



Continuous controlling of electro-pneumatic servo actuators

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Subject of research

- › Improving control of the operation of pneumatic actuator
- › Pneumatic actuator is mostly used in discrete operating mode
- › Transition from discrete to continuous mode of operation

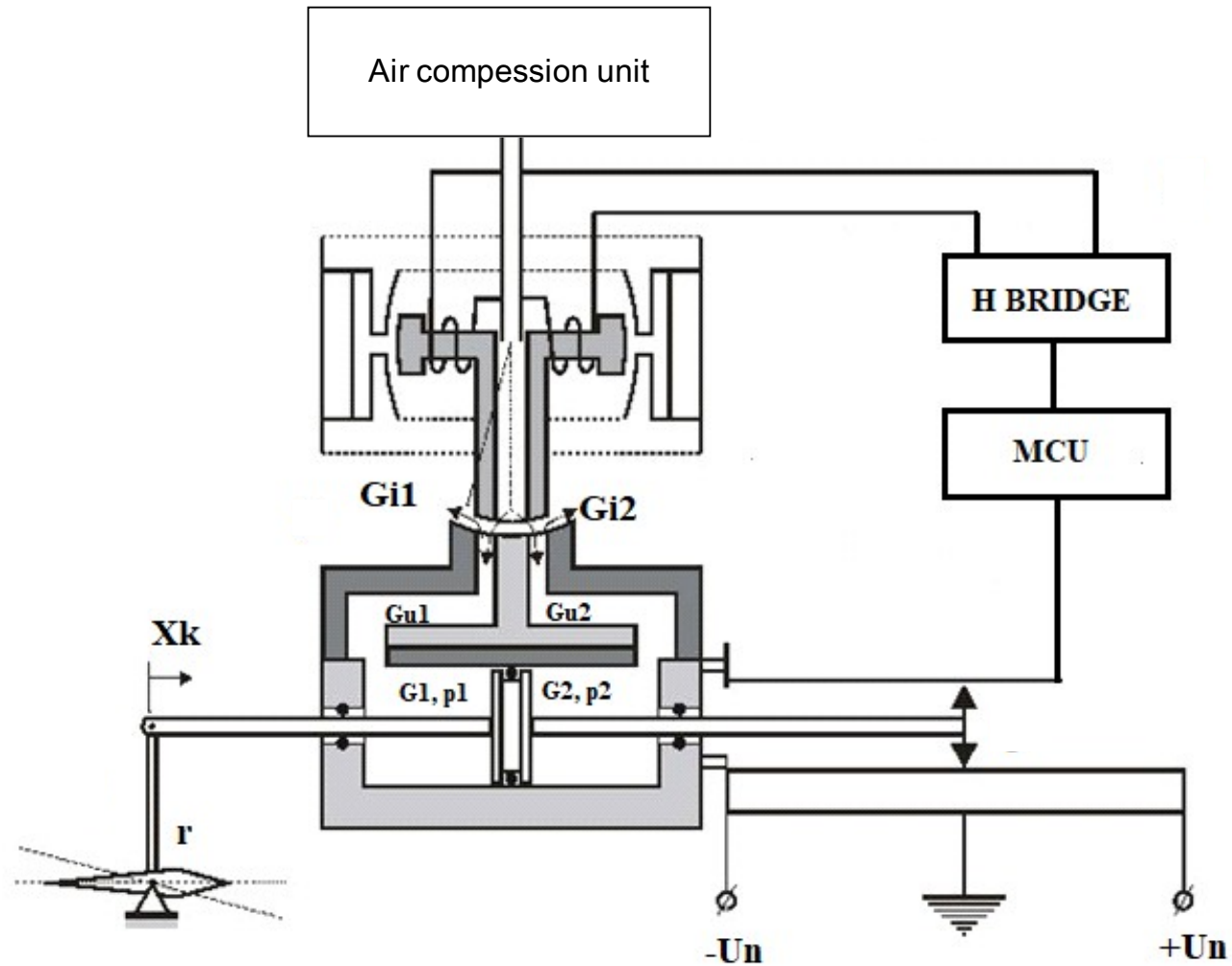


Objectives and outcomes

- › Controlling operation of the pneumatic actuator piston using PWM signal
- › Using the piston position sensor
- › Implementing feedback



Objectives and outcomes



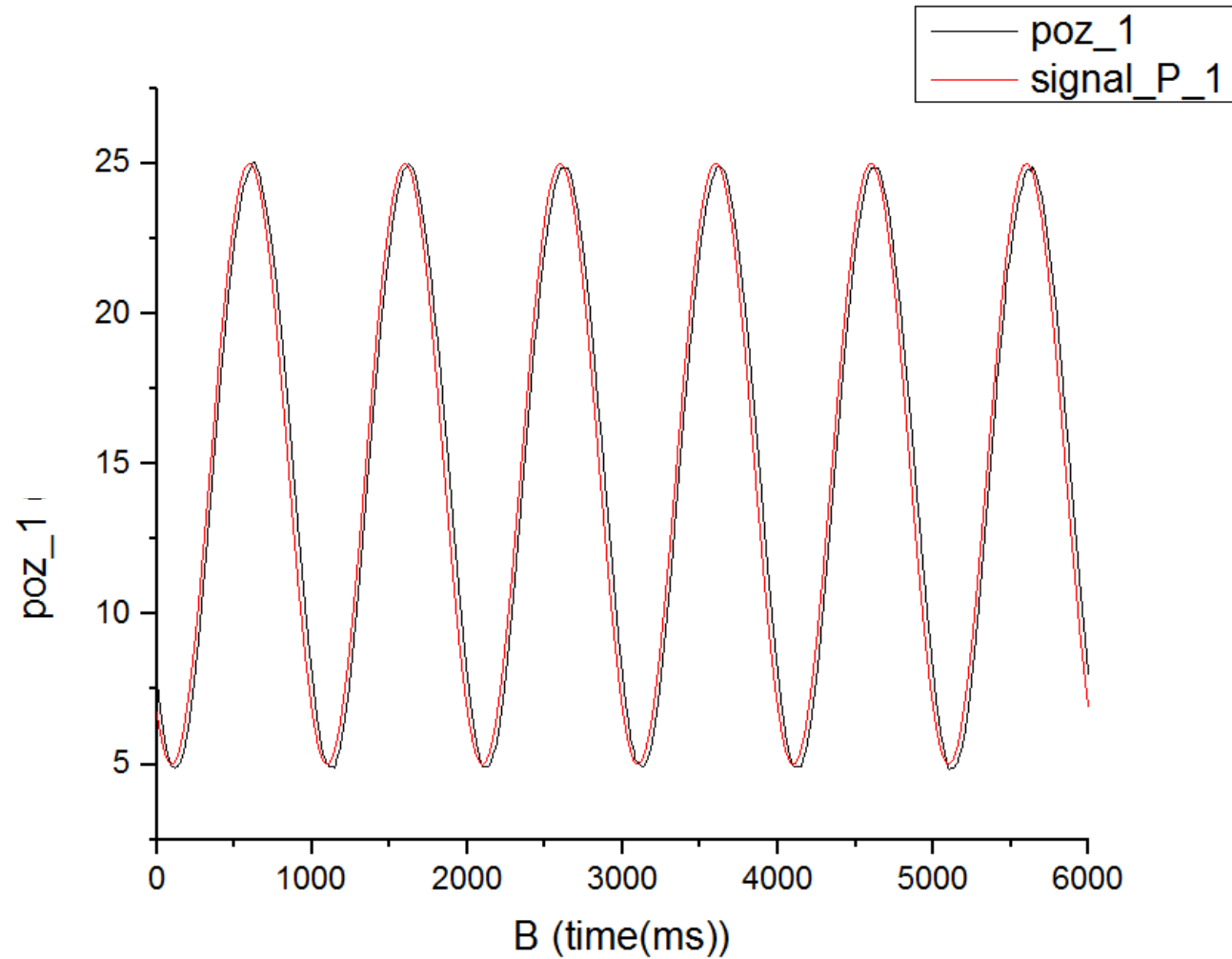


Results and analysis

- › Testing the operation of electro-pneumatic actuator

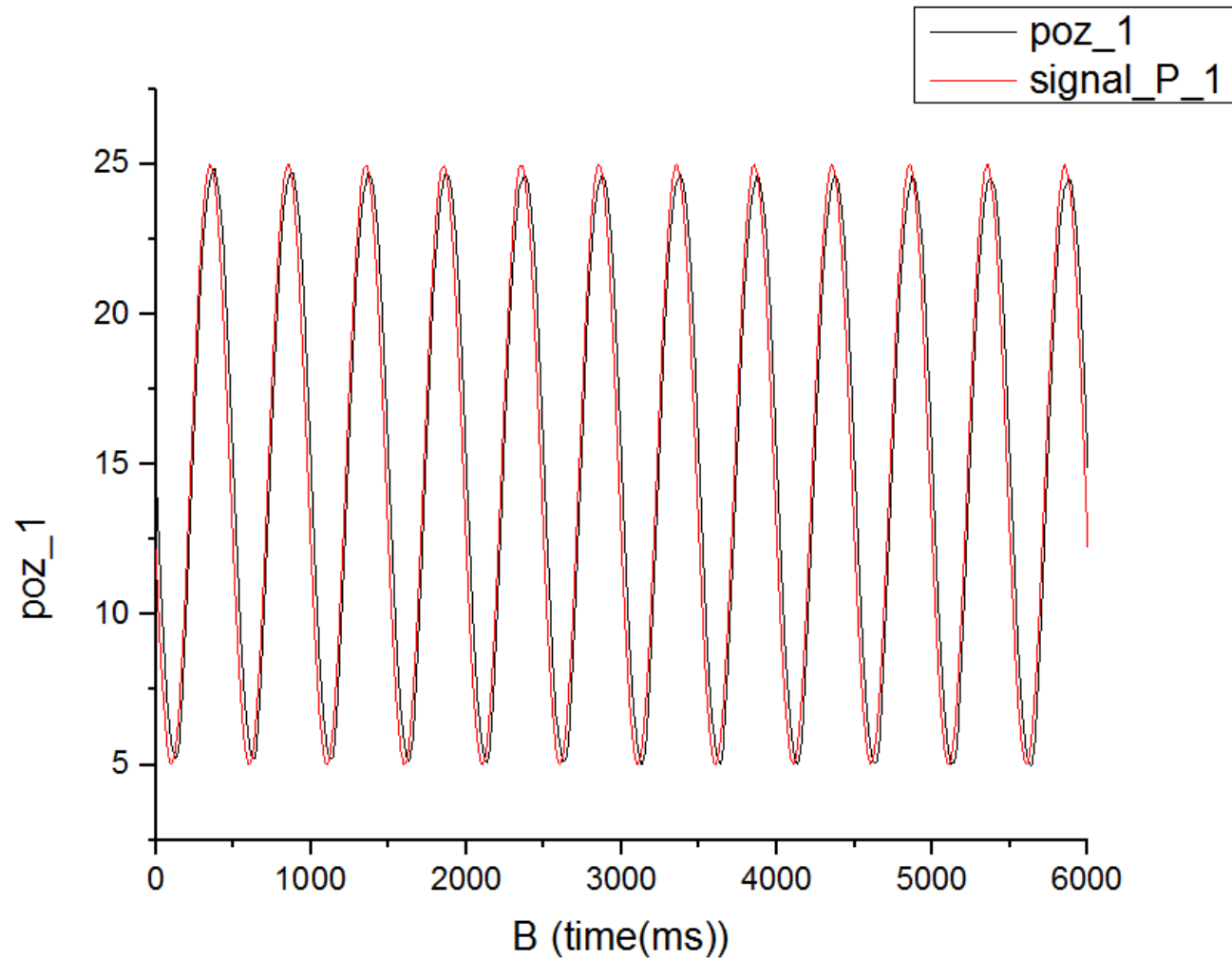


Results and analysis



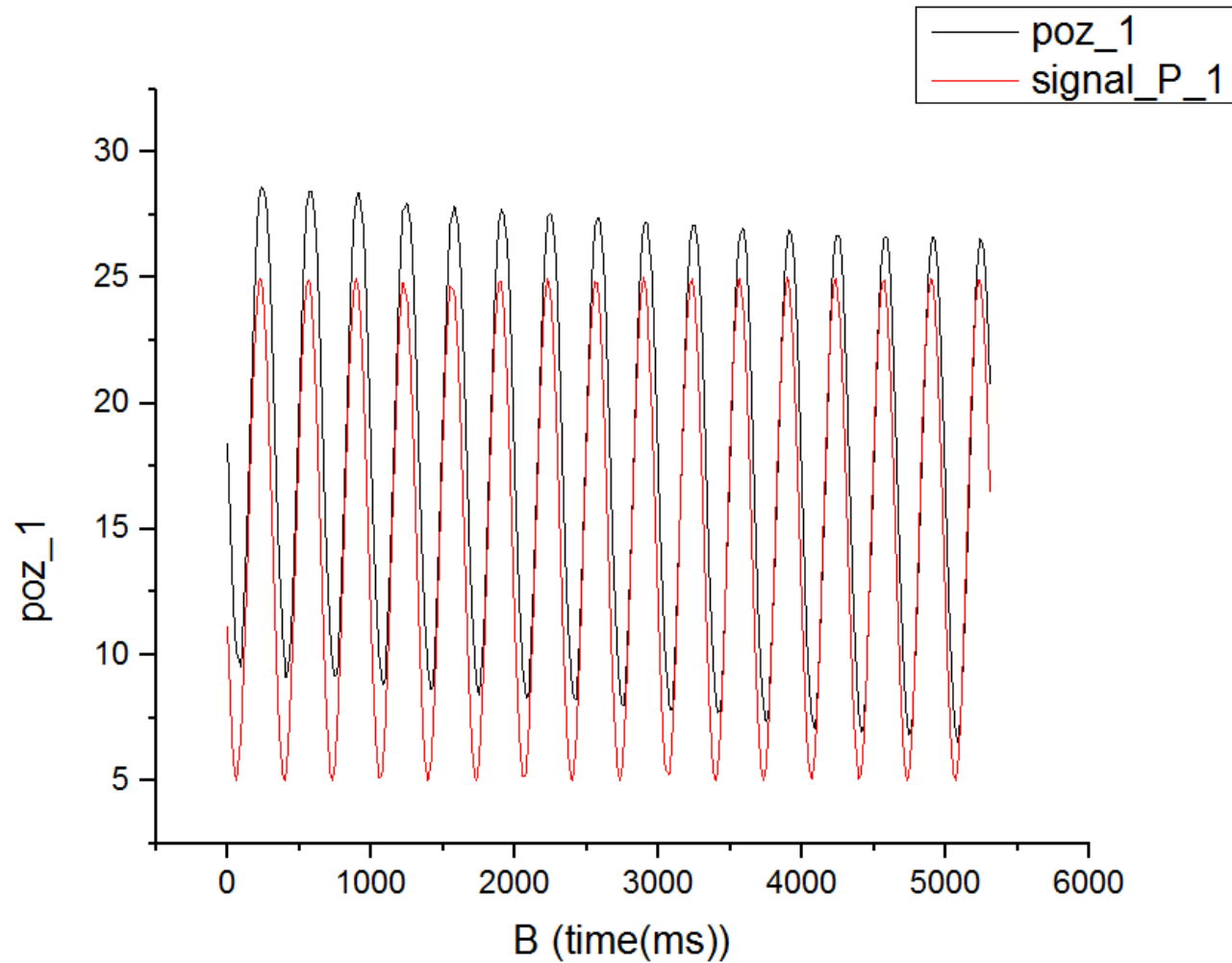


Results and analysis





Results and analysis





Conclusion

- › Achieved continuous monitoring of pneumatic actuator
- › Bandwidth is 3Hz
- › Applicable to slow industrial processes
- › Possibility of further research by optimizing the management structure



Thank you for attention!