NATIONAL HELLENIC RESEARCH FOUNDATION
THEORETICAL AND PHYSICAL CHEMISTRY INSTITUTE

Athens, 06 Mar. 2020

Call for Expression of Interest:

Postgraduate or Postdoctoral Research Assistant

Photonic Sensors for Solid Rocket Motors' Condition Monitoring

Bayern-Chemie GmbH (https://bayern-chemie.com), a subsidiary of MBDA Missile Systems (https://www.mbda-systems.com), is a world leading company specializing in guided missile and space propulsion technology with over 60 years of experience in the development and production of rocket propulsion systems. Bayern-Chemie is collaborating with Theoretical and Physical Chemistry Institute (TPCI) of National Hellenic Research Foundation (NHRF) toward the development of technology of photonics sensors for the monitoring and predictive maintenance of Solid Rocket Motors (SRM) and missile systems.

In this framework there is an immediate opening for a collaborating research assistant at Postgraduate or Postdoctoral level. The main research will be focused on the design and implementation of fiber optic based architectures and devices for SRM's Structural Health Monitoring (SHM) and also missiles' environmental monitoring (temperature, humidity, etc). The successful candidate will have the opportunity to perform industrially focused research in the area of photonic sensors within an interdisciplinary environment of mechanical, aerospace and materials engineering experts, jointly between NHRF and Bayern-Chemie, while the research findings are anticipated to be applied in future propulsion systems.

Part of the research is expected to be undertaken in the premises of Bayern-Chemie (in Aschau am Inn, Germany) when this is required at the testing stage. The selected candidate will be based in NHRF/TPCI, and will be a member of the project *RocketSens,* and the research activity "Applied Photonics- Materials & Devices".

Te ideal Postgraduate or Postdoctoral candidate should have the following qualifications:

- First degree in Physics, Electrical Engineering, Electronics, Mechanical Engineering, or related area
- Postgraduate or Doctoral degree in photonics, instrumentation, electronics, sensors or related area
- Experimental skills in photonics, fiber optics, devices and materials
- Theoretical understanding of optics, photonics and numerical modeling skills
- Excellent written and oral communication skills in English
- Strong motivation and ability to develop new skills in interdisciplinary research areas
- Ability to collaborate efficiently in an industrial environment and handle confidential information

Interested candidates should submit, as soon as possible, a brief motivation letter and a full CV together with the names of two Referees, to Dr. Christos Riziotis (Principal Investigator of *RocketSens*).

The applications will be examined by a joint NHRF and Bayern-Chemie committee and identified suitable candidates of relevant experience and skills, will be invited for personal interview. Salary will depend on skills, experience and academic level.

Opportunities for implementation of graduate or postgraduate Diploma Thesis in this topic are also available.

Interested candidates should contact the soonest possible (with reference to *RocketSens*):
Dr. Christos Riziotis
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Applied Photonics-Materials & Devices
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http://www.eie.gr/nhrf/institutes/tpci/researchteams/pn/pn-AppliedPhotonics-en.html