UNIVERSITETET I BERGEN
INSTITUTT FOR INFORMATIKK
HØYTEKNOLOGISENTERET, 5020 BERGEN
Tlf. 55 58 42 00
Telefax 55 58 41 99

UNIVERSITY OF BERGEN
DEPARTMENT OF INFORMATICS
HØYTEKNOLOGISENTERET,
N-5020 BERGEN, NORWAY
Ph. +47-55 58 42 00
Fax +47 55 58 41 99

Description of vacant PhD fellowship position in visualization

The Department of Informatics, at the University of Bergen, Norway, announces a new open PhD fellowship position in the research field of visualization. This position is part of a larger collaborative research project called "Geoillustrator – methods and tools for illustrative visualization of earth models" and it is offered for three years. The project is coordinated by Christian Michelsen Research and the position is funded by the Norwegian Research Council and Statoil.

Description of the vacant Geoillustrator PhD fellowship position

The goal of the Geoillustrator project is to conduct world-leading research enabling computer-generated geo-scientific illustrations for oil exploration and production. The project partners are Statoil, Christian Michelsen Research (CMR), and at the University of Bergen (UiB) the Department of Informatics (with its visualization research group) as well as the Deptartment of Earth Science. Both departments have already one PhD fellow employed in the project and each department is now in the process of acquiring a second PhD candidate. This opening relates to the vacant PhD fellowship position in visualization.

The Geoillustrator project defines a context for the collaboration of the PhD fellows and the project teams at CMR and Statoil. The interdisciplinary group of PhD fellows is intended to conduct research in a *tandem*-like, cooperative fashion, where two fellows represent one key research area of this interdisciplinary project. Their research scope is motivated by the needs of the oil industry for new visualization technology and modeling approaches.

The primary task of the searched PhD fellow in visualization will be to conduct world-class research in new visualization technology. The outcome of the research may be integrated into the Geoillustrator software platform. Possible topics for this interdisciplinary research include:
- illustrative visualization of findings from multimodal geological field studies
- generation of digital models of geological sketches
- visualization of theories and interpretations from palaeogeographic development
- integration of dynamic models with measurements and reservoir simulations

Further information wrt. the vacant PhD fellowship position

The research of the PhD research fellow will be carried out in the visualization group of the UiB Department of Informatics. About 20 professors / associate professors, 5 adjunct professors, a supporting staff of eight, 45 PhD students and 15 post doctoral researchers work in the context of

the Department's teaching and research activities. The scientific staff is organized into six research groups: algorithms, bioinformatics, optimization, programming theory, secure communication, and visualization. Each research group is responsible for research in its field and for teaching courses within its subject area.

The UiB visualization group (www.ii.UiB.no/vis) is the newest of the six research groups at the UiB Department of Informatics. Currently one prof. (H. Hauser), one associate prof. (I. Viola), three senior researchers, eight PhD students, and several Master students work on medical visualization, the interactive visual exploration and analysis of data from the oil & gas sector, from meteorology & climate research, as well as from other application fields. The group publishes scientific results in journals and conference proceedings with respectable success. At UiB the group offers a visualization Master study program to students of computer science (dimensioned for 120 ECTS in two years) with courses on computer graphics, visualization, scientific work, special topics in visualization, etc.

All PhD research fellows enroll in the University's approved PhD program, designed to lead to the degree within a time limit of 3 years. If financed through third-party funding (as in this case here), no teaching obligations are set by the University; the participation in coaching project students and Master theses projects can be foreseen, however, as a form of integration of the PhD fellow into the group and the university study program.

The applicants must have relevant background. A Master degree in computer science or any other related Master degree when combined with documented qualifications in informatics, and sufficient expertise in visualization and/or computer graphics is required. The according background must be sufficiently documented in the application, and the research interests should fit with the described project. With this opening, we are primarily searching for candidates in illustrative visualization and modeling to fit into the research scope of the Geoillustrator research project. Especially if applicants can report experiences with related research, they should verbosely document this (scientific papers written, talks given, participation in research projects and related documentation, aso.).

The PhD candidate is supposed to start his/her employment at the beginning of January 2011, or earlier if possible. Interested candidates can contact assoc. prof. Ivan Viola (ivan.viola@uib.no +47/55584282) for more information.