

## 풍력자원해석 자동화 프로그램 Auto-Wind 개발과 응용

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### Development and application of Auto-Wind program for automated analysis of wind resource

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As many researchers want to predict or assess more about wind condition and wind power generation, CFD(Computational Fluid Dynamics) analysis method is very good way to do predict or assess wind condition and power generation. But CFD analysis is needed much knowledge of aerodynamics and physical fluid theory. In this paper, Auto-Wind CFD analysis program will be introduced. User does not need specific knowledge of CFD or fluid theory. This program just needs topographical data and wind data for initial condition. Then all of process is running automatically without any order of user. And this program gives for user to select and set initial condition for advanced solving CFD. At the last procedure of solving, Auto-Wind program shows analysis of topography and wind condition of target area. Moreover, Auto-Wind can predict wind power generation with calculation in the program. This Auto-Wind analysis program will be good tool for many wind power researchers in real field.

**Key words** : CFD(Computational Fluid Dynamics, 전산유체역학), Automated Program(자동화 프로그램), Automation (자동화), wind resource(풍력자원), wind power(풍력)

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