Editorial

This Volume 40 Number 1 includes five (5) research/ technical articles and one special article contributing to our late colleague, Mr. Richard Charles of the Department of Civil and Environmental Engineering. The relevance and usefulness of respective articles are summarised below.

P. Jaggernauth, et al., "Energy Analyses and Operating Costs of Biodiesel Production", explore the potential use of coconut oil as the triglyceride feedstock for biodiesel production. In this paper, energy performance analyses of four (4) coconut oil biodiesels are presented, with respect to four energy performance metrics, namely net energy ratio (NER), net energy balance (NEB), net renewable energy value (NREV) and fossil energy ratio (FER). NER values ranged from 0.51 to 0.77, NEB from -12.00 MJ/L to -46.21 MJ/L, NREV from 9.00 to 21.31 MJ/L and FER from 1.52 to 2.88. Although the small-scale transesterification process would neither be energy-efficient nor sustainable, most of the physical properties are already within specification for use in the vehicular market of Trinidad and Tobago. Biodiesels would be a prospective component of environmentally friendly blends with petrodiesel.

In their article, "Design and Development of a Low Noise Lawnmower Blade: Application of CAD, CAE and RP Tools and Techniques", **T. Gokool and B.V. Chowdary** investigate the applications of virtual modeling tools and Rapid Prototyping (RP) principles in the design and development of a lawnmower blade. Computer Aided Design (CAD) and Computer Aided Engineering (CAE) tools and techniques were used to develop a prototype along with a Fused Deposition Modelling (FDM). The produced prototype could generate lower noise levels than the original blade, and the virtual modeling tools could predict the noise levels of the proposed blade design. Results show that the use of RP technology has its potential to reduce developmental cost and time.

L.O. Osoba, at al., "The Dry Sliding Wear Behaviour of Aluminum Composites: A Review", discuss the effects of dry sliding parameters (sliding speed, sliding distance and load) coupled with process parameters (stir cast and reinforcement parameters) on the dry sliding (adhesive) wear behaviour of aluminum composites produced by stir casting technique. Aluminum composites has been of wide applications in the automobile, aerospace, defense and other engineering sectors especially where dry sliding wear plays major role. Many processing techniques have been used over time depending on various predetermined criteria. Besides, many investigative works have been done on the impact of sliding speed, load and distance but only few of such studies linked stir casting and reinforcement parameters with the wear properties of aluminum composites.

In the third article, "Management of Knowledge and Ignorance in the Context of Organisational Learning: A Research Agenda", **K.F. Pun and M.Y.R. Yiu**, discuss the need for fostering knowledge management (KM) practices with ignorance management (IM) towards organisational learning (OL), with particular reference to the business environment in Trinidad and Tobago (T&T). It elaborates a research initiative, and outlines the purposes, hypotheses and areas for devising a KM/IM capability model. This paper serves as its purpose as a research agenda for a three-stage approach of the study. Built upon the present Stage 1 of literature review, the next two stages would be empirical data acquisition and model development and testing that would evaluate the applicability and efficacy of the model using the empirical data to be acquired in manufacturing enterprises in T&T.

CT. Benjamin, "The Entrepreneurial Motivations of Engineering Students: Case from the SIDS of the Caribbean", investigates into the entrepreneurial motivations based on more than 200 engineering students and recent graduates in Trinidad and Tobago (T&T), to gauge whether, among this group, some of these traditional factors are associated with higher order or 'pull' entrepreneurial motivations such as taking advantage of market opportunities, the need for control and independence, and desire for a challenge. It was found that the respondents primarily displayed higher order 'pull' motivators for entrepreneurship with eighty-four percent (84%) identifying welcoming a challenge, controlling their future or taking advantage of opportunities as potential motivators. The study revealed no statistically significant correlation between entrepreneurial motivation of the respondents and ethnicity, sex, parents' occupation, or training. This exploratory study, conducted in T&T, suggests that engineers may exhibit different entrepreneurial patterns to the rest of the population or to engineers in larger economies.

G.S. Shrivastava, "Raymond Francis Charles (1951-2017): A Remembrance and Historical Note of a Civil Engineer", speaks about both academic and profession life, and recognises the commitments and contributions, of late Mr. Raymond Francis Charles towards the development of civil engineering disciplines and professional in Trinidad and Tobago and a wider Caribbean region. Mr. Charles, being the past Head of the Department of Civil and Environmental Engineering and a Fellow of the Institution of Civil Engineers, United Kingdom, will live in the memory of his students and colleagues at The University of the West Indies.

On behalf of the Editorial Office, we gratefully acknowledge all authors who have made this special issue

possible with their research work. We greatly appreciate the voluntary contributions and unfailing support that our reviewers give to the Journal.

Our reviewer panel is composed of academia, scientists, and practising engineers and professionals from industry and other organisations as listed below:

- **Dr. Abrahams Mwasha**, University of the West Indies (UWI), Trinidad & Tobago (T&T)
- **Dr. Ambrose Taylor**, Imperial College London, UK
- **Dr. Anthony Ademola Adeyanju**, UWI, T&T
- **Dr. Carmen Riverol**, UWI, T&T
- **Dr. Chris Maharaj**, UWI, T&T
- **Professor Clive E Davies**, Massey University, New Zealand
- **Ms. Crista Mohammed**, UWI, T&T
- **Dr. Debbie Mohammed**, UWI, T&T
- **Professor Edwin I. Ekwue**, UWI, T&T
- **Professor Gerrit Meerdink**, UWI, T&T
- **Dr. Graham King**, UWI, T&T
- **Dr. Haydn I. Furlonge**, The National Gas Company, T&T
- **Dr. Jeffery A. Jones**, University of Warwick, UK
- **Professor John E.L. Simmons**, Heriot-Watt University, UK
- **Professor John Yilin Wang**, The Pennsylvania State University, USA
- **Dr. Ken D. Thomas**, Auburn University, Auburn, USA
- **Professor Kit Fai Pun**, UWI, T&T
- **Emeritus Professor Lorna Uden**, Staffordshire University, UK
- **Ms Man Yin Rebecca Yiu**, UWI, T&T
- **Ms. Marcia Nathai-Balkissoon**, UWI, T&T
- **Professor Marehalli G. Prasad**, Stevens Institute of Technology, New Jersey, USA
- **Professor Nageswara Rao Posinasetti**, University of Northern Iowa, Cedar Falls, USA
- **Professor Peter Hogarth**, Bournemouth University, UK
- **Dr. Renique Murray**, UWI, T&T
- **Emeritus Professor Richard Dawe**, UWI, T&T
- **Mr. Robert Birch**, UWI, T&T
- **Dr. Ronald Roopnarine**, UWI, T&T
- **Dr. Saori Hanaki-Martin**, University of Kentucky, USA
- **Dr. Sharad Maharaj**, UWI, T&T
- **Dr. Shellyanne Wilson**, UWI, T&T
- **Professor Sreekala G. Bajwa**, North Dakota State University, Fargo, USA
- **Dr. Terrence Lalla**, UWI, T&T

The views expressed in articles are those of the authors to whom they are credited. This does not necessarily reflect the opinions or policy of the Journal.

KIT FAI PUN, *Editor-in-Chief*
Faculty of Engineering,
The University of the West Indies,
St Augustine, Trinidad and Tobago
West Indies

July 2017