

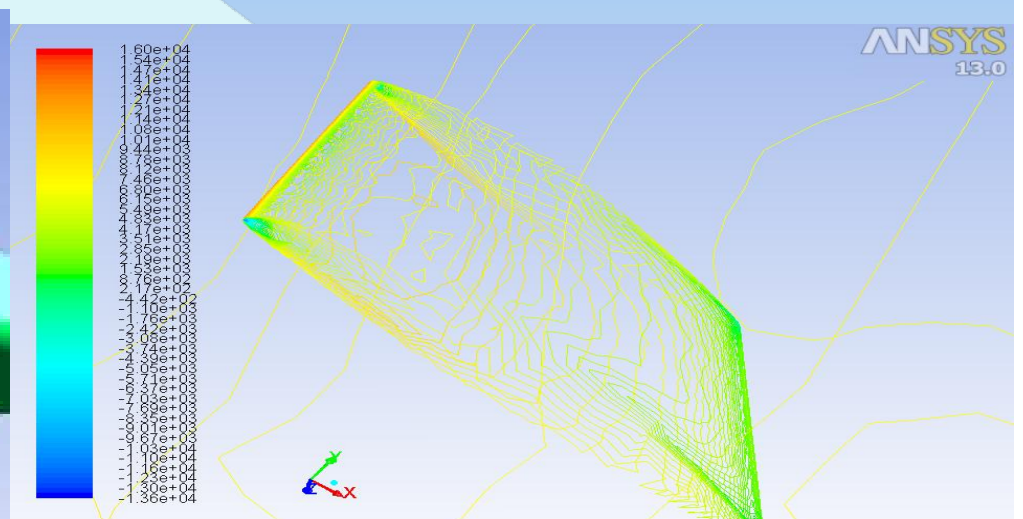
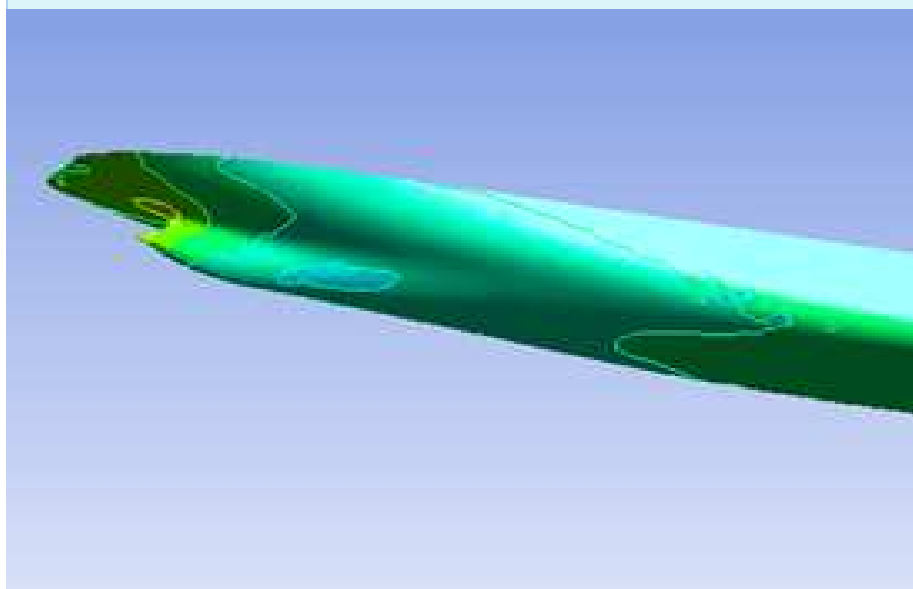
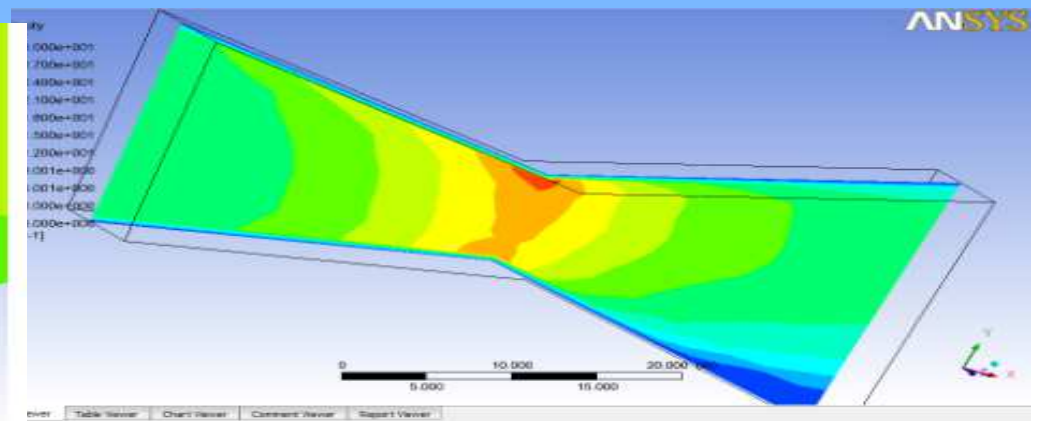
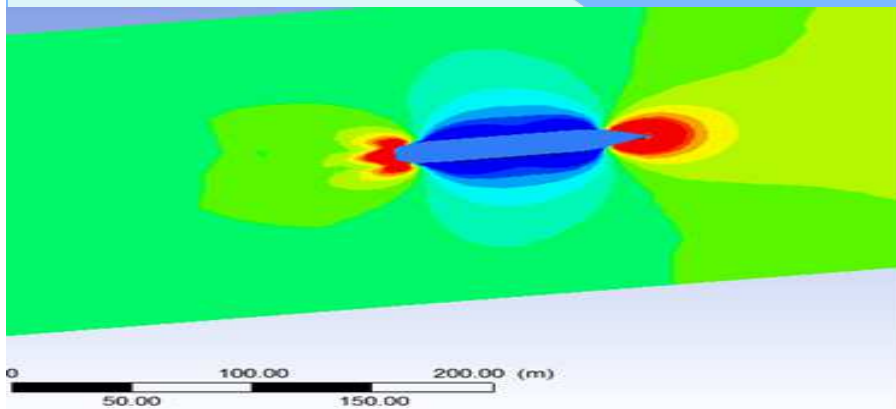
Vol. 8 (2021): The 8th TECHNIUM International Conference

**COMPUTATIONAL FLUID DYNAMICS
IN RESEARCH & STUDY**

SCURTU IONUT CRISTIAN

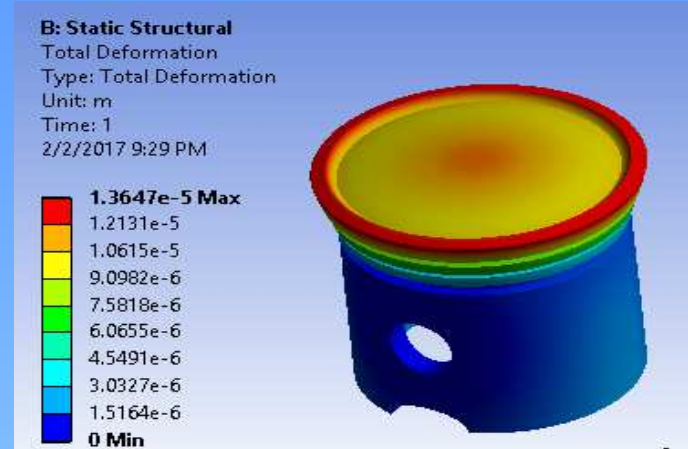
**NAVAL ACADEMY "MIRCEA CEL BATRAN" CONSTANTA
IONUT.SCURTU@ANMB.RO**

EXAMPLES OF CFD



Contours of Total Pressure (pascal)

LIST OF COMPETENCES

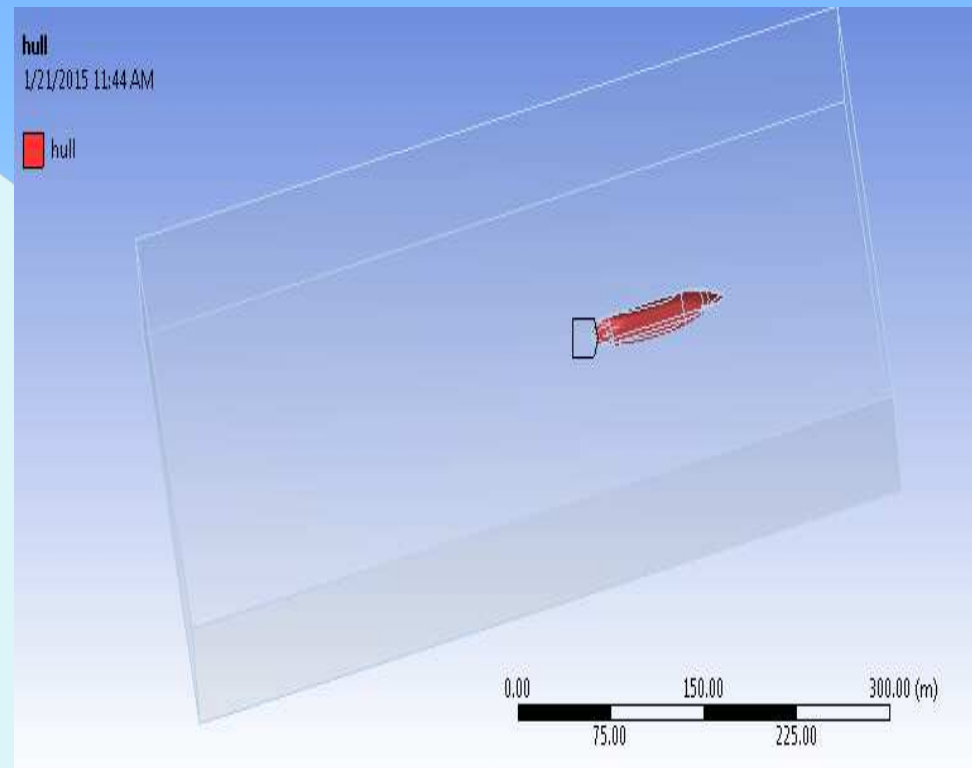


- ◉ Laminar and turbulent flow around various objects
- ◉ Simulation of floating semisubmersibles / ships
- ◉ Aero & hydrodynamics.
- ◉ Mechanical, Thermal and Thermomechanical simulation in Ansys
- ◉ Modal analysis

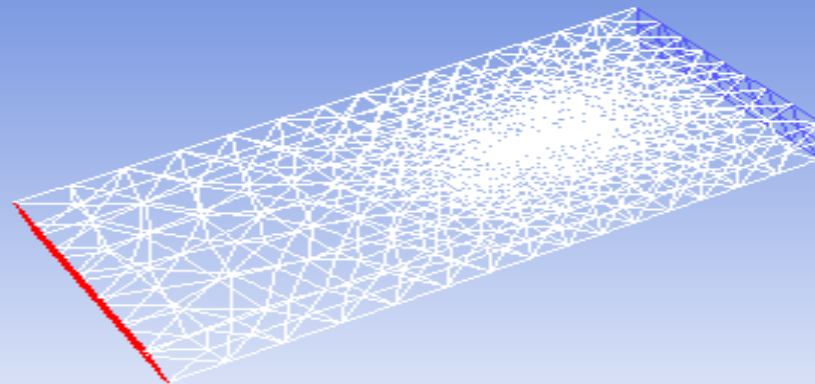
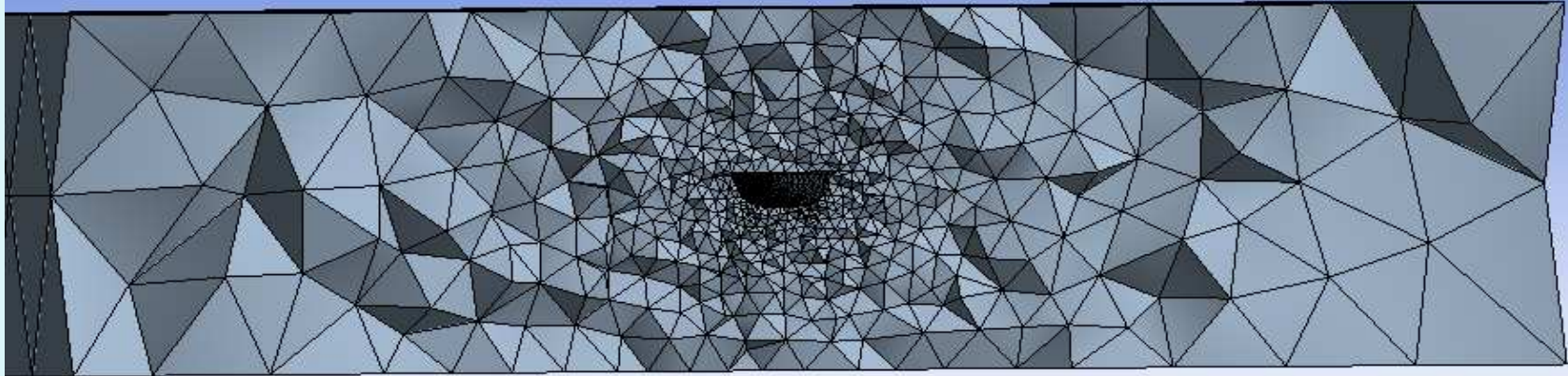
ANSYS FLUENT and CFX SYMULATION

MODEL GEOMETRY

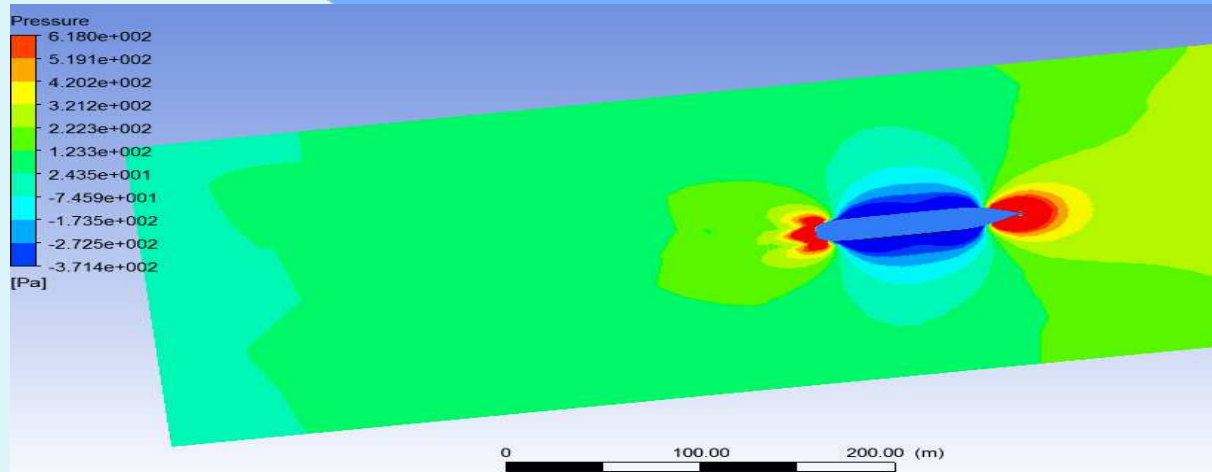
▼	B		
1		Fluid Flow (Fluent)	
2		Geometry	✓
3		Mesh	✓
4		Setup	✓
5		Solution	✓
6		Results	✓
Fluid Flow (Fluent)			



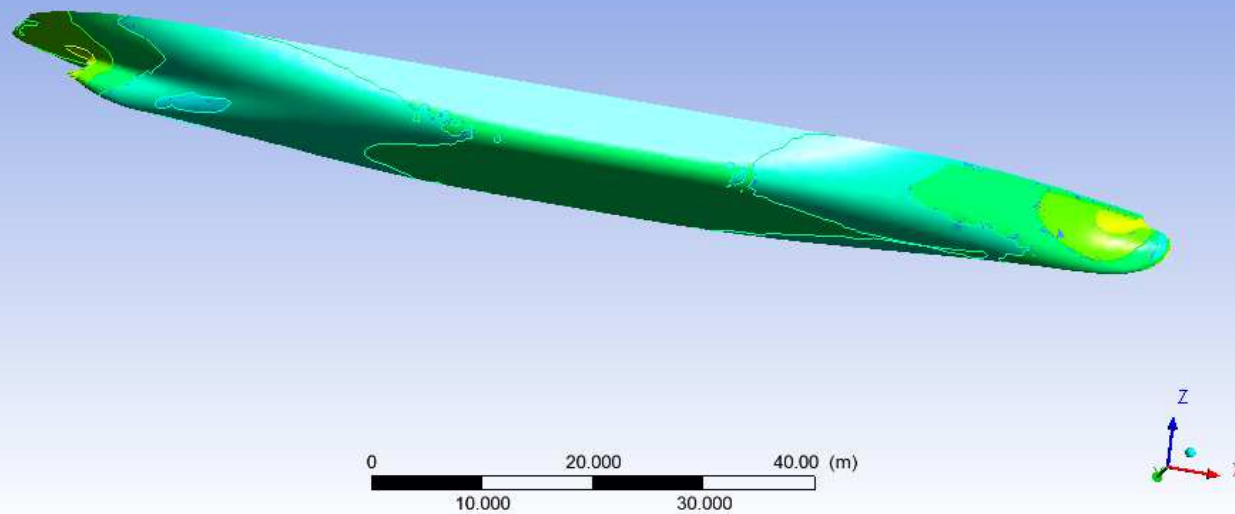
MESHING IN ANSYS CFX



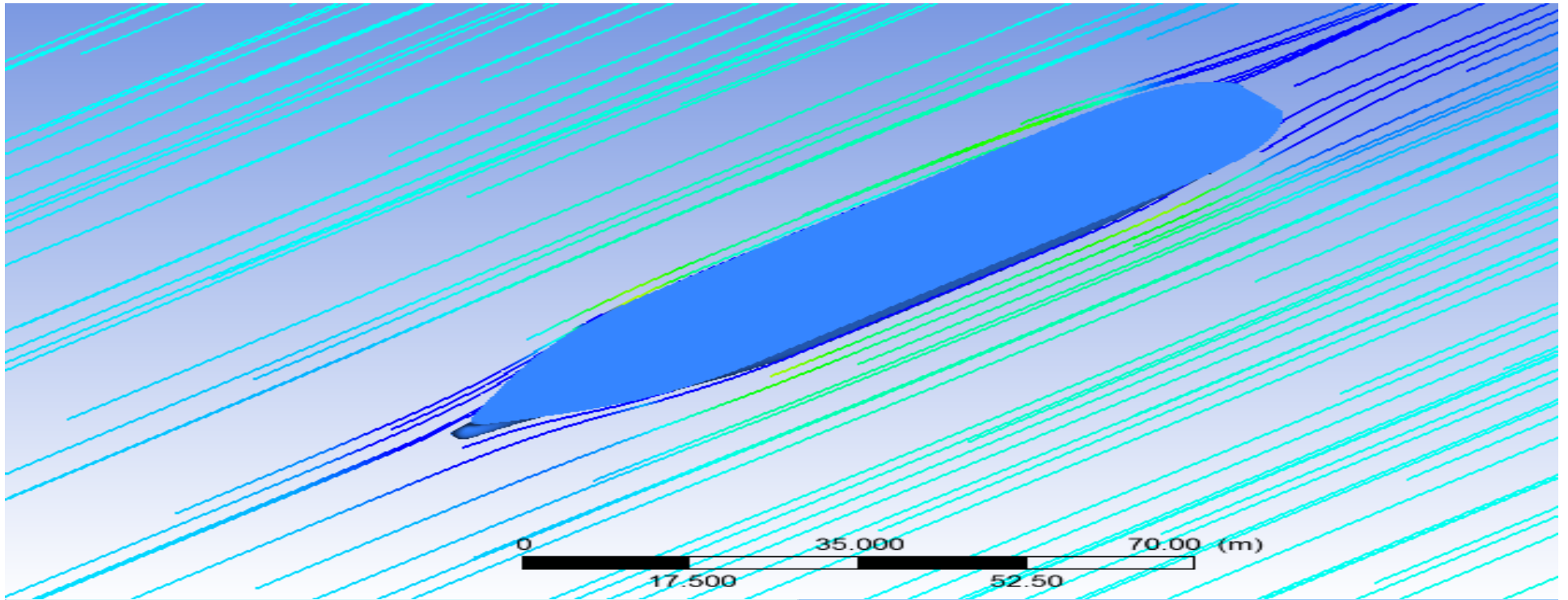
CFD RESULTS



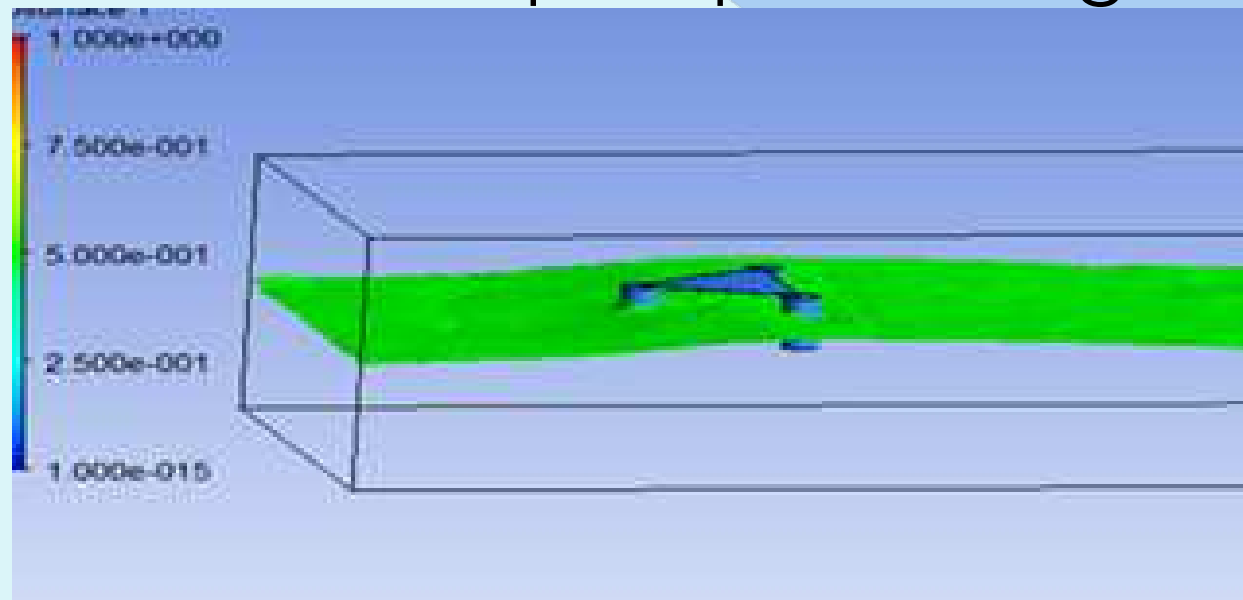
**Pressure
contour on
XOY plane**



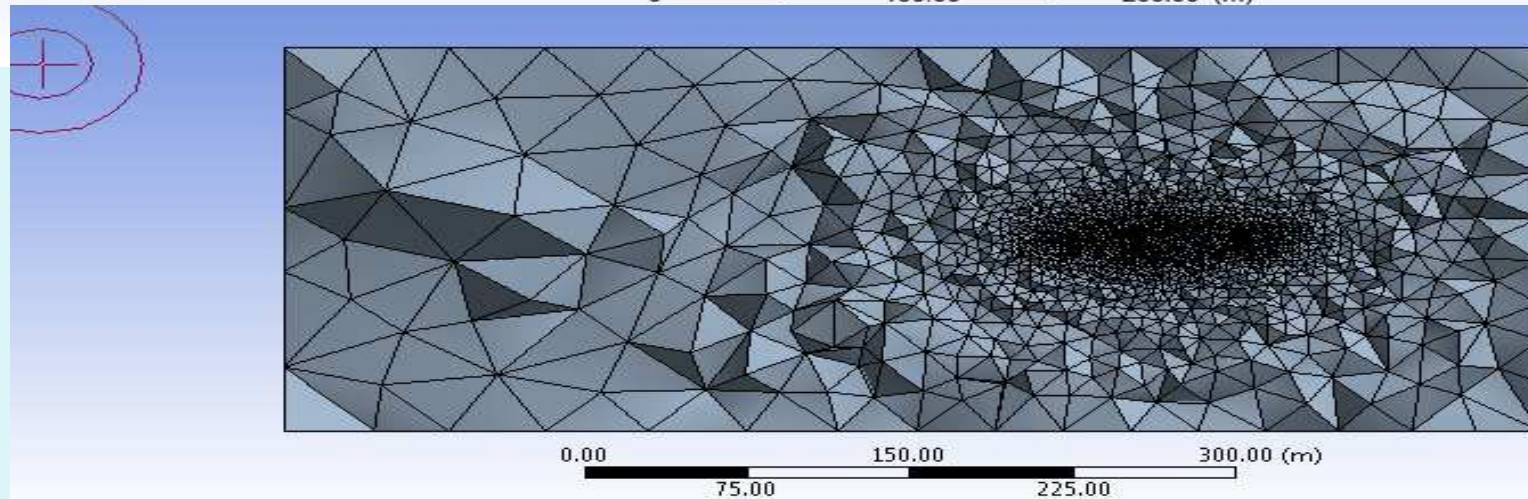
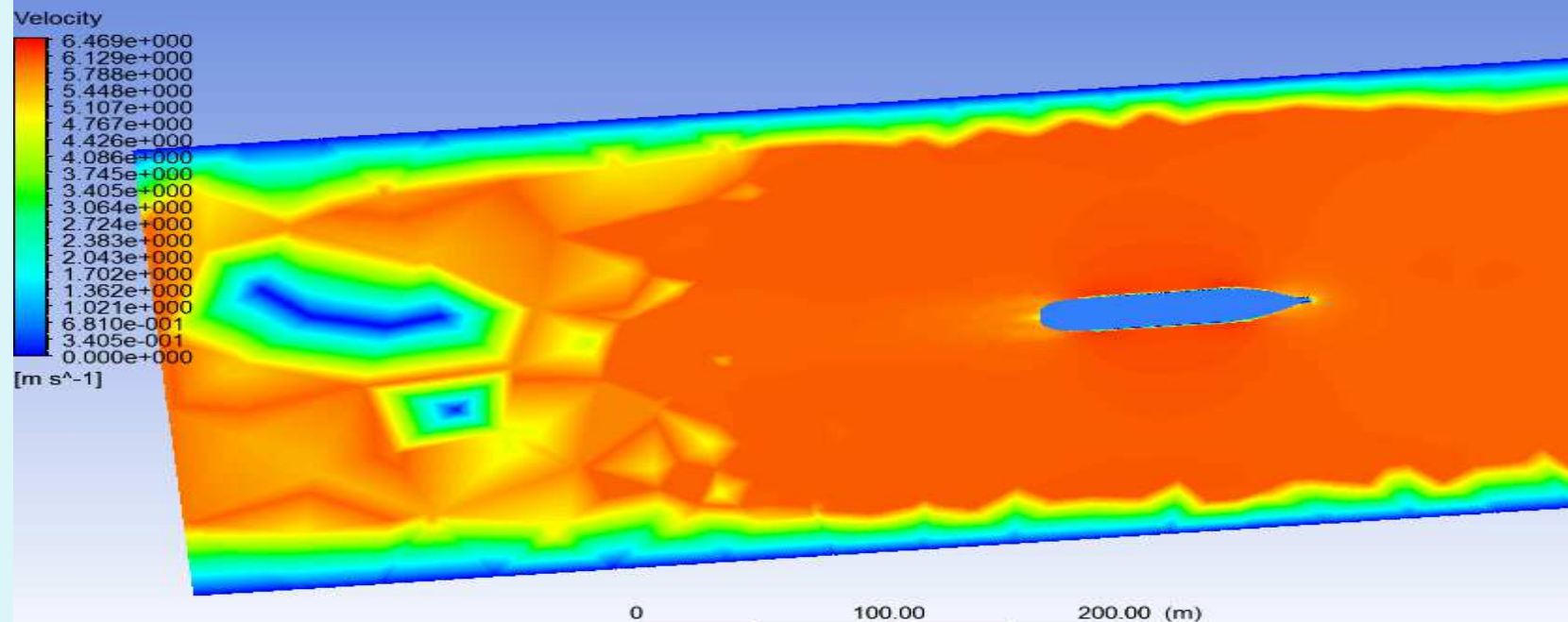
**Pressure
contour on
hull**



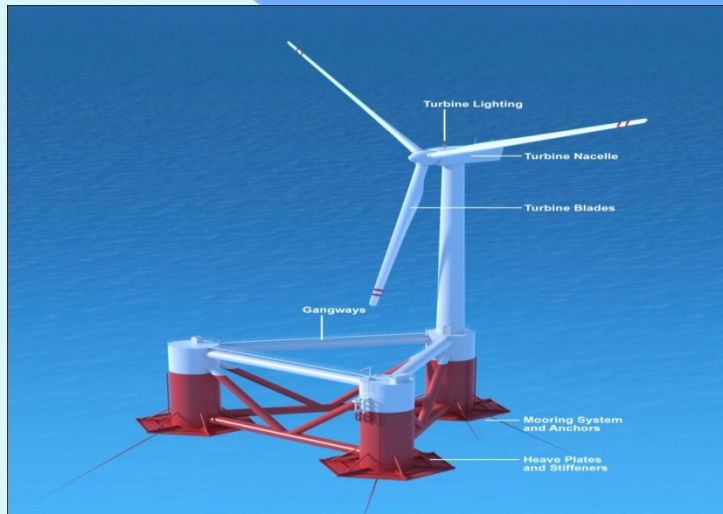
Streamlines post processing



Post processing analysis

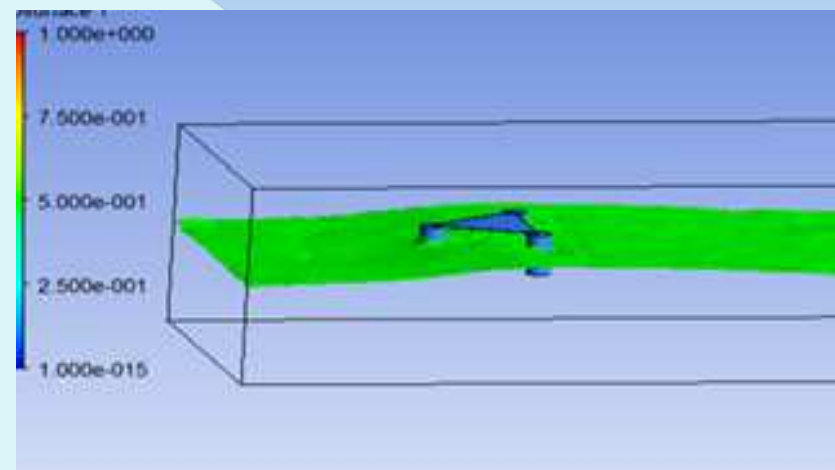
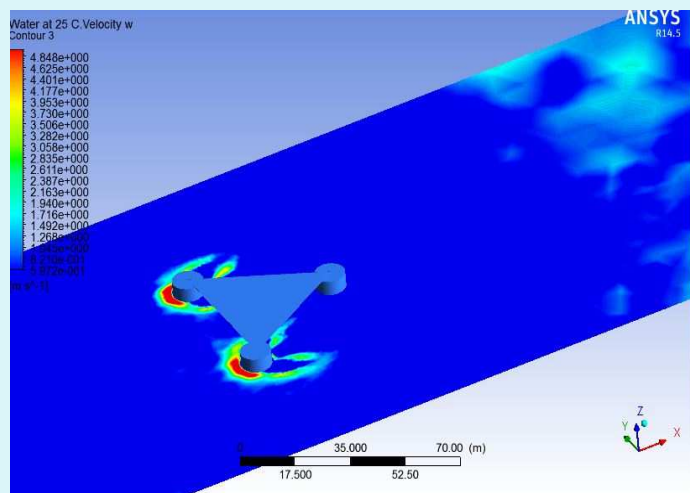
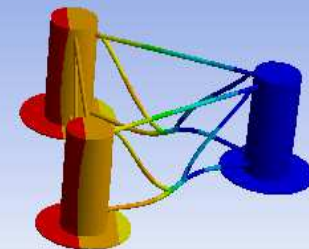


Semisubmersibles in CFD

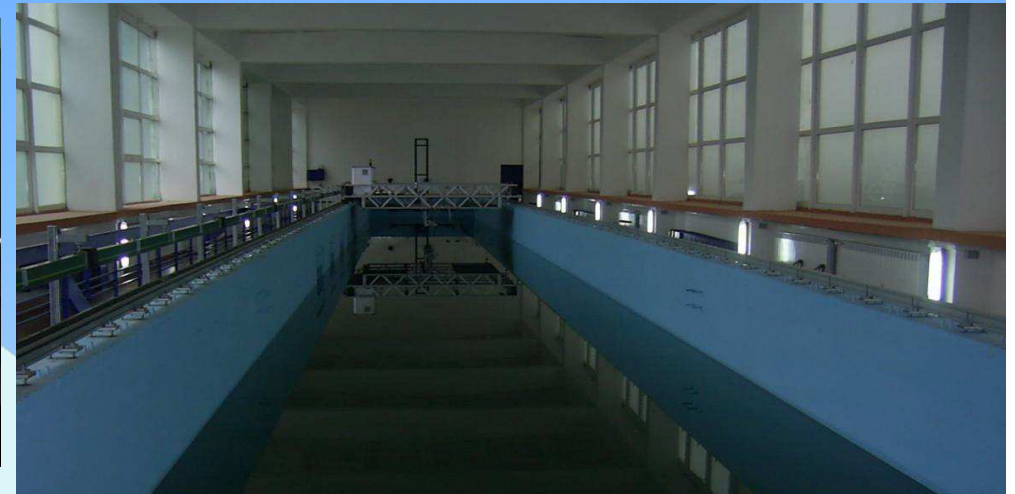


B: Static Structural
Total Deformation
Type: Total Deformation
Unit: m
Time: 1
2/1/2015 11:15 AM

1.5674e-6 Max
1.3933e-6
1.2191e-6
1.0449e-6
8.7079e-7
6.9663e-7
5.2247e-7
3.4832e-7
1.7416e-7
0 Min



Semisubmersible basin tests to confirm results



THANK YOU!

NAVAL ACADEMY "MIRCEA CEL BATRAN" CONSTANTA
IONUT.SCURTU@ANMB.RO