1. Introduction

Calibration is one of the critical conditions for adequate quality assurance. Calibrated sensors are a prerequisite for accurate, reliable, and reproducible measurements. The accuracy of measuring instruments can be reduced due to wear, aging, and environmental influences. Therefore, measuring instruments must be periodically calibrated. During the calibration process, measuring instruments' accuracy, particularly sensors and measuring systems, is checked, and the reproducibility of measurement results.

2. Description

The student who will be responsible for this project has to create a calibration system stand for calibrating and testing the following types of sensors:

a. Pressure transmitters
b. Temperature transmitters
c. Flow Meters
d. Differential pressure transmitters

3. Practice plan

a. The conception of the calibration system (e.g., Word)
b. Selection of the necessary components for the calibration system (sensors for reference measurements, pumps, heaters, etc.) (research work)
c. Development of the calibration system stand layout (e.g., AutoCAD)
d. Assembly of the mechanical part of the stand (manual work)
e. Preparation of the documentation (e.g., Word)

4. Prerequisites

- Basics of computer knowledge: MS Windows, MS Office (especially PowerPoint).
- AutoCAD

5. Recommended number of participants

1 person

6. Supervisors

Shmyrev Ilya, senior engineer of the Engineering Support for the MPD Installation Sector