

DC 10: Development of an all-fiber fs-laser for multiphoton microscopy.



Project Description: The activities for the candidate will be focused on the design and development of an optical fibre laser for microscopy applications. Most of the activities will be involved in the optical fibre manipulation, so ability and calm are important skills for the tasks. The candidate has to be a dynamic person with capacity to work in a team group and collaborate with the rest of the team. Electronic and programming experience will be also useful for the integration of the optical part inside with the electrical and software.

Expected Results: industrialised few-cycle femtosecond supercontinuum source and system for actual needs of the multiphoton microscopy industry. Trained DCs to bridging the gap between scientific achievements and their commercialization in the bioimaging sector.

Requirements

- Degree in Physics/Optical Engineering or equivalent
- Master in photonics or lasers is a plus.
- Previous work in an optical fiber lab or laser lab.
- Experience in the use of optical fiber characterisation devices (Arc fusion splicer, Optical Spectrum Analyser, light power meter, photodetectors, oscilloscope, autocorrelator...)
- Knowledge of Matlab, C++, FPGA

Host Institution: FYLA Laser (Valencia, Spain)

Supervisor: Pere Pérez-Millán

Estimated gross allowance: 34,947 €/year

PhD awarding institution: UJI

Secondment 1

Partner: CNR
Supervisor: Dr. Stefano Bonora

Secondment 2

Partner: UJI
Supervisor: Dr. Jesus Lancis

Secondment 3

Partner: CWI
Supervisor: Dr. Felix Lucka

Secondment 4

Partner: UJI
Supervisor: Dr. Jesus Lancis

Planned Starting Date: 01/11/2023 – 01/02/2023

Application Deadline: 15/09/2023

Contact and application to: srota@fyla.com