KAZAKH BRITISH TECHNICAL UNIVERSITY

Faculty of information technology

Report practice

Done by: Zhuranov Turlybek
FIT, Automatization and control, 4 course

Almaty 2016

Content:

- Goal of practice
- About TOO “INIIT” KBTU
- New obtained knowledge
- Pressure Control panel
- Conclusion

GOAL OF PRACTICE

- Safety toolbox, fire safety
- Deepening and consolidation the theoretical knowledge acquired in the learning process;
- Analysing Pressure Control Process;

TOO “INIIT” KBTU

The mission is to promote the development and prosperity of the oil and gas industry of Kazakhstan. Providing industry professionals the best educational training programs, training and industrial certification, based on the advanced achievements of world science and technology, as well as providing a high level of implementation of research and innovation projects and the organization of the effective implementation of their results in production.

PRESSURE CONTROL

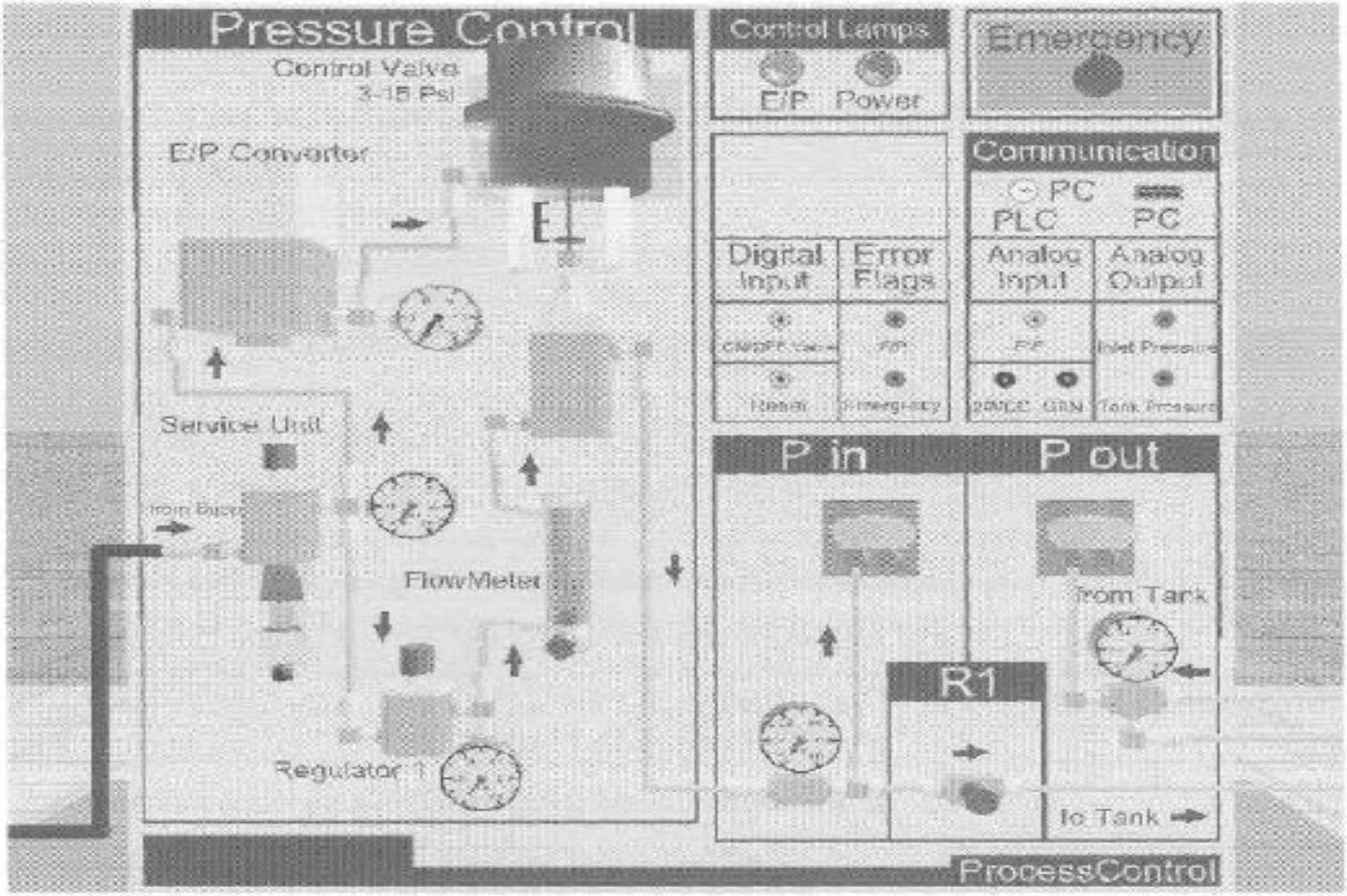
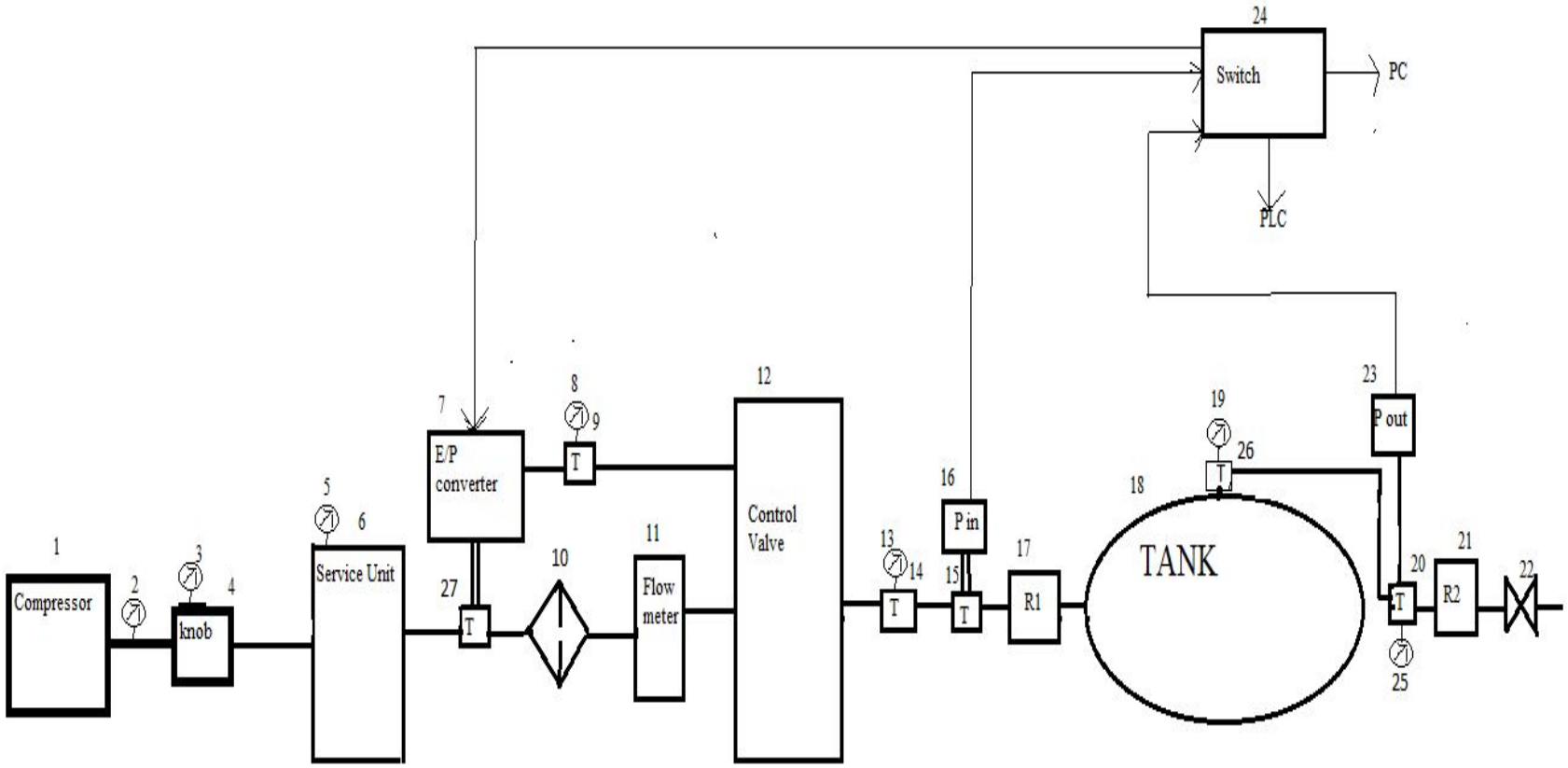


Figure 1-2: ProcessLine panel

- The ProcessControl package for air pressure includes the air compressor, the ProcessLine panel, the air tank and the Process Motion software, which is run via PC computer or PLC controller.

Functional Scheme of Pressure Control Panel



DESCRIPTION OF DEVICES

- **The air compressor,** as its name suggests, compresses air to desired pressure, and supplies it to the ProcessLine panel through a hose.
- **The switch** is the device, that switches the control to the PC or PLC controller.
- **The pressure indicator gauge** is a device, that shows the amount of bars in devices.
- **The E/P converter** converts the electrical signal from PC or PLC into air.
- **The tee** is a device that used to send signal into a lot of ways.
- **The air tank** is the output device.

AIR COMPRESSOR AND AIR TANK

SERVICE UNIT AND E/P CONVERTER

R1 AND R2 VALVES

TRANSDUCERS

MPX5100A/D
CASE 867-08

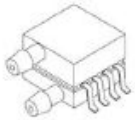
MPX5100AP/GP
CASE 867B-04

MPX5100DP
CASE 857C-05

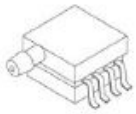
SMALL OUTLINE PACKAGES

MPXV5100GC6U
CASE 482A-01

MPXV5100GC7U
CASE 482C-03

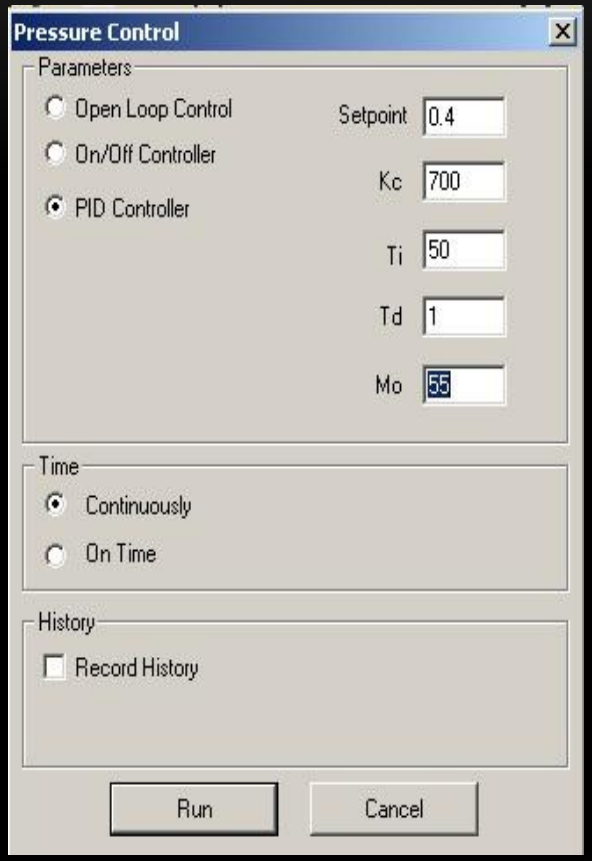


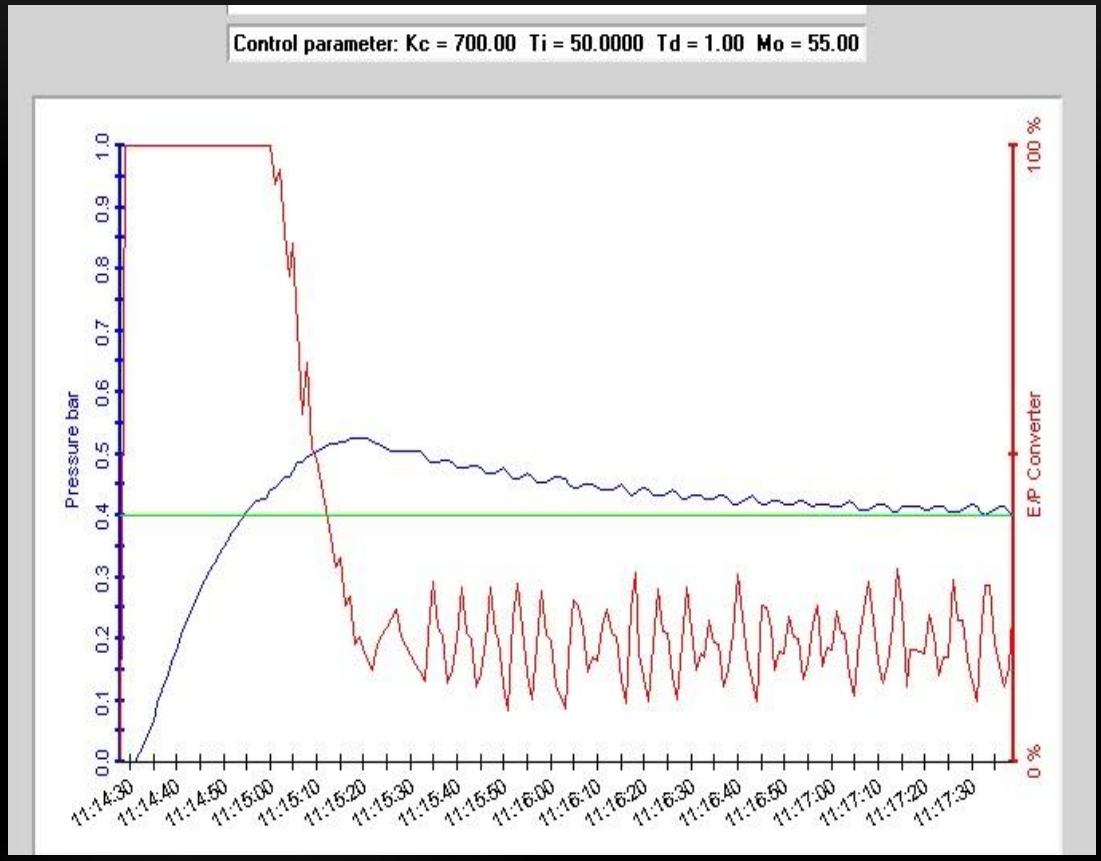
MPXV5100DP
CASE 1351-01



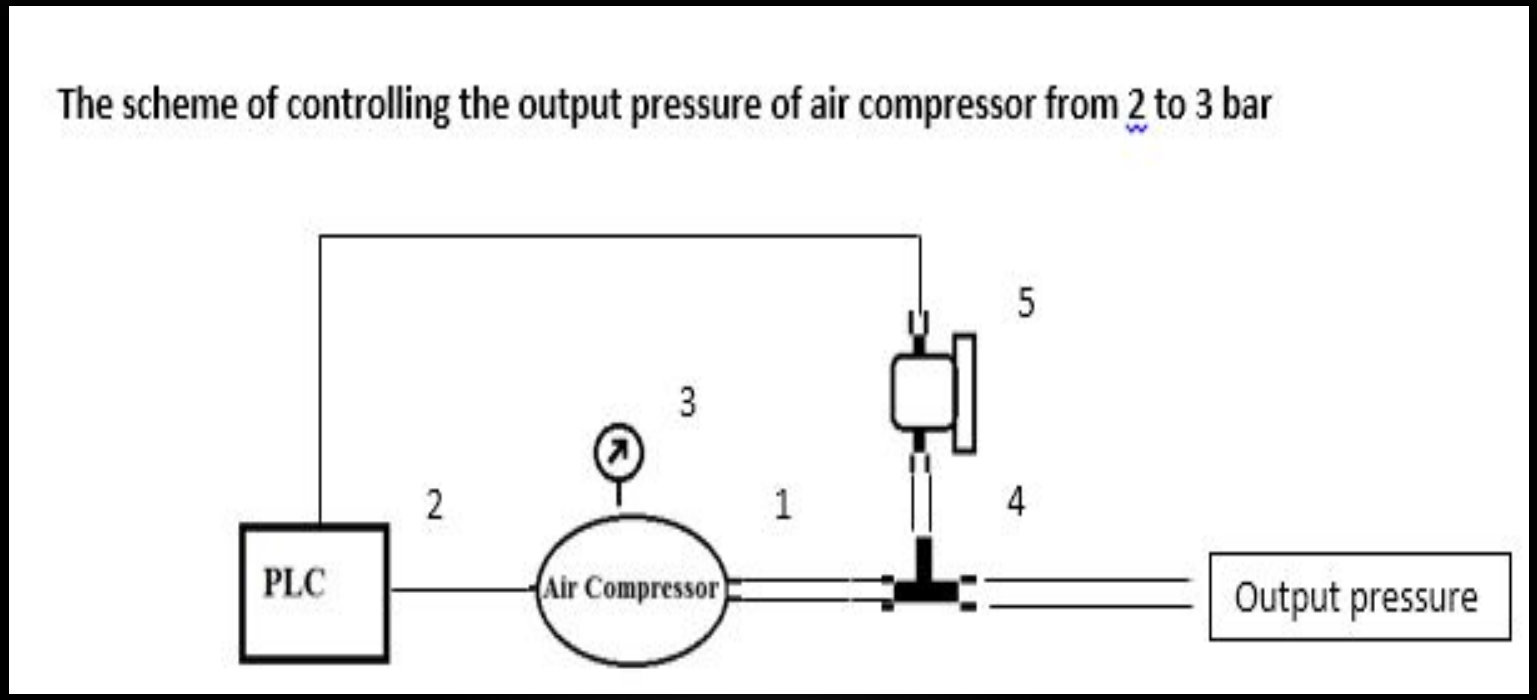
MPXV5100GP
CASE 1369-01

REALIZATION OF PID ALGORITHM





AUTOMATIZATION OF AIR COMPRESSOR



Specification table of the scheme of controlling air pressure

Specification Table:

No	Name	Model	Parameters
1	Air Compressor	Compressor. Power plus. Silent operation. Model: POW547 Serial number: 2003-2717-001412	230V, 50Hz Max. pressure: 7.0bar/100Psi
2	PLC	Овен Плк 150	
3	Gauge	Gauge. Fimet	0 – 10 bar
4	Tee	-	-
5	Transducer	Датчик давлен ия SITRANS P200	Input:0 – 4 bar, Output: 0 – 10 V

CONCLUSION

- Fisrtly, of course, a month isn't enough to learn many things. However, it was enough to define our orientation in future.
- Secondly, we got a lot of knowledge about my specialty. I could get general information how pressure control works.
- Thirdly, we could learn communication among personnel. So, we tried to match to their thought. It taught us how to be a real employee of big companies.

REFERENCE

- https://www.labvolt.com/.../86006_f0.pdf
- http://www.ngpedia.ru/id426799p1.html
- http://fas.su/page-542
- http://www.findpatent.ru/patent/205/2057361.html

THANK YOU!!!