

# Panel Connections and Software Interface

**Spoken Tutorial Project**

**<http://spoken-tutorial.org>**

**National Mission on Education through ICT**

**<http://sakshat.ac.in>**

**Madhuri, Kaushik & Sakina  
IIT Bombay**

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# Learning Objectives

# Learning Objectives

**We will learn about,**



# Learning Objectives

We will learn about,

- **Various terminals on the Panel**



# Learning Objectives

We will learn about,

- Various terminals on the Panel
- Accessory set



# Learning Objectives

We will learn about,

- Various terminals on the Panel
- Accessory set
- **Software interface**



# Learning Objectives

# Learning Objectives

- Ohm's law





# Learning Objectives

- Ohm's law
- Effective resistance in series combination



# Learning Objectives

- Ohm's law
- Effective resistance in series combination
- Effective resistance in parallel combination



# Learning Objectives

- Ohm's law
- Effective resistance in series combination
- Effective resistance in parallel combination
- Show the circuit diagrams



# System Requirement

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- **ExpEYES v 3.1.0**



# System Requirement

- **ExpEYES v 3.1.0**
- **Ubuntu Linux OS v 14.04**



# Pre-requisites

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- **ExpEYES Junior interface**





# Pre-requisites

- **ExpEYES Junior interface**
- **For relevant tutorials, visit our website**  
**[www.spoken-tutorial.org](http://www.spoken-tutorial.org)**



# Utility of ExpEYES Junior

# Utility of ExpEYES Junior

- **Higher Secondary**



# Utility of ExpEYES Junior

- **Higher Secondary**
- **Undergraduate**



# Utility of ExpEYES Junior

- Higher Secondary
- Undergraduate
- **Electrical**



# Utility of ExpEYES Junior

- Higher Secondary
- Undergraduate
- Electrical
- **Electronics Engineering courses**



# Fields



# Fields

- **Electricity**





# Fields

- **Electricity**
- **Sound**



# Fields

- Electricity
- Sound
- Magnetism



# Fields

- Electricity
- Sound
- Magnetism
- Light



# Fields

- Electricity
- Sound
- Magnetism
- Light
- Diode



# Fields

- Electricity
- Sound
- Magnetism
- Light
- Diode
- Transistors



# Ohm's Law

# Ohm's Law

- **Dependency of voltage across a resistor**



# Ohm's Law

- Dependency of voltage across a resistor
- Verify Ohm's law





# Assignment

# Assignment

- Change **PVS** values from 0 to 5 volts
- Check the corresponding **IN1** values



# Series Connection



# Series Connection

- **Voltage when resistors are connected in series**



# Parallel Connection



# Parallel Connection

- **Voltage when resistors are connected in parallel**



# Summary

**We have learnt,**

- **Various terminals on the Panel**
- **Accessory set**
- **Software interface**



# Summary (cont.)

- Ohm's law
- Effective resistance in series
- Effective resistance in parallel
- Circuit diagrams





# Assignment

- **Measure the effective resistance using a combination of Series and Parallel resistors**



# About the Spoken Tutorial Project

- Watch the video available at [http://spoken-tutorial.org/What\\_is\\_a\\_Spoken\\_Tutorial](http://spoken-tutorial.org/What_is_a_Spoken_Tutorial)
- It summarises the Spoken Tutorial project



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- It summarises the Spoken Tutorial project
- If you do not have good bandwidth, you can download and watch it



# Spoken Tutorial Workshops

## The Spoken Tutorial Project Team

- Conducts workshops using spoken tutorials
- Gives certificates to those who pass an online test
- For more details, please write to [contact@spoken-tutorial.org](mailto:contact@spoken-tutorial.org)



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- More information on this Mission is available at <http://spoken-tutorial.org/NMEICT-Intro>

