

Application of Integration of Process Design and Control(IPDC) to Externally Heat-Integrated Double Distillation Column(EHIDDiC) for offshore plant

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In this research, a systematic model-based methodology for performing integration of process design and controller design(IPDC) is applied to the scheme of modified externally heat-integrated double distillation column(M-EHIDDiC).

The purpose of IPDC is to assure that design decisions give the economically optimal solution and the best control performance, simultaneously considering the controller design issues.

The application of this methodology is handled for M-EHIDDiC, which is structurally modified scheme of existing EHIDDiC in order for considering the additional constraints in offshore processes. The result of this study will evaluate the effective scheme of heat integration in distillation columns and its controllability.