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# AIVCE-BS-1, 2020ShahAlam

AMERABRA International Virtual Conference on Environment-Behaviour Studies, 1<sup>st</sup> Series cE-Bs, FSPU, Universiti Teknologi MARA, Shah Alam, Malaysia, 24-25 Jun 2020

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# **A** IVCE-BS-1, 2020ShahAlam

https://amerabra.org; https://fspu.uitm.edu.my/cebs **AMERABRA International Virtual Conference on Environment-Behaviour Studies, 1st Series** cE-Bs, FSPU, Universiti Teknologi MARA, Shah Alam, Malaysia, 24-25 Jun 2020.

> *Editor* Mohamed Yusoff Abbas

Abstracts, AMERABRA International Virtual Conference on Environment-Behaviour Studies, AIVCE-BS-1, 2020ShahAlam1# Series, Malaysia, 24-25 Jun 2020

# Acknowledgement

The Association of Malaysian Environment-Behaviour Researchers (AMER), the main organiser, with the co-organisers, ABRA (Association of Behavioural Researchers on Asians) and cE-Bs (Centre for Environment-Behaviour Studies), Facuty of Architecture, Planning & Surveying, Universiti Teknologi MARA, congratulate all contributors for making this publication possible.

Thank you all !

# Foreword

This AIVCE-BS-1, 2020ShahAlam (AMERABRA International Virtual Conference on Environment-Behaviour Studies, 1st Series) our 31<sup>st</sup> international conference to be organised, managed to attract an overall total of 50 numbers of approved abstracts, contributed by six countries, namely Hong Kong, Indonesia, Japan, Malaysia, Saudi Arabia and Taiwan.

The abstracts approved were simply grouped generally under 16 sub-categories, although quite a number could have been easily placed under more than one category. The top three categories in order of popularity involved the following environments: -

Healthcare / Healing Environment, HE 11 numbers (22.4%); Urban Environment, 6 numbers; and Landscaping Environment, LaE, 5 numbers.

The list of all the approved abstracts are as listed in the content.

Prof. Dr. Mohamed Yusoff Abbas Editor AIVCE-BS2020-1ShahAlam admin@e-iph.co.uk 24 Jun 2020

# About the Conference

# Background

The prolonged uncertainty of the Covid-19 pandemic globally (with partial lockdown since 18 Mar 2020 in Malaysia) has affected the scheduling of forthcoming conferences globally. Coupled with the ever financial constraints to travel among international participants – in particular to those who would like to publish their conference papers soonest – it is timely now for a total virtual conference, thus, the AIVCE-BS (AMER ABRA International Virtual Conference on Environment-Behaviour Studies). Again, due to the uncertainty in scheduling forthcoming conferences, AIVCE-BS shall be organised in series, rather than the annual norm. The other four international conferences organised shall be back once the global pandemic is over.

# Theme Synopsis

AIVCE-BS main theme addresses Environment-Behaviour (E-B) / Environmental Psychology issues affecting the Asian communities living in both Asian and non-Asian countries. E-B issues affecting non-Asian communities in Asian countries are also most welcome.

Paper contributions shall involve the following environments (though not exhaustive):-Children / Youth Environment: Climatic Environment Commercial/Retail/Services Environment: Communication / Social Media Environment; Community Environment / Social Psychology: Construction Environment: **Design & Creative Environment:** Educational / Learning Environment; Elderly Environment; Energy Environment; General Psychology: Green Environment: Healthcare / Healing Environment; Hospitality / Tourism Environment; Inclusive Environment: Landscaping Environment: Legal Matters:

Leisure / Recreational / Sports Environment; Local Cultural / Heritage Environment (Food included); Management & Production Environment; Natural Environment; Policy Environment Public Sector Environment, Residential Environment; Rural Environment / Rural Psychology; Sustainable Environment; Technology-related Environment; Transportation / Travelling Environment; Urban Environment / Urban Psychology; Workplace Environment

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### Commercial / Retail / Services Environment

### A04 CRSE Applying translational research in university-industry 001 collaboration through crab farming for socio-economic alleviation of disadvantage communities Rugayah Hashim<sup>1</sup>, Saiful BahariMohd Yusoff<sup>2</sup>, Zaidi Mohd Aminuddin<sup>3</sup>. Aida Maria Ismail<sup>4</sup> <sup>1</sup>Research & Innovation Division, Universiti Teknologi MARA, Cawangan Selangor, Puncak Alam Campus, Malaysia <sup>2</sup>Institute of Creative Arts & Technology, Universiti Malaysia Sarawak, Kota Samarahan, Sarawak, Malaysia <sup>3</sup> Department of Economics, Faculty of Business and Management, Universiti Teknologi MARA, Cawangan Selangor, Puncak Alam Campus, Malaysia <sup>4</sup> Faculty of Accountancy. Universiti TecknologiMARA. Cawangan Selangor, Puncak Alam Campus, Selangor, Malaysia guy73106@yahoo.com,mysaiful@unimas.my, pmzaidi@yahoo.com.my, aidamaria430@yahoo.com Tel: 6013-3852288 A05 CRSE Developing a Demographic, Human Capital, Values and 003 Economic Profiling of Rohingya Refugees Workers in Malaysia Mohd Safwan Ghazali1, Tan Peck Leong2, Arlinah Abd Rashid2, Sazlin Suhalmie Shariff3 1Universiti Malaysia Kelantan & Centre for Postgraduate and Professional Studies, Faculty of Business and Administration, 2 Arshad Ayub Graduate Business School, 3 Centre for Postgraduate and Professional Studies, Faculty of Business and Administration, Universiti Teknologi MARA, Shah Alam,

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Tel: +60134903920

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Muhammad Najmi Abdul Haris Nasution1, Syazwani Abdul Kadir2 1 Independent Researcher, Malaysia. 2 Centre of Studies for

Interior Architecture Faculty of Architecture, Planning and Surveying, Universiti Teknologi MARA, Puncak Alam, Selangor, Malaysia najmiharis100@gmail.com, syazwani179@uitm.edu.my +603-5544 4385

### **Construction Environment**

 
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 1 Faculty of Architecture Planning and Surveying, Universiti Teknologi MARA, Perak Branch, Malaysia

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 Centre for Nursing Study, Faculty of Health Sciences, Universiti
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 1001

 norhayatishamsuri@yahoo.com, zamzaliza@uitm.edu.my
 Tel: 012-5072556
 012-5072556

### Health / Healing Environment

### A10 HE Coping Strategy and Depression among Caregivers of Cancer Patients Receiving Palliative Care Noor Melissa Nor Hadi1, 2, Fazlina Ahmad3, Mohamad Rodi

Isa4, Salmi Razali1,5\* 1Department of Psychiatry, Faculty of Medicine, Universiti Teknologi MARA(UiTM), 2Department of Psychiatry and Mental Health, Hospital Tuanku Fauziah, Perlis, 3Palliative Care Unit, Department of Medicine, Hospital Sultanah Bahiyah, Kedah. 4Department of Public Health and Preventive Medicine, Faculty of Medicine, UiTM, 5 Maternofetal and Embryo Research Group (MatE) Faculty of Medicine, UiTM noormelissanh@gmail.com, fazlina77@yahoo.com, rodi@uitm.edu.my, drsalmi@uitm.edu.my *Tel:* 603-61265000

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1Department of Psychiatry, Faculty of Medicine, Universiti Teknologi MARA, 2Faculty of Computer and Mathematical Sciences, Universiti Teknologi MARA, 3Institute of Pathology, Laboratory and Forensic Medicine (I-PPerForM) and Faculty of Medicine, Universiti Teknologi MARA, 47000 Sungai Buloh, Selangor, Malaysia drsalmi@gmail.com, yapbeewah@salam.uitm.edu.my, yungan.chua@gmail.com, hapizah.nawawi@gmail.com Tel: 603-61265000 27

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  - 001. Tan Pei Yee , Hairul Nizam Ismail

Urban and Regional Planning, Universiti Teknologi Malaysia, Johor Bahru, Malaysia sallytpy@gmail.com, b-hairul@utm.my Tel: 0149419487

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Norashikin Abdul Karim 1, Siti Norlizaiha Harun 2, Salwa Ayob 3, Zulkarnain Hazim 1

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### Local Heritage Environment

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1 Department of Tourism Planning and Hospitality Management, Kulliyyah of Languages and Management, International Islamic University Malaysia, 2 Department Urban and Regional Planning, Faculty of Built Environment and Surveying, Universiti Teknologi Malaysia nurshuhadah.mohd@gmail.com, b-hairul@utm.my, s.rafy@utm.my Tel: +6019-2228801

### **Travel / Transportation Environment**

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### A.43 TTE The Effects of Moral Norms, Social Norms and 115 002 **Environmental Perception on Travel Behavior in Malaysia** Rohana Ngah Malaysian Academy of SME and Entrepreneurship Department (MASMED), Faculty Business and Management, Universiti Teknologi MARA, Shah Alam, Malaysia. rohanangah@uitm.edu.my Tel: 0162035765 A.44 TTE Transit Oriented Development and Ridership at Kelana 117 003 Jaya Line LRT Stations Muhammad Ikram Baharom Shah1, Jamalunlaili Abdullah1, Kushairi Rashid2 1 Faculty of Architecture, Planning and Surveying, Universiti Teknologi MARA, Shah Alam, Selangor, Malaysia. 2 Faculty of Architecture, Planning and Surveying, Universiti Teknologi MARA, Sri Iskandar, Perak, Malaysia. Ikram@uitm.edu.my, jamal858@uitm.edu.my, kushai575@yahoo.com.my Tel: 601126433117

### **Urban Environment**

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# Children / Youth Environment

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# A 01 CYE 001

# Assessing Children's Connectedness to Nature: A mixed method study

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### Abstract

Connectedness to nature (CTN) during childhood is crucial as it affects a child behaviour towards the environment and nature in later life as an adult. A strong CTN that has developed since childhood had influenced the adults' frequency of visit to green areas, perceptions of the natural environment and natural recreation activities, environmental career choices and environmental concern, as well as attitude and behaviour towards activities with nature. Hence, it is vital to assess CTN during their childhood, especially during middle childhood. Extensive studies have discussed the importance of CTN among children; however, little is known on the underlying constructs of children's CTN. Previous studies mostly used a quantitative approach to measure children's CTN using various constructs that adapted from the adults' instrument. Even though the quantitative instrument is essential to generalize the results and to identify the position of children's CTN along a continuum, many researchers have suggested that the qualitative approach is the best method to use with children. Therefore, this study aims to assess children's CTN using mixed-method study. This study used a sequential mixed-method approach. This study involved 760 children age 10-11 years old from 20 schools that include both urban and rural schools in Kedah and Pulau Pinang, Malaysia. Questionnaires were used in the first stage, in the quantitative part (n=760), followed with focus group discussion and drawing in the qualitative part (n=72). Findings showed that children's CTN needs to be measure through a direct concept or direct statement. Eight potential constructs can be used to measure and assess children's CTN which are nature identification, nature dependence, sense of responsibility, empathy towards nature, enjoyment in nature, negative affiliation, interest in natural spaces and interest in nature activities. The limitation of this study is this study only involved children aged 10 and 11 years old and only conducted at *Sekolah Kebangsaan (SK)*. Future research needs to be performed with children aged 7 to 10 years old and at different types of school.

Keywords: children; nature, connectedness to nature, mixed method

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### A 02 CYE 002

# Assessing the Questionnaire of Autism Environment: Reliability and Validity

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### Abstract

The United States revealed the most recent data that as many as one in every 68 children had diagnosed with ASD. While in Malaysia, the number of individuals with autism has been increasing at three per cent per year. The increasing numbers give impact to the country, community and family. The only way to help autistic children is to provide them with proper education. Unfortunately, the learning environment does not accommodate their complex condition to overcome their needs. In this situation, architects play roles in creating responsive buildings. However, they have limited knowledge and lack of awareness in terms of the sensory environment for people with autism. The objective is to assess the validity and reliability of a questionnaire designed to measure knowledge and awareness among who involves in the autism learning environment. Questionnaire content determined by gaps highlighted in a literature review. We aim to test the internal consistency and content validity of an instrument designed, face validity, item analysis, repeat and internal reliability assessed. Four sections (144 items) determining the frequency of sensory sensitivity, sensory stimulation, sensory design and physical learning environment. Appointed experts (N=9) completed detailed content validity assessment. resulting scores for appropriateness, the phrasing of questions, grammar and proofreading suggested by the expert. The questionnaire designed to close-ended and self-administered by the respondent. A pilot test has carried out under actual field conditions on a group of people similar to the research population. The data collection is to identify problems that the potential respondents might have in either understanding or interpreting a question. Respondent (N=35) completed the survey and the reliability test resultant to reveal inconsistencies and revising the criteria accordingly. Time-consuming is the limitation to approach an expert to validate the questionnaire and respondent to give feedback. The possibility is the lengthy question (144) assessing a wide array of research topics. This questionnaire is a suitable tool to evaluate knowledge and awareness among who involves in the autism learning environment. Perhaps the outcome would give beneficial for a designer to create spaces for autistic, accommodate the specific sensory needs, creating a conducive environment and help the development of the autistic child in the future.

Keywords: Autism; validity; reliability, pilot test;

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# A 03 CYE 003

# Noncompliance Behavior in Contact Lens Wear and Care among Young Adults

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### Abstract

The risk of getting a microbial infection among contact lens wearers is often associated with noncompliance behaviour. Understanding the scope and extent of this noncompliance behaviour is vital for eve care practitioners as this information may be insightful for the practitioners on deciding which aspect of lens care and maintenance that is key when consulting their patients. The objective of this study was to assess the level of compliance and the scope of noncompliance behaviour among young contact lens wearers. Sixty-six soft contact lens wearers in the university campus were surveyed with a self-administered questionnaire which gathers information on the demographic background, contact lens details, perceived to compliance and assessment on wearing and replacement habits and lens case hygiene. Each participant was instructed to demonstrate the lens cleaning procedures with a researcher assessed their practice with an observational checklist. Majority of the participants were females aged between 20 to 25 years. Overall, more than half of the participants (52%) did not comply with lens wear and care regimens. The most noncompliant behaviour was the lens cleaning and disinfecting procedure (59%) followed by lens case hygiene (48%). Not rinsing lenses before lens insertion or before storage, and not rubbing the lenses when cleaning are among the noncompliant behaviour observed in lens cleaning and disinfecting regime. Majority of the participants (85%) did not attend the aftercare visits, and this was observed to be significantly associated with the location of contact lens purchase (p=0.04). Thirty-five participants perceived themselves as compliant,

but only half indeed exhibit compliant behaviour. This study showed that young wearers were noncompliant in the aspect of lens cleaning and lens case hygiene, and this was likely to be attributed by lack of correct knowledge on lens care. Practitioners may need to reinforce the proper lens cleaning regime using more creative and innovative ways as an effort to improve compliance among the young lens wearers.

### Keywords: Contact lens, Compliance, Behavior to lens wear and care

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# Commercial / Retail / Services Environment

Abstracts, AMERABRA International Virtual Conference on Environment-Behaviour Studies, AIVCE-BS-1, 2020ShahAlam1# Series, Malaysia, 24-25 Jun 2020

# A 04 CRSE 001

# Applying Translational Research in University-Industry Collaboration through Crab Farming for Socio-Economic Alleviation of Disadvantage Communities

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### Abstract

The socio-economy for rural areas and among disadvantaged communities has been the priority for all state governments in Malaysia. Assistance in building the economy has ranged from subsidies to expert advice from both the relevant government agencies, as well as from universities. For university researchers, applying knowledge from basic theory to improve the living standard of disadvantaged communities has been a challenge in getting the right community and the right assistance. However, in the case of the community at Pulau Salak, Santubong, Sarawak, crab farming was the perfect match between the location and a Universiti Malaysia Sarawak's (UNIMAS) innovation testing project. Hence, this paper aims at describing the translational research project that has uplifted the socio-economy of a rural community at Santubong, Sarawak, Malaysia. After two years, crab farming has become a significant economic endeavor as the areas of Pulau Salak provided the apt ecosystem for the marine species. Through the collaboration between UNIMAS and UCS from establishing the right community, training, and marketing of the matured crabs, the socio-economy of the families involved in crab farming has improved significantly. The

crab farming activities are evident in the purchase of new boats and fishing equipment as well as other household amenities such as refrigerator, television sets, cell phones, accessibility to satellite television and the internet, etcetera. It is proven that establishing partnerships between universities with industries (investors and entrepreneurs) will be beneficial to all stakeholders. Industries interested in utilizing the vast expertise in both UITM and UNIMAS have shown project success with the inclusion of international partners. The results from the collaboration have shown that a disadvantaged village in Pulau Salak, Santubong, Sarawak, has been impacted by the translational research activity. In other words, the demonstration of the impact of research as part of public sector expenditure on research grants to universities is accounted for. From here, it is hoped that other universities will collaborate by matching different expertise to match the community concerned and provide a win-win situation for all parties. Translating research for the social and economic benefit has been materialized in the project collaboration; UNIMAS experimented while UiTM was involved in the marketing and promotion of the output. As of this writing, the farmed crabs have had local orders and export interest to other countries. It is recommended that other universities collaborate towards translational research in fulfilling the strategies and key performance indicators of their respective entities. In doing so, the enhancement of the knowledge transfer program and commercialization of public sector research is evidenced through a new source of income generation. Furthermore, creating a business from the research is the ultimate achievement for any university as the outcome impacts the well-being and guality of life of the community.

# Keywords: Socio-economy; Translational research; Crab farming; Disadvantage community

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# **CRSE 003**

## Developing a Demographic, Human Capital Values and Economic Profiling of Rohingya Refugees Workers in Malaysia

#### Mohd Safwan Ghazali<sup>1</sup>, Tan Peck Leong<sup>2</sup>, Arlinah Abd Rashid<sup>2</sup>, Sazlin Suhalmie Shariff<sup>3</sup>

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#### Abstract

One of the most important trends with regards to forced migration is the increasing number of refugees hosted in developing countries like Turkey, Bangladesh, Pakistan, and Malaysia. As of the end of February 2020, there are 178,990 refugees registered in Malaysia, and more than half of them are ethnic Rohingyas, Myanmar (UNHCR, 2020). The unnoticed facts, but the truth is Rohingya refugees are the longest staying refugees', illegally earn a livelihood, and expected to remain in Malaysia for the next few decades. Given the potential economic and socio impact of the massive influx of refugees into a host country, it is imperative to study who these people are in terms of their livelihood, skills, and other economic components. Thus, this study aims to develop a comprehensive profiling of the employed Rohingya refugees in Malaysia. Particular focus is to uncover human capital, employment information, economic condition, and other socioeconomic indicators that obtained more insights into Rohingya refugee's livelihood strategies. This survey, the pioneer of it's in Malaysia narrative was carried out among employed Rohingya refugees across the occupational sector, mostly living in Klang valley, yielding 180 completed face-to-face structured questionnaire. Analysis from the profiling indicates it's a norm for them

to allow only men to work, while women only as a caretaker at home. An overwhelming majority stayed and working in Selangor. Given this urban setting, refugees often more vulnerable to exploitation and mistreated. About one in four paid RM5001 to RM10000 per person to the syndicate to enter Malaysia "illegally." Vast of the respondents have to borrowed from family and friends to finance their traveling costs to Malaysia. In other words, it might increase the tendency of these people to 'overstay' in Malaysia. Although many of them are illiterate, Rohingya respondents took their forces to spoke and understand another language to survive in a new setting and culture. The majority of Rohingya respondents were in the retail sector, with an average monthly income level between RM1501-RM2000, and saving is limited. They also remit about RM 4000 an average in the past 12 months. Its finding uncovers what these refugees contain in terms of demographic, human capital values, and other economic variables. Also, this assessment can provide valuable information to assist the government in delivering inclusive refugee's rights to work. Besides, the profiling methodology, analysis used, and experiences during the fieldwork provide valuable insight for future research.

Keywords: Rohingya Refugees; Economic Profiling; Inclusive Employment; Sustainable Development Goals

## CRSE 002 Rohingya Refugees Employment Readiness to Malaysian Labour Market: Challenges and the way forward

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#### Abstract

Where peace is fragile, refugees are unable to return to their homes or are unable to stay in host countries, thus repatriate to the third country was the preferred solution for them to retain protection and rebuild their lives. However, to be relocated, fortunate refugees may only wait 2-5 years, but many of them are left waiting for more than ten years or likely to stay permanently in the host country. Recently, there are 25.9 million people around the world have been forced from home, UNHCR submits approximately only 1% for thirdcountry resettlement, and less than 3% were able to return homes. In the present global context, strengthening the existing labor market and granting refugees the right to work in the host country is imperative. As of November 2019, there are nearly 180 thousand refugees registered in Malaysia, and 50% or 99,290 of those are ethnic Rohingyas. Generally, a refugee in Malaysia cannot work legally and have minimal access to quality healthcare, and education due to this nation has not acceded to the 1951 Refugee Convention or its 1967 Protocol. As such, this protracted situation has led the refugee community vulnerable to exploitation, arbitrary, and detention by local authorities because of their 'illegal or undocumented migrants' status. However, in March 2016, The Malaysian Cabinet has agreed to embark on a work pilot project to allow 300 ethnic Rohingya refugees to work in the plantation and manufacturing sectors legally. Analysis from literature found that the pioneer project has not been received well, with only 40 Rohingya showed up, which partly due to salary scale, working place environment, and household responsibility. Future research is called to gain empirical data on understanding the readiness, challenges, and strategies to be implemented. The article is prominent in assisting the government in providing a clear stance on the role of Rohingya refugees in the Malaysian labor market.

Keywords: Rohingya Refugees; Employment; Readiness; Inclusive Environmement

## A 07 CRSE 004

## The Space Organization for Workflow Accessibility in Street Bike Service Centre

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#### Abstract

Riding street bike has become a popular leisure activity among many riders nowadays, which leads to the rising of the street bike industry. This industry also involves the maintenance and servicing of the street bike; therefore, having an efficient service centre has become more significant for the business owner as well as the users of a street bike. There is a high demand for the service centre as street bikes need to be serviced over time or repaired when they undergo damages. Many of the street bike service centres pay adequate attention to their quality of services and business management; however, some may have overlooked the aspect of space organization in their premises that can ensure efficient workflow accessibility. Systematic workflow accessibility makes a significant contribution to the business revenue as it provides a smooth workflow and avoids risky incidents in the workshop area. For instance, random placement of tools and equipment may lead to a confusing and tiring workflow for the workers, thus causing less-efficient quality and time-consuming in their services. In regards to this issue, this study aims to examine the space organization in a selected case study of street bike service centre. The main objective of this study is to investigate the space organization for workflow accessibility in the case study. The methodology of the research includes site observation and layout analysis at the case study service centre, which focused on the area within the servicing process flow of street bike, customers, and workers. Findings indicate that the space organization, as well as the placement of tools and equipment in the case study, provide good workflow accessibility for the street bike service centre. This study hopes that the findings can be a useful reference for future business owners in regards to the space organization in a street bike service centre.

Keywords: Space organization; workflow accessibility; street bike service centre

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# Construction Environment

Abstracts, AMERABRA International Virtual Conference on Environment-Behaviour Studies, AIVCE-BS-1, 2020ShahAlam1# Series, Malaysia, 24-25 Jun 2020

# A 08 CoE 001

## Expatriates' Psychological Distress Components of Malaysian Construction Company in Host Country

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#### Abstract

The number of Malaysian professionals prefers to work in host country rather than in their own country. The number is growing from year to year. The study has shown, it was estimated in 2019, that approximately more than 150,000 Malaysians who were working in Asia, Oceania, Europe and Americans were highly skilled. Among the reasons for this phenomena is the expatriate distress of individual to stay with the company abroad because of better facilities, working environments and benefits. Psychological distress, also known as psychological comfort relating to anything leads to human well-being and satisfaction of the individual. Individual adjustment is a degree of psychological distress that an expatriate faces during assignment overseas. When living in host country, various perceptions contribute to unpleasant feelings and difficulties in the new environment. Unhappiness with the organisation will contribute to the desire to leave for a prospective employer. The psychological influences such as interaction, living environment, reward and social life contribute to the success of the expatriate to live abroad. The research methodology of the study was using content analysis. The aspects affect the psychological distress to perform tasks during the assignment abroad from previous studies were discovered. The study aims to determine the factors which lead to expatriate's physiological distress. The highest demand for Malaysian professionals to working abroad can be caused Malaysia would have to face a shortage of professionals within the country. Malaysia is facing a talent crisis because of a lack of skilled, knowledgeable and experienced professional. Employees are

also the most significant factor contributing to any organisation's performance. The longer the operational time the workers spend, the more experienced they are. The study has found that the need psychological adjustment while working abroad. The professional expatriates could retain or leave an organization due to job dissatisfaction, lack of career opportunities, and inability to adjust with the working environment. Thus, it is lead to the loss of Malaysia's professional talents and affects economic and national growth.

#### Keywords: Psychological distress; Expatriate; Construction

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# Educational / Learning Environment

Abstracts, AMERABRA International Virtual Conference on Environment-Behaviour Studies, AIVCE-BS-1, 2020ShahAlam1# Series, Malaysia, 24-25 Jun 2020

# A 09 ELE 001

### Psychological Stress in Final Year Nursing Students: The role of clinical environment

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#### Abstract

Numerous research studies support the existence of serious adverse consequences that have been associated with stress. Research data continue to show that the transition process is very stressful for new graduates and some new nurses into the profession makes it very important to assist nursing students to not only cope with the challenges of their education and clinical placements. The purpose of this study is to examine the clinical environment factors associated with stress and coping among final year nursing students by adapting the Transactional Stress and Coping Model (Lazarus and Folkman, 1984). The cross-sectional study design was used in this study, and data were collected over two months in 2019. A self-administered questionnaire that was measuring demographic data, primary stressors and resilience were used to collect data. Overall, four hundred and twenty (420) final year students represented as a sample for the study and participants were recruited using a simple random sampling technique. The mean score of stress among final year nursing students was 18.7 (SD=4.38), indicating a moderate level of stress among final year nursing students in Malaysia. Both male and female students showed the highest percentage of having moderately stressed. Other socio-demographic characteristic and CGPA showed no significant associated with the level of stress among final year nursing students (p>0.05). On the other hand, all the stressor factor and mediator factors show significantly correlate with stress score (p<0.001). In conclusion, the majority of final year nursing students had a moderate level of stress. Gender and resilience level was significantly associated with the level of stress. Based on one-way ANOVA, there was a significant mean difference of primary appraisal score and secondary appraisal score between stress level groups. This research was deepening the stress experienced by nursing students throughout their nursing diploma courses. It highlights the crucial clinical environment factors associated stress among final year nursing students, the significant role of resilience in reducing stress among final year nursing students.

Keywords: nursing students, stress, resilience.

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# Health / Healing Environment

Abstracts, AMERABRA International Virtual Conference on Environment-Behaviour Studies, AIVCE-BS-1, 2020ShahAlam1# Series, Malaysia, 24-25 Jun 2020

# A 10 HE 010

## Coping Strategy and Depression among Caregivers of Cancer Patients Receiving Palliative Care

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#### Abstract

Introduction: Caregivers of palliative cancer patients who are depressed may not be able to provide optimum care for the patients and put both at risk for more severe physical and psychological complications. In Malaysia, several studies have investigated depression among cancer patients; however, sparse knowledge available to address the mental health status of their caregivers. **Aims:** This study aimed to determine the prevalence of depression and its contributing factors among palliative cancer patients' caregivers in one of the public hospitals in the northern state of Malaysia. **Method:** This is a cross-sectional study. The participants were screened for depression using subscales of depression of the Depression, Anxiety, and Stress Scale-21 and subsequently assessed using the Mini International Neuropsychiatric Inventory for diagnosis of major depressive disorder. We used the Pro forma questionnaire, Brief-COPE, and Multidimensional Scale of Perceived Social Support to assess caregivers' sociodemographic factors, caregiving factors and patient factors, caregivers' coping strategy, and their perceived social support respectively. **Results:** About 6% of caregivers had a major depressive disorder. Univariate analysis

indicated contributing factors for depressive disorder include patient's age, coping strategy (behavioural disengagement, positive reframing, religious and self-blame), and total perceived social support. After controlling for confounding factors, multiple logistic regression indicated that coping by behavioural disengagement (OR=1.838, p=0.040) and positive reframing (OR=0.375, p=0.034) were significantly contributed to major depressive disorder. **Conclusion:** Caregivers should be trained with beneficial types of coping strategies to help them reduce the burden of caregiving and to ensure optimum mental health status while providing support and care for the patient with cancer.

#### Keywords: Caregiver, Cancer, Palliative, Depression, Coping Strategy

# A 11 HE 012

## Determinants for Healthy Lifestyle of Patients with Familial Hypercholesterolaemia

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#### Abstract

Background. Lifestyle interventions can prevent cardiovascular diseases (CVDs); the severe complications of Familial Hypercholesterolaemia (FH). Aims. This study aims to describe the self-perceptions on lifestyle (smoking, physical activity and healthy diet) and their associations with sociodemographic background, illness characteristics and the underlying health-related psychological elements (such as attitude, norms and perceived behavioural control). Methods. FH patients diagnosed according to Dutch Lipid Clinic criteria were conveniently selected. Pro forma questionnaires were used to measure their sociodemographic background and illness characteristics (treatment for FH, presence and type of CVDs, and risk factors for CVDs). The self-perceptions on the lifestyles and the underlying health-related psychological elements (attitude, norms, perceived behavioural control and intention) were assessed using questionnaires constructed based on the Theory of Planned Behaviour (TPB). **Results**. A total of 100 FH patients participated in the study. Majority of the participants had ceased smoking; about two-thirds perceived that they had performed vigorous physical activities, but less than half had taken a healthy diet. The lifestyles of FH patients relate to the presence of cardiovascular disease, treatment received, family support, the presence of barriers and the level of intention to do the behavioural changes. **Conclusion.** Clinicians should be aware of determinants for a healthy lifestyle to ensure effective advice for behavioural modification of FH patients

#### Keywords: Familial Hypercholesterolaemia, lifestyle, physical activity, diet

## A 12 HE 009

## Factors Affecting Lifestyle Modification among Patients with Coronary Artery Disease

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#### Abstract

Background: Adherence to lifestyle modification was recommended as secondary prevention for patients with Coronary Artery Disease (CAD). Lifestyle modification can reduce the risk of reinfarction, readmission and complication from CAD, However, nonadherence to lifestyle modification can be worsening the guality of life and increase the cost of hospitalization for the patients. Adherence to a lifestyle modification such as diet and physical activities is difficult and a big challenge to be practised and maintained in an extended period. In Malaysia, several factors contribute to and disrupt healthy lifestyle changes to patients. Methods: It is a descriptive, cross-sectional study with nonprobability and purposive sample among 113 patients with CAD at one of government cardiac centre in Malaysia. In the study, sociodemographic data such as age, race gender, marital status, level of education and monthly income was collected. Body Mass Index (BMI), smoking status, hypertension, diabetes mellitus, hyperlipidemia, family history of CAD and previous cardiovascular disease event was assessed. Trained staff nurse used a structured questionnaire to get a detailed history regarding patients' lifestyle habits. Simple linear regression was used to analyze the factors that predicted the lifestyle medication among the patients. Findings: The study found that the majority of patients in the study not responsible at all for their health (mean=1.74, SD=±.34). The patients sometimes practised a healthy diet as recommended for patients with CAD with a mean of adherence level 2.08  $(SD=\pm.27)$ . The level of adherence level to physical activities was 1.78  $(SD=\pm.37)$ . Its showed the majority of the patients not practised the physical activities as recommended for them. Sociodemographic data such as age, gender and race significantly predicted the lifestyle modification, p<.001. Hypertension and diabetes mellitus in the study also found predicted lifestyle modification p<.001. Implications: Nurses can use results from studies in planning appropriate health care and education for patients based on factors that affected their adherence to lifestyle modification.

Keywords: Coronary Artery Disease, Nurse-patient Education, Lifestyle Modification, Adherence

# A 13 HE 011

## Factors Contributing to Depressive Disorder among Patients with Retroviral Disease

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#### Abstract

**Background:** Patient with Retroviral Disease (RVD) or Human Immunodeficiency Virus (HIV) infection are exposed to multiple social challenges such as stigma and abandonment that predispose them to depressive disorder, nonadherence to treatment and poor quality of life. **Objective:** This study aimed to determine the prevalence of depressive disorder and its contributing factors among patients with RVD. Methodology: This is a cross-sectional study involving 210 RVD patients receiving Highly Active Antiretroviral Therapy (HAART) in the Infectious Disease Clinic of one of the public hospitals in Selangor, Malaysia. The patients who fulfilled selection criteria and gave informed consent were selected using systematic random sampling. The status of Depressive disorder was screened with the Hospital Anxiety Depression Scale and diagnosed with the Mini International Neuropsychiatric Interview, respectively. Dependent variables including sociodemographic and clinical factors, adherence to medication, and support system were assessed using Pro forma questionnaire, Visual analogue scale and Multidimensional Scale of Perceived Social Support respectively. **Results:** Univariate analysis showed significant associations

between clinical factors [having two or more side effects of medication (p=0.002), CD4 counts more than 350 cells/ul (p=0.003), viral load more than 20 copies/mL (p=0.001), illicit substance use in the past (p=0.04), illicit substance use three months ago (p=0.02), amphetamine-type stimulants use three months ago (p=0.008)], support system [low and moderate social support from significant others (p<0.001), family (p<0.001), friends (p=0.03), and overall social support (p=0.002)] were found to have significant associations with depressive disorder. Predictors for depressive disorder for RVD patients receiving HAART include clinical factors [CD4 counts more than 350 cells/ul (AOR=0.31; p=0.03; 95% CI= 0.11-0.86), amphetamine-type stimulants use for the past three months (AOR= 40.23; p=0.01; 95% CI=3.61-447.86)] and support system [low and moderate level social support from significant others (AOR=4.36; p=0.02; 95% CI=1.22-15.64) and family (AOR= 5.65; p=0.01; 95% CI=1.43-22.38)]. **Conclusion:** RVD Patients with amphetamine abuse and received poor support have a high tendency for depressive disorder. Hence, they should receive proper drug counselling and good support so that they have optimum well-being despite suffering from this chronic illness.

Keywords: Retroviral Disease, Human Immunodeficiency Virus, Depression, Support system

# A 14 HE 004

## The Prevalence of Tobacco Use and its Support for Tobacco-Free Campus in Universiti Teknologi MARA Selangor, Malaysia

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#### Abstract

**Background:** Tobacco-free campus is an alternative way to reduce tobacco use among students in University and to protect people from being a secondhand smoker. The purpose of this study is to explore the prevalence, risk factor of tobacco use among students in UiTM Selangor branch campuses, and to identify the associated factors that influence the support for a tobacco-free campus. In line with the mission and aspirations of the Ministry of Health in achieving the goal of promoting tobacco-free policy, education and awareness among university students play a vital role as they are influential and potential leaders of the country.

**Material and methods**: The cross-sectional study was conducted among 406 students from three main campuses of UiTM Selangor from 2 Jul 2018 until December 2018. We administered a standardized and validated questionnaire to the students, which contain detailed questions about sociodemographic details, the knowledge, and habit of smoking, assess the influences of the tobacco on the campus and assess the level of knowledge of anti-tobacco.

**Results:** Three hundred and ninety-two students responded from three campuses. The prevalence of tobacco use was 3.4%, and the risk factors of tobacco use included a lack of knowledge on tobacco-free policy and no implementation of such systems. After adjusting for model A (crude), model B (sociodemographic, lifestyle and general health), and model

C (tobacco use, secondhand smoke, and influence of cigarette smoke), there was a three and a two-fold increase in the response of implementing a smoke-free campus respectively. **Discussion:** There is a significant association between exposures as secondhand smoke and the type of tobacco-free policy. Thus, a tobacco-free campus policy is compulsory to reduce the prevalence of secondhand smoke among students.

**Conclusion:** There is a positive impact of reducing the number of tobacco use after implementing total tobacco-free policy on campus as compared to campuses that have not yet implemented. The emphasis of increased knowledge on tobacco-free policy and the health risk of exposure to secondhand smokers are much needed.

Keywords: tobacco use, smoke-free campus, University

# A 15 HE 008

# Knowledge and Attitude on cancer, and Perceived treatment effectiveness of Penang Cancer patients.

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#### Abstract

**Background:** Cancer is a major cause of death worldwide. **Significance**: Patients' knowledge, attitude and perceived treatment effectiveness toward cancer are important in determining their treatment's decision making thus their clinical outcome. **Aims:** The study aimed to explore cancer patients' knowledge, attitude and perceived treatment effectiveness of cancer. **Objective:** To evaluate cancer patients' level of knowledge, attitude and perceived treatment effectiveness of cancer patients from January to December 2020. Upon consented, a face to face interviews performed, using a validated questionnaires. Patients over 18 years old, diagnosed with any types of cancer, at all stages except on palliative care were approached. Data were analyzed using SPSS and presented in tables and figures. **Limitation:** The respondents were dominated by females and Malay cancer patients due to during the recruitments at MAKNA activity centres the attendants were dominated by this group of patients mostly. **Findings**: Patients' mean age was 49.85 (SD +/- 9.008), which minimum age was 26 and 69 maximum. The cohort was dominated by females 92.6% (n=126) which consist of 83.1% (n=113) Malays, 11% (n=15) Chinese and

5.1% (n=7) Indian. Most of the patients (58.5%, n=79) were from secondary school, unemployed (60%, n=81) and having a household income of < RM 3500 (76.2%). Only 19.5% (n=20) have insurance coverage. A high percentage of patients (>80 %, n= 109) agreed that cancer was due to stress and genetic factor, followed by unconducive environment, unhealthy food intake, and low immune system. On the other hands, 75% of them (n=102) strongly did not agree that their cancer was due to alcohol and smoking. Most of them (75.4%, n=102) agreed that cancer is curable if they change their lifestyle and taking conventional treatment alone (78.1%, n=106) or in combination (64.9%, n=88). However, 61.9% (n=85), felt that the conventional treatment they received were more important than traditional treatment where they perceived it boosts their immune system and prevent cancer spreading however have side effects like lethargy. A small number of (11.9%. n=16) agreed traditional treatment patients on for cancer healing. Discussion: Knowledge of cancer was moderate among cancer patients. Most of them perceived that conventional treatment can cure cancer However, some of them believed that that cancer is curable by a combination of modern and traditional treatment. Implication: The information gathered from this study may help the policymaker to design a suitable awareness program to increase patients' knowledge, attitude and have a correct perception of cancer disease.

Keywords: Knowledge, Attitude, Perceived effectiveness, Cancer patients.

# A 16 HE 006

## Perception of Discharge Planning and Quality of Life among Patients with Coronary Artery Disease

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#### Abstract

The impact of a coronary event risked a person's life. It may cause disability, rising the attention for proper discharge planning and assessment of the quality of life (QoL) among patients with coronary artery diseases (CAD). Hence, the purpose of this study is to identify the correlation between perception of discharge planning and QoL among patients with CAD. A cross-sectional study was conducted using a sample of patients with CAD in UiTM Medical Specialist Centre. A Patient Continuity of Care Questionnaire (PCCQ) to assess the perception of discharge planning and A MacNew Quality of Life (QoL) to determine the QoL were given to 152 patients as a self-administered questionnaire. The result from this study found, most of the respondents achieve a moderate level of QoL in an emotional domain (n=92, 60.5%) and low level of QoL in the physical and social domain (n=124, 81.6%), (n=92, 60.5%) respectively. There is no correlation between the level of perception of discharge planning and the level of QoL which was, emotional (rho=-0.015, p=0.857), physical (rho=0.066, p=0.422) and social (rho=0.008, p=0.920). The results show a statistically significant relationship between the level of perception of discharge planning with age groups (p=0.002) and gender (p=0.018); however, other demographic characteristics do not show a correlation. Other than that, a result indicates there is a significant relationship between the physical and social domain of QoL with marital status (p=0.025, p=0.008), physical and social domain of QoL with age groups (p=0.000, p=0.002) and emotional and social domain of QoL with a family history of heart disease (p=0.001, p=0.001). This research proved that majority of patients with CAD had a high level of QoL

in the emotional domain but low in the physical and social domain. Future research should identify the factor that can influence the perception of discharge planning and QoL, which then can improve their QoL among patients with CAD.

Keywords: discharge planning, quality of life, coronary artery disease

# A 17 HE 007

## Relationship between Level of Stress and Social Support among Parents of Children with Cerebral Palsy

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#### Abstract

Social support helps to prevent and decrease the stressful situation, where the absence can lead feeling of abandonment, sad, and anger, which give negative effects for the family's experience in providing care to children with cerebral palsy. Severe disability of the children with cerebral palsy may be associated with the high level of stress of the parents and linked to the low levels of support. Thus, this study was investigated on social support perceived and stress level of parents who are having children with cerebral palsy. The cross-sectional study was conducted to determine the significant relationship between social support and the level of stress among parents of children with cerebral palsy. Two outcomes measures were used which Perceived Stress Scale (PSS) and Multidimensional Scale of Perceived Social Support (MSPSS). Sixty parents are attending Spastic Children's Association were recruited. The result shows that 45 parents are at a moderate level of stress, 75 % in a meanwhile, 8.3 % of the parents reported a high level of stress. The mostreported stressor by parents is 16.7% is being upset because of something that happened unexpectedly, and they never felt confident about their ability to handle personal problems. The other parents very often felt nervous and stressed, sometimes angered because of things that were outside their control and never felt that things were going on their way.

Moreover, only 1.7% of parents, which one of them often felt difficulties were piling up so high that they could not overcome them. Family support was ranked as the highest mean score. There was a significant negative correlation between the level of stress and total social support scale. Furthermore, it was revealed that the majority of the parents with cerebral palsy children who had high-stress levels, had perceived low social support from significant other, family members and also friends. However, there is a limitation of sample size, and there were more numbers of mothers compared to fathers involved in this study. Hence, it is recommended to do further study in larger sample sizes and make a comparison stress level as well as social support needed between mothers and fathers. Therefore, it is suggested health professional, especially occupational therapist, to highlight the concern of stress and social support among parents. It may provide a guideline to the health professional to deliver support in a way that assists the best adaptation in facing the issues.

Keywords: Parents; Cerebral Palsy; Social Support; Stress

# HE 003

# The Accommodation Response and Facility between Children and Young Adults

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#### Abstract

Accommodation is the ability of the eve to change its focus from distant to near objects which depends on the lens shape. The relation of near work, accommodation response gives no difference in ocular rigidity between emmetropic and myopic children. Yet, a low tonic accommodation between this5 two groups among children and has believed to be decreased with age. Meanwhile, in young adult emmetropes may develop a late-onset myopia due to occupational near vision demands. This study aims to investigate the accommodation response and accommodation facility before and after 15 minutes of near work on children and young adults, together with emmetrope (non-myopic) and myope group. The accommodation response and facility of 40 subjects (20 young adults, 20 children) aged from 9 years old up to 25 years old were measured using monocular estimation method (MEM), monocular accommodative facility (MAF) and binocular accommodative facility (BAF). The subjects were measured with monocular estimation method (MEM), monocular accommodative facility (MAF) and binocular accommodative facility (BAF) which initially to measure the pre-task accommodation response and facility. The subjects were introduced to near task or reading digital texts on Apple iPad at 25cm distance for 15 minutes. The MEM, MAF and BAF were re-measured for post-task accommodation response and facility. This study only applies to one group of myopic range which was below -2.00D for both children and young adults. Near task has significantly increases the lag of accommodation on both groups' young adults and children, myopes and emmetropes (p<0.05). However, accommodation facility either monocular or binocular were not affected by near work in all groups (p>0.05). Therefore, there was an effect on accommodation response toward near task in all groups, children, young adult emmetrope and myope, when using objective clinical test (MEM) retinoscopy. Nevertheless, there was no significant effect of accommodation facility on near work for all groups tested.

Keywords: accommodation response, accommodation facility, myopes, emmetropes

## The Prevalence of Tobacco Use and its Support for Tobacco-Free Campus in UiTM Selangor

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#### Abstract

Tobacco-free campus is an alternative way to reduce tobacco use among students in University and to protect people from being a secondhand smoker. The purpose of this study is to explore the prevalence, risk factor of tobacco use among students in UiTM Selangor branch campuses, and to identify the associated factors that influence the support for a tobacco-free campus. In line with the mission and aspirations of the Ministry of Health in achieving the goal of promoting tobacco-free policy, education and awareness among university students play a vital role as they are influential and potential leaders of the country.

The cross-sectional study was conducted among 406 students from three main campuses of UiTM Selangor from 2 Jul 2018 until December 2018. We administered a standardized and validated questionnaire to the students, which contain detailed questions about sociodemographic details, the knowledge, and habit of smoking, assess the influences of the tobacco on the campus and assess the level of knowledge of anti-tobacco.

Three hundred and ninety-two students responded from three campuses. The prevalence of tobacco use was 3.4%, and the risk factors of tobacco use included a lack of knowledge on tobacco-free policy and no implementation of such systems. After adjusting for model A (crude), model B (sociodemographic, lifestyle and general health), and model C (tobacco use, secondhand smoke, and influence of cigarette smoke), there was a three and a two-fold increase in the response of implementing a smoke-free campus respectively.

There is a significant association between exposures as secondhand smoke and the type of tobacco-free policy. Thus, a tobacco-free campus policy is compulsory to reduce the prevalence of secondhand smoke among students.

There is a positive impact of reducing the number of tobacco use after implementing total tobacco-free policy on campus as compared to campuses that have not yet implemented.

The emphasis of increased knowledge on tobacco-free policy and the health risk of exposure to secondhand smokers are much needed.

Keywords: tobacco use, smoke-free campus, University

## Understandability and Actionability of Web-based Education Materials on Hypertension Management

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#### Abstract

Patient education on the management of hypertension is essential to ensure effective medical intervention.Patienteducation materials need to be in an understandable format so that they can be empowered to act on their knowledge. Website is one of the most popular searching applications commonly utilized by patients to garner health information. Although websites on hypertension managementare abundant online, theunderstandability and actionability of the information remain unknown. Therefore, thisstudyaims to evaluate the understandability and actionability of hypertension information websites found in Malaysian internet space. This study applied a cross-sectional study design. The searching for the websites was using five search engines: Google, Yahoo, Bing, Ask.com, and DuckDuckGo. The keywords "hypertension and treatment' were used to identify hypertension websites from the selected search engines. Eight websites were included for evaluation. Eight independent experts were appointed to evaluate and score the content of the selected websites using the Patient Education Materials Assessment Tool (PEMAT). The score that exceeds 70% will be classified as highly understandable or highly actionable. Majority of the websites (n=6, 76.1%) were rated as highly understandable. These websites use Layman's term, well-defined of medical terms, informative headers and chunking of information. Seven websites had a poor result of actionability withmean a score of 52.8%. The websites were considered less actionable because they did not provide enough visual aids to make instruction easier to be followed, complex instruction, and lacking tangible tool (e.g., menu planners, checklist) whenever it could help the user take action and did not explain on how to use the charts, graphs, tables, or diagram for the users to take action.In conclusion, this study shows that overall websites had a good understandability and a paucity of actionability about hypertensionmanagement. Thus, it is critical that health care providers or website developers to create websites that are understandable and actionable.

Keywords: Hypertension, Website, Understandability, Actionability.

## Hospitality / Tourism Environment

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## A 21 HTE 003.

## Potential Water-based Tourism in Rural Areas: Panchor Muar host community perception

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#### Abstract

Empirical evidence suggests that the emergence of tourism development in rural areas has its great potential to attract higher spending visitors in the tourism business. The main objective of this study is to pinpoint the Panchor village town, a rural area in the district of Muar, Johor, as a potential nature tourism site. Panchor represents many typical rural area factors such as having a low population density, small-scale units in economy where the role of agriculture is dominant, and the village town depends on historical values such as for its tradition and authenticity. Moreover, Panchor is strategically located next to the Muar river. Based on the Social Exchange Theory, this study aimed to investigate the host community perception and involvement towards a potential river-based tourism development in Panchor at the pre-tourism development phase. Following this, three-fold research objectives were constructed: (1) to evaluate local community support towards future water-based tourism development at Panchor Muar River, (2) to assess local community involvement or attachment and (3) to identify suitable water-based tourism activities to be carried out at Panchor Muar River. Data were collected based on a combination of open-ended questions in the questionnaire and an interview with the head villager. Qualitative analysis of interview and open-ended responses from a survey of local communities' attitude and perception on river-based tourism development was done using the thematic analysis approach. Based on the analysis, four interconnected themes emerged from the data: (1) community attachment, (2) economic gains, (3) environment attitude and (4) support for potential river-based activities. The preliminary findings revealed that water-based tourism development may become an initiative to stimulate the current socio-economic condition of the residential area and foster sustainability of the Muar River in Panchor. The implications and limitations of this study were also discussed in this study.

Keywords: Community Attachment, Economic Gains, Environment Attitude, River-based Tourism.

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## A 22 HTE 002.

## Potentials of Design Tours for Special Interest Tourists in Kuala Lumpur

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#### Abstract

Tourists can find numerous places in the city that feature heritage characteristics, modern innovations and creative designs. Urbanisation brings diverse places into the built environment that makes the city rich in characters. While not all mass tourists have the curiosity to know how a building was built, special interest tourists are attracted to these behind-the-scene phenomena. Within the last 10 years, there has been growing attention to Special Interest Tourism (SIT). SIT caters for a niche market segment, which may be of a small percentage but has potentials to be high yield. In the pursuit of instilling an appreciation for the city, 42 cities around the world have organised the 'Open House' event to allow visitors and tourists to access parts of the city spaces that are rarely opened to the public. Malaysia targets to become a leading business tourism destination, and this ambition provides a significant opportunity for SIT among design enthusiasts. Therefore, it is essential to analyse the existing attractions in Kuala Lumpur to position them as tourism products for SIT. This paper aims to explore the attractions in Kuala Lumpur and their special characteristics that have potentials to attract design enthusiasts and built environment professionals. The objectives are, first, to map the sites and buildings in Kuala Lumpur that have been included in technical or customised tours by different agencies, and second, to examine their characteristics and potentials to attract SIT. This study uses data from secondary sources such as technical visit list from different professional bodies, tour packages offered by various agencies and attractions promoted on websites. The data gathered are mapped, tabulated and then thematically analysed. However, some limitations should be noted, where additional potential sites and buildings are added by the researchers, due to the availability of more recent projects that have been completed in Kuala Lumpur that have not yet been promoted for tourism or technical visits. The findings revealed that there are more than 50 sites in Kuala Lumpur that could be tailored to the interest of design and built environment enthusiasts as part of Special Interest Tourism. The thematic tours recommended in this study have potentials to be further explored and adopted by professional bodies, destination managers, tourism operators and site/building owners to enhance and position their sites as attractions for SIT.

Keywords: Built environment; design enthusiast; special interest tourism; urban tourism.

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## A 23 HTE 001.

# Research Trends of Distance Decay in Tourism: 2000-2020

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#### Abstract

As sustainability has revealed the consequent impact of environmental pressures on tourism development has emerged intending to integrate management and planning between the environment and the tourism industry. Distance decay acts as a crucial precept for the spatial-temporal analysis in understanding human behaviour, especially in tourism planning, which defined the phenomenon primarily in terms of the interaction between two places, which decreases exponentially as the distance between increases. Thus, this paper attempts to outline a systematic literature review research trends as to provides an in-depth understanding of different tourism thematic research in distance decay from the year 2000 - 2020, and the primary dimension applied for validating distance decay towards sustainable tourism development in different contexts as well as the areas and gaps for future research. Selected keywords identified to extract relevance articles in Web of Science and Scopus database and with the assistance of "Cite Space" to visualize science mapping to answer the objectives in overview analysis and breakdown analysis. The review indicates that distance decay research in tourism has grown dramatically since 2008, as distance decay currently is not merely implicated in tourism forecasting but applied in several segments of studies such as environmental issues toward the tourism development which consisted of environmental degradation, climate change, coastal planning, and forest removals, while ecotourism tourism, rural tourism as well as travel mobility have also been widely discussed. For each type of study, a systematical analysis is conducted from the perspective of research focus and measurement in identified distance decay associated with different subject attributes. The limitation of the study subjected to distance decay is inconspicuous compared with other topics in tourism research. The review study suggests that future research can be cross-discipline by merging the popular topic discussed in distance decay tourism research. The combination of tourism mobility study and environmental planning and management, such as caring capacity, especially for protected areas and national parks during the period of seasonal tourism, to address economic,

social, and environmental expansion needs. This review significantly incorporating research focus and attributes from different research studies reveal the more accurate and detailed ideology of research trends and able primarily implicate in fiscal tourism policies, and the creation of marketing strategies for tourism destinations. Overall, in achieving sustainable prospects for tourism development, this review paper facilitates a thorough understanding and insights of multidimensional perspectives in distance decay.

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Keywords: Distance Decay, Sustainable Tourism Development, Environmental Management and Planning

#### 10AN

## Landscaping Environment

Abstracts, AMERABRA International Virtual Conference on Environment-Behaviour Studies, AIVCE-BS-1, 2020ShahAlam1# Series, Malaysia, 24-25 Jun 2020

## A 24 LaE 003

# Landscape Character: Relationship between existing Acts, Policies and Guidelines in Malaysia

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#### Abstract

Landscape is an essential national resource which includes outstanding natural and cultural heritage. It is widely appreciated through its aesthetic beauty and its significant contribution to regional identity and sense of place. Landscape Character Assessment (LCA), is the process of describing the recognisable pattern of elements that occurs in a particular landscape. Variations in geology and soils, landform, land cover and vegetation, boundaries and settlement pattern give different landscapes its own distinctive character and unique sense of place. It is mainly the combinations of physical landscape component and anthropogenic element and its component that creates the landscape character, which makes different landscape distinct from each other (Swanwick, 2004). Landscape character assessment can make a valuable contribution to the formation of planning policies, to the allocation of land for development and development of control activities. Efforts in landscape development, preservation and conservation existed in this country indirectly through the introduction of various acts, policies and guidelines. Legislation on development protection and management of landscape does not exist in a specific manner, but some acts, policies and guidelines relate to the matters of landscape character. Most of the related policies and guidelines are based on administrative affairs, managing, developing and protecting the land based on the quantity and quality of the physical landscape. If the expanded dimensions of the landscape are to be identified with the landscapes, then a hierarchy of landscape position must be developed and highlighted for the national interest. An effort in this direction is to provide landscape character assessment at national, regional and local levels through thorough and systematic ways in contributing to national development and an alternative to the protection, planning and landscape management. This study attempts to study the existing acts, policies and guidelines related to landscape character. This study also analysed some of the acts, policies and guidelines and provided examples on areas that will contribute to the application of landscape character area and the visual landscape of the surrounding area to see changes in the

landscape of the area explored. The study aims to provide a fundamental structure for legislation approach to support landscape character application. It will contribute to the decision making in development, preservation and conservation and management of the landscape resources in Malaysia.

Keywords: Landscape character, acts, policies and guidelines, Landscape character assessment

## A 25 LaE 002

## Plant Diversity and Plant Performance of Indoor and Outdoor Vertical Greening Systems in Hong Kong

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#### Abstract

There is an increasing number of vertical greening systems (VGS) under the trend of developing green buildings in Hong Kong and many other regions of the world. However, a small number of them are not performing well or those real plants being replaced by plastic plants. This study investigated the type of VGS, species composition, frequency and coverage area, substrate medium type, plant performance, weed coverage, and plant performance. A total of 125 VGS were surveyed in Hong Kong, including 85 outdoor VGS and 40 indoor VGS. Plant performances in four aspects are examined, namely: wilting, pest infestation, disease (virus or molting) infestation, and excessive growth without proper pruning and maintenance. It is found that all 40 indoor VGS adopted carrier system, and 31 (78%) of them use soilless plant growth medium (e.g. Pafcal), 9 (22%) of them used conventional soil substrates. Within 85 outdoor VGS, 65 (76%) of them adopted carrier system, 20 (24%) of them are green facades (with climber plants), and 16 (19%) of them used soilless medium, 69 (81%) of them are using conventional soil. In terms of plant diversity and coverage abundance, a total of 62 plant species are used in outdoor VGS which cover 3,482 m<sup>2</sup>, and 37 species for indoor VGS which cover 618 m<sup>2</sup>; the species which have the highest frequency do not necessarily have the highest cumulative coverage, which means that some species are covering a high proportion of VGS only occur in a few numbers of sites. The common species used in both indoor and outdoor VGS is Schefflera arboricola which occurs in 33 and 45 sites respectively. The t-test showed that plant performance scores for both indoor and outdoor VGS do not have significant differences between VGS using soil and soilless medium, while the standard deviations for

performance score for both indoor and outdoor VGS using soil as the growing medium are higher than that of soilless medium (Indoor performance score: soil: 3.3778 (StdD: 0.16392), soilless: 3.3758 (StdD: 0.05943); Outdoor performance score: soil: 2.7083 (StdD: 0.48574), soilless: 2.8544 (StdD: 0.19027). We can conclude that the plants on the soilless medium perform stably than its counterpart in both indoor and outdoor settings, assuming that maintenance interval is not considered. Also, it is evident that plant performance for indoor VGS is generally better than outdoor VGS, this might be valid for generally higher maintenance frequency for indoor VGS.

Keywords: Vertical greening system; floristic composition; growing medium; plant performance

## A 26 LaE 002

### **Reclaiming the Landscape Biography of Kinta River**

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#### Abstract

In the mid-nineteenth century, Kinta Valley in Perak has become a vital tin mining centre, and it was one of the most productive tin mining areas in the world. Kampung Kuchai, an old section of lpoh of the early Malay settlement which stood for decades, has a rich history linked to several Dato' Panglima Kinta, who established and developed this village. This undeveloped section is well located in the centre of looh, has inevitably caught the attention of property developers. As the demand for high-rise residences in lpoh continues to grow, the state of this historic landscape is at risk. Hence, this study aims to explore the landscape biography as a contemporary approach that integrates landscape history, urban planning, design, and urban heritage. The objectives of this study are twofold. The first is to identify the significant tangible and intangible elements found in the study area and threats to these elements. The second objective is to establish the landscape master plan of this site as a Malay Heritage Hub that meets the demand for its current function and usage, which socially and economically beneficial to the local community, owners, and city planning. The Hoi An Protocols and Malaysia's Heritage Bill 2005 used as the primary reference for the site observation and data collection. The qualitative data obtained from the site survey was descriptively analysed. Landscape biography is a relatively new approach in landscape heritage in Malaysia, and there is a lack of research before this topic. Thus, this limitation permits exploratory rather than explanatory research findings. This study suggests two significant results. First, both tangible and intangible elements discovered in the study area have significantly impacted the spirit and imprint of the landscape biography of this site. Second, the proposed landscape master plan of this site as a Malay Heritage Hub demonstrates the importance of landscape biography approach in urban landscape heritage. In conclusion, the outcomes of this study have repercussions towards research and the current practices of urban heritage planning and conservation in Malaysia. The exploration of landscape biography as a new approach to study landscape heritage provides a creative and innovative way on how landscape history should be interpreted and incorporated into urban landscape planning and urban heritage. The proposed landscape master plan demonstrates strong support in creating a partnership between policymakers, developers, and owners on how the site should sustainably be developed.

Keywords: Landscape biography, urban heritage, historic landscape, Malay Heritage Hub

## A 27 LaE 001

## Risk Management Challenges in Malaysia's Landscape Architecture Project

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#### Abstract

The dynamic nature of landscape architecture project consists of multiple risks that require practical management of risk. Risk management application needed through a systematic approach of identifying, analysing and treating to control these undesired risks, the shortcoming for risk management application permitted by enormous challenges. Understand the current managing risk practice and risk management application essential to project manager to strategise for practical risk management application. Contrarily, study on risk management application challenges directly related to landscape architecture project not extensively discussed in literature. Thus, this study aims to review current risk management challenges in Malaysia landscape architecture projects. The objectives to accomplish aims following, 1) to investigate challenges when managing risk, 2) to anticipate risk management application challenges, and 3) to determine ways overcoming the challenges. The study methodology engaged an exploratory case study. Firstly, data collected through an expert interview with twenty-four landscape architect professional based in the Klang Valley region. The interview audios and project documents recorded; transcribed into the text; documented and organised in ATLAS.ti 8 research software.. It then analysed using content and thematic analysis approach to analysis for description codes, categorising, build a theme and synthesise thematic map. This study limited by, 1) landscape project management, 2) case project focused on preference on urban landscape

architecture, and 3) challenges scope bound to landscape architectural practitioners perspective. The study found several factors to risk management application challenges. Firstly, found challenges when managing risk, namely; lack of stakeholder support, lack of experience, and no formal guideline identified as the most common challenges faced when. Second, challenges anticipated when risk management application, namely; lack of support and acceptance, poor awareness and lack of resources. The study suggests for a specific risk management framework formulation and improvement in risk management practices mandate and commitment, awareness, communication and integration. Multiple challenges factor permits practical risk management application in landscape architecture project due to no formal risk management applied. Thus, identifying actual industry challenges, an extensive strategy to risk management application into Malaysia landscape architecture project to be formulated. This essential to guide landscape project manager managing their risk effectively to improve project performances.

Keywords: managing risk, risk management; risk challenges; landscape architecture project

## A 28 LaE 004

### Water as a Natural Element for Children Preferred Visual Landscape

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#### Abstract

A child needs the best environment for the formation of themselves. A more continuous experience is needed for the stabilization of the characteristics of children in the process of building self-confidence and maturity in life. Water elements may inject interest among children to be closer to their natural environment. This study focuses on the impact of water elements as an attraction to children. Water is one of the prominent natural element that needs to be studied further to see the relationship of nature with children's interaction not only at outdoor spaces but also in indoor spaces. This study focuses on the pictorial investigation of the preferred location of water at outdoor spaces for six-year-old children at water play places. Visually, it will bring a teaser to the children on water elements and how to respond and appreciate it. This will assist in strengthening the engagement of children experience towards water elements, nature and its community. The study covered respondent of preschool children around Seri Iskandar, Perak which aims to seek the positive impact of water elements in the process of child formation and their response to the element, while the objectives of the study are: To understand the significance of water to children and to develop the criteria of outdoor space environments that consist of water for children and its implications to the children involved. This study adapted the technique by Miskell in dividing places through a spectrum of naturalness helps to differentiate places from the pristine to the developed. It is important to know clearly the appropriateness of children's outdoor water play environment and where it should be created for improving the development of self-experience of a child and its injections in tourist attractions in Malaysia

for children to visit with their family. Moreover, it guides parents towards knowing the children needs in their environment and improving happiness for their future growth.

Keywords: children; water play; children experience; water element; visual landscape

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## Local Heritage Environment

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## A 29 LHE 003

# Digital Construction of Traditional *Baruk* in Sarawak, Malaysia

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#### Abstract

This paper presents a digital construction of the traditional Baruk using the close-range photogrammetric application. It deals with the idea of developing a new technique to obtain a Three-Dimensional (3D) model using portable equipment. By selecting a traditional structure as a case study, the research attempts to investigate the performance of a mobile device to replicate the cultural assets. In Sarawak, the Baruk has become an identical landmark; known as a sacred area for the Bidayuh group. The architectural form of this building differs from the typical longhouses as it has several unique characteristics such as its octagonal form and the pointed roof; which makes it visible from afar. Unfortunately, nowadays, the Baruk has gone through some architectural changes in terms of its material and function due to the urban modernization and safety concern. As the cultural buildings are facing a different form of threats, it needs to be archived safely to avoid its disappearance. Therefore, recognizing the growth of digital documentation, this research aims to construct the 3D model of the traditional Baruk using digital close-range photogrammetry application. The exploratory study can be categorized into four phases consist of Site Selection; Data Acquisition; Data Processing; and 3D Modelling. The 3D model generated from the photogrammetry software presents the result of the dense point clouds. The study could give fundamental guidelines on using a mobile device in digital close-range photogrammetry techniques. Based on the presented results, future research may have to compare the quality of the point clouds using different equipment and tools (professional camera and laser scan). Additionally, the integration of traditional buildings and Building Information Modelling (BIM) will be considered in the future as the technology (Historic Building Information Modelling) is a promising innovation for preserving accurate historical information.

Keywords: Digital construction, traditional architecture, digital close range photogrammetry, heritage documentation

## A 30 LHE 002

## Exploring the Stadthuys Museum Building in Promoting Historic Interior Scheme

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#### Abstract

Malaysia has taken wise steps to safeguard heritage building assets by making heritage buildings into heritage building museums. This effort shows that Malaysia is looking at the importance of heritage buildings and as a way of bringing this historic asset into a medium of continuous historical learning. However, to what extent the history of heritage building interior space can be explored and successful interpreted in exhibition space. Stadthuys building could promote historic interior scheme through their interior appearances and historic interior interpretation. The Stadthuys building complex of Melaka is a heritage Dutch building that remains intact although it has gone through several phases of the era; English, Dutch, British and Japanese, even its interior space functions are still been recognized even after being converted into a museum. This museum building's complex promotes the Dutch's office interior with the Dutch's bakery house and Dutch Governor's residence. Four essential components that need to be focused by heritage museums are preserving the building interior history, preserving the authenticity of the historic interior scheme of building, preserving the initial space function, and preserving the historic interior features of space. This paper aims to raise awareness among museum bodies about the importance of the value of historic interior features in the future where the exploring needs to be enhanced. This paper is qualitative research adapting the case study method. Observation on-site, measured drawings, documents study, and site tour, were some of the approaches that have been applied to obtain the data. The historic photograph, sketches, drawings, books, and journals were applied to investigate the origin of the building's interior space. The data was analyzed and demonstrate in table form to differentiate the pattern of findings. The results strengthened that the roles of heritage building museums are required not only to display and interpret historical objects but also to display and communicate the significance of the historic building's interior features. In other sense, the physical of building interior and their historic interior interpretation can be a priority when planning an exhibition for a heritage building museum exhibition in the future.

#### Keywords: Exploring; Museum; Historic; Interior Scheme

## A 31 LHE 001

# Uncovering the Food Heritage based on Age Differences

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#### Abstract

Food can be used as markers for the identity of an individual or society regardless of the geographical, social and political differences separating the populations on one nation. It is a contested medium that establishes national boundaries and identities. The study aims to examine national food heritage awareness in the Klang Valley area based on age differences. The study involved 676 respondents by using a self-completed questionnaire survey. Purposive sampling was applied in selecting the sample based on age, which required respondents to be 30 years old or older and have knowledge of heritage food. Using descriptive statistic to analyse the data such as frequency and cross-tabulation based on age category (30-35 and >36 years old). Results revealed that only one common definition agreed by both age category (p>0.05) which is the traditional food are considered as food heritage. Both age categories used electronic media to gather information regarding on gazetted National Food Heritage (p>0.05), however, when inquired about knowledge on the authority responsible on gazetted National Food Heritage, adult respondents ( > 36 years old ) are more knowledgeable than younger adults (30-35 years old) (p<0.05). In awareness of food heritage, most of the respondent recognised traditional food from rice-based categories (n=411) than other food categories (e.g. gravies and accompaniments, appetiser, noodles, porridge, dessert, cakes and beverage). There are differences on the association of National Food Heritage with each factor such as preservation, represent image, food identity and sustainability (p<0.05) in adults (>36 years old) than young adults (30-35 years old). Respondents choose 'traditional value' as main criteria which showed significant differences (p<0.05) between these age groups. It is concluded that there is a distinct understanding and awareness on the Food Heritage between young adults and adults, henceforth, effective and reliable way of promoting food heritage can be developed accordingly based on these age groups.

#### Keywords: Awareness, Food Heritage, Age, Demographic

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# Legal Matters

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## A 32 LHE 001

## A Comparative Analysis between Shariah Audit and Shariah Review in Islamic Banks in Malaysia: Practitioners' perspective

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#### Abstract

This paper compares and contrasts between Shariah audit and Shariah review in Islamic banks in Malaysia. To further distinguish between these two Shariah organs, we analyze the differences from several perspectives, namely reporting structure, independence, the scope of duties, technology used, guideline and methodology, period of coverage, and qualification of the officers. The study employs a qualitative method by utilizing semistructured interviews with nine (9) key individuals in Malaysian Islamic banks. Data gathered from a series of interviews have been transcripted and analyzed using Atlas. ti version 8. Fruitful findings have been revealed from this study whereby the majority of the interviewees provide a clear insight with regards to differences between these two components. In terms of reporting lines, most of them state that Shariah audit reports directly to the board audit committee (BOD) and indirectly to the Shariah committee (ShC). Whereas Shariah review reports directly to ShC and, at the same time, administratively reports to management. Thus, some interviewees argued that the Shariah audit is much better in terms of independency level compared to Shariah review as they (Shariah audit) do not involve and reported to the management. Besides, the scope of duties of the Shariah

audit is much broader because it does cover not only the Shariah compliance aspect but also operational aspects, including internal controls. Concerning the technology used, some interviewees claim that the Shariah audit at their institutions tends to employ special software to facilitate audit works. On the contrary, they claim that the Shariah review still relies on the manual approach, especially in choosing their samples. In terms of a period of coverage, interviewees report that the Shariah audit will consider a much more extended period to conduct their audit as compared to Shariah review that covers three months of coverage or based guarterly only. Finally, regarding the gualification of officers, most of the interviewees state that the Shariah audit team must have the workforce with audit skills and experience. Meanwhile, as for Shariah review, they strictly follow what has been stipulated in the guideline whereby holding a degree in Shariah is a must to conduct Shariah review. Although one seems to outperform than another, more importantly, Shariah review and Shariah audit play their roles as a second and third line of defense respectively by giving assurance to the shareholders and stakeholders that all businesses and operations of the Islamic banks comply with Shariah principles. This scenario could eventually provide a stimulus to improve governance and strengthen market confidence. Future research may consider samples from the Shariah review team to produce more robust and unbias findings.

Keyword: Shariah audit, Shariah review, Islamic banks, Malaysia.

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## Natural Environment

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## A 33 NaE 001

## Architectural Neuroscience Extends the Understanding of the Quranic Verse Of Water

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#### Abstract

Through all times, scholars interpreted the verse "And we made every living thing of water" (Surat Al-Anbya': 21:30). By emphasising on the essential role of water upon the physical formation of creatures, such as human, animal, plants and earth. Not the psychological aspect. The Holy Quran is not a book of science but signs. The book points hundreds of times at scientific aspects such as cosmology, earth and nature. However, researchers who have a deep understanding of science might provide a better interpretation of some Quranic verses that regards science. The same goes for researchers of behavioural studies. Reading the Quran, from our perspective, might provide a valuable contribution to the interpretation and understanding of the holy book. In reflection, this study aimed to extend the interpretation of the verse (21:30) which regards to the water element, from a behavioural science point of view. The objectives of the study were, first, to identify at least three different physical elements, including water, which has a role in altering emotions positively. Second, to measure the impact of the elements upon the human emotional state. Third, to analyse the collected data. The research methodology was carried in three stages. Firstly, An integrated approach for literature review. Secondly, A-single case experimental approach (SCED) using Electroencephalography (EEG) test. Thirdly, An integrative analysis. Data showed a significant change of emotions by change of environments. And the water element recorded the most positive-significant impact on human emotions by healing and nourishing the emotions. The research was concluded by extending the interpretation of the verse (Surat Al-Anbya': 21:30) from the physical creation of a human body into the psychological creation. By means, water does not have a role in building the physical form only. But, also the spiritual creation. When God told us in the Quran that water brings everything alive, it seemed that it was not limited to the physical form of a human, as mentioned by scholars. But also the spiritual form.

Keywords: Water, Quran, spiritual, Neuroscience.

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## Policy Matters

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## A 34 PM 001

## Establishment of Bukit Kayu Hitam as Special Border Economic Zone: Risks and challenges

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#### Abstract

Special Economic Zones (SEZs) is said to be one of the effective mechanisms to promote and boost economic growth in the host country. However, the success of SEZs is subject to its appropriate implementation in the right context. Up to this point, there was a globally mixed reaction with major succeeding projects in Asian and Latin America but operational difficulties in Africa. China's Shenzhen is often cited as one of the SEZs best practices in the world, and other SEZs have also followed a similar concept. Regardless of its failure in certain countries, the establishment of SEZs has tremendously increased for the last five vears due to its performance to attract Foreign Direct Investment (FDI) in the host country. Malaysia, in its Budget 2019 has assigned for the development of Special Border Economic Zone (SBEZ) in Bukit Kayu Hitam (BKH). This project is expected to promote and stimulate economic growth in north part of Peninsular Malaysia. Therefore, understanding the issues and problems of SEZs' establishment is essential to govern the SBEZ's performance in BKH. This conceptual paper will be directed to identify and analyse risk and challenges in land use planning law perspective that will be incorporated together in ensuring BKH will become a prime economic border zone in northern part of Peninsular Malaysia. This paper is adopting a qualitative textual analysis approach from primary and secondary data to explore and study the issues and problems on the development of SEZs around the globe via land use planning law. The findings provide four major issues in the development of SEZs; (1) problematic legal and regulatory framework on SEZs, (2) land-related issues, (3) various conflict agencies at federal and state level, and (4) development spill-over. As an outcome, this writing is to help the government to promote and spur the economic development growth of the SBEZ in BKH as a new Kedah Science and Technological Park (KSTP) in line with the objectives provided in Northern Corridor Economic Region (NCER) Blueprint 2.0 and the 11th Malaysia Plan (2016-2020). Considering the globally low success rate of SEZs development as well as the lack of legal framework and basic structure for SEZs, further studies on the SEZs development should emphasise regulation and policies of its implementation, particularly in respect of land use planning law. The conflict, inadequate policies and regulations need to be defined solely in terms of the purposes, authority and responsibilities of the land use planning legal framework for the establishment and sustainability of the SBEZ in BKH.

Keywords: Special Economic Zones, Land Use Planning, Policy Implementation.

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## Residential Environment

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## A 35 RE 001

### **Conceptual Framework of Residential Satisfaction**

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#### Abstract

Residential satisfaction is described as a sense of satisfaction, with what one needs or wants to achieve in a building. It is an important measure for the designers, architects, developers and policymakers to use the information in many ways. Housing need theory, housing deficit theory and theory of psychological construct are among the theories related to residential satisfaction. These theories, or variations of them, were used by most researchers in empirical studies. Studies of residential satisfaction frequently performed on government or private projects, townships as well as the country. Essentially it is back to the objectives and purpose of the studies on what is going to be achieved. The aim of this paper is to establish a residential satisfaction framework that will consist of important components and determinants. Comprehensive analysis of the literatures is undertaken to establish the framework. Various criteria reflecting the characteristics of housing and neighbourhoods, social-demographical characteristics, behavioural characteristic and their perception of living and neighbourhood conditions have been analysed to show a need for further research before a general theory of residential satisfaction or dissatisfaction occurs. Variables in residential satisfaction studies are important because effects on residential satisfaction or dissatisfaction differ according to the study objectives. It indicates that further research on the guality of housing can be performed in the sense of housing policies. All these characteristics become one concept of residential framework serve the purpose of measuring the level of residential satisfaction. The framework consists of four main components namely socio-demographic characteristics, housing characteristics, neighbourhood characteristic and behavioural characteristic. Each of the components have its own determinants that broken into smaller attributes. These attributes are chosen based on the purpose of the study. With this framework, it will help the researcher specifically define and collect information for the purpose of obtaining the specific data.

#### Keywords: Residential; Satisfaction; Housing

## A 36 RE 003

## The Impacts of Visual Factors on Resident's Perception, Emotion and Place Attachment

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#### Abstract

How visual elements of the environment influence human perception are an essential topic of environmental psychology. Moreover, it is also an essential knowledge that architects and designers should base on to design an appropriate environment. Therefore, this study would like to explore what are the underlying visual factors in a community environment, which are worth discussing for environmental psychologists, and how much the visual factors affect the resident's perception, emotion, and place attachment. The study was conducted in Tainan City, Taiwan, and had recruited 411 residents for a guestionnaire, in which 395 were valid. Factor analysis and multiple regression had used to clarify this relationship. Firstly, factor analysis was employed to find out the underlying factors within a community visual environment, which performed as the stimuli, i.e., independent variables in the study. The same analysis had conducted on the psychological construct "perception," "emotion," and "place attachment" of the residents to draw the underlying factors to represent as dependent variables of the study. Secondly, regression was adopted to evaluate the impact level of visual factors on the certain psychological constructs of the residents. The factor analysis showed that the community visual environment had extracted into four factors: "architecture," "outdoor furnishing," "indicative symbol," and "healthy environmental element." Additionally, the regression indicated that environmental perception and place attachment have different predictors. The environmental perception had predicted by "outdoor furnishing" and "healthy environmental element" while place attachment affected by "architecture" and "indicative symbol." The emotion was only influenced by "outdoor furnishing." This study could indicate the relationship between the visual factors of the environment and some human perception issues in environmental psychology. Thus, the paper could be a useful suggestion for some researches on environmental behaviour soon. Based on the results, architects and designers can more efficiently manipulate the environments toward the planned outcomes they pursuit.

Keywords: Community environment; Visual element; Environmental perception; Place attachment

## A 37 RE 004

## The Living House of Desa Pedawa: Ordering domestic life of the dwellers

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#### Abstract

Many housing experts point out that house, as a very small part of the built environment, is a reflection of socio-cultural lives that are believed and practiced by the dwellers in daily activities over generations. Traditional houses in Desa Pedawa, one of the indigenous settlements in the North of Bali, reflect all above expressions of culture. The paper aims to explore the home life of the dwellers as many kinds of respect to their socio-cultural lives. How do the occupants spend their days in domestic life? And, how do they order their housing layout and spatial arrangements? These questions could be an interesting housing phenomenon to be revealed. The study is accomplished by gualitative inquiry with ethnographic as a research approach: interviews, physical observation, rough sketches, and photographs through the way of investigating eight houses. The cases were selected by purposive sampling and considered the originality of house layout and the richness of domestic life. Data from fieldwork show that the belief system and worldview of the dwellers play an essential role in the way that they order cultural settings and implement them in their houses, particularly in terms of determining the hierarchy and the sacredness of domestic spaces in the house layout. The study is accomplished by gualitative inquiry with purposive sampling: interviews, physical observation, rough sketches, and photographs through the way of investigating five houses. Data from fieldwork show that the belief system and worldview of the dwellers play an essential role in the way that they order cultural settings and implement them in their houses, particularly in terms of determining the hierarchy and the sacredness of domestic spaces in the house layout. In the process of inhabiting, the occupants attempt to develop the house beyond basic functional necessities. Homemaking with material culture, evidenced by religious symbols, memorable possessions, or precious objects, aims to express the value of the occupants' personalities and social acceptance. In contrast, home sanctification through rituals is designed to give positive cosmic energy to the family.

Keywords: domestic life; the living house; the Pedawa dwellers

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# Sustainable Environment

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## A 38 SuE 003

## An Overview of Potentials and Challenges of Rainwater Harvesting for Future Sustainability

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#### Abstract

Malaysia blessed with a high annual rainfall that supplies water capacity in rivers and dams around the country. However, according to the increasing water consumption of existing water supply, strained infrastructure, and rivers getting polluted due to the urbanization process has become a challenging task in maintaining clean water sustainability. Previous research has shown that by continuously reuse the rainwater, environment and ecosystem can be sustainably managed. These strategies are aligned with today's Sustainable Development Goal (SDG 6) that has addressed the importance to conserve, and sustainably managed the water resources. It also has been reported by the United Nations in 2025, the world population will be affected by moderate to severe water shortage, and Malaysia will not be spared from the impending water crisis. This conceptual paper looks into the benefits of a rainwater harvesting system which is a conventional system that includes water catchment area, conveyance, first flush, storage tanks, and distribution system and smart system that include interrelated modular systems, computerized and smart system. It also addressed on water governance, public acceptance issues, and potential implementation for future sustainability in Malaysia. The statistic has shown that the rainwater harvesting system is moving forward as many urban and rural projects have received sponsors, grants, consultation, and community service. By having this, public participation and opportunity for knowledge transfer can be increased. Besides, water resources can be prioritized by making it everybody's business and emphasize the link between community and water to ensure that the resource is of better value. In summary,

this system has vast potentials. Despite the challenges, efforts from the Malaysia government has open better opportunities for Malaysia citizen to use water resource in a better way. However, to cultivate this culture, it should be started from the young generation with continuous support. By educate and expose them to the latest technology and practical support, rainwater harvesting can be seen as one of the successful government efforts for a sustainable future.

Keywords: Rainwater harvesting, sustainable future, water governance, community acceptance

## A 39 SuE 001

## Exploration of Microalgae Photobioreactor (PBR) in Tropical Climate Building Envelope

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#### Abstract

The building sector in Malaysia consumes up to half of the electricity generated in the country due to the increasing demand for indoor occupants' comfort, such as air conditioning. There have been alternative means taken by the building industry to reduce the amount of energy use through green building envelopes. As we are looking into the efficiency of environmentally sustainable design, microalgae are considered a suitable choice, as it has excellent photosynthetic abilities and phenomenal growth in the tropical climate. There are needs to have a continuous effort to promote microalgae photobioreactors (PBR) as part of an innovative building envelope system that is capable of improving the reduction of heat gain into the building. This paper will explore the fundamentals of the application of microalgae PBR in building envelopes and, to establish design parameters in achieving good optimization of the integration between the microalgae PBR and the building facade system in the Malaysian climate. The study is conducted in four (4) stages, starting with an integrated approach to the literature review and qualitative precedent study. Stage 2 involves the establishment of the ten (10) design parameters, which are the PBR material, PBR flat-panel thickness, temperature, light intensity, building orientation and position, building massing, water and nutrient supply, raise platform and biomass collection, integrated airflow system and building facade aesthetic. The findings from stage 1 and 2 introduce four (4) design modules in stage 3 that comply with a different aspect of the established design parameters. These modules are further evaluated in terms of its design efficiency using Durian Artificial Sky-dome and Building Information Modeling (BIM) software in the final stage. In conclusion, the suggested parameters are crucial in establishing a building design that can help to integrate microalgae growth in a closed integrated PBR system while reducing a profound amount of heat gain into the building, thus increasing the human comfort.

Keywords: energy consumption; microalgae; photobioreactor; building envelope

## A 40 SuE 002

## Planning for Housing in Transit Oriented Development: Key principles towards sustainability

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#### Abstract

For many years, researchers have tried to understand the relationship between human settlements and their travel behavior. Human settlement is associated with shelter for the people and their daily needs (employment, recreation including other activities) which influence their travel behavior. Furthermore, the provision of housing near the transportation system is significant to enable people to reach their desired destinations. This paper aims to provide an overview of housing provision in transit-oriented development (TOD) areas and how it contributes towards achieving sustainable development objectives. This paper will elaborate on research findings on how density, diversity, and design could be the contributing factors in making sure transit-oriented development (TOD) achieve its objectives. A review for both theoretical and empirical works conducted in the past related to this topic. Transit-oriented development concepts and principles including the implementation of such a concept towards sustainability will be elaborated based on evidence found in the past research and related articles. Previous research related to this topic such as new urbanism and its implementation, land-use and, regulation in TOD (is revised and explained in this paper). Thus, the integration of key components such as transportation and land-use are the pre-requisites and must be supported by a comprehensive plan, good governance and, coordination between agencies at federal, state and, local levels towards ensuring the success of TOD objectives. However, such integration for TOD planning, especially in existing urban areas, remains a challenge. The challenges include existing urban areas with limited space to accommodate housing in the area. What are the factors and pre-conditions in shaping the best approach to housing provision in TOD areas especially in urban areas will be explored in this paper based on article reviews on the followings: 1) concept and key principles of TOD; 2) housing provision and key facilities; 3) density and diversity in TOD areas through innovative planning; 4) Ideal vs Reality for housing provision in TOD areas; 5) Early intervention towards providing inclusive housing provision in TOD areas. This paper will substantiate the above claims and reinforce the idea of why planning for housing in TOD areas is important in supporting sustainable development objectives.

Keywords: housing, sustainable development, transit-oriented development (TOD)

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## Technology-related Environment

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## A 41 TeE 001

### Millennials Engagement of Mobile Technology for Travel

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#### Abstract

Mobile technology application today has gone beyond just being a facilitator; instead it has played the role of an essential enabler for daily human activities, including travelling. The dependency on mobile technology during travel can be seen exceptionally high among the Millennial generation, primarily due to their technological literation as the digital natives. Millennials enjoyment of human-technology engagement often being regarded as digital addict, yet the strong attachment is due to the ability of mobile technology in offering travel experience from a new perspective. While the benefit from mobile engagement is indisputable, the distinctive travel experience that Millennials obtained from the techengagement may construct a different form of technology-emotion relation. This has gone beyond the conventional tourist-destination encounter, and maysubstantially affect the psychological process of individuals' experience formation and travel satisfaction. The huge impact of mobile engagement in shaping tourist travel experience therefore explained the critical need in further understanding Millennial tourist mobile technological engagement during travel. Hence, this study focuses on unveiling the pattern of Millennial mobile engagement at destination in understanding the possible influence of the digital behaviour on travel experience formation. For this purpose, Millennial expectation and perception of mobile engagement, as well as on-site mobile utilisation were collected to explore the

structure of Millennial travel-related mobile engagement and how it facilitates to fulfil their travel need. Other than being the current new generation tourist market, Millennial generation tourist strata were specifically identified as the target group due to their dominant market influence as global economic driver. Kuala Lumpur city centre was selected as the study area as it holds quality infrastructure, especially for optimum mobile technology functionalities, and extensive urban experience. A total of 387 respondents involved in depicting tourist on-site mobile technological engagement at 56 prominent attractions within the city. Findings revealed that Millennial engagement of mobile technology during travel was not just merely a digital addiction, instead due to the value of benefits that the tool offered that highly meaningful to facilitate users in self-enhancing travel experience. From behavioural perspective, the strength of mobile engagement was also found to be associated with tourist level of excitement towards an attraction. This is early evidence that mobile engagement during travel does have a meaningful impact on user experience consumption. The findings would contribute to improve destination information systems by understanding tourist preference upon mobile utilisation for travelrelated purposes.

Keywords: Mobile engagement; Millennial generation; Tourist-destination encounter

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## Travel / Transportation Environment

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## A 42 TTE 001

## The Application of HIRARC on Attitude towards Safe Driving Scale (ASDS) according to PreSiM model.

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#### Abstract

The number of fatality due to a road traffic accident (RTA) worldwide has increased for the past few years, where on average 19.59 people were died in Malaysia every day due to the RTA. Many reports have clearly stated that human factors contributed to up to 97% of RTA. This scenario creates concern from many agencies, including health care professionals about the fundamental issue of this phenomena. There was considerable public concern about assessment and intervention used by the enforcement body in Malaysia. Due to that, this study believes that establishing proper outcome measure in identifying risk driving behaviour is essential. For the last few years, a group of a researcher under Traffic, Accident and Cognitive Ergonomics (TrACE) interest group has worked on developing assessment tools to measure specific human factors that can be related to safe attitude. One of the latest outcomes from this research was the development of the Pre-licensing – Simulation – Maintenance (PreSiM) licensing model followed by a psychological assessment tool called Attitude towards Safe Driving Scale (ASDS). This study aims to investigate the use of hazard identification, risk assessment and risk control (HIRARC) matrix on ASDS scores according to three stages of PreSiM model. This study was involved

in a cross-sectional study where a total of 694 Malay young adult age ranged 18-36 years old had participated in this study. The factor analysis was carried out to determine the validity and reliability of the assessment (Cronbach alpha .887). The mean cut off for six domain, and the total score was also identified (D1: 45, D2: 36, D3: 32, D4: 20, D5: 12, D6: 9 and Total: 157). The level of hazard identification (HI) determined based on the mean cut off developed. The risk assessment (RA) and risk control (RC) later translate into three stages of PreSiM model. The process of transformation from ASDS value into HIRARC matrix table shows promising result in assessing human factors in term hazard, risk and possible RTA control. This new scale will enable the Occupational Safety and Health (OSH) team to evaluate the level of severity and action needed to prevent further injury. However, caution should be made where human components and occupational performance of drivers may change over time, and the risk controls are yet to be further analyzed.

Keywords: Human factors; Transportation; HIRARC; ASDS

## A 43 TTE 002

## The Effects of Moral Norms, Social Norms and Environmental Perception on Travel Behavior in Malaysia

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#### Abstract

Public Transport is one of the most popular used transport modes that resulted mainly from massive urbanization, population, and economic growth and changing modern lifestyles. In 2013. Kuala Lumpur ranked 25th for the most livable city based on the air guality standard. but in 2018 it ranked 126th compared to other cities. The leading cause of air pollution in Kuala Lumpur comes from traffic. Public transportation has become a necessity in cities to curb massive traffic congestion and air pollution. Massive traffic congestion creates negative impacts on commuters, especially on work performance, work quality, and productivity in the long run. This study attempts to investigate the effects of moral norms, social norms, and perception of environmental on travel behavior of public transport commuters. The objective of the survey is to determine the impact of moral norms, social norms, and environmental perception of public transport commuters in choosing their travel mode. A survey was carried out at 10 LRT stations in Greater Kuala Lumpur using the faceto-face method. A total of 904 usable questionnaires were then analyzed using Structural Equation Modeling of Partial Least Squares. The findings showed that environmental perception and moral norms had a weak relationship to travel behavior, but social norms played instrumental influence when commuters chose public Transport over private Transport. The weak correlation between moral norms to travel behavior has shown that public transport riders use public Transport, not because of their concern about the

environment. This study also has extended the theory of planned behavior (TPB) with the inclusion of social status and moral norms, which are also part of Value-Belief-Norm Theory (VBN).

Moral norms, social norms, and environmental sentiments should be integrated into public transport campaigns. These norms are essential and should be framed to encourage and sustain decisions on transportation modes. In promoting more public transport usage, more aggressive campaigns should focus on norms and emotions. The soft-approach will be able to influence non-public transport users in deciding on their transport modal over time. The recommendation and suggestions included helping authority in increasing the number of public transport ridership in Kuala Lumpur.Keywords: public transport, travel behavior, moral norms, social norms, environmental perception.

## A 44 TTE 003

## Transit Oriented Development and Ridership at Kelana Jaya Line LRT Stations

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#### Abstract

As cities develop and expand, traffic congestion emerges as one of their negative consequences due to the high level of automobile dependence. The method of expanding the road network does not solve the problem in the long run, and thus the rapid transit system is considered a more efficient and sustainable alternative. In the Klang Valley, Malaysia the Light Rail Transit (LRT) has been in operation since 1998 while the Mass Rapid Transit (MRT) was introduced a few years ago. While the LRT and MRT are supposed to reduce traffic congestion by drawing commuters away from their private automobiles, their success is dependent on several factors. Some of the factors often mentioned are the land-use zoning, density as well as economic activities around the rail stations. This translates into Transit-Oriented Developments (TOD) which aims to reduce automobile use and promote the use of public transit through high density, mixed-use, environmentally friendly development within areas of walking distance from transit centers. This paper analyzes the correlation between land use and activities around the stations and the number of riders, using the LRT Kelana Jaya Line in Subang Jaya Municipal Council as the case study. Its main objectives are to determine if there is a correlation between the two main variables, land use, and ridership and how land use and activities around the stations affect the ridership numbers. The main methodology is by comparing the ridership data with Land Use Public Transport Accessibility Index (LUPTAI) for selected stations along the Kelana Jaya LRT line. The study finds that there is a positive correlation between the LUPTAI and the ridership numbers, suggesting that land use and physical development around the stations do affect the ridership of those particular stations. This has direct implications towards land-use zoning, density, and economic activities in urban areas, especially around LRT and MRT stations. At the same time, it helps urban and transportation planners to affect the success of the LRT system using physical planning means.

#### Keywords: Transit-oriented development, land use, ridership

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## Urban Environment

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# A 45 UE 001

## Behavioural Contagion in Hong Kong Urban Space under Mass Psychological Distress.

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#### Abstract

The driving forces lingering in between human behaviour are undeniably anchored on psychological conditions and factors. A major distortion in these psychological perceptions can be induced by an unplanned spread of a disease such as a pandemic, thus leading to a likewise transition in urban dwellers' behavioural attitudes. Since psychological factors are distorted and driven by the physical and psychological spread of the disease. behavioural contagion can be either reverted or applied as a leading force affecting the use of the public realm. This phenomenon is significantly evident in high-density urban environments due to the scarcity of public spaces and the compression of the urban population. As a consequence, urban spaces conventionally recognized as a primary source of public space are fighting for adaptation and survival under massive psychological distress conditions. In this direction, no research has been conducted in urban studies. This paper aims at detecting transitional behaviours affecting the use of the public realm in Hong Kong during the spread of COVID-19 international outbreak. A particular focus is given to urban spaces related to stationary activities, including shopping malls, urban streets, market streets, urban green areas, and public sports facilities. Survey research design has been conducted through online platforms, accompanied by in-depth interviews targeting young generations. The survey focused on behavioural attitudes before the spread of COVID-19 and at present. In-depth interviews attempted to explore the role of behavioural contagion during mass distress conditions. As empirical support, behavioural mapping has been set through the Geographic Information System to achieve some visual portraits of patterns in Mongkok, an iconic and vibrant district in Kowloon. Results will point out some

initial hints on the tendency towards the use of public spaces in Hong Kong under this significant distress condition. The analysis will reveal which spaces are appearing to survive the transition and if and which spaces are declining as a primary source of urban public space. The relevance of this study relies on future implications in urban morphology design and planning policies for better urban scenarios, aiming at the integration of mass psychological perceptions into factors affecting the design of future cities.

Keywords: mass psychology, behavioural contagion, public realm, COVID-19, Hong Kong.

# A 46 UE 003

# Civic Infrastructure: Makerspace on the move at Sentul Park, Kuala Lumpur

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#### Abstract

Civic infrastructure is considered an essential attribute within the New Urbanism movement, where its presence is a necessity for the quality of life of communities. Civic spaces such as parks, libraries, and community halls encourage civic engagement in general. Makerspace, a contemporary approach in space planning that combines art, technology, learning, and collaboration, has been widely incorporated into 21st-century civic infrastructures. In recent years, makerspaces have been sprouting in Malaysian universities and schools as well as shopping malls. However, most of these examples resembled the maker movement of indoor spaces rather than outdoor or hybrid indooroutdoor spaces. Since the concept of makerspaces is not explicitly indoors, this study aims at exploring the potential of hybrid makerspaces that merges the usage of both outdoors and indoors in creative and innovative ways. The study is on a set of objectives basis, first is to examine a learning-design collaboration in hybrid spaces through engagement among the public community. The second is to explore a wide range of creative civic spaces that would foster business start-ups, job opportunities, products, services, and income generation. The third is to develop a working, learning, and recreational space design concept that is more tactile and outdoor environment-oriented.

Primary data for this exploratory study was collected from a series of fieldwork at Sentul Park, which involved site observation and participation in the workshops as well as events held in the study area. Limited access to the perimeter of the private areas of Sentul Park became a setback in this study. Thus, the data collected for the inaccessible areas was derived mainly from secondary sources. Secondary data was obtained from reports published by the local authority and the site's developer as well as previously published researchers. The collected data were later assessed and interpreted based on a set of principles and methods used for studying public spaces and public life. The research has shown the prevalence meaning, interpretation, and purpose of the makerspaces proposed in the study area. The demonstrated three types of makerspaces created for education, community, and place to work exemplifies its flexibility and express potential collaborative learning environments where people come together to share materials and learn new skills. The innovative, creative, and dynamic makerspaces at Sentul Park, which integrate the outdoor and indoor spaces, could become a trendsetter for future civic infrastructure in Malaysia

Keywords: Civic infrastructure, makerspace, new urbanism, collaboration

# A 47 UE 005

# Confronting Mental Disorder in Urban Physical Setting

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#### Abstract

By the end of 2020, mental health problems will rank as the second biggest health problem after heart disease in Malaysia. If these issues are not addressed, it is almost inevitable that mental disorders will rise even greater. Mental health issues have many causes, this includes the changing and unpredictable elements of urban physical environments. Understanding how the urban physical environment influence mental health is central. However, there is a lack of research to understand how the urban physical setting (such as urban density, land use, green spaces, housing location and quality) can influence mental disorder. Thus, this research is crucial to understand the mental health challenges of the urban population in Malaysia. Therefore, the objective of this research is to assess the magnitude of mental health outcomes and associated factors of the urban physical environment among the urban population. A study was carried out at low-cost flats in Sentul, Federal Territory of Kuala Lumpur with a sample size of 102 respondents and confidence intervals of 95 per cent. The area is selected based on the characteristic of its housing area, high-density development and the provision of green spaces. Besides the secondary data collection, a questionnaire survey by using the Depression Anxiety Stress Scale (DASS-21) and General Health Questionnaire (GHQ-12) was carried out. The findings show that there is a correlation between urban physical environment setting (density, land use and housing quality) with mental disorders (depression, anxiety and stress). The research findings will add to the growing literature that suggests the importance of the built environment in shaping mental health. The result of this research can be beneficial to the urban planning decision-makers to establish a new policy or improve existing policies and guidelines. In fact, people's health is the foundation for sustainable development that is well-positioned to consolidate the realization of the ambition of the New Urban Agenda.

Keywords: urban planning, environment, mental, health

# A 48 UE 006

# Place Attachment and Belonging among Rural to Urban Migrant: The case of Guangzhou, China

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#### Abstract

Since the mid-1980s, China has witnessed unprecedented internal migration. The predominant trend is moving from rural to urban areas. This large scale internal migration has dramatically changed the sense of place of migrants to their hometown also cultivated their sense of place to the host city. This paper examining migrant's perceptual change that along with the migration trend, in order to analyze the impact of mobility on migrant's sense of belonging to their hometown and host city and explores how geographic mobility is implicated in the process of bonding with the place. To achieve this goal, we conducted an empirical study featuring 276 rural-to-urban migrants who already settled down in Guangzhou, one of the biggest metropolia in south China. 5-point Likert scale questionnaire and a series of hierarchical regressions analyses were conducted in this research. By using the data collected from Guangzhou city, four types of migrants were classified based on their attachment to hometown and host city within two dimensions(positive and negative). This paper acknowledges the significance of the traditional view of people's attachment to their original place. In the meantime, it shows that the bond with the original place is not unchangeable and universal, especially in the context of the migrant trend. Also, we found that ownership of children and estate are better able to predict the perceived sense of place to the original hometown and host city. Younger migrants evaluate sense of place and belonging less positively than other groups of people. Accordingly, This research corroborates the idea that mobility reduces the intensity of migrant's sense of place to the hometown; however, it does not subvert it. One's sense of place and belonging could be projected to multiple places, hometown till has an advantage over the sense of place and belonging along with migration and acquired by mobility. Keywords: Place attachment, Sense of place, Rural-urban migrant, Guangzhou city

# A 49 UE 004

### Systematic Literature Review of Urban Poor Livelihoods in Malaysia

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#### Abstract

Malaysia's robust economy has led to rapid urbanization since its independence in 1957. However, some scholars have indicated that the rapid urbanization has divided the society into the division of income groups, namely the bottom 40 (B40), upper and middle class (M40), and high-income achiever (T20). Interestingly, the M40 and T20 are the main drivers for the expansion of the economic activities in the country. On the other hand, the B40 or the lower-income group in the country is struggling to make ends meet. Despite Malaysia has successfully eradicated poverty and uplifted the quality of life of the rural poor, however, due to the rapid urbanization process in Malaysia, it is worth investigating the conditions of the livelihoods of the urban poor mainly among the B40 resided in major cities in Malaysia. Undoubtedly, there has been extensive literature on poverty research in Malaysia. Nevertheless, there are limited studies that have adopted a gualitative approach to examine the conditions of the poor urban livelihood from the perspective of the poor themselves. Hence, the main aim of the paper is to conduct a Systematic Literature Review (SLR) to examine the realities and lived experiences of urban poor individuals. The SLR has adopted a Transparent Reporting of Systematic Reviews and Meta-Analyses method known as PRISMA. This method has mapped out the empirical studies on the poor urban livelihoods in the Malaysian context, delineated knowledge gaps as well as provide recommendations for future studies. The outcome of the SLR is significant not only in leading the direction of future research but more importantly; also, it taps new insights into the analysis of poor urban livelihoods in Malaysia. Consequently, it would be significant for the policymakers and local support groups to employ the outcomes as a guide to improve the current policies and tap on the quality of life of the urban poor.

# A 50 UE 002

# The Impact of Urbanization on the Lost Physical identity of the City: The case of Buraydah City, Saudi Arabia

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#### Abstract

The city of Buraydah is experiencing a cycle of urban growth that affected the identity that was acquired within a long history of the city; therefore the rapid increase of urbanization is due to the following reasons: natural population growth, the internal migration from countryside to the urban areas, economic, social, legislative and political reasons. All these have caused a rapid change in our environments and brought the concept of identity on the agenda of planners and designers within the previous couple of decades. Therefore, current studies on the city's physical identity mainly focus on the use of land to determine city characters including, buildings, streets and public spaces, and the main subject of city identity as the spirit of a city most often neglected. The study focuses on both, the influence of land use planning and considering the necessity of city identity which has been defined as the spirit of a city and it plays a crucial role in increasing urban competitiveness. The purpose of this study is to give more understanding to the loss of identity subject in Buraydah city as a study case. The study gives detailed information about the characteristics of Buraydah and then defines the start of the change in the physical and social composition of the city and its role in the loss of identity. Furthermore, this study examines the role of land-use planning in the latest of the 20th century, the role of spontaneous areas, and the effect of urban growth and globalization on the making of physical identity. The collection of primary and secondary data in the form of a survey, questionnaire, and interview with the professionals, architects, and officials at the local authority has been carried out. This study has suggested and recommended the means to enhance the making of city identity which has been defined as the spirit of a city and it plays a crucial role in increasing urban competitiveness

Keywords: Urbanization, Physical identity, city identity, Buraydah city

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