

**SIGNIFICANT LIMITATION IN APPLYING COMPUTATIONAL FLUID DYNAMICS (CFD)
TO PREDICT ROOM AIR DISTRIBUTION****A.A. Maghrabi***Islamic Architecture, Umm Al-Qura University, Makkah, Saudi Arabia*

Computational fluid dynamics (CFD) is used to predict the indoor environment airflow and overall ventilation effectiveness of natural or mechanical air distribution systems. This paper reviews some applications and criticism work made on CFD in order to establish an understanding of the limitations of CFD in predicting room airflow. It is concluded that though CFD is considered a powerful tool in predicting room air distribution, the software complexity, computational power and the required level of expertise to run the code shape the utmost challenge to beginners in this field.