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Objective functions and constraint conditions in control algorithms should become available for reference to ensure the clarity of the electric power industry. This enables researchers to know the current state, features, and issues of automatic control systems which utilize AI widely. Besides, it can open the door for further contribution to the development of the study about future AI utilization.
Our new system adopts the new voltage and reactive power control (VQC) method with AI and releases off-line learning data making method and on-line control flowchart in the treatise in terms of the following points.

(1) Off-line learning data making method : Objective functions and constraint conditions in the optimization calculation and quantitative evaluation methods for them.
(2) On-line control flowchart : Methods to determine equipment to control in each decision processing and quantitative judgement methods in each condtional branching processing.

On the other hands, the intellectual property should be protected by acquiring rights as a patent beforehand for the follwoing contents.

(1) The functions which are recognized as novel and inventive in the algorithms.
(2) The parts which are researchers' know-how, such as detailed algorithms for the optimization calculation.