Optimising carbon footprint of Water Distribution Networks in UAE with Nature Inspired Computing (NIC)

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Research Abstract

Water distribution networks (WDNs), although an integral part of society, tend to consume a lot of energy which contributes to a significant carbon footprint. The aim of this research is to optimize the energy consumption of WDNs using nature inspired computing techniques. The United Arab Emirates has several plans such as UAE Energy Plan 2050 in place to reduce carbon emissions. However, their primary focus is on the power and electricity sector. This research will attempt to generate an optimization algorithm that can be applied to the WDNs in UAE to ultimately reduce their overall carbon footprint.

Supervisors

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