POST DOCTORAL RESEARCH POSITION

The Center for Operations Research and Econometrics of the Université catholique de Louvain has multiple vacancies for post-doctoral researchers in the area of power system operations and power system economics. The recruited applicant will conduct research in one of the following topics: (i) Extending the state of the art in renewable energy integration studies to sub-hourly time resolution, in order to quantify the value of flexibility in power system operations; (ii) Designing end-to-end business models (from product definition, pricing and aggregation, to individual device control) for residential demand response aggregation that scale to millions of residential customers; (iii) Developing parallel decomposition algorithms that provide *rapid* solutions to large-scale, loosely coupled optimization problems. Researchers will be encouraged to utilize parallel computing in order to develop distributed algorithms that exploit access of the group to the Lawrence Livermore National Laboratory High Performance Computing facility.

Description of the position

The main activity of the post-doctoral researcher will be to conduct post-doctoral research under the supervision of Professor Anthony Papavasiliou, and disseminate this research in journal publications. Contingent on continuing funding and active collaboration with European and U.S. partners, the post-doctoral researcher will also have the opportunity to collaborate with research groups at

- the University of California at Berkeley, either remotely or through spending one semester in California,
- the Lawrence Livermore National Laboratory, by accessing one of the world's most powerful supercomputers, the LLNL High Performance Computing cluster,
- members of the MINO (Mixed Integer Non-Linear Optimization) Initial training Network

The grant is for two to three years and carries full benefits and a monthly net amount of approximately 2,200 **€.**

Required qualifications

The ideal candidate should have a PhD in Electrical Engineering, Computer Science, Operations Research or a related field. The ideal candidate should have a solid background in optimization, mathematics, statistics and economics, an interest for the application of operations research in energy systems and strong programming skills. Familiarity with parallel programming is highly desirable. Proficient knowledge of English is highly desirable. Knowledge of French is not required. A background in power systems is desirable, though not required.

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http://perso.uclouvain.be/anthony.papavasiliou/public_html/

To apply

Applications should include

- a cover letter,
- a CV,
- unofficial transcripts of undergraduate and graduate studies,
- 3-5 letters of recommendation (references can email their recommendation letters to anthony.papavasiliou@uclouvain.be),
- 3-5 drafts of academic work (published or submitted journals, conference papers).

Applications should be emailed to Professor Anthony Papavasiliou at anthony.papavasiliou@uclouvain.be. Applications will be received on a continuous basis. The position will commence upon admission of the applicant.

Further information on the Center for Operations Research and Econometrics can be found at http://www.uclouvain.be/en-core.html or by contacting M. Francisco Santana Ferra at francisco.santanaferra@uclouvain.be.

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