### **IIIT Allahabad**



IIIT-A was established in 1999, as a centre of excellence in Information Technology and allied areas. The institute was conferred "Deemed University" status

by Govt. of India in the year 2000. The Institute thus became empowered to have a perpetual seal and award degrees subsequent to the conduct of its own examinations. IIIT Allahabad is an Institute of National importance. The Jhalwa campus includes three computer centres with six labs each, 16 lecture halls, electronics library and residential facilities for students and faculty. An open air theatre, stadium and recreational facilities are under development. Apart from these there is a library, lecture theatre complex and administrative building. Lab facilities include: Artificial Intelligence Lab, Basic Electronics Lab. Basic and Advanced Programming Lab. Bio Informatics Lab. CAD Lab. Communication Systems Lab, Control Systems Lab, Digital Electronics Lab, Digital Signal Processing Lab, Electronics Workshop, Embedded Systems Lab. Mobile Communications Lab, Microprocessor Lab, Fiber Optics Lab, Instrumentation Lab, Natural Language Processing Lab, Printed Circuit Lab, Image Processing Lab, CUDA Lab. RF and Microwave Lab. Robotics Lab. Software Engineering Lab, Universal Digital Library, VLSI Design and Fabrication Lab, Wireless Sensors Lab etc

### About Department

Applied science is a bridge that connects pure, basic science like physics or chemistry with engineering practices. Faculty and students in applied science employ fundamental physical and chemical principles to create innovative new technologies. These novel solutions are then handed off to engineering disciplines to be refined, enhanced and used to address important societal problems.

### **Organizing Committee**

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- Patron Chairman
- Conveners
- Prof P Nagabhushan Director, IIITA Prof. T. Lahiri Dean (A & R) Dr. Akhilesh Tiwari Dr. Pramod Kumar Dr. Srijit Bhattacharjee

### Registration

Faculty and ScientistsRs 1,000/-Students & PhD ScholarsRs 500/-Internal IIITA studentsRs 200/-(An institute may sponsor students on nominal<br/>charges Rs 1000/- per four students )(SC/ST students eligible for 50% fee waiver)

#### NEFT is acceptable.

Account No. : SB A/c. 35465510718, State Bank of India, Branch Jhalwa, Allahabad, Branch Code: 10891, MICR Code: 211002057, IFSC Code: SBIN0010891

### Accommodation

Accommodation facility will be available in our guest house and in student's hostel on nominal charges.

### Eligibility

Faculty Scientist Ph.D. Student M. Tech., M.Sc., B Tech, B.E, B.Sc. students.

### **Important Dates**

Registration Begins:6th April 2018Application Deadline:20th April 2018

(Onside Registration is also possible)

# Workshop

### on

## (ExpEYES) Interfacing Physics Experiments

## to Convert your PC into Physics Laboratory,

## 21-22 April, 2018

### **Motivation**

An understanding of science and technology is necessary in every student's life. The main challenge in the field of science Education at a global level is the declining interest of students into science. Unfortunately the performance of a student is often measured by the ability to memorize than the real understanding. as a result most of them fail to apply what they learn in the classroom to the things they encounter in real life. Students also lose interest because of absence of appropriate motivation and also due to the of lack of equipment. The key to combating this is the adoption of an inquiry-based, 'learn-bydoing' approach i.e. learning by exploring and experimenting. However, almost everywhere science is mostly taught from the textbooks without giving importance to experiments, partly due to lack of equipment. ExpEYES (Experiments for Young Engineers and Scientists) is the most affordable solution to this problem. ExpEYES brings the ability to perform experiments with reasonable accuracy, opens up an entirely new path for learning science.



### About Training

Training is for young engineers and scientists who enable them to perform various science and engineering experiments and demonstrations ranging from high school to post graduate levels on computers by using ExpEYS TOOL. ExpEYES is from the PHOENIX project of Inter-University Accelerator Centre. New Delhi. It is a hardware & software framework for developing science experiments, demonstrations and projects without getting in to the details of electronics or computer programming. It converts your PC into a science laboratory. PHOENIX (Physics with Home-made Equipment and Innovative Experiments) project was started, in 2005 as a part of IUAC's outreach program, with the objectives of developing affordable laboratory equipment and training teachers. Design of ExpEYES combines the real-time measurement capability of micro-controllers with the ease and flexibility of Python programming language for data analysis and visualization. It also functions as test equipment for electronics hobbyists and engineering students. Software for all products from PHOENIX are distributed under GNU General Public License and the hardware designs are under CERN OHL.

"Learn from yesterday, live for today, hope for tomorrow. The important thing is not to stop questioning"

#### -Albert Einstein

### **Topics to be covered**

- A tool for learning science by exploring and experimenting.
- Covers Experiments at Under Graduate and Graduate level
- 4 channel Oscilloscope, 1Msps, +/-16V input range
- Sine/Triangular Wave Generator, 5Hz to 5kHz
- Programmable voltage sources, +/5V and +/-3.3V
- Frequency Counter and time measurements.
- Supports I2C standard sensors
- 12bit analog resolution.
- Open Hardware and Free Software.
- Software in Python programming language.
- get started with the User Manual and Videos

### **Contact Us**

Conveners:

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### In Collaboration with IAPT (RC4):

