

Genias Scholarship for Doctorate Research in Scientific Visualization

Genias Graphics GmbH & Co KG is a sales and service company for CFD visualization in southern Germany near Regensburg. We are exclusive European partner for Tecplot Inc. (www.tecplot.com) for all business matters in Europe. Our staff includes engineers, physicists and computer scientists.

As a specialist in the field of scientific visualization, Genias has many years of experience in the applications of modern computer aided visualization tools. In order to further enhance the Tecplot technology, Genias has become a partner in an EU sponsored, Marie Curie project called MYPLANET (<http://www.cerfacs.fr/myplanet>)

Work Description

The academic title will be granted for the development of new parallelization strategies for particle-tracing in large and time-varying flow fields on 3D unstructured grids. The target architecture will be the new Intel Larrabee multicore architecture for visual computing. The candidate is expected to pursue research on the development of appropriate data partitioning schemes such that a good load balancing on multicore architectures can be achieved. Equipped with an efficient rendering interface for large particle sets, interactive visual exploration of large and complex flow fields should be made possible. The algorithm resulting from this PhD work may be implemented into the Tecplot postprocessing software.

The applicant will be required to do research for approximately 3 years leading to a doctor of Computer Science at the Technical University of Munich. Doctoral studies will include both, a development period at Genias and a development period on Munich campus, allowing the applicant to collect experience in both the academic and industrial world.

Conditions

Genias will pay a monthly salary in the order of EURO 1500.-, social security, health insurance and will provide an additional budget for travel to meetings with the project partners (about every 6 months) within the project as well as a travel budget for personal home visits. We also have a budget for additional training/education, this could be language courses, scientific meetings or other education of interest to the candidate.

Your Profile

- You hold a University degree in computer science and are interested in CFD visualization
- You speak English fluently
- You are interested in building an international personal network with colleagues in Europe
- You like to start your career in a small, international, high-technology engineering company
- You have not lived in Germany more than 12 months for the past 3 years.

Interested candidates are requested to send a C.V. to

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