Visual Inspection: Software Development for Railway Inspection with High Speed Camera's

Since 2013 Secure in Air has been developing products and services to improve maintenance (processes) and infrastructure of the Dutch Railways. In this project "Visual Railway Inspection" we want to record the surroundings of a driving train with multiple (high speed) camera's. With a viewer we want to review the geotagged images, so that they can also be placed on a map. Currently our method is quite lowtech and we want to improve this method.

To replace our current way of working we want to develop our own software/hardware platform with the help of a TU/e student. Both Bachelor and Master students are welcome to apply for our question. It’s also possible to have contact with the end-users and managers.

What will you work on?
- Recording images with multiple (high speed) camera’s and geotagging these images with a seperate GPS receiver.
- Viewer: To review the recorded images and place these geotagged images on a (webbased)map.
  Notifications: A user should be able to make/send a notifications on a specific image and save / share this image.

During this project it's possible extra functions are requested from our client.

What are required skills?
Ideally the hardware of the system would consist of a raspberry pi (at the start of the project), camera and gps receiver. Knowledge of GIS (Geographical Information Systems) is greatly appreciated. Secure In Air has a webbased GIS portal to use during your work.

Compensation:
There will be a monthly fee of €200 and an extra bonus fee of €1000 when the project is completed succesfully and the minimum required specifications are met. This bonus fee can be higher when your results are above the minimum required specifications. We are open to discuss future developments with you to keep a connection with this project.

More information can be found at [www.geoeye.nl](http://www.geoeye.nl)

When interested please contact Mark Wijtvliet : M.wijtvliet@tue.nl