

MSc Informatics



Flood forecasts using satellite observations

About the company

HydroLogic Research | Delft is a company that focuses on research into ICT solutions for water management. It is the research arm of HydroLogic Amersfoort (www.hydrologic.com). Our mission is to support water managers all over the world in the development and implementation of sustainable solutions, using advanced ICT. Our main areas of research and development are:

1. Use of satellite information for rainfall estimates.
2. Scalable cloud solutions to predict hazards.
3. 3D gaming engines for simulation of floods.
4. Rapid computations of water flows using HPC and GPUs.
5. Smart phone applications for flood and drought warning and crowd sourcing.

Who we are looking for

We have internship places for end studies research of students of Information Sciences, Geo-sciences and Applied Mathematics. You should have:

- Passion for solving complex water problems.
- Team spirit and enthusiasm for international working.
- Interest in modelling and/or software development.
- Good knowledge of English and good writing skills.

Your research

The most important source of floods is excessive rainfall. However, in many places of the world no

Are you interested?

If you want more information, please contact jobs@hydrologic.com or call the HydroLogic office in Amersfoort: 033 4753535. Your application letter, CV and any additional information (mark lists) are welcome at the same e-mail address.

accurate information on rainfall exists: there are limited numbers of rain gauges and no catchment-covering radars.

Basically the only data on rainfall which covers the entire world is provided by satellites. With this data we obtain estimates of locations and intensities of rainfall. Satellite-monitored rainfall has an interesting feature: it is not limited to administrative boundaries and therefore we have access to rainfall data of cross-border catchments; a promising asset for water management.

For research purposes satellite rainfall data of various missions are available for free, among which the European, the American, Chinese and Japanese. These data can be composited to create global rainfall information as presented in the figure on the right.

Our offer

- Challenging research of real-world problems.
- Working with clients and international co-researchers.
- An inspiring environment in Delftech Park with enthusiastic colleagues.
- Learning to work in multi-disciplinary teams.
- Room for personal development.
- Having your own topic, with freedom of selection of approaches.
- Supervision and coaching by our senior experts and consultants.