

INVESTMENTS IN EDUCATION DEVELOPMENT

The Director of the Institute for Nanomaterials, Advanced Technology and Innovation of the Technical University of Liberec in accordance with the project “Development of research teams of R&D projects at the Technical University of Liberec”, No. CZ.1.07/2.3.00/30.0024 announces the following selection procedure for the position:

UNIVERSITY POST-DOCTORATE OF THE INSTITUTE FOR NANOMATERIALS, ADVANCED TECHNOLOGY AND INNOVATION

Č. j.: 13/08110/882
Datum: 27. 11. 2013

Characteristics:

Active participation in science and research projects of individual laboratories of the Institute for Nanomaterials, Advanced Technology and Innovation (hereinafter referred to as CxI) in the fields of Material Research. The Post-Doctorate (hereinafter referred to as Postdoc) will be incorporated into already running R&D projects and will also be involved in the preparation of new R&D projects. They will also participate in the search for new challenges and partners for Contract Research. Other tasks involving the CxI as well as other technical faculties of the Technical University of Liberec (hereinafter referred to as TUL) will include the following:

- completion of internship abroad or practice in industry for the period of 3 to 6 months
- teaching of students for a period of 3-5 hours per week, the Postdoc will be involved in teaching students with a corresponding orientation (research, development and characterization of nanomaterials)
- management of diploma theses (1 Postdoc shall manage 1-3 diploma theses per year)
- provision of counseling to students in doctoral programs during the preparation of dissertations
- publication of outputs in impact journals under the address CxI TUL
- active participation in the preparation of the results of applied research - patents, utility models - and their application in practice
- active participation at professional conferences, seminars and workshops

Postdoc position is available in the following research area:

A) Material Research

- ***Application of nanomaterials*** - Postdoc will participate in the research and development of technology for the preparation of a new generation of filtration and barrier materials containing nanofibers and microfibers of different chemical compositions, whose function is modified by the content of catalytic active substances in the form of enzymes and nanoparticles. In addition, the research is focused on the monitoring the properties of composite fibrous structures for use under extreme thermal, mechanical and chemical conditions. Contact persons (Postdoc mentors): ***Prof. Dr. Ing. Jiří Maryška, Ph.D and Assoc. Prof. Lenka Martinová, MSc, Ph.D. Number of vacancies: 1. Required Education: University degree in physico-chemical engineering focused on polymer composite fiber materials and methods of evaluating their properties.***
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INVESTMENTS IN EDUCATION DEVELOPMENT

Required skills and experience:

- good knowledge of Czech or English language both written and spoken (CAE or equivalent). This shall be demonstrated by attaching a certificate or annex which makes up a compulsory part of their CV.
- experience in research and scientific activities
- experience with the management and implementation of R&D projects in the industrial and/or academic sphere
- skills and experience in the submission of grant applications in the field of research and development are expected
- experience with nanofibre materials prepared using electrostatic spinning combined with filtering and membrane processes is required
- experience with the transfer of technology from research results to industrial practice and with their commercialization, including contacts to the corresponding industry, will be an advantage

Required education:

- university degree in the relevant field (see above listed position)
- doctoral studies at a University in the Czech Republic (outside the Technical University in Liberec) or equivalent degree from a foreign university completed no earlier than the 29th of March 2008

Terms of employment:

- fulltime at the Technical University of Liberec
- the contract will be concluded for the duration of the project – till the 31th of December 2014
- employment only in the Czech Republic

Salary:

- C3 according to the internal wage structure of TUL (45 000,- CZK - monthly)

Starting date:

- February 2014, or based on agreement

We Offer:

- opportunity for self-realization in an emerging workplace
- opportunity to increase your professional level and establish cooperation in science and research on a national and international scale
- comfortable working environment
- interesting, varied and responsible work
- flexible working hours
- child minding possibilities
- language courses

Working conditions and salary are governed by the conditions of employment and the internal wage structure of the Technical University of Liberec, the Labor Code and the selection rules for academic and other staff at the Technical University of Liberec.

INVESTMENTS IN EDUCATION DEVELOPMENT

The job application shall be marked “post-doctorate” and must be accompanied by the following documents:

- a) a brief curriculum vitae
- b) existing professional, scientific and research activities, including internships completed
- c) a summary of the most important papers in which the applicant was author or co-author, which shall contain the following information (specimen):
[1] NOVÁKOVÁ, M.; NOVÁK, J. Biomaterials based on nanofiber layers. E+M Economics and Management, 2011, Vol. 10, No. 2, pp. 118-127. ISSN 1212-3609. Abstract of article.
- d) an overview of patents and/or utility models, in which the candidate was the author or co-author. The overview of patents and/or utility model shall contain the following information (specimen):
[1] Applicant: Sheem S. K. Low-Cost Optic Pressure Sensor. US Patent 6,738,537, May 18, 2004. Brief description of the patent or utility model.
- e) evidence of professional qualification or previous work references
- f) CAE certificate or equivalent in the case the applicant is not a Czech national
- g) evidence of completion of education, i.e. photocopies of documents proving the completion of doctoral studies at a university in the Czech Republic or an equivalent degree from a foreign university from no earlier than the 29th of March 2008, and any membership of a professional society.

Postdoc selection process:

The selection process shall take place in two stages. The Selection Committee shall assign each Candidate a score, with the maximum basic number of points (without bonus points) being 100. The second round is divided into 2 phases.

The first round of the selection process shall take place based on an assessment of the documents received and the qualifications of the individual Candidates. At this stage the Candidates will be assessed as to whether they meet the following parameters:

- I. *The Candidate has completed doctoral studies in the required field at a university in the Czech Republic or an equivalent degree from a foreign university no earlier than the 29th of March 2008.*
- II. *The Candidate has good knowledge of Czech or English (CAE or equivalent). This shall be demonstrated by attaching a certificate or annex which makes up a compulsory part of their CV*

Candidates who do not meet the above parameters shall be excluded from the selection process. Candidates who fulfill the qualification parameters are evaluated in the second round by at least a three-member Evaluation Committee. Candidates advancing to the second round will be evaluated based on the following criteria:

- I. *Number and quality of papers in impact journals and other publications. Points will be awarded so that the candidate with the best score will receive 50 points. Other candidates will be awarded points according to the following formula:*

Number of points = 50 x numerical rating of publication criteria of the candidate / numerical rating of publication criteria for the candidate with the best rating for the given position..



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II. Number of patents or utility models in which the candidate is the author or co-author.

The number of points is set so that candidate with the highest number of patents and utility models will be awarded 20 points. The other candidates are awarded points according to the following formula:

Number of points = 20 x the numerical rating of the patent criteria of the candidate / the numerical rating of the patent criteria of the candidate with the best rating for the given position

The numerical evaluation of publications and patent criteria will use the current science and research evaluation methodology of the Research and Development Council of the Government of the Czech Republic - see www.vyzkum.cz

In the second round of the selection process the selected candidates will be invited to a structured interview to evaluate their motivation for the Postdoc position and to assess the quality of their results achieved to-date. The maximum number of points that the selection committee can assign candidates based on the results of the structured interview is 30 points.

Both rounds of the selection procedure can be carried out immediately after each other. The recommended rank in the given research area of the candidate is established based on an assessment of the completed rounds of the selection procedure.

A fifteen percent bonus to the basic point rating will be awarded to those candidates who:

- I. within the last 3 years graduated from a postdoctoral internship abroad which lasted at least one year,*
- II. were employed during the last 3 years in industrial research for at least one year.*

If the candidate falls into more than one category then the bonus will be cumulative.

The winning candidate will be the candidate who receives the highest number of points.

The recommended rank of the candidate in the given research area is established based on an assessment of the completed rounds of the selection procedure. This is then submitted to the Rector of TUL for approval.

All candidates will be informed of the result within 30 days of the end of the selection process. Results and protocols of the evaluation interviews with the individual candidates will also be published on the website of TUL.



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*Applications shall be sent along with the required documents by email or by post to the following address no later than **13th January 2014**.*

**Technical University of Liberec
Organization and Personnel Department
Studentská 2
461 17 Liberec 1**

Contact person: Ing. Alena Šírková, Organization and Personnel Department
E-mail: volnamista@tul.cz

*The selection procedure will be published on the **13th December 2013** on the Official Board of the Technical University of Liberec (see: http://www.tul.cz/urednideska/uredni-deska-tul/vyberova-rizeni-volna-mista_107). The selection procedure will also be advertised in the following periodicals and websites: Lidové noviny, www.euraxess.cz, www.postdocjobs.com, www.phdjobs.com, www.ec.europa.eu/eures/, <http://cxi.tul.cz/>.*