

# ITASDI PROJECT

# Innovative Teaching Approaches in development of Software Designed Instrumentation and its application in real-time systems

Erasmus+ KA2 2018-1-RS01-KA203-000432

## Course "Advanced LabVIEW Applications"

Laboratory no. 8 - Object-Oriented programming

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## 1 Detector Controller

### 1.1 Goal

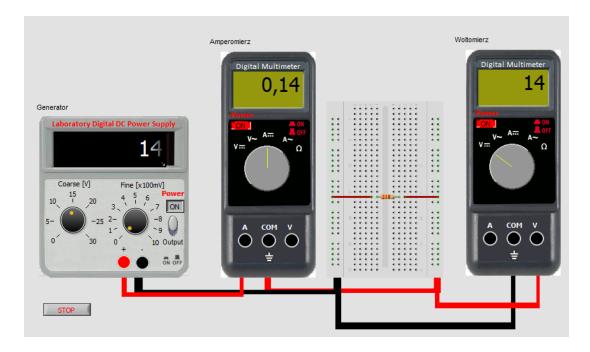
Create an application, which will simulate a the laboratory exercise, in which the Ohm law is checked.

## 1.2 General requirements

- The application should be hierarchical and scalable. Remember to use subVIs.
- Choose appropriate design pattern.
- Avoid using the local, global or shared variables.
- Close all opened references and handles.
- Application shouldn't crash. Inform the user about the errors using the error cluster or a dialog box.
- Remember to prepare well documented code. Especially remember about: labels on long wires, description showing in context help, tip strips of controls and labels of constant values.
- All subVI should have intuitive icon and description, which will be shown in contex help.

#### 1.3 Realization

- The program should have two XControls. One of them will be simulate the power supply. The second XControl will simulate the multimeter. Initially, two controls were created in project.
- The one of multimeter should be used as amperemeter and second multimeter should be used as voltmeter. The resistor has  $100\Omega$ .



Rysunek 1: The front panel of main program.

Please use the front panel from public folder.