ABOUT US

Divadesam Technologies, established in 2017 and based in Dehradun, excels in developing innovative renewable energy devices and advanced control systems, providing customized solutions for academia and industries to reduce environmental impact and carbon footprint.

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nimēṣa
Wind Tunnel Controller

Wind Tunnel are used to test the aerodynamic nature of the models being tested. During a test, Model is placed in the test section of the tunnel and air is made to flow past the model. Various types of instruments are used to determine the forces on the model. The primary air flow is made through fans. Those fans are controlled through our drive and WT controller device. WT Controller determines the dynamic air flow and follows the path of required waveforms.

WIND TUNNEL

A wind tunnel is a structure that has air flowing through it — usually in the form of a duct through which the air is set in movement by electric-powered fans. The type and size of wind tunnel used depends on the size of the object undergoing testing, as well as the flow conditions desired. Wind tunnels are used to test aircraft, cars, spacecraft, and any engineering application for which the effects of the air flow around a body matter,
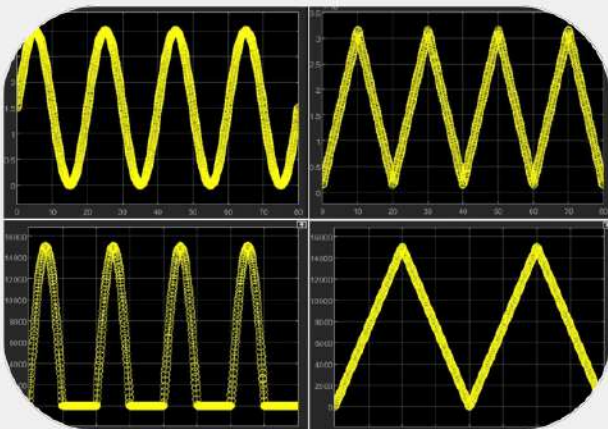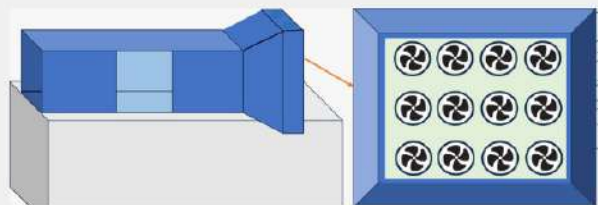
WT CONTROLLER

WT Controller use to control the electric fan motor through drive system. Controller uses the models by which parameters fan's motor will be controlled and hence the air flow and forces of air on the object inside the tunnel. All the possible set of flows and controls can be achieved by the current device.

MATLAB INTEGRATION

nimēṣa WT Controller can easily be able to integrate with MATLAB Simulink Interface by using its state of art software drivers. nimēṣa WT Controller can implement any type of Simulink model in the real time that is supported by code generation. In addition to this a dedicated hardware interface library is provided with package to minimize the effort in using physical resources.

DRIVE CONTROL

Variable speed drive (VSD) described as an electronic portion of the system that controls the speed of the motor. Those processes where conditions demand adjustment of flow from a pump or fan, like wind tunnel, varying the speed of the drive may save energy compared with other techniques for flow control. These drives can be easily controlled and provided the desired signal through nimēṣa WT Controller.
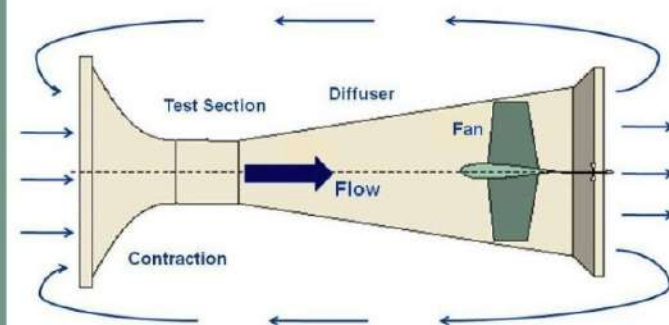
nimēṣa WT CONTROLLER FEATURES

- Quick MATLAB integration
- Supports wireless programming
- No additional software licensing required. WT Controller software comes along with device.
- Improved time synchronization
- Faster build process
- Precision PWM Signal generation with symmetric dead-band frequency adjusted PWM.
- Low cost
- Analogue input and output
- 8 channel digital servo moter drive

Open Return Wind Tunnel

Closed Return Wind Tunnel