

Optimal Control for Water Distribution

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Group 830

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- ▶ We use a lot of power
- ▶ 4% of US
- ▶
- ▶
- ▶
- ▶ *How can a water tower be implemented in a water distribution network and controlled to minimize the cost of running the distribution network without violating constraints and compromising the water quality.*

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- ▶
- ▶
- ▶ Write something awesome!
- ▶

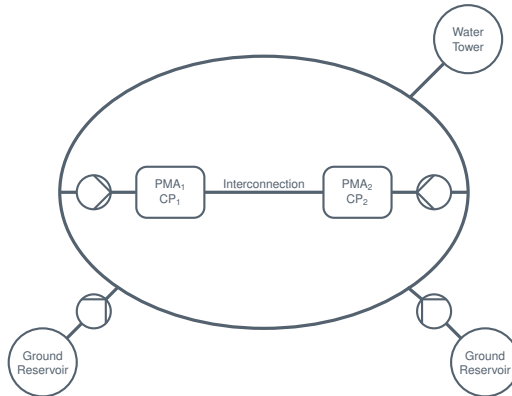


Figure: Overview of the reduced system that fulfills the scenario of this project.



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- ▶
- ▶ Write something awesome!
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- ▶
- ▶ Write something awesome!
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- ▶ Write something awesome!
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 - ▶



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► Write something awesome!



► Write something awesome!



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- ▶ Nonlinear model
- ▶ Infeasible constraints problem
- ▶ Softening constraints
- ▶ Adaptive control

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- ▶ Hydraulic model
 - ▶ Graph representation
- ▶ Parameter estimation
 - ▶ Nonlinear estimation
 - ▶ Linear estimation
- ▶ Control problem
 - ▶ Model predictive controller is derived
- ▶ Control implementation

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Laboratory

Please follow us to the laboratory

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