

EXPERT'S PROFILE

Name of Grantee : Dr. Dexter T. Rasonabe
Area of Expertise : Nanomaterials
Inclusive Date of Contract : Short-Term Program
as BSP Awardee : 15 May to 12 August 2017
Host Institution : Materials Science Division (MSD) of Industrial Technology Development Institute (ITDI) - DOST
E-mail Address : dexter.rasonabe@liverpool.ac.uk



EDUCATIONAL BACKGROUND

- **PhD in Chemistry**, 2017, University of Liverpool, UK
- **Master of Science in Advanced Materials**, 2010, Ulm University, Ulm, Germany
- **Bachelor of Science in Chemical Engineering**, 2001, Ateneo de Davao University

WORK EXPERIENCES

- 2010 – 2013 University of Liverpool, United Kingdom
Research Fellow
- 2008 – 2012 Institute of Solid State Physics, Ulm University, Ulm, German
Research Assistant

To be Accomplished as a BSP Awardee:

1. Conduct seminars for materials research specialists at ITDI on:
 - Measurement techniques in modern surface science including reflection-absorption infrared spectroscopy (RAIRS), low-energy electron diffraction (LEED), scanning tunneling microscopy (STM)
 - Self-assembled supramolecular nanostructures of complex organic molecules at surfaces based on organic molecular beam deposition (OMBD)
 - Graphene on surfaces based on thermal decomposition of hydrocarbons
 - Well-ordered metal nanoparticles on surfaces based on plasma treatment of encapsulated metal salts in bottom-up self-assembled amphiphilic block-copolymer micelles
 - Review of the literature on the advances and current research on separation membranes for water desalination
2. Train the materials research specialists at ITDI on:
 - Computer software application WSXM for analysis of AFM data
 - Data-analysis software ORIGIN for fitting a mathematical function from a model equation to a set of measurement data to obtain the parameters and properties
 - Computer software application MENDELEY for convenient insertion of citations and enumeration of reference in technical papers and efficient management of personal data base of references

3. Assist in the implementation of the project “Development and performance evaluation of polymeric and composite materials from local sources as separation membranes for water desalination”
4. Prepare project/research proposal with the assistance of ITDI staff on: “Development and performance evaluation of polymeric and composite materials from local sources as separation membranes for other applications”