

# **Personalized Environmental Control Systems (PECS): Fundamentals, Opportunities and Challenges**

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## **ABSTRACT**

A Personalized Environmental Control System (PECS) is a system that can provide individually controlled thermal, air quality, acoustic or luminous environments in the immediate surroundings of an occupant, without directly affecting the entire space and other occupants' environment. PECS differ significantly from traditional systems in buildings due to these characteristics.

This presentation will introduce PECS, explain its main characteristics, limitations, advantages, and will summarize the work being carried out in IEA EBC Annex 87 related to PECS.

## **KEYWORDS**

Indoor environmental quality; personalized system; comfort; energy use; individual control