



ISSN 1908-9058

Volume 9

January - December

2016

PUP JOURNAL of science and technology

Official Journal of Science and Technology
Polytechnic University of the Philippines
Sta. Mesa, Manila, Philippines

CONTENTS

ISSN 1908-9058 Volume 9

January to December 2016

CAPACITIVE DEIONIZATION (CDI): AN ENVIRONMENTALLY FRIENDLY WATER PURIFICATION TECHNIQUE

Ginno I. Andres 1-11

DATA SECURITY OF ENCRYPTED DATA USING HASH-BASED MESSAGE AUTHENTICATION CODE (HMAC) AND T9-BASED DATA CONVERSION

Francis G. Balazon 12-23

NEUTRALIZING ABILITY OF *Andrographis paniculata* (Burm.f.) Wall. ex Nees STEM AND LEAVES ETHANOLIC EXTRACT AGAINST NEUROTOXICITY INDUCED BY *Naja philippinensis* Taylor, 1922 VENOM BASED ON HISTOLOGICAL CHANGES IN *Danio rerio* (F. Hamilton, 1822) GILLS AND LIVER

Carmelita P. Mapanao, Theresita V. Atienza, Evelyn M. Matchete, Rosalie Anne M. Mangahas, Gilbert S. Agudo, and Clinton B. Bautista 24-38

GEOGRAPHIC INFORMATION SYSTEM-ASSISTED APPROACH IN SOIL EROSION HOTSPOT ASSESSMENT OF BANGA MICROCATCHMENT

Carmenchita M. Tumaca 39-60

GREEN WAVE: A RESERVED ENERGY SOURCE

Enrico M. Dalangin, Lorissa Joana E. Buenas and Mark Angelo C. Drio 61-72