SOLVING UNIT COMMITMENT WITH WIND POWER USING ARTIFICIAL IMMUNE EVOLUTIONARY PROGAMMING OPTIMIZATION TECHNIQUE

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ABSTRACT

This project proposes a solution to unit commitment problem with wind power using artificial immune evolutionary programming. The objective of this project is to find the suitable generation scheduling which can minimize the operation cost with subjected to various constrain. The main idea of this project is to integrate the use of Artificial Immune Evolutionary Programming as optimization technique towards Unit Commitment. Other than that, this project also aiming to review the effect of addition wind power to the Unit Commitment problem solution. MATLAB programming language was used to execute the program using 10 set of generator data with several constrain like power balance, and generation limit .The process of Artificial Immune Evolutionary Programming including of initialization, cloning, cost calculation, mutation, sorting and combine and convergences test. The result are shown to verify the performance of Artificial Immune Evolutionary Programming technique

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