

NEXT Invited Scientists

Guest name : Hassen MAAREF

Position : Professor, University of Monastir

Host laboratory in NEXT : LPCNO

NEXT contact : Xavier MARIE (marie@insa-toulouse.fr)

Dates of stay : March 2017

Brief Biodata :

Hassen Maaref is first class Professor in University of Monastir. He has been the Director of the Laboratory on Micro-optoelectronics and Nanostructures (LMON, LR99ES 29) of the Faculty of Science in Monastir since 2000 (30 researchers, 20 professors and assistant professors and 12 PhD students).

He is a key expert of optical and electronic properties of low dimensional semiconductor material and devices for optoelectronic and electronic applications. He is author or co-author of ~ 260 publications (WOS).

Project :

"Control of the spin relaxation by the piezoelectric field in strained InGaAs quantum well"

The scientific activities during Pr. Hassen Maaref visit will be focused on the investigation of the spin dynamics in strained InGaAs quantum wells grown in Monastir. The measurements will be based on time and polarization resolved photoluminescence experiments. The key point will be to identify the ideal composition of the quantum well grown on (111) substrates such that the so-called Dresselhaus and Rashba splitting compensate exactly. This should yield very long spin coherence times without the application of any external electric field.