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# CONFERENCE PROCEEDINGS

## BOOK OF ABSTRACTS MMHS-2019

International Conference on  
“Medical, Medicine & Health Sciences”  
(MMHS-2019), Bangkok Thailand



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# **Book of Abstracts Proceeding**

International Conference on  
“Medical, Medicine & Health Sciences”  
(MMHS-2019)

**Bangkok Thailand**

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(MMHS-2019)”

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# TABLE OF CONTENTS

<b>ORGANIZING COMMITTEE .....</b>	<b>V</b>
<b>CONFERENCE CHAIR MESSAGE .....</b>	<b>VI</b>
<b>CONFERENCE SCHEDULE.....</b>	<b>VII</b>
<b>LIST OF CONFERENCE ATTENDEES .....</b>	<b>IX</b>
<b>TRACK A: MEDICAL, MEDICINE &amp; HEALTH SCIENCES .....</b>	<b>11</b>
1. MOLECULAR DOCKING OF GNETIN C AND TRANSRESVERATROL OF MELINJO SEEDS (GNETUM GNEMON L.) AS THE INHIBITORS OF BREAST CANCER CELLS MCF-7 .....	12
<b>TRACK B: BUSINESS, ECONOMICS, SOCIAL SCIENCE &amp; HUMANITIES .....</b>	<b>13</b>
2. CASH FLOW AS AN INVESTMENT FACTOR: CROSS- COUNTRY OBSERVATIONS IN SOUTHEAST ASIA.....	14
3. A COMPARISON OF TURKEY’S HUMAN CAPITAL STOCK WITH SOME SELECTED MENA COUNTRIES BY TOPSIS METHOD .....	15
4. BEHAVIOURAL ASSET PRICING: A REVIEW .....	16
<b>TRACK C: ENGINEERING AND TECHNOLOGY STUDY .....</b>	<b>17</b>
5. MECHANICAL PRODUCTION OF CELLULOSE NANOFIBRILS (CNF) FROM BLEACHED KAWAYAN TINIK (BAMBUSA BLUMEANA SCHULT.F.) PULP: EFFECT OF HOLOCELLULOSE PREPARATION AND NUMBER OF PASSES IN THE SUPERMASS COLLOIDER.....	18
6. INVERSION OF EDDY CURRENT SIGNALS USING MACHINE LEARNING METHODS .....	19
7. AUTONOMOUS DAMAGE OF HAZARDS ESTIMATION, DETECTION AND FASTEST RESCUE ROUTE SELECTION IMPLEMENTING IMAGE PROCESSING TECHNIQUES .....	20
<b>FUTURE EVENTS.....</b>	<b>21</b>



**International Conference on  
“Medical, Medicine & Health Sciences”**

**Venue: Novotel Bangkok Ploenchit Sukhumvit,  
Thailand**

**ORGANIZING COMMITTEE**

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## CONFERENCE CHAIR MESSAGE

**Dr. Malika Ait Nasser**

International Conference on “Medical, Medicine & Health Sciences” serves as platform that aims to help the scholarly community across nations to explore the critical role of multidisciplinary innovations for sustainability and growth of human societies. This conference provides opportunity to the academicians, practitioners, scientists, and scholars from across various disciplines to discuss avenues for interdisciplinary innovations and identify effective ways to address the challenges faced by our societies globally. The research ideas and studies that we received for this conference are very promising, unique, and impactful. I believe these studies have the potential to address key challenges in various sub-domains of social sciences and applied sciences.

I am really thankful to our honorable scientific and review committee for spending much of their time in reviewing the papers for this event. I am also thankful to all the participants for being here with us to create an environment of knowledge sharing and learning. We the scholars of this world belong to the elite educated class of this society and we owe a lot to return back to this society. Let's break all the discriminating barriers and get free from all minor affiliations. Let's contribute even a little or single step for betterment of society and welfare of humanity to bring prosperity, peace and harmony in this world. Stay blessed.

Thank you.

**Dr. Malika Ait Nasser**

Conference Chair

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## Conference Schedule

**DAY 01 Thursday (April 11, 2019)**

**Venue: Room 1**

09:00 am – 09:30 am	Welcome Reception & Registration
09:30 am – 09:45 am	Opening Ceremony
09:40 am – 09:50 am	Welcome Remarks – Conference Coordinator Academic Fora
09:50 am – 09:55 am	Introduction of Participants
09:55am – 10:00 am	Group Photo Session
10:00am – 10:30 am	Grand Networking Session and Tea Break



**DAY 01 Thursday (April 11, 2019)**  
**Session 1 (10:30 am – 01:00 pm)**  
**Track B: Business, Economics, Social Sciences and Humanities**

<b>CLBER-2019-104</b>	Cash Flow as an Investment Factor: Cross-Country Observations in Southeast Asia	Dr. Lau Wei Theng
<b>CLBER-2019-109</b>	A Comparison of Turkey's Human Capital Stock with Some Selected MENA Countries by TOPSIS Method	Prof. Dr. Mahmut Masca
<b>CLBER-2019-114</b>	Behavioural Asset Pricing: A Review	Neelangie Sulochana Nanayakkara

**Track C: Engineering & Technology, Computer, Basic & Applied Sciences**

<b>CSSDD-APRIL-101</b>	Mechanical Production of Cellulose Nanofibrils (CNF) from Bleached Kawayan Tinik (Bambusa Blumeana Schult.f.) Pulp: Effect of Holocellulose Preparation and Number of Passes in the Supermass Colloider	Paolo Yves Lazaro De Silos
<b>CSSDD-APRIL-104</b>	Inversion of Eddy Current Signals Using Machine Learning Methods	Fatima Barrarat
<b>BKE-249-101</b>	Autonomous Damage of Hazards Estimation, Detection and Fastest Rescue Route Selection Implementing Image Processing Techniques	Snigdha Nath

**Track A: Medical Medicine and Health Study**

<b>BKM-249-101</b>	Molecular Docking Of Gnetin C And Transresveratrol Of Melinjo Seeds (Gnetum Gnemon L.) As The Inhibitors Of Breast Cancer Cells Mcf-7	Kintan Nur Romadhona
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**(Lunch Break 01:00 pm – 02: 00 pm) Closing Ceremony**



## List of Conference Attendees

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

Sr. No	Official ID	Name	Affiliation Details
1.	<b>BKE-249-101A</b>	Rufyda Jah	BRAC University, Bangladesh
2.	<b>BKM-249-102A</b>	Dr Aggrey Kiyingi	Merrylands cardiology Services, Suite 10, 258 Merrylands Road, Merrylands NSW 2160, Australia
3.	<b>BKM-249-103A</b>	Dr Aye T Htun	Staff Specialist (Obstetrician and Gynaecologist) Sydney LHD



	<b>DAY 02 Friday (April 12, 2019)</b>	
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## **City Tour and Shopping Day**

All respective guests are free to conduct their own sightseeing and tour.  
The second day of the event is reserved for this memorable purpose .

**TRACK A: MEDICAL, MEDICINE & HEALTH  
SCIENCES**



# Molecular Docking of Gnetin C and Transresveratrol of Melinjo Seeds (*Gnetum Gnemon* L.) as the Inhibitors of Breast Cancer Cells Mcf-7

Kintan Nur Romadhona<sup>1\*</sup>, Nenden Aulia Shifa<sup>2</sup>, Asmiyenti Djaliasrin Djalil<sup>3</sup>

**Abstract** Breast cancer is a cancer caused by uncontrolled cell growth in breast tissue. In this research, molecular docking has been studied to predict binding affinity of Gnetin C dan trans-resveratrol as active compounds of melinjo seeds to inhibit breast cancer cells MCF-7 (Michigan Cancer Fondation-7). Molecular docking was performed by autodock-vina. The result indicated that Gnetin C and tans-reserveratrol can bind the same amino acid as natural ligand of MCF-7 such as VAL 54B, VAL54B, TYR 55B, TYR 216B, TRP 227B, LEU 306B, LEU 306B, and LEU 306B. Binding affinity of Gnetin C and that of transresveratrol was and -6. and -7.9 respectively, while the natural ligand was -10.0. It indicated that Gnetin C and trans-reserveratrol can bind the protein acid of MCF-7 although the docking energy was lower than the natural ligand. Based on this research, Gnetin C and trans-reserveratrol are potential as anticancer and chemoprevention because they can inhibit some amino acid of cancer cells MCF-7.

**Keywords:** Breast Cancer, Molecular Docking, Gnetin C, Trans-Resveratrol, Amino Acid of Breast Cancer Cells MCF-7

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**TRACK B: BUSINESS, ECONOMICS, SOCIAL  
SCIENCE & HUMANITIES**



# Cash Flow as an Investment Factor: Cross-Country Observations in Southeast Asia

Dr. Lau Wei Theng<sup>1\*</sup>, Assoc. Prof. Dr. Fauziah Binti Mahat<sup>2</sup>

**Abstract:** This study attempts to explore the possibility of applying factor investing strategy using cash flow performance in the Southeast Asian countries, specifically in the Association of Southeast Asian Nations Five (ASEAN 5) markets. The main objective is to determine whether firm-level cash flow information is significant in affecting shareholder return performance. The study employs panel models to analyse financial data across firms and years. The analysis covers a sample of firms in Indonesia, Malaysia, Philippines, Singapore and Thailand during the post Asian Financial Crisis periods from 2000 through 2017. Close to 1000 active firms listed on the five markets contributing to a total of about 14000 firm-year unbalanced observations are analysed. The study excludes financial firms and banks due to the different reporting requirements and meanings of financial variables from the other businesses. The analyses are performed on country-specific basis for comparison purposes. Our results indicate that cash flow performance is generally significant to stock return across the five countries in the region, even after controlling for the other commonly agreed portfolio factors including book-to-market value, size and beta. The role of reported profitability does not subsume the role of cash flow in affecting stock performance. A robust conclusion can be made as the results are stable even after considering for the possible residual correlations following Petersen (2009) and Fama-MacBeth (1973). Portfolio formation also serves for robustness check purpose. Therefore, the findings suggest that firms in the region should manage cash flow prudently to maximise firm value by fulfilling shareholders' expectations. Due to the limitations of study, it is recommended that the future research may consider more dimensions of cash flow for various practical implications. The role of cash flow could be highly relevant when it is considered together with the other firm-level decisions like capital structure, working capital and dividend policy.

**Keywords:** Cash flow, investment factor, Southeast Asia, stock return

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# A Comparison of Turkey's Human Capital Stock with Some Selected MENA Countries by TOPSIS Method

Prof. Dr. Mahmut Masca \*

**Abstract** The paper provides a comparison of Turkey with Middle East and North Africa (MENA) countries in terms of human capital stock by using TOPSIS method. MENA acronym generally refers to the region spanning horizontally from Morocco to Iran. MENA countries, most commonly used can be listed as follows: Algeria, Bahrain, Egypt, Iran (Islamic Republic of), Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, State of Palestine, Syrian Arab Republic, Tunisia, United Arab Emirates and Yemen. Due to the lack of data Libya, Syria and Palestine are omitted in the study. Human capital refers to the stock of knowledge, skills and habits that people accumulate during their education process and training. Human capital together with physical capital is an important factor influencing the economic growth of a country in the future. In comparison of countries, the Technique for Order Preference by Similarity to Ideal Solution (TOPSIS), which is one of the Multi Criteria Decision Making (MCDM) methods has been applied. The infant mortality rate (per 1,000 live births), unemployment rate (percentage of total workforce), life expectancy at birth, total (years), labour force participation rate (percentage of total population between 15-64), current health expenditure (percentage of GDP), internet users (percentage of total population) and population between 15-64 years (percentage of total population) have been used as the indicators of human capital stock of each country in the study. The data of the countries in 2005, 2010 and 2015 have been used for comparison. The analysis period was terminated in 2015 since no data for the countries were available for the next turn from this date. Qatar, United Arab Emirates and Israel are the countries share the first three ranks with highest human capital performance and Iraq and Yemen are the countries with the lowest human capital performance in all the examined years. Turkey was in the 13th rank among 17 countries in 2005. However, it rose to the 8th rank in 2010 and 2015. Iraq and Yemen which are the countries most disadvantaged in terms of human capital should make comprehensive reforms in these subjects and increase the quality of human capital rapidly to grow economically in the future.

**Keywords:** Human capital, Economic Growth, TOPSIS Method, Multi Criteria Decision Making Techniques

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# Behavioural Asset Pricing: A Review

N.S.Nanayakkara<sup>1\*</sup>, P.D.Nimal<sup>2</sup>, Y.K.Weerakoon<sup>3</sup>

**Abstract** Neoclassical asset pricing is developed on the premise investors are always rational and there are unlimited arbitrage opportunities. Limitations in neoclassical asset pricing models led to the development of counter paradigm, behavioural asset pricing. This study presents an outline of the origin and evolution of behavioural asset pricing in contrast to neoclassical asset pricing. It looks into the two building blocks of behavioural asset pricing; where investors are not always rational and where there are limits to arbitrage. The study captures investor irrationality two perspectives; investors' beliefs and their preferences. Further, it reviews psychological biases and heuristics adopted from experimental psychology to explain irrational behaviour of investors. The study highlights main taxonomies of behavioural biases and heuristics and summarises the key biases and heuristics investigated in behavioural literature. Theoretical behavioural asset pricing models try to explain market behaviour through specific biases. This study reviews prominent theoretical asset pricing models in behavioural literature.

**Keywords:** Asset pricing, behavioural finance, irrationality, arbitrage, psychology

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## **TRACK C: ENGINEERING AND TECHNOLOGY STUDY**

# Mechanical Production of Cellulose Nanofibrils (CNF) from Bleached Kawayan Tinik (*Bambusa Blumeana* Schult.f.) Pulp: Effect of Holocellulose Preparation and Number of Passes in the Supermass Colloider

Paolo Yves<sup>1</sup>, Dr. Ramon A. Razal<sup>2</sup>, Dr. Veronica P. Migo<sup>3</sup>, Dr. Jovita L. Movill on<sup>4</sup>

**Abstract** The study dealt with the determination of the effects of holocellulose preparation and number of passes in the mechanical production of cellulose nanofibrils (CNF) from bleached Kawayan Tinik (*Bambusa blumeana* Schult.f) pulp. Pretreatment of bamboo included removal of branches and outer skin, cutting into rings, chipping, soaking in water, air-drying, and hammer milling. Kraft pulping was done, using NaOH and Na<sub>2</sub>S with sulfidity of 15% and alkalinity of 18%. A portion of the bleached pulp underwent the sodium chlorite treatment to isolate the holocellulose by removing extractives, residual lignin, and some hemicelluloses. The amount of acid-insoluble lignin present in the raw bamboo, Kraft pulp, bleached pulp, and holocellulose was determined. The bleached pulp and holocellulose at 1% consistency, were separately made to pass for a predetermined number of cycles in the supermass colloider to produce CNF. The yields were calculated, with ultimate values of 73.52% (200 passes) and 66.02% (300 passes) for the bleached pulp and holocellulose preparation, respectively. Optical microscopy was done to monitor the changes in the morphological characteristics of the CNF during the initial passes, while Scanning Electron Microscopy (SEM) showed the nanosize dimensions of the final product with an average diameter of 58.35 nm and an average length of 2169.26 nm. Dynamic Light Scattering (DLS) showed a homogeneous particle size distribution. In addition, the functional groups present in the CNF from bleached pulp and holocellulose were analyzed using Fourier Transform Infrared (FTIR) Spectroscopy and showed that the CNF samples contain peaks for O-H, C-H, and C-O-C stretching, but lacks groups related to lignin. X-ray Diffraction (XRD) analysis showed that the crystallinity of the CNF increased to 71% compared to the 60% from literature. Statistical analysis using the Stat-Ease Design Expert v10.0 Trial Version and the Statistical Tool for Agricultural Research v2.0 showed that holocellulose preparation and number of passes in the supermass colloider had significant effects on the CNF yield, length, width, and aspect ratio. The holocellulose which was made to pass the colloider for 200 times gave the highest yield and the morphological characteristics closest to reported literature values. For bleached pulps, the number of passes in the supermass colloider had significant effect on the CNF length and width.

**Keywords:** Mechanical, Determination, Nanofibrils

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# Inversion of Eddy Current Signals Using Machine Learning Methods

Fatima Barrarat<sup>1\*</sup>, Karim Rayane<sup>2</sup>, Bachir Helifa<sup>3</sup>

**Abstract** In this paper, we propose an inversion of signals coming from the sensor response in a nondestructive eddy currents testing using machine learning methods, namely artificial neuron networks, deep learning and hybrid learning method, to reconstruct the length and depth of defect, in order to obtain its geometric characterization that leads to the inverse problem resolution. The results show that the developed approaches make it possible to quantify this defect. Such a numerical approach can replace an expensive experimental investigation or an optimization algorithm leading to a computing time that can become prohibitive. The three different machine learning methods mentioned for solving the inverse problem, are implemented as the MATLAB software.

**Keywords:** Nondestructive Testing; Eddy Currents Sensor; Crack Characterization; Inverse Problem; Machine Learning

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# Autonomous Damage of Hazards Estimation, Detection and Fastest Rescue Route Selection Implementing Image Processing Techniques

Monirul Islam Pavel<sup>1</sup>, Snigdha Nath<sup>2\*</sup>, Ruffyda Jahan<sup>3</sup>

**Abstract** Numerous hazards that are undermine the world, can cause loss of lives or damage and all of them have the ability to cause severe damage to homes, organizations and framework. These incorporates meteorological risks, inadvertent dangers flooding, earthquake, volcano and so on. It has turned into a serious issue of concern all through the world, regardless of whether it is natural hazard or by human components. In this research work, we propose a hazard or disaster detection systems implementing image processing algorithms like holistically-nested edge detection, k-mean cluster, speeded up robust features algorithm. The whole theme of the work is divided into two secession. In the first secession, we present an algorithm for searching best route in an urban area analyzing before and after images of nature hazard from satellite. In the second phase, to automatically detect the affected areas of hazard or disaster and estimate the destruction before sending rescue teams or aids. The system is able to detect affected regions of fire and volcanoes, measure the flood affected zone and finally can estimate the damage occurred by human war destruction. Thus, this system is very essential for autonomous natural and human detection.

**Keywords:** Hazard damage detection, image processing, fastest route selection, holistically-nested edge detection, k-mean cluster, speeded up robust features algorithm.

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