National Taipei University of Technology

Research Center of Energy Conservation (RCEC) for New Generation of Residential, Commercial, and Industrial Sectors

Dept. of Energy and Refrigerating-Air conditioning

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- **Education:**

  1.Master of Science and Ph.D in Mechanical Engineering, the Pennsylvania State University

  2.Bachelor's degree in Naval Architecture, National Taiwan University

- **Expertise: Refrigeration and Air-conditioning, Heat exchanger design, Two-phase flow and convection, Heat and Mass Transfer Analysis, Electronic cooling, Thermal energy recovery**
- **RCEC Principle Research item: Energy conservation technology of ice-storage air condition system for fast demand response**
- **RCEC Research Goal:**

1. Building an ice storage air conditioning demonstration system by using the air conditioning system of NTUT school library to develop demand control and flexible ice storage and melting technology.

2. Investigate a high-efficiency small ice storage tank and the ice melting and ice storage mechanism.

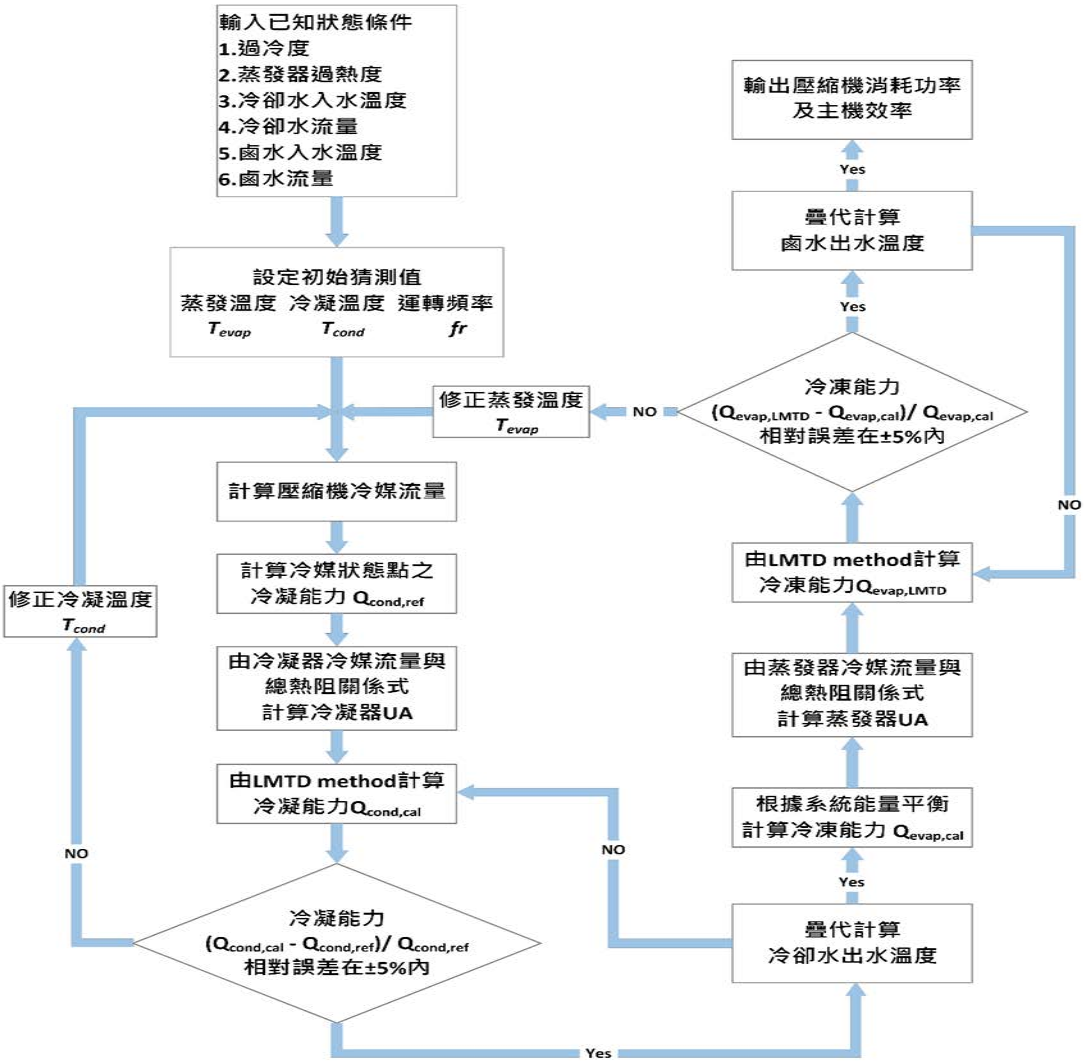
- **Core technology:**

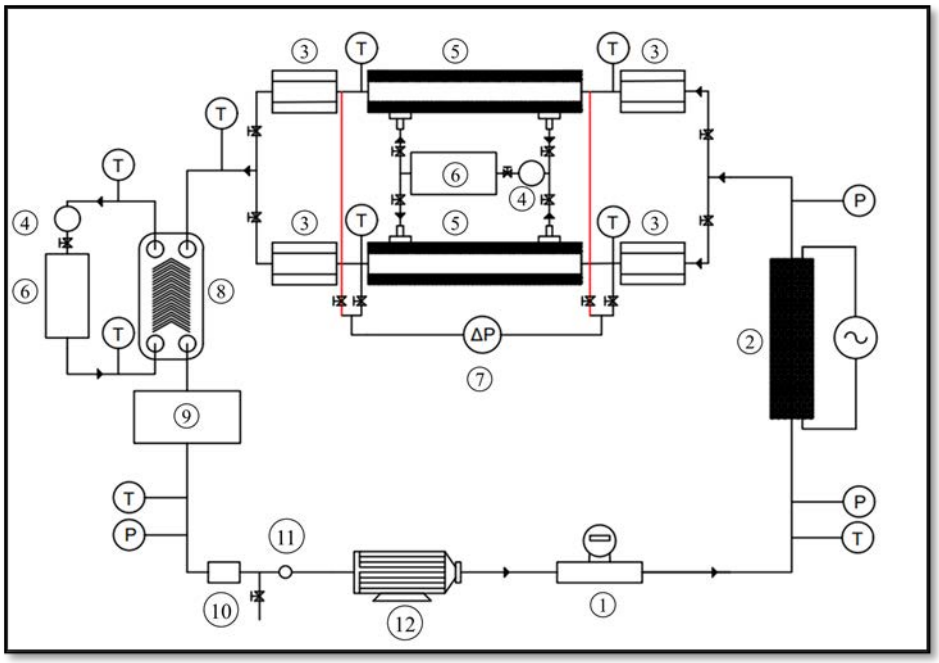
1. Ice/brine chiller performance analysis and testing technology

2. Transient cold energy analysis technology for ice storage air conditioner

3. Heat transfer analysis technology for low global warming potential refrigerants

Research Method and Application





Condensation test facility of internal flow

Related Research Highlights

Control system of ice storage air-conditioning for electricity demand response