ENGR 491

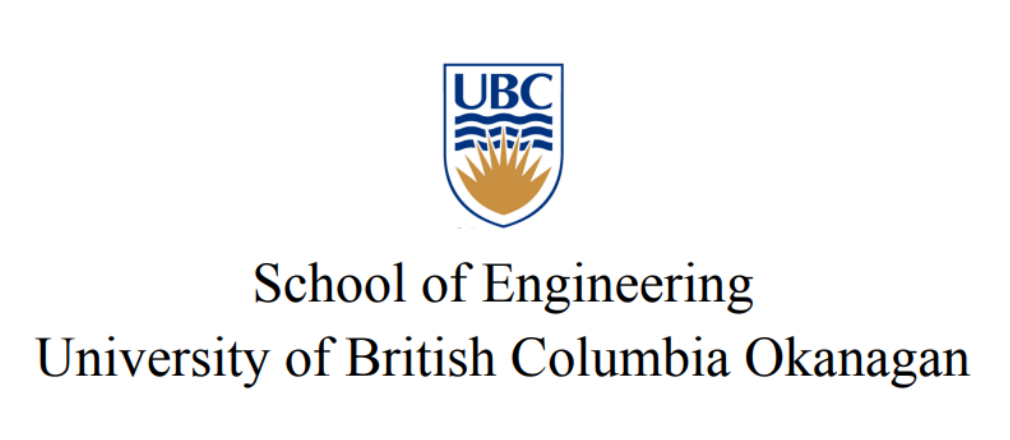
Software Exercise 5

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**Introduction**

**Results and Discussion**

**1)** From observations the computed results in x/h = 0 and x/h = 3, the three turbulence models SST, k-e, and k-w seem to achieve a similar accuracy when compared with the experimental data. The most accuracy turbulence model out of the three is SST turbulence model because its results plot is the closest one to the experimental results plot. The turbulence model that achieved the worst accuracy is the Spalart-Allmaras turbulence model.

Figure 1&2: Computed and Experimental Results of Streamwise Velocity at the Normalized Distance x/h = 0 and x/h 3

**2)** The

Figure 3: Computed and Experimental Results of Streamwise Velocity at the Normalized Distance x/h = 0 and x/h 3

**3)**

KE: e= 14.88 e=22 k=0.375 k=0.2 k=0.55

SST: k=0.375 k=0.2 k=0.55 w=440.15 w=400 w=500

SA: v=0.14 v =0.1 v=0.2