

# Net4Mobility<sup>+</sup>



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Network of the Marie Skłodowska-Curie Actions National Contact Points for the mobile scientific and innovation community

### Success Stories from MSCA Fellows Hosted in Widening Countries

Task 4.4 Effective MSCA promotion

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**Name of the MSC Fellow: Xiaofeng Tan**

**Nationality: Chinese**

**Host organization: Kaunas University of Technology**

**Country of the Host: Lithuania**

**Project Acronym: EXCILIGHT**

**Project start and end date: 2015.10.16-2018.10.15**

**Type of MSC action, H2020: ITN**



**Your story:**

**Project objectives and research field:**

Project objectives: Developing of new knowledge on the design of new structures of the conjugated compounds with electron-donor chromophores and/or multichromophoric compounds using density functional theory (DFT) calculations and the other theoretical tools. Training of Early Stage Researchers (ESRs) in development of optimal synthetic schemes for compounds with electron-donor chromophores. Training of ESRs on the advanced method of synthesis and purification of organic electroactive materials. Screening of new electroactive compounds for exciplex formation ability and in structures of OLEDs.

Research field: To design some new donors and to study the properties of donor-acceptor derivatives prepared using the newly designed donors.

**Tell us why your topic is important and/ or how it brings to advancement in your research field:**

Artificial lighting is ubiquitous, it has revolutionised the way humans live and work. Many forecasts show that the OLED lighting market will kick-start in 2014, reaching more than \$200M in 2015 and will grow to \$1.7 billion by 2020. In order to fully benefit from the growing market and the huge potential of OLEDs, industry and academia are keen to develop new technologies that will reduce the cost of

production, increase efficiency and lifetime. For this reason, the EXCILIGHT project aims at exploring the use of exciplex emitters and thermally activated delayed fluorescence (TADF) in OLEDs, to give high efficiency, stable emitters that do not use scarce and expensive iridium, and educate a new generation of talented scientists at the cutting edge of this new OLED technology.

It is important for society because the engagement of the industrial groups in the EXCILIGHT consolidates both academic and non-academic sectors across Europe in order to provide a high-quality educational program. The common effort in the creation of a network of complementary expertise in the field makes a chance to maintain Europe in a high-profile position in the competitive market of organic electronics. This is particularly important for the competitiveness of our company partners in a growing market with an increasing number of patents.

### **What are the benefits of participating in a MSC action?**

It contributed to my career and personal development so much because EXCILIGHT is a multidisciplinary and intersectoral ETN dedicated to the scientific and professional training of 15 early-stage researchers (ESRs), providing a critical mass of qualified researchers in the area of OLED innovation, research and development.

### **Did you encounter any challenges during application/ implementation and did you get any help?**

There are some challenges during my work. For example, synthesis problems during my experiment, or the results are far from expected. Some of the challenges were solved with the help of my project colleagues. Some of the challenges were solved by myself after I got well trained by the project.

### **Why did you choose a widening country as a Host? What was the reason that convinced you? What is making you professionally happy here?**

I chose Lithuania as host country because it's part of Europe. If we consider Europe as a whole country. Europe has one of the best environments for research work and normal life. Rich academic exchange. The relationship between people is quite comfortable. Well paid salary and adequate social security. You can feel free to do research and turn ideas into reality. These are the reasons why I feel happy here.

### **Would you recommend others to apply? What useful advice/ tips can you give them?**

I will recommend others to apply and I already have. I want to suggest that they pay importance to cooperation. The strength of a person is small, but in this project, you will find different people with different talents. Make friends with them and that will be your best achievement.