

Short Description nii00048: The purpose of this project is to numerically simulate Active Flow Control (AFC) devices like vortex generator jets (VG's), in particular jet actuators in this work. The numerical approach involves the Reynolds Averaged Navier Stokes (RANS) & the Detached Eddy Simulation (DES) with and without AFC using the Chimera grid technique for the flat plate flow and the FNG high-lift configuration. In order to proceed with the tasks, an efficient numerical simulation approach is required. This has been accomplished by using the state-of-the-art flow solver DLR TAU using Chimera grids for locally resolving the flow scales.