

## **Call for Expression of Interest for Research positions and a Project Manager position at FORTH-IESL (Soft Matter)**

### **Research Positions in Soft Matter at FORTH, Heraklion, Greece**

**Several (3-5) positions at different levels (Masters, PhD or Postdoctoral) are available in Synthesis, Experiments and Modelling/Simulations of Soft Matter systems (with emphasis in Polymers and Colloids) for Green and sustainable applications**

The **Polymer & Colloid, the Material Synthesis and the Computational Modelling groups** of the Foundation for Research and Technology Hellas, (**FORTH, Heraklion, Greece**), are offering 3-5 positions at different levels, (Master's, PhD and Post-doctoral) in the framework of EU and national projects.

Post-doctoral positions are offered for **1+1 year, PhD positions for 3+1 years and Master's positions for 2 years**. The positions are integrated within a number of EU and National funded projects. Masters and PhD fellowships will be offered in collaboration with Materials Science and Technology Department of the University of Crete, where successful candidates will be enrolled and follow the Graduate program. Specific requirements (including salary/fellowship levels) for each level can be provided to the interested candidates upon request.

The applicants should have a PhD (for the post-doctoral position), a Masters degree for PhD positions and a Bachelor's degree for the Master's position. Experience in related areas such as Soft Matter physics, physical chemistry and computer simulations is desirable. For post-doctoral positions expertise in (some of the following) polymer and colloid chemistry, scattering techniques, microscopy and rheology, as well as computer simulations of Soft Matter systems is desirable. A good theoretical background in soft matter science, knowledge of programming and simulations techniques will be also advantageous for all positions.

Interested candidates should contact: Prof. George Petekidis ([georgp@iesl.forth.gr](mailto:georgp@iesl.forth.gr))

Decision on the specific positions offered will be taken as soon as possible with aim to fill in the positions within 2023 or beginning of 2024.

### **Research Descriptions**

#### **Soft Matter Synthesis Position**

One (1) Position in Green Soft Matter chemistry and characterization. The project will focus on the synthesis and characterisation of carbohydrate (cellulose nanocrystals (CNCs), cellulose nanofibers (CNFs) and hemicelluloses) and lignin-based materials from wood waste, for application in membrane and coating technologies

The project will take place in collaboration with the group of Prof. Markus Antonietti at the Max-Planck Institute for Colloids and Interfaces (Potsdam, Germany).

Contact: [Maria Vamvakaki](mailto:maria.vamvakaki@iesl.forth.gr), e-mail: [vamvak@iesl.forth.gr](mailto:vamvak@iesl.forth.gr)

### **Experimental Position in Soft Matter**

One (1) Position in experimental research on Green Soft Matter systems (such as cellulose and lignin-based systems, clays and mixtures) with emphasis on characterisation techniques (involving, scattering and advanced microscopy), mechanical properties (including rheometry in combination with in-situ microscopy and scattering) as well as development of new experimental protocols involving advanced optical methods and AFM. The candidate will also be involved in building a new apparatus combining advanced optical methods (such as DDM) in combination with home-made shear cells and commercial rheometers. He/she will also have the opportunity to perform complementary computer simulations.

Collaborations are foreseen with the group of Prof. Roberto Cerbino at the University of Vienna (Austria) and the group of Prof. Hans-Jürgen Butt at the Max-Planck Institute for Polymers (Mainz, Germany).

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### **Computational Modelling Position(s)**

One to two (1-2) Positions in computational modelling in Polymeric and Colloidal Systems with Emphasis in novel methodologies involving hierarchical simulation approaches across scales and incorporating hydrodynamic interactions. The idea is to develop new computational tools and methodologies and implemented them in systems of technological importance, such as polymer-based complex materials, colloids, gels etc., with a Green spin, as for example systems involving cellulose and lignin.

The project(s) will be in collaboration with the groups of Kurt Kremer at the Max Planck Institute for Polymer Research (Mainz, Germany) and of Christos Likos at the University of Vienna (Austria).

Contact: Prof. George Petekidis ([georgp@iesl.forth.gr](mailto:georgp@iesl.forth.gr)) and Vagelis Harmandaris ([harman@uoc.gr](mailto:harman@uoc.gr))

### **Project Manager Position at IESL-FORTH, Heraklion (Greece)**

A position for a project manager is available immediately at FORTH-IESL for a period of up to 4 (1+3) years to cover current needs for efficient management of EU funded Research projects in the field of Soft Matter.

We seek a highly motivated person with good communication and organisation skills and efficient in collaborating in a multinational environment. The candidates should have some experience with managing research projects and organising scientific meetings and conferences. A Degree in Physics, Chemistry, Biology or Engineering and prior experience in research activities will be preferred but is not a requirement. The salary will be determined according to the qualifications and experience of the candidate.

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