

# Heat Index Thermostat: Enhancing Indoor Comfort and Energy Efficiency

## ENHANCED AIR QUALITY AND ENERGY EFFICIENCY

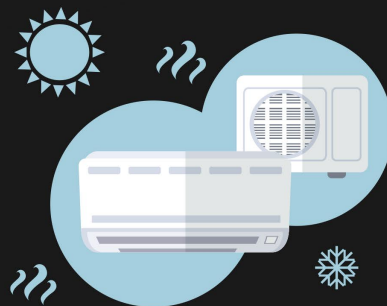
Indoor environments often suffer from high CO2 concentration levels, leading to discomfort and drowsiness among individuals.

This issue highlights the critical importance of managing indoor air quality to ensure a comfortable and healthy living and working environment.

The developed Heat Index Thermostat addresses the limitations in existing AC systems, such as the lack of fresh air intake in split systems and enhance overall indoor air quality and comfort, while saving energy at the same time.

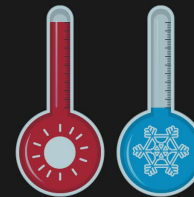
## ABOUT THE TECHNOLOGY

This innovative HBKU technology is a communication system that interacts with non-central AC systems such as split AC systems. It receives, interprets, and processes signals (IR, WiFi, Bluetooth etc) from home energy system, AC system controller, remote control or cell phone to send the final effective temperature setpoint command to split AC systems. This HBKU system delivers filtered outdoor air directly into the indoor environment, significantly improving indoor air quality while maintaining user comfort.



## APPLICATIONS

- Conversion of AC systems into a managed “smart” system.
- Integration of Heat Index thermostat to the split AC systems.
- Integration of split AC systems into a home management system
- Centralization of AC systems.



## VALUE PROPOSITIONS

This unique Heat Index Thermostat technology in HBKU, offers energy savings by adjusting set point temperatures based on relative humidity, potentially resulting in savings up to 9%.

It represents a breakthrough in HVAC regulation due to its energy-saving features and indoor air quality monitoring capabilities.

The demand for smart thermostats is increasing globally, especially in regions like China and India where the adoption of air conditioning systems is rising.

The technology is being adapted to cater to split system air conditioning units, which are more common in the GCC region. The current technology will be accessible via the web and can be set, monitored and managed through an app that can be downloaded to the user's phone.

### PATENT STATUS

Patent application has been granted

### LICENSING OPPORTUNITIES

Hamad Bin Khalifa University is offering this technology for license.

For more information, please contact: [innovation@hbku.edu.qa](mailto:innovation@hbku.edu.qa)