

Master in Photonics – "PHOTONICS BCN" ERASMUS+ "EUROPHOTONICS"

MASTER THESIS PROPOSAL

Dates: April - September 2020

Laboratory : Applied Optics (Engineering Department) Institution: IRIS TECHNOLOGY SOLUTIONS City, Country : Castelldefels, Barcelona (SPAIN)

Title of the master thesis: *''Characterization and further development of an innovative device for wine bottle inspection''*

Name of the master thesis supervisor:

Email address : Laura Rodríguez Turienzo Phone number : 935 54 25 00 Mail address : lrodriguez@iris.cat

Keywords : illumination, monitoring, spectroscopy, wine, safety,

Summary of the subject (maximum 1 page) :

IRIS is an advanced engineering company that specializes in process monitoring and control solutions & novel technologies for process optimization. We are a multidisciplinary team of scientists and engineers involved in different R&D projects related with optical monitoring technologies, circular economy and industry 4.0. We operate in a demanding high performance environment where you will be continually stimulated and you will grow a lot. Up for it?

During the last year, IRIS has being developing an innovative optical system for wine bottles in-line inspection. The student will be involved in the validation and further development of the monitoring system including illumination system optimization and mechanical adjustments.

Additional information :

* Required skills : Basic knowledge in optomechanics, prototyping and illumination systems.

* Miscellaneous : Team work, problem solving abilities, curiosity, analytical thinking and a great deal of enthusiasm.