

























#### 4. Conclusion

The optimal control of distribution system is investigated due to the presence of nonlinear loads. The main conclusions are:

- The optimal control of distribution system may be carried out by switching the LTC and shunt capacitors,
- Comprehensive device control may be simultaneously determined using Genetic Algorithm,
- The purpose of including nonlinear loads on optimal dispatch problem is to assure the system distortion does not exceed the maximum allowable limit,
- Straightforwardly taking the effects of nonlinear loads into account enables achieving higher energy saving and better average voltage improvement.

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#### Biographies

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