Visual
+ Introduction to Opamps: Amplifiers
+ Using you phone's sensors for science experiments : acoustic stopwatch, gyro, luminosity sensor.
+Design and development of products!

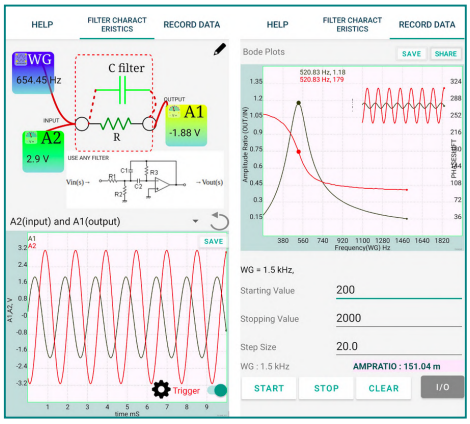


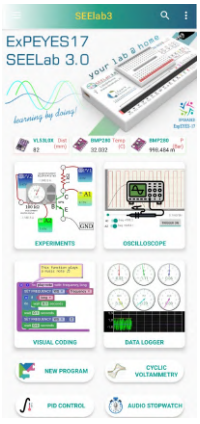


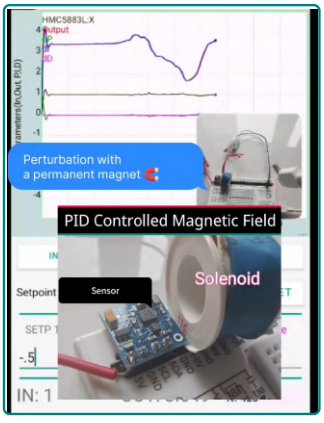


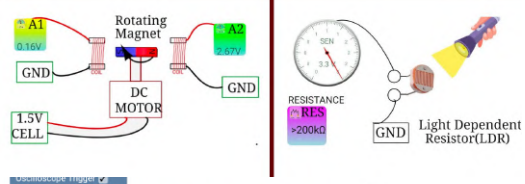


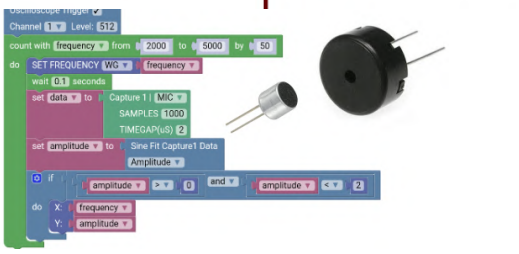


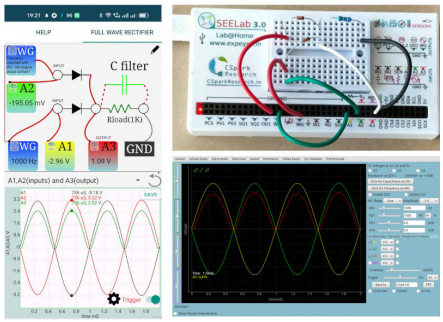


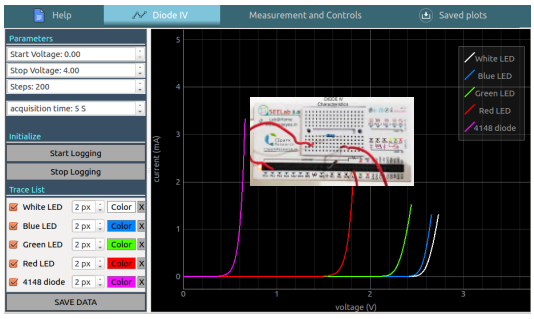


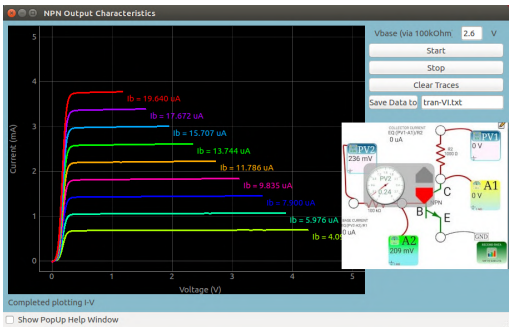


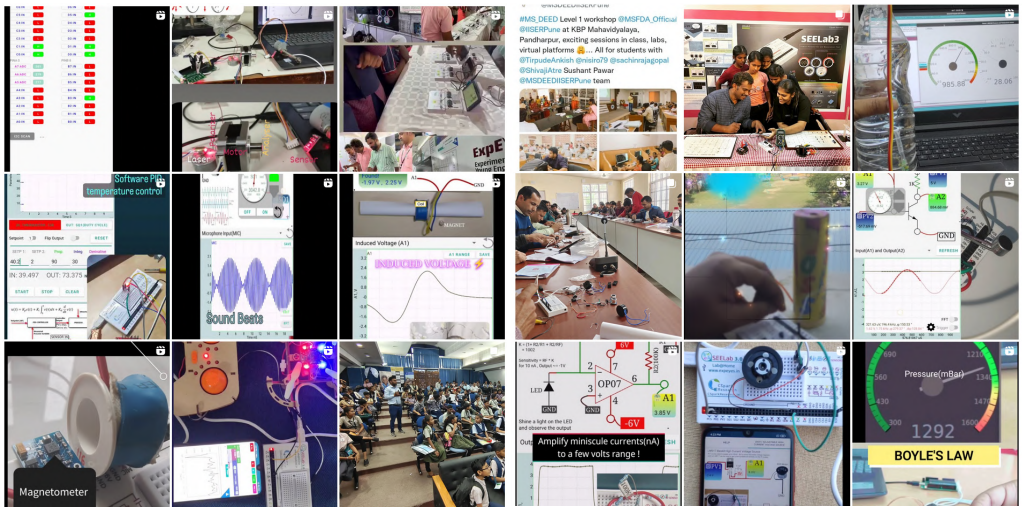


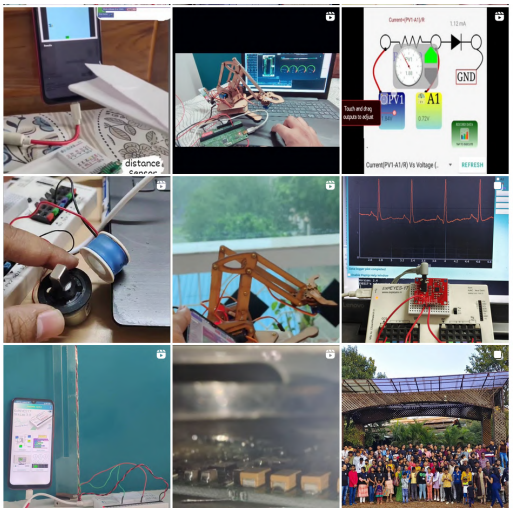












CHIEF PATRON

Shri Ashish Vakil

Chairman - Sarvajanik Education Society

PATRON

Dr. Pruthul R. Desai

Principal, Sir P. T. Sarvajanik College of Science

(Autonomous)

CERTIFICATES will be issued and distributed to all the participants on the last day upon successfully completing all the sessions, and submitting the Feed-Back Form.