Postdoc Position – Digital Image Processing for Condition Monitoring

Research Topic	Digital Image Processing
Institute	Ghent University, Belgium
Departments	EMSME - Dept. of Electromechanical, Systems and Metal Engineering
Discipline	Digital Image Processing, Condition Monitoring, Tribology
Research Group	Soete Laboratory.
Funding	1.5 years – 100% occupancy rate
Statute	Post-Doctoral Fellow
Min. Requirements	PhD in a relevant engineering discipline with experience in image processing
Assets	Experience with Machine Learning, Condition Monitoring and Tribology

Job description

Context – In many applications, gears are critical components that require an appropriate maintenance strategy. Condition Based Maintenance, enabled by 'early' defect detection, can assist better maintenance planning, reduce maintenance cost and ensure continuous production. Today's sensors (vibration and temperature) use indirect signals to monitor the health of gearboxes. Signals from these sensors are indicators of secondary effects, hence early defect detection at component level (gear, bearing...) is not possible.

Your job – The aim of this postdoctoral project is to design and construct an automated vision system that can be integrated in gearboxes for continuous gear tooth flank monitoring. Your tasks will include:

- Execution of the project and generation of scientific output, encompassing hardware developments for the vision system and developing image processing techniques that can accurately track surface degradation
- Validation of the toolkit in a controlled lab environment
- Interaction with potential stakeholders in the Flemish industry
- Guidance of PhD students, Master students or research engineers students working related projects.

Profile

1. PhD in a relevant engineering discipline with experience in image processing
2. Affinity with tribology and condition monitoring is a plus.
3. Passion for research and innovation and a strong motivation for conducting scientific research at a high level.
4. Excellent communication skills in English (orally and written) are required.
5. Able to work accurately and to meet deadlines
6. Dynamic and proactive
7. You take responsibility for the development of your project in a well-structured, thorough way, and you're able to solve problems independently. You display creativity in solving problems, generating ideas or finding new ways of working.

Contract

- We offer you a contract of definite duration for an initial period of 1.5 years, with possibility for extension based on availability of funding.
- Your contract will start on 15/04/2021 at the earliest
- Your remuneration will be determined by salary scale WM1 to WM4.

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- All Ghent University staff members enjoy a number of benefits, such as a wide range of training and education opportunities, 35 days of holiday leave (on an annual basis for a full-time job) supplemented by annual fixed bridge days, a bicycle allowance and eco vouchers.
- A creative, dynamic and international working atmosphere.
- Interesting work field with many perspectives for a future career

Application

To apply, please go to

https://career012.successfactors.eu/career?company=C0000956575P&career_job_req_id=18667&career_ns=job_listing&navBarLevel=JOB_SEARCH.

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