Voxvil AB

Early Stage Researcher (ESR) position in the field of colour reproduction in multi-channel devices specializing in optical and surface properties of printing substrates.

Job Summary
– Voxvil AB, Örnsköldsvik, Sweden, invites highly talented applicants for an Early Stage Researcher (ESR) position in the context of the EU-funded Marie Curie Initial Training Network project **Colour Printing 7.0: Next Generation Multi-Channel Printing (CP7.0)** (Project web site www.cp70.org). The ESR will be employed by Voxvil AB under full-time fixed-term contracts with social security coverage and all benefits in accordance to Marie Curie ITN regulations (highly competitive allowance for living expenses, mobility and travel).

Project Description
– Colour Printing 7.0: Next Generation Multi-Channel Printing (CP7.0) is a training and research project funded by Marie Curie Initial Training Networks (ITN) CP7.0 N-290154 funding. The project is led by The Norwegian Color Research Laboratory at Gjøvik University College and will be executed in collaboration with 5 full network partners and 8 associated partners from academia and industry throughout Europe. The project addresses a significant demand for research, training and innovation in the printing industry. In the research project, new methods and materials for spectral colour printing will be developed. The aim is to train a new generation of printing scientists who will be able to assume science and technology leadership in this established technological sector.
Four key scientific areas have been identified:

- Spectral modelling of the printer/paper/ink combination.
- Spectral gamut prediction and gamut mapping.
- The effect of paper optical and surface properties on the colour reproduction of multi-channel devices.
- Optimal halftoning algorithms and tonal reproduction characteristics of multi-channel printing.

Job Description
– The ESR's research activities will focus on **"Paper properties and optical models of paper and print"** and be carried out in close collaboration with other researchers from the CP7.0 network as well as industrial partners. As part of the 36 months contract, the ESR will spend 5-6 months in secondments to other collaborating partners in the project. The ESR is expected to enrol in a PhD program at Mid Sweden University, and will also participate in organized training activities.

The ESR will be part of a research group consisting of industrial experts and academic scientists working on modelling the interaction between light, paper and printing ink. Within the group, new models based on radiative transfer theory and Monte Carlo simulations have been developed. The research group has advanced instrumentation for optical characterisation of paper and print as well as physical and chemical characterization of paper at its disposal.

The ESR will further develop these models and apply them on multi channel printing. In the field of spectral printing, these models can be useful tools in the ink set selection process. Furthermore, these models can also be used to estimate the colour transfer function. With these new optical models and extended knowledge on the physical interaction between ink and paper, new models for colour transfer functions can replace today's computational approaches based on colour measurements or low-order physical models.

Qualifications
Since the Training Network promotes mobility, applicants should not have lived, studied, or worked in Sweden the last 12 months. Short stays such as holidays are not taken into account. ESR fellows and PhD students are remunerated according to Marie Curie ITN regulations, as well as local host regulations. ESR and PhD appointments will be made in accordance with company guidelines. The same applies for benefits and vacation days.

An MSc degree in Computer Science, Electrical Engineering, Printing Science, Colour Imaging, Physics, Media Technology or any closely related area is required to enter the PhD program. Any past experience in areas such as paper technology, colour printing, colour imaging, colour management, image processing or printer modeling will be a premium. For doctoral studies in general, a genuine interest and curiosity in the subject matter and excellent analytical and communication skills, both verbal and written, are required. Furthermore, the research work involves development and test of analytical techniques. Hence, good programming skills are beneficial.

Candidates should send the following as a single PDF file (4 page max) to Ole Norberg (ole.norberg@voxvil.se).

1) Motivation letter summarizing their
    a) research background & competence (with publications if any),
    b) interest in the position,
    c) project impact in their careers,
    d) a short paragraph on the research they plan to do at this position,
2) CV
3) Contact information of two potential references

Application deadline: 2012-02-15

For questions, please contact:

Ole Norberg, CEO
Ole.norberg@voxvil.se

Web site: www.voxvil.se

Website for additional Project and consortium details – http://www.cp70.org