LSKI Appendix C

Rhiza S.Sadjad

January 26, 2019

0.1 Control Systems and Instrumentation Laboratory

Our laboratory equipment, as seen in Figure 1, are of 2 (two) types: large-scale equipment and small-scale equipment, both are mostly models or miniatures of control plants, or experimental modules. There are equipment completely purchased and imported from overseas manufacturers, and also equipment designed, developed and built in the laboratory by former students for their undergraduate projects, master's thesis or doctoral dissertations.

Measurement equipment such as AVO-meters and digital storage oscilloscopes are also available. In addition to that, we also have supporting equipment such as a diesel generator for back up electric power supply, and multimedia equipment for presentation and lecturing.

Major laboratory equipment are listed as the following:

1. 1 set of SOLTEQ's "Boiler Drum" Process Control Training System, a miniature of industrial process plant with liquid materials.
2. 1 set of ANDANI's "Demoisturizer System", a miniature of industrial process plant with solid materials.
3. 2 sets of Room Temperature Control System plant models.
4. 2 sets of ED-4400B Servo Motor Experimental Modules
5. 4 units of Microcontroller-based Universal Digital Controllers
6. 1 unit of 48 KVA 3-phase Silent Type AC Diesel Generator for back-up power source.
7. 12 sets of Instrumentation System Experimental Modules.
8. 2 units of 40 Mhz 2 channel Digital Storage Oscilloscopes

Figure 1: Equipment in the Control Systems and Instrumentation Laboratory

In the laboratory section for robotics, many equipment and components are available for the members of the *"Cyber Tech Community"* to prepare their participation in regional and national robotic contests and other events.

Supporting equipment such as desktop personal computers (one of these desktops is used for the bolier drum's remote control) and laptops, LCD projectors and a large screen monitor for lecturing and presentation are also available.