PRADA 2019

International Conference on Plastic and Polymers,Robotics Applied Sciences, Design Engineering & Artificial Intelligence

February 14-15, 2019 / Malaysia

Proceedings of International Conference on Plastic and Polymers, Robotics, Applied Sciences, Design Engineering & Artificial Intelligence (PRADA)

Conference organized by:

Research Forum
for Applied Sciences,
Engineering & Technology

This conference is dedicated to educators all over the world and to the members of the Research Forum for Applied Sciences Engineering and Technology (RFAET) whose passion for teaching, learning, research, and service are helping to transform the academy in many positive ways.

Mission, Vision, and Core Values

Exploration of new research bits of knowledge and an intuitive stage for improving innovation and advancement

Lead the researchers through global communication and collaboration.

Scholastic Innovation, Excellence and Integrity, Insightful Research, Networking, Professional Leadership, Assorted Variety and Equity, Collegiality and Collaboration, Corporate Social Responsibility

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Research Forum for Applied Sciences Engineering and Technology

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Welcome Message

The Research Forum for Applied Sciences Engineering and Technology (RFAET) welcomes you to the International Conference onPlastic and Polymers, Robotics, Applied Sciences, Design Engineering & Artificial Intelligence (PRADA). We are happy you decided to join your colleagues from around the world to explore innovative technologies, pioneering pedagogical strategies, and a sampling of international collaborations that are being used to engage and retain students, researchers and Scholars in the new millennium.

Scientific Committee

Jan Fook, International Centre for Higher Education Educational Research, Leeds Trinity University, UK

Jennifer Bowerman, MacEwan University, Canada

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John Davies, Victoria University of Wellington, New Zealand

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Justin Henley Beneke, University of Winchester, UK

Acknowledgements

The organizing committee would like to thank all those people who were involved in making the conference a success. A great amount of planning and organizing is required to hold a successful conference, so we are indebted to those who volunteered their time and energy.

We want to thank all the members of the Research Forum for Applied Sciences Engineering and Technology (RFAET) who volunteered their time to help organize the conference.

Conference Description

Research Forum for Applied Sciences Engineering and Technology (RFAET) provides an excellent venue for generating ideas. Conference participants will explore the latest trends, practices, and research in engineering technology and Applied Sciences tracks. The program will emphasize experimentation and pushing the boundaries of higher education.

ENGINEERING TECHNOLOGY

Acoustical Engineering Aerospace Engineering, Agricultural Engineering Biological Engineering and Sciences, Biological Systems Engineering Biomedical Engineering, Bioprocess Engineering Biotechnology, Building Services Engineering Chemical Engineering, Industrial Engineering Information Engineering, Informational Technology Manufacturing Engineering and Technology, Materials Engineering Mechanical Engineering, Mechatronics Nanotechnology and Nanoengineering, Naval Engineering Nuclear Engineering, Technology for Cloud Computing Technology for Community, Technology for Digital Age Technology for Human Use, Technology for Learning Civil Engineering, Computer Engineering Current issues and challenges in Engineering, Electrical Engineering Electronic Engineering, Energy Engineering Environmental Engineering, Food Engineering Genetic Engineering, Geotechnical Engineering Ocean Engineering and Technology, Optical Engineering Petroleum Engineering, Power Engineering Process Engineering, Resource Engineering Sensing Technology, Structural Engineering Systems and Software Engineering, Technology for Big Data Textile Engineering, Thermal Engineering Transport Engineering, Web Engineering Vehicle Engineering

APPLIED SCIENCES

Artificial Intelligence, Architecture, Astronomy, Biological Sciences, Botany, Chemistry, Design, Earth Science, Ecology, Marine Science, Physics, Space Sciences, Life sciences, Computer Sciences, Logic, Mathematics, Statistics, Systems Science, Electrical Engineering, Information, Technology, Industrial Engineering, Mechanical Engineering, Applied Physics, Health Sciences and Medicine, Ceramic Engineering, Computing Technology, Electronics, Energy, Environmental Engineering Sciences, Engineering physics, Environmental Technology, Fisheries Science, Forestry Science, Materials Engineering Micro technology, Nanotechnology, Nuclear, Technology, Optics, Zoology Transportation

Conference Awards

Best Paper Awards
The Organizing Committee will select the best paper considering the recommendations of the Scientific Review Committee based on the relevance to the theme, academic contribution, accuracy of the methodology, clarity of contents.

Best Presentation Awards Sessions
The best presenter in each session will be selected considering the scientific quality, contents, time management, presentation style and level of interaction with the audience. The best presenter in each session will get a certificate.

Best Presentation Awards Students
These awards will be awarded the best presenters selected from the PhD or Master level students' presenters. The selection criteria will be scientific quality, contents, time management and presentation style.

Keynote Speech

Thermoplastic application development consists of many steps. Number and type of steps depend on the level of complexity of the application design , CTQs, and existence of similar application. The following value chain is mostly followed through the development project stages:

- Application CTQs.

- Material selection.

- Material testing

- Initial design.

- Predictive engineering.

- Prototype.

- Final design.

- Sample production.

- Final part testing and validation.

- Mass production and commercialization.

The application development project started from market need or technology push, for both cases, the application developed has to consider the business model.
Light weight, corrosion resistance and production rate are the most plastic advantages that encourage the end user to move for plastic applications.

Key Words: Material selection, simulation , design

Salem Al- Anazi

Conference Schedule

International Conference on Plastic and Polymers, Robotics, Applied Sciences, Design Engineering & Artificial Intelligence (PRADA)

The Federal Kuala Lumpur
February 14-15, 2019

09: 00 am 09: 20 am	Registration and Reception
09: 20 am 09: 30 am	Opening ceremony
09: 30 am 09: 50 am	Key Note Speech By Salem M AlAnazi
09:50 am 10: 00 am	Welcome Remarks
10: 00 am 10:30 am	Tea Break

Plastic and Polymers, Robotics, Applied Sciences, Design Engineering & Artificial Intelligence (PRADA)

Day 01: Thursday
February 14, 2019

Session 01: (10:30 am 12: 30 pm)

Track A: Business, Management, Economics, Social Sciences & Humanities

Presenter Name: Paula Puskarova

Reference ID: ARBES-FEB-103

Paper Title: Inclusive Economic Growth and Refugee Crisis in Europe: A Temporal Analysis

Track B: Engineering, Technology, Computer and Applied Sciences

Presenter Name: Saba Gheni

Reference ID: RACEI-FEB19 CEAS102

Paper Title: Scale Effects on the Hydrodynamics and Flow Regime Transition of Slurry Bubble Column: Experimental and CFD Study

Presenter Name: Rafidah Binti Ali

Reference ID: RACEI-FEB19 CEAS104

Paper Title: Forecasting Asean Tourist Arrivals In Malaysia Using Different Time Series Models

Track C: Medical, Medicine and Health Sciences

Presenter Name: Nikita Frindya

Reference ID: KUA-229-102M

Paper Title: Characteristics Of Sinonasal Anatomical Variation In Chronic Rhinosinusitis Patients Based On Ct Scan Finding

Presenter Name: Aditiya Yuda Perkasa Alam Simbolon

Reference ID: KUA-229-103M

Paper Title: Prevalence Of Acute Otitis Media In North Sumatera Province, Indonesia

Presenter Name: Yuli Tetriana Sari

Reference ID: KUA-229-104M

Paper Title: Expression of Vascular Endothelial Growth Factor in Juvenile Nasopharyngeal Angiofibroma in H. Adam Malik General Hospital Medan

Presenter Name: Carlo Maulana Akbar

Reference ID: KUA-229-105M

Paper Title: The Correlation Between Chlorine Exposure with Olfactory Function Disorders in Textile Factory Workers of PT. X in Medan.

Conference Attendees

The following scholars/practitioners/educationist who don't have any paper presentation, however they will attend the conference as delegates & observers.

Participant Name: UMAIR TAHIR

Reference ID: IBEMSS-029-ANI101A

Country: PAKISTAN

Closing Ceremony & Lunch (12:30 pm 01:30 pm)

International Conference on APlastic and Polymers, Robotics, Applied Sciences, Design Engineering & Artificial Intelligence (PRADA)

Day 02: Friday
February 15, 2019

Conference second day is reserved for participants own tourism activities.

Track A: Business, Economics, Social Sciences and Humanities

Inclusive Economic Growth And Refugee Crisis In Europe: A Temporal Analysis

Paula Puskarova [*]
Puskarova, University of Economics in Bratislava, Slovakia
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The paper presents a temporal analysis of the asylum seekers inflows into the European Union using official statistics and links it with inclusive growth theories. The paper questions welfare and environment as two main drivers of refugee crisis into the European Union over the past years. It also challenges the term crisis discussing it within its socioeconomic context.

Index Terms: Migration, Asylum Seeker, Crisis, Environment, Europe

Track B: Engineering, Technology, Computer and Applied Sciences

Scale Effects on the Hydrodynamics and Flow Regime Transition of Slurry Bubble Column: Experimental and CFD Study

Saba Gheni [1*], Suhaib S. Saleh [2], Safaa M. R. Ahmed [3]

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The FischerTropsch (FT) synthesis on a large scale attracts a lot of attention. It represents a smart innovation to convert low cost natural gas to high-profit fuel and products. Scaling up of such a continuous heterogeneous process requires suitably accurate determination of hydrodynamic parameters as a function of column dimensions and solid concentration. This study aims to employ a large-scale slurry bubble column in a flow transition study with the aid of computational fluid dynamics. In this study, two flow conditions were considered, periodic and steady state flows. The experimental and computational work have been carried out to study the performance of a scaled-up slurry reactor under the two different modes of operation. The impact of key parameters that enhances or alter the performance of slurry reactor is studied, namely, superficial gas velocity (0.05, 0.1, 0.15, 0.2, 0.25 and 0.35 m/s), solid loading (8, 12 and 15%), and cycle period; short and long periods. A laboratory unit was constructed to conduct this study. A mimic feed and solid loading were used to exclude the impact of chemical reaction and to focus intensively on the hydrodynamics. Air paraffin oil silica system was used for the hydrodynamic experiments. The results revealed that the transition flow was accompanied with an observed much lower average liquid flow rate compared to steady state operation at different study conditions of superficial gas velocity average liquid velocity. It also showed that scaling up influenced steady state flow boundaries compared to the same conditions with the lab scale reactor studied previously. On computational part, it was shown that period operation was short and less influent at low liquid flow are and solid loading.

Index Terms: Slurry Bubble Column, Large Scale, Period Operation, Hydrodynamics

Forecasting Asean Tourist Arrivals In Malaysia Using Different Time Series Models

Rafidah Binti Ali [1*],Ani Shabri [2]
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In this study four time series models are used for forecasting monthly ASEAN tourist arrivals in Malaysia from January 1999 to December 2015. Brunei, Thailand and Vietnam of ASEAN country selected as case study. This paper compares the forecasting accuracy of seasonal autoregressive integrated moving average (SARIMA), Support Vector Machine (SVM) and Wavelet Support Vector Machine (WSVM) and Empirical Mode Decomposition with Wavelet Support Vector Machine (EMD_WSVM) using root mean square error (RMSE) and mean absolute percentage error (MAPE) criterion. Moreover, correlation test has also been carried out to strengthen decisions, and to check accuracy of various forecasting models. Based on the forecasting performance of all four models, hybrid model SARIMA and EMD_WSVM are found to be best models as compare to single model WSVM and SVM.

Index Terms: Forecasting, Tourist Arrivals, SARIMA, SVM Model, WSVM Model

Track C: Medical, Medicine & Health Sciences

Characteristics Of Sinonasal Anatomical Variation In Chronic Rhinosinusitis Patients Based On Ct Scan Finding

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Background: Sinonasal disease, especially rhinosinusitis, is the most prevalent disease in the Otorhinolaryngology Head and Neck Surgery Department. Different anatomical variations of the lateral walls of nose play important role in contributing to osteomeatal complex obstruction, and drainage and ventilation distruption, which eventually causes inflammation of the sinus mucosa. Objective: To discover the characteristics of sinonasal anatomical variations in patients with chronic rhinosinusitis based on their CT scan findings. Method: This is an observative descriptive study using cross-sectional design. All chronic rhinosinusitis patients who came to department of Otorhinolaryngology in H Adam Malik General Hospital and Universitas Sumatera Utara Hospital, Medan, Indonesia, will undergo CT Scan examination to explore their anatomical variation. The inclusion criteria of this study is patient diagnosed with chronic rhinosinusitis who are not diagnosed with nasal polyp, who do not have history of nasal trauma, and do not have history of previous nasal surgery Result: Of 40 patients with chronic rhinosinusitis, 21 patients were male and 19 patients were female. The most prevalent anatomical variation found is septal deviation (18 patients/ 45%), with maxillary sinus as the most involved sinus (85%). Conclusion: From the CT scan findings of chronic rhinosinusitis patients, the most prevalent anatomical variation is septal deviation that is found in 18 patients (45%). This high incidence of anatomical variation need for proper preoperative assessment for save and effective endoscpic sinus surgery.

Index Terms: Chronic Rhinosinusitis, Anatomical Variation, CT Scan

Prevalence Of Acute Otitis Media In North Sumatera Province, Indonesia

Aditiya Yuda Perkasa Alam Simbolon [1*], Devira Zahara [2], Askaroellah Aboet [3]

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Background: Acute otitis media (AOM) is the second most prevalent disease found in children after upper respiratory tract infection (URTI). AOM prevalence varies in different countries, ranging between 2,3 20%. Epidemiological studies of AOM in developing countries are very rare. As of today, no prevalence data of AOM found in North Sumatera. Thus, there needs to be an epidemiological data to establish prevention strategy and treatment based on population profile. Objective: To acquire prevalence data and patient profile of AOM in North Sumatera. Method: This is a descriptive study with cross-sectional design. The study population is all the people living in North Sumatera Province who were selected through Simple Random Sampling in several chosen sub-districts. The inclusion criteria of this study is the total population who are willing to be the subject of this study. Result: AOM patients was found as much as 37 of 1726 subjects. Therefore, the prevalence of AOM is 2,2%. The most prevalent age group is 0 5 years old (45,9%). The most prevalent symptom is otalgia (37,8%). Conclusion: The prevalence of AOM in North Sumatera is 2,2%. There is a need for better ear care and screening program for early detection of this disease.

Index Terms: Acute Otitis Media, Prevalence, North Sumatera

Expression of Vascular Endothelial Growth Factor in Juvenile Nasopharyngeal Angiofibroma in H. Adam Malik General Hospital Medan

Yuli Tetriana Sari [1*] Rizalina A. Asnir [2] Ashri Yudhistira [3], Sutoyo Eliandy[4]
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Background: Juvenile Nasopharyngeal Angiofibroma (JNA) is a benign blood vessel tumor that is locally aggressive in young adults. VEGF is an important growth factor in tumor biology. VEGF overexpression has been associated with tumor progression and poor prognosis in various types of tumors. VEGF expression in angiofibroma has been previously noted and associated with proliferation and increasing blood vessel density Objective: To determine the expression of Vascular Endothelial Growth Factor (VEGF) in Juvenile Nasopharyngeal Angiofibroma (JNA). Methods: A descriptive research with cross-sectional study design, the data was taken from medical records at the H. Adam Malik general hospital Medan from Januari 2011 to December 2017 with a total sample 24. Inclusion criteria included a sticky medical record and clear identify and had paraffin blocks with a juvenile nasopharyngeal angiofibroma diagnosis. Results: VEGF overexpression was found in 14 male patients (60.9%), and 11 people (61.1%) out of 18 people under the age of 20 years. In stage III, VEGF overexpression was found to be 90% and at stage IV reached 100%. Conclusion: VEGF overexpression in JNA was found especially at advanced stages.
Index Terms: Juvenile Nasopharyngeal Angiofibroma (JNA), Vascular Endothelial Growth Factor (VEGF), Immunohistochemistry

The Correlation Between Chlorine Exposure with Olfactory Function Disorders in Textile Factory Workers of PT. X in Medan.

Carlo Maulana Akbar [1*]
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Background: Textile factories are the main source of employment throughout the world. the textile industry is considered to be one of the most ecologically polluted industries, the use of chemicals such as chlorine found in textile factories can cause disruption of olfactory function. Purpose: To determine the correlation between chlorine exposure with olfactory function disorders in textile factory workers of PT. X in Medan. Method: The study was conducted in an analytical form with cross sectional research design. The research subjects were 64 people, consisting of 32 people exposed to chlorine and 32 people not exposed to chlorine which met the inclusion and exclusion criteria. Result: Based on the results of the olfactory function examination the proportion of olfactory disorders was obtained by workers exposed to chlorine by 31.3% while those who were not exposed to chlorine by 0%. Significant relationship was obtained between length of work and impaired olfactory function (p = 0.005). Conclusion: There are differences in olfactory function in textile factory workers exposed to chlorine compared to those not exposed to chlorine by using Sniffin 'Sticks Test in the city of Medan.

Index Terms: Chlorine, Olfactory Function, Sniffin Sticks Test, Textile Factory

Upcoming Events

http://aet-forum.com/cbeia-march-2019/

http://aet-forum.com/iecaet-march-2019/

http://aet-forum.com/iaib-april-2019/

http://aet-forum.com/spps-april-2019/

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