**Round 0 Document**

**1 Introduction**

* 1. **Name of the Virtual Laboratory:** Basic Engineering Practices Lab(Electronics)
  2. **Name of the Faculty Member :** K.Srividhya
  3. **Department :** Electronics and Communication Engineering
  4. **Institute :** Sri Venkateswara College of Engineering
  5. **Email ID :** srivi@svce.ac.in
  6. **Objectives and Purpose of the Virtual Lab:**

**Objectives:**

To provide an exposure for the students to gain experience on the usage of equipment and components and make measurements conveniently and efficiently.

**Purpose:**

To assure students an efficient learning platform on study and usage of equipment/components and methods of measurements at ease.

* 1. **Discipline to which the lab belongs:**

Electronics & Communications,Instrumentation Engineering, Electrical Engineering Marine,Automobile

* 1. **Syllabi of Lab at various universities:**

**Anna University (CBCS) R 2017**

GE8261 Engineering Practices Lab-B.E ECE

**Sri Venkateswara College of Engineering (Autonomous) R2018**

GE18161 Engineering Practices Laboratory

EE18561 Basic Electrical Electronics and Microcontroller Engineering Lab-B.E Marine Engg

**SRM University**

EC1002 Electronics Engineering Practices- B.E ECE

EC1015 Linear Integrated Circuits Lab- B.E ECE

**B.S. Abdur Rahman Crescent Institute of Science and Technology R2017**

ECC2207 Linear Integrated Circuits Lab- B.E ECE

* 1. **List of experiments:**

1**.** Evaluating the AC/DC signal parameters using function generator and CRO.

2. Summer and Subtractor using Operational Amplifier 741.

* + - 1. **Target Group:** I year(Expt 1) and II year(Expt 2) Engineering Students of ECE,EEE,Marine Engineering,Automobile Engineering,Mechanical Engineering,Instrumentation Engineering

1. **Virtualization**
   1. **How do you intend to virtualize the experiments?**

By mapping the simulators,instructions and animations using the packages mentioned.

* 1. **How will the student get a feel for a real lab?**

The experiment window opens up the equipment front panel with all knobs in user variable state.The student can try with all adjustments abundantly and hence can learn to use the equipments.Also the student can perform the experiment with real physical experience.

* 1. **Will you be using animations?**

Using the packages mentioned.

1. **Technologies Used**
   1. **Software to be used for Web interface:** HTML5, JavaScript, CSS
   2. **Software to be used for back-end :**Javascript
   3. **Any other** NA
2. **Documentation**

# **Online manual:** Will be provided

# **Step by step procedure:** Manual explains the procedure

# **Quiz for self-evaluation:** Will be provided

# **Related resources:** The experiments are basic experiments

which doesnot need any extra special resource

1. **Student Feedback and Learning**
   1. **How will you collect feedback and use them?** Using Google forms
   2. **What is the actual learning component?** Usage of equipments

Performing the experiment

* 1. After the Virtual Lab experience, can the student perform the experiment in the real lab?

Yes