

ACADEMIC POSITION AT INSTITUT MINES-TELECOM - IMT LILLE DOUAI
ASSISTANT-PROFESSOR IN POLYMER RHEOLOGY

DISCIPLINE : POLYMER RHEOLOGY

AFFILIATION : IMT Lille Douai Ecole Nationale Supérieure Mines-Télécom Lille Douai

IMT Lille Douai represents one of the largest French engineering schools in the north of France. The **Mines-Telecom Institute** (IMT) includes 11 engineering schools with a total of 13400 students (including 1500 PhD students), and a research contract turnover of 100M€. For more information, see : www.imt-lille-douai.fr

IMT Lille Douai aims at appointing a new faculty member to strengthen its Polymers and Composites Technology & Mechanical Engineering department (TPCIM, <http://tpcim.mines-douai.fr>). At this department located in Douai, France, about 70 staffs are performing research and teaching activities in the fields of (i) manufacturing processes and characterization of polymers and composites from lab scale specimens to industrial scale products as well as of (ii) reliability and durability of mechanical structures.

The missions required by the successful assistant-professor candidate are:

MISSIONS :

Under the guidance and responsibility of the Director of the Polymers and Composites Technology & Mechanical Engineering department, the successful candidate should conduct the following research and teaching missions/activities:

• **Teaching Missions and responsibilities:**

- Participate at the teaching activities in his/her expertise area. Some lectures can be given in English. In particular, he/she will be in charge of coursework in polymer rheology applied to plastics processing modelling in the frame of the polymers and composites technology graduate programme supported by the French Federation of Plastics & Composites Processing Industry and labelled by the three competitiveness clusters IAR (bio-based materials), MATIKEM (materials, chemistry, green chemistry) and I-Trans (mass transportation).
- Implement innovative educational methods to replace or complement classroom lectures.
- Develop and participate in the development of future innovative training methods/techniques,

• **Research and technology-transfer Missions :**

- initiate and carry out research projects in the field of rheology (both experimental and theoretical, i.e. modelling/simulation, aspects) of complex polymer systems at melt and solid states (polymers, polymer blends, diluted and concentrated suspensions of nano - or micro-particles, thermoplastic composites): definition of research topics corresponding to industrial needs and based on multiannual contracts; management of research programs and coordination of project groups; supervision of master/PhD students and post-docs.
- Publish her/his research work: publications in peer review journal, patents, and conferences
- Develop research and technology transfer actions with industrial partners,
- Develop and help in developing the Department's research themes,
- Participate to the activities of regional and/or international scientific groups, and organize scientific events,
- Prepare the French diploma "Habilitation à Diriger des Recherches (HDR)"

REQUIRED PROFILE :

The successful candidate must have strong scientific background and technical skills, allowing her/him to carry out the aforementioned missions.

She/He should :

- possess solid scientific and technical competencies and significant experience in experimental analysis, modelling and simulation of the viscoelastic behaviour of complex polymer systems in both linear and non-linear domains
- have a good command of associated methodology, experimental (laboratory devices and instrumented industrial processing equipment) and numerical tools
- have a thorough operational knowledge of processing and manufacturing technologies of heterogeneous polymeric systems,
- very good communication and teamwork skills,
- a taste for teaching with real teaching abilities,
- a good level of the English language and French language (oral and written), in order to: demonstrate a marked integration into the international community, justify linguistic and cultural abilities to develop international training and research projects, deliver online internet courses (MOOCS in French and English),

This position is open to a candidate who is interested in the teaching and research oriented towards industrial applications. The candidate should be possessed of a PhD degree in rheology and/or in fluid mechanics of complex polymer systems, in particular, with strong expertise in theoretical, numerical (modelling/simulation) and experimental analysis of elaboration, processing and characterization of heterogeneous polymeric materials. Work experience of post-doctoral research and of project management is highly appreciated. The candidate should own open mind with the aptitude for multi-disciplinary projects.

GENERAL INFORMATION :

The required document and for applying for this position can be obtained by contacting :

Sandra ANDRZEJEWSKI (Tel : +33 3.27.71.25.36 – sandra.andrzejewski@imt-lille-douai.fr) at the :

Ecole Nationale Supérieure Mines-Télécom Lille Douai (IMT Lille Douai) - Direction des Ressources Humaines

Site de Douai - 941, rue Charles Bourseul -CS 10838 - 59508 DOUAI Cedex - France

Deadline date for submissions : 30 April 2018.

Eligibility Conditions : European Nationality Holders (European Union) at the candidature submission date.

FOR MORE INFORMATION ABOUT THE MISSIONS, CONTACT :

Prof. Dr. Patricia KRAWCZAK - Director of the Polymers and Composites Technology & Mechanical Engineering Department

Tél 03.27.71.23.18 – mail : patricia.krawczak@imt-lille-douai.fr