

Emplois : Détail de l'offre n° 34781

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Fabrication of Ultra Low Power Consumption Low Noise Cryogenics and Ambient MMIC for Space Telecommunications in Q-band

Reference: ABG-34781
Offer type: job
Contract: Temporary
Salary: 2500 € Gross Monthly
Employer: IEMN
Workplace: Villeneuve d'Ascq - FRANCE
Skill area: IT, Electronics
Posting date: 5/24/2011
Application deadline: 9/26/2011

IEMN is a laboratory of Electronic, Microelectronic and Nanotechnologies located in north of France. It is an unity of French Research Agency (CNRS) and University of Lille1. 500 persons work in this institute, 180 permanent researchers and more than 150 PhD students and post-doc. Activity is devoted to technology, with a well-equipped 1500 square meters clean room (e-beam and UV lithography, metal evaporators, Molecular Beam Epitaxy, ALD, ICP, PECVD, RIE...) and equipments for physical (nano-AFM, AFM, STM, E-beam microscopes, XPS,) and electrical characterizations (VNA up to 345GHz, cryogenic, THz...).

Mission:

Post-doc will work in national research project called LOW-IQ (Ultra Low Power Consumption Low Noise Cryogenics and Ambient MMIC for Space Telecommunications in Q-band) which is supported by French research agency (ANR). The consortium is constituted by 4 French research teams: 3 industrials (Callisto, Thales-Alenia-Space, OMMIC) and one academic (IEMN). The main goal of the project is to fabricate MMIC based on antimonide transistor (Sb-HEMT) for cryogenic receptor working at 40GHz. Antimonide based material is III-V, and is recommended for ultra low power consumption electronic. Power consumption is also a challenge for autonomous mobile communication electronic, used in ambient intelligence system. Similar work is only developed in USA. The main objective is to improve microwave performance and yield of Sb-HEMT developed at IEMN, and to transfer this new technology to our industrial partner. Thus this work is largely connected to their industrial partners.

Candidates profile:

PhD is needed. Cleanroom skill, semiconductor technology, semiconductor physic knowledge are required. The duration of the post-doc is 12 months

Cette information n'est visible que par les candidats détenant un compte ABG.

Application procedure:

Please send CV including references, experience, past research summary, and publications by mail or email to Prof. S. Bollaert, IEMN, Université Lille1, Avenue Poincaré, BP 60069, 59652 Villeneuve d'Ascq Cedex, France.
 Email: sylvain.bollaert@iemn.univ-lille1.fr.
 Phone: +33 (0) 320197858

Keywords: **semiconductor, cleanroom, Microwave, III-V, MMIC**

