Application of K-ϵ Model for Three Dimensional Simulation of Wind Field

D. N. Hai[1] **and N. T. Duc**[1]

Abstract: A 3D model for simulating air flow and dispersion in the atmospheric boundary layer, which is based on three-dimensional non-hydrostatic flow equations and two turbulence closure equations, is described and analyzed. The closed system of equations is solved for mean flow characteristics, turbulent kinetic energy and its dissipation rate. A method for successful solution of two turbulence closure equations together with flow equations is presented. Some validations of the code are also presented in the paper.

[1] Institute of Mechanics
NCST
264 Doi Can Str.
Hanoi, Vietnam
dnhai@im01.ac.vn