

EXPERT'S PROFILE

Name of Grantee : Danilo B. Romero, Ph.D.
Area of Expertise : Condensed-matter physics
Inclusive Date of Contract as BSP Awardee : Short-Term Program
Phase I 29 July – 12 August 2015 (15 days)
Phase II 01 June – 15 July 2016 (45 days)
Host Institution : Department of Physical Sciences – UP Baguio
E-mail Address : dbromero@umd.edu



EDUCATIONAL BACKGROUND

- **Ph.D. in Physics**, 1989, University of Maryland, U.S.A
- **BS Physics**, 1983, UP Diliman
- **BS Electrical Engineering**, 1981, UP Diliman

WORK EXPERIENCES

- Present **Dept. of Electrical and Computer Engg, University of Maryland, U.S.A**
Research Professor and Director
- 2004 - 2014 **Dept. of Electrical and Computer Engg, University of Maryland, U.S.A**
Research Scientist & Instructor
- 2007 and 1997 **Laboratory of Optoelectronics and Molecular Materials**
École Polytechnique Fédérale de Lausanne, Switzerland
Visiting Professor
- 1993 - 1996 **Département de Physique**
École Polytechnique Fédérale de Lausanne, Switzerland
Senior Research Scientist
- 1991 – 1993 **Department of Physics, Virginia Tech, Blacksburg**
Visiting Assistant Professor
- 1989 - 1991 **Department of Physics, University of Florida, Gainesville**
Post-doctoral Research Associate

TO BE ACCOMPLISHED AS A BSP AWARDEE

1. Evaluate the possibility of constructing the atomic layer deposition (ALD) in the Philippines
2. Visit UP Diliman-IESM/NIP, UP Baguio and MMSU facilities to assess the current existing infrastructure for the construction and setup of the ALD.
3. Talks with DOST and PHILEX Corp to explore the possibility of an academe government-industry partnership.
4. Explore DOST and STRIDE funding.
5. Design of the ALD system. The local scientist will continue to coordinate remotely with Dr. Romero on the procurement of materials and the fabrication of the ALD system.
6. Lecture series on the current state-of-the-art on the science, technology, and applications of ALD. Researchers from various institutions and sectors in the Philippines will be invited to participate.

7. Workshop to train researchers on the operation of the ALD and the required measurement tools to characterize the thin films grown by the ALD. Researchers from various institutions and sectors in the Philippines will be invited to participate in the workshop.
8. Initiate the application of the ALD for nanocoating of ceramic nanopores. Study and develop recipe for this application.
9. Explore and develop research plans for other applications of the ALD.