

## CONTENTS

## 2019, VOLUME 09, NUMBER 01

Exploring Related Rates Problems in an Introductory Calculus Course Via Spreadsheets Zanin Kavazović and A. Didenko	1–12
Process Optimization and Alloy Modification in Hot Chamber Die Casting Cem Karakaya, Ali Serdar Vanli and Anil Akdoğan	13–22
Psychological Diseases of Fracture Patients Mohammad Baqir Mohammad Al-Shara and Raghad Ibrahim Abbas Al-Musawi	23–50
Competition Between Green Engines and Fossil Fuel Vehicles in Light of Taxation Policies <i>Çağil Süt Göker and Cenker Göker</i>	51–56
Adding Menus to an Interpreter Program for a Programming Language <i>Octavian Nicolio</i>	57–72
Mountain Community Resilience: Suitable Site Selections and Topographic Design to Prevent Risks of Mountain Floods in Light of Feng-Shui <i>Ping Xu</i>	73–84
Dynamic Movement Regimes of Ferrofluid Plugs in Channel-Based Geometry Yu Gu, Kang Yang, Isaac Robbins, Janet Peifer, Tanvi Pande and Yangsheng Zhou	85–92
Method and Apparatus for Detecting Denial of Service Attacks Pulugurtha V.S. Lakshmi Jagadamba	93–98
Pomegranate (Punica Granatum) Peel as an Effective Adsorbent for Lead in Wastewater <i>Umut Ölmez and Ali Kizildağ</i>	99–108
Using Bioethanol in the Industrial Area which has been Produced by Sugar Beet Ozge Belgin Kutlu and Mirac Ilgi Goren	109–114
Discovering the Usage Potential of the Organic Wastes in Clinical Practices with Searching its Effects Ahmet Hocaoğlu and Efe Umut Korkmaz	115–128
Tunable Optofluidic Lens Yu Gu, Tanvi Pande and Yangsheng Zhou	129–134
Development of the Medium for <i>Cordyceps militaris</i> Culture from Local Rice in Narathiwat Province, Thailand <i>Rugchanok Puwaphut, Ritthiwut Puwaphat, Toyyibah Chesoh and Wasan Palasai</i>	135–142
A Parametric Investigation for Emergent Led Technologies Throughout Architecture and Interior Design Contexts Abdelhamid Abdelmalek A. Abdelaal, May A. Malek Ali and Ahmed Elsherif	143–154

## ii Contents

A Review of Diet-Based Prescriptions for Neuroscientists on Brain Stimulation Olajumoke Elizabeth Olawale-Olakunle	155–164
Thermal Performance of Standart and Stripe Painted Absorber Plate in Solar Air Collectors <i>Seyfi Şevik, Mesut Abuşka</i>	165–172
PDM-QPSK 12 X 160 GBPS (1.92 TBPS) WDM Optical Transmission System for Long Reach <i>Rohit B. Patel</i>	173–184
Evaluation of Stress Concentration Factor for Shoulder Fillet on Round Bar under Bending Loading Bhaveshkumar P. Patel and Hiren B. Prajapati	185–192
Physical Exercise Effect On Ageing Jaswinder Singh	193–196
Influences of the Heat of Machining Processes on Mechanical and Thermal Properties of Materials using in Aeronautics Shehret Tilvaldyev, Carlos Alberto Gomez Alvarez, Alfredo Villanueva Montellano, Manuela Alejandra Zalapa Garibay, Jose Omar Davalos Ramirez and Arturo Paz Perez	197–210
The Role of <i>Azolla Pinnata</i> and Biofertilizer on Organic Rice Farming <i>Mieke Rochimi Setiawati, Maya Damayani, Diyan Herdiyantoro and Pujawati Suryatmana</i>	211–220
Phytoremediation of Petrolleum Contaminated Soil by using Ramie (boehmeria nivea I.) and Biofertilizer Augmented Pujawati Suryatmana, Betty Natalie Fitriatin, Rija Sudirja, Mieke Rochimi Setiawati and Haruti S. Hamdani	221–230
Soil Chemical, Physical and Biological Characteristics of Andisols as Affected by the Amelioration of Steel Slag and Rice Husk Bokashi <i>Rina Devnita, Betty Natalie Fitriatin, Mega Fatimah Rosana, Mahfud Arifin and Hemanta Hazarika</i>	231–240
Developing a Big Data (BD) Integrated Model to Overcome the Challenges and Barriers for Effective and Efficient Health Care System in Australia <i>Shakir Karim and Ergun Gide</i>	241–254
Assessment of Eucalyptus Biomass Potential in Paddy Field Embankment for Power Generation Sansanee Sansiribhan, Busarin Eamthanakul and Anusorn Rattanathanaophat	255–260
Preparation of ph Bio–Indicator Film from Purple Corn for Inform Spoilage of Pork Jitlada Chumee, Ploysai Ohama and Saowanee Kumpun	261–266
Energy Efficiency and Smart Grids in the Russian Regions Svetlana Balashova, Konstantin Gomonov, Vladimir Matyushok and Svetlana Revinova	267–278
Author Index	279

International Journal of Arts & Sciences is not responsible for the content of the individual manuscripts.

All correspondence should be mailed to the Associate Editor: Dr. Joseph Bonnici, Vance Hall, 4th Floor, Central Connecticut State University, 1615 Stanley Street, PO Box 4010, New Britain, CT 06050-4010, USA.

The manuscripts contained in this volume were double blind refereed.