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Ort (München), 27. August 2018

With this letter I confirm that Mr. Alexander Keiser (Enrollment Number: 27296) a student of master course Computational Mechanics at CIMNE Barcelona has completed an 8 weeks internship at Chair of Structural Analysis, Technical University of Munich, Germany.


His internship lasted from 07.06.2018 till 03.08.2018. During this period Mr. Alexander Keiser has worked with KRATOS finite element framework to perform CFD simulations and acquainted himself with pre- and post-processing tools like GiD and Siemens Unigraphics. The area of focus of Mr. Alexander Keiser has been CFD simulations involving CHIMERA technology.

The CFD simulations performed by Mr. Alexander Keiser are a part of a validation case of a wind turbine CFD simulation. Among other the following are some of the tasks he performed during his internship:

- Preparing the models for simulation, by cleaning and reconstructing the geometry.
- Meshing the prepared geometry, specifically for the requirement of CHIMERA methods.
- Performing a systematic geometry and mesh refinement to improve the quality of the CFD results.
- Study the reference manual of the wind turbine to isolate the dynamic properties of the wind turbine blades
- Implement python routines to evaluate the acting torque (using the dynamic properties) and the corresponding angular velocity.
- Update the angular velocity of the turbine during the simulation to calculate the updated position of the blades.

A more detailed description and outcome of these individual tasks can be obtained from the report furnished by Mr. Alexander Keiser.

In case of any further clarifications about the internship please contact the supervisor.



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