

EXPERT'S PROFILE

Name of Awardee : **MANUEL V. HERNANDEZ, JR., PhD**
Area of Expertise : Mechanical Engineering
Inclusive Dates of Contract as BSP Awardee : Short-Term Program
11 November - December 2010
January-February 2011
Host Institution : DOST-MIRDC

EDUCATIONAL BACKGROUND

PhD in Mechanical Engineering, University of Florida, USA, 1983
MS in Mechanical Engineering, University of Florida, USA, 1979
BS in Mechanical Engineering, University of the Philippines, 1975

PROFESSIONAL EXPERIENCE

Professorial Lecturer

Department of Mechanical Engineering
UP Diliman

Research Associate

Department of Mechanical Engineering
UP Diliman

1976-2005 Instructor to Full Professor of Mechanical Engineering

Department of Mechanical Engineering
UP Diliman

Consultant

ACME Tools Co., Baltimore Spice Corp., MK Screens,
Malakas Steel Mill and ARGO Steel Fabrication

Vice President for Engineering & Special Projects

Steel Asia Mfg. Corp., Modern Bar Mill

1992-94 Engineering and R&D Head

MK Screens

Vice President for Engineering and Maintenance

H.M. Montenegro Group of Companies

1984-87 Chair

Department of Mechanical Engineering
UP Diliman

February 1987 Consultant

Tariff Commission

1985-86 Member, Nuclear Safety Advisory Board

Philippine Atomic Energy Commission

1983-86 Member, Committee on Research and Publication

UP College of Engineering

1984 Project Manager

Design, Fabrication, Installation and Testing of Electrical/Electronic/Mechanical Systems Supporting the Audio Visual Equipment

Department of Agriculture

1982 Member

Project Team of a Professor/Consultant Designing an Instrument Holder for one of the NASA Space Shuttle Payloads

University of Florida

1977-1978 Project Engineer/Manager

Jamar Industrial Company

1977 Consultant

Ostrea Mineral Laboratories

1976-78 Technical Consultant

Industrial Test Masters Inc.

1977-78 Project Team Member

Mini Hydro Plant Development Project

NWRCP

1975-76 Maintenance Manager

Toilet Soap Department

Procter & Gamble Phil. Mfg. Co.

TO BE ACCOMPLISHED AS BS AWARDEE :

- a. Structured design approach to cover the following:
 - Kinematics of moving elements;
 - Load analysis;
 - Stress analysis;
 - Fatigue analysis; and
 - Design of experiment
- b. Composite material/study of establishing a composite material laboratory;
- c. Design of single cylinder diesel engine. The important design parameters to enable localization/revision of imported single cylinder diesel engine within a competitive price range; and
- d. Design of agricultural and industrial machinery (such as pico-hydro turbine, jatropha processing equipment, water hyacinth, windmill, among others).