

# e-Proceeding

# V-GO GREEN 2020<sup>29-30</sup> SEPT

VIRTUAL GO-GREEN: **CONFERENCE & PUBLICATION**

"SUSTAINABLE ENVIRONMENT, RESILIENCE AND SOCIAL WELL-BEING"

**Organiser :**  
Research, Industrial Linkages, Community &  
Alumni Network (PJIM&A)

**Co-organiser :**  
Faculty of Architecture, Planning and Surveying (FSPU)  
& Centre for Post Graduate Studies (CGS)

**Publication Date : 22<sup>nd</sup> February 2021**

## Virtual Go-Green Conference and Publication 2020

UNIVERSITI TEKNOLOGI MARA, PERAK BRANCH

February 2021

### Editors

*Dr Junainah Binti Mohamad*

*Nurulanis Ahmad @ Mohamed*

*Jannatun Naemah Binti Ismam*

*Najma Binti Azman*

### Chief Language Editor

*Dr Hj Shazila Abdullah*

### Language Editors

*Dr Daljeet Singh Sedhu A/L Janah Singh*

*Zarlina Mohd Zamari*

*Mary Thomas*

*Iza Faradiba Mohd Patel*

*Farahidatul Akmar Awaludin*

*Wan Faridatul Akma Wan Mohd Rashdi*

*Wan Nurul Fatimah Wan Ismail*

*Nazirul Mubin Mohd Noor*

*Noor Aileen Ibrahim*

*Jeyamahla Veeravagu*

*Noraini Johari*

*Hajah Norakmarwati Ishak*

### Panel of Reviewers

*Dr Asniza Hamimi Abdul Tharim*

*Ar Iznyy Ismail*

*Dr Azizah Md Ajis*

*Ar Jamaludin Bin Hj Muhamad*

*Ar Azman Bin Zainonabidin*

*Sr Ts Dr Asmat Binti Ismail*

*Dr Siti Norsazlina Haron*

*Sr Dr Norazian Mohamad Yusuwan*

*Dr Raziah Ahmad*

*Dr Asmalia Che Ahmad*

*Wan Norizan Wan Ismail*

*Sr Dr Kartina Bt Alauddin*

*Dr Norehan Norlida Bt Mohd Noor*

*Assoc Prof Dr Siti Akhtar Mahayuddin*

*Ts Siti Nur Aishah Mohd Noor*

*Sr Dr Nor Suzila Lop*

*Dr Hajah Norakmarwati Ishak*

*Assoc Prof Gs TPr Dr Halmi Bin Zainol*

*Dr Syed Ahmad Qusoiri Bin Syed Abdul Karim*

*Sr Dr Anis Sazira Binti Bakri*

*Dr Kharizam Binti Ismail*

*Dr Izatul Farrita Mohd Kamar*

*Siti Hasniza Rosman*

*Dr Izatul Laili Jabar*

*Sr Nurul Fadzila Zahari*

*Sr Dr Irwan Mohammad Ali*

*Shazwan Mohamed Shaari*

*Ir Dr Amirul Bin Abd Rashid*

*Sr Dr Alia Abdullah Saleh*

*Dr Anis Syazwani Binti Sukereman*

*Dr Nor Aini Salleh*

*Mohamad Haizam Mohamed Saraf*

*Sr Nurul Sahida Fauzi*

*Sr Dr Muhammad Azwan Sulaiman*

*Assoc Prof Sr Dr Rohayu Ab Majid*

*Sr Dr Nor Nazihah Bt Chuweni*

*Sr Dr Natasha Khalil*

*Dr Ida Nianti Mohd Zin*

*Nur Idzhainee Hashim*

*Sr Ts Dr Mohamad Ridzuan Bin Yahya*

*Sr Gs Noraain Binti Mohamed Saraf*

*Sr Dr Ani Saifuza Abd Shukor*

*Ir Normadyzah Ahmad*

*Sr Gs Dr Abdul Rauf Bin Abdul Rasam*

*Norhayati Talib*

*Sr Dr Raha Sulaiman*

*Ts Dr Izham Abdul Ghani*

*Dr Nur Huzeima Mohd Hussain*

*Assof Prof Ts Norhafizah Abdul Rahman*

*Dr Siti Rasidah Md Sakip*

*Dr Muhamad Hilmi Mohamad @ Masri*

*Dr Zakaria Hashim*

*IDr Dr Nadiyahanti Mat Nayan*

*Sr Nurulanis Binti Ahmad @ Mohamed*

*Gs Dr Nor Eeda Haji Ali*

*Gs Dr Nor Hisham Bin Md Saman*

### Graphic Designer

*Farah Hanna Ahmad Fuad*

*Mohamad Shahin Bin Shahdan*

## Main Committee

### Virtual Go-Green Conference and Publication 2020

<i>Advisor 1</i>	: Prof Sr Dr Md Yusof Hamid, AMP
<i>Advisor 2</i>	: Assoc Prof Dr Nur Hisham Ibrahim
<i>Chairman</i>	: Sr Dr Asmalia Che Ahmad
<i>Co-Chairman</i>	: 1. Sr Dr Yuhainis Abdul Talib 2. Sr Dr Haryati Mohd Isa
<i>Treasurer</i>	: Mohamad Haizam Mohamed Saraf
<i>Secretary</i>	: Noorliza Musa
<i>Head of v-Conference</i>	: Sr Dr Nor Suzila Lop
<i>Head of e-Proceeding</i>	: Dr Junainah Mohamad
<i>Head of Scopus Indexed Journal Planning Malaysia Journal (PMJ)</i>	: Assoc Prof Gs Dr Mohd Fadzil Abdul Rashid
<i>Head of Scopus Indexed Journal Malaysian Construction Research Journal (MCRJ)</i>	: Sr Dr Natasha Khalil
<i>Head of Paper Reviewer</i>	: Dr Asniza Hamimi Abdul Tharim

## Committee Members

### Virtual Go-Green Conference and Publication 2020

#### E-Proceeding Paper Reviewer

*Noraini Md Zain*  
*Shafikah Saharuddin*  
*Nur Fatiha Mohamed Yusof*  
*Farrah Rina Mohd Roshdi*

#### E-Proceeding Formatting

*Nurulanis ahmad @ Mohamed*  
*Jannatun Naemah Binti Ismam*  
*Najma Binti Azman*

#### E-Proceeding Language Reviewer

*Dr Hj Shazila Abdullah*  
*Dr Daljeet Singh Sedhu A/L Janah Singh*  
*Zarlina Mohd Zamari*  
*Dr Mary Thomas*  
*Iza Faradiba Mohd Patel*  
*Farahidatul Akmar Awaludin*  
*Wan Faridatul Akma Wan Mohd Rashdi*  
*Jeyamahla Veeravagu*  
*Wan Nurul Fatimah Wan Ismail*  
*Nazirul Mubin Mohd Noor*  
*Noor Aileen Ibrahim*  
*Noraini Johari*  
*Dr Hajah Norakmarwati Ishak*

#### Virtual Conference

<i>Norazlin Mat Salleh</i>	<i>Registration</i>
<i>Shahela Mamter</i>	<i>Auditor</i>
<i>Mohd Esham Mamat</i>	<i>Auditor</i>
<i>Noor Anisah Abdullah @ Dolah</i>	<i>Auditor</i>
<i>Mohamad Tajudin Saidin</i>	<i>Certificate &amp; Conference Kit</i>
<i>Fairiz Miza Yob Zain</i>	<i>Logistic</i>
<i>Mohd Firdaus Zainuddin</i>	<i>Logistic</i>
<i>Farah Hanna Ahmad Fuad</i>	<i>Promotion &amp; Publicity</i>
<i>Mohamad Shahin Shahdan</i>	<i>Promotion &amp; Publicity</i>
<i>Mohd Asrul Hassin</i>	<i>Liason Officer</i>



Organiser:

Research, Industrial Linkage Community and Alumni Network Office (PJIM&A)  
Universiti Teknologi MARA, Perak Branch, Seri Iskandar.  
Malaysia

Co-Organiser:

Faculty of Architecture, Planning and Surveying (FSPU)  
and,  
Centre for Post Graduate Studies (CGS)  
Universiti Teknologi MARA, Perak Branch, Seri Iskandar.  
Malaysia

e ISBN 978-967-2920-06-9



9 7 8 9 6 7 2 9 2 0 0 6 9

Copyright © Research, Industrial Linkage Community and Alumni Network Office (PJIM&A), Faculty of Architecture, Planning and Surveying (FSPU) and, Centre for Post Graduate Studies (CGS). All rights reserved. No part of this publication may be produced, stored in a retrieval system, or transmitted in any form or by means electronics, mechanical, photocopying, recording or otherwise, without prior permission in writing from the publisher

# STRESSED INDIVIDUAL'S PREFERENCES FOR OUTDOOR ACTIVITIES IN URBAN PARKS

Nor Izana Mohd Shobri<sup>1</sup>, Norhafizah Abdul Rahman<sup>1</sup> and Bin Md Saman Nor-Hisham<sup>2</sup>

<sup>1</sup>Department of Landscape Architecture, Faculty of Architecture, Planning and Surveying, Universiti Teknologi MARA, Perak Branch, Seri Iskandar Campus, Seri Iskandar, 32610 Perak, Malaysia

<sup>2</sup> Faculty of Architecture and Ekistics, Centre for Postgraduate Studies, Universiti Malaysia Kelantan, City Campus, Pengkalan Chepa, 16100 Kota Bharu Kelantan Malaysia

## Abstract

Outdoor activities in urban public park environments play critical roles in reducing stress levels or at least mental fatigue, of the urban dwellers. Although the importance of planning and designing of urban parks that possess the right and appropriate outdoor activities are well acknowledged, they receive inadequate attention from researchers. Cognizance of the above offset, this paper intends to enrich the current debate and criteria or factors of outdoor activities from the users' perspectives. To do that, this paper employs Kuala Lumpur inhabitants as a case study and respondents. An investigation is made to identify the preferences of outdoor activities by stressed individuals. The quantitative approach through a web-based questionnaire was employed in this study. A pilot study that involves a total of 62 respondents of the Kuala Lumpur population was used as a basis of the investigation. As an exploratory study, at least at this stage, the data have been analyzed using the descriptive statistics or to be specific via mean analysis. It was observed that the level of preferred outdoor activities positively relates to individual stress levels. This paper provides fresh and novel insights into the factors that need to be taken by landscape architects, planners, urban parks managers, architects, and alike in planning and designing the functional urban parks.

**Keywords:** *level of stress; preference; outdoor activities; urban public park; park design*

## 1.0 INTRODUCTION

Stress has received much attention and specifically has appeared in a chapter on Mental and Behavioral Disorders in the Eleventh Revision of International Classification of Diseases (ICD-11) (WHO, 2020). Stress is related to mental health and becomes an important component in people's health and well being. Although stress is not considered as a disease, it has been considered a risk factor for the development of diseases such as coronary heart disease, type II diabetes, and depression (Memari et al., 2017). Stress can be triggered in urban dwellers which results from the land use changes of farmland, grasslands, forests, and other types of green spaces into newly urbanized areas. As a result, urban life-related diseases such as mental stress have inevitably developed due to less green space provision (Gao et al., 2019). In addition, urban densification which is caused by the rising number of people moving into cities has led to the decreasing of outdoor environments available for physical activity and mental restoration (Pescharadt & Stigsdotter, 2013).

Therefore, relevant stress studies in several fields ranging from medicine to environmental psychology to landscape architecture have highlighted the importance of outdoor activities for stressed people. Restorative environment theories such as Attention Restoration Theory (ART) by Kaplan and Kaplan (1989) and Stress Restoration Theory (SRT) by Ulrich (1983) attempt to explain the linkage between outdoor activities and stress levels. Both try to utilize environmental psychology disciplines as their framework of investigation. Both theories assert that the natural environment is indeed a fertile ground for eliminating stress, mental fatigue, and emotional deficiencies.

## 2.0 LITERATURE REVIEW

Relating to urban parks, green space is another essential part of the natural environment setting as it indirectly performs as a barrier between health and an illness-inducing lifestyle. Green space plays a significant role in reducing stress in urban areas whereby it provides a unique setting for daily activities, enjoyment of nature and social engagement (Arifwidodo & Chandrasiri, 2020) for urban dwellers. It has been observed that some types of activities can substantially reduce stress (Gao et al., 2019).

Some of the pioneering work in leisure and recreational activities has defined the types of certain outdoor recreational activities (e.g., Tinsley and Johnson, 1984; Anambutr, 1989). Similar work has also been pursued by others (e.g. Jansen and von Sadovszky, 2004; Nilsson et al., 2006; King et al., 2007) in which different activities are performed by children and adults. These include taking advantage of all the little opportunities for adults to be active, using the stairs and doing routine tasks, home repairs and gardening, as well as more traditional leisure activities such as longer walks, cycling and swimming (WHO, 2006).

The influential work of the outdoor activities gave rise to a renewed interest in environmental psychology where certain activities connect to the restorative experience such as mental fatigue for AIDS caregivers (Canin, 1991) and women with cancer (Cimprich, 1990). Both studies found nature activity types are more restorative than other activities. Engaging in outdoor activities in urban public parks is a promising way to meet current physical activity requirements, because urban public parks are common features of the community that offer opportunities for physical activities (Karlsson & Grahn, 2011).

In more recent years, walking activities in nature have shown some effects on stress release (Gidlow et al., 2016). It is also proven that outdoor walking is perceived to give more mental restoration than walking indoors in a study by Bailey et al., (2018). In addition, it was reported that walking in a natural environment has significantly better restorative effects than walking in urban surroundings (Hartig et al., 1991, 2003). Instead of walking, running also induces the relaxation of mind and increase in alpha brain waves as studied by Schneider et al. (2009). Harte and Eifert (1995) examined the health benefits of outdoor physical activities versus indoor settings and found that running in a campus reduces negative emotions instead of running on a lab treadmill. Apart from that, experiencing restorative effects from nature and pursuing various activities in the natural environment such as observing nature, walking in the natural environment, hiking, gathering berries and chestnuts, gardening, fishing and hunting, and working in the forest have positive correlation with the wellbeing of Estonians (Raudsepp, 2005).

Consistent with that, a study by Hansmann et al. (2007) pursued the investigation of activities from different stress levels. They present the results in which the length of visit, and sport activities such as jogging, cycling, and playing ball give the positive effects on restoration and stress release. Sport activities show significantly greater improvements than those engaged in less strenuous activities for example walking or relaxation. Similar work has also been pursued by Stigsdotter et al., (2010) when individual reports of stress state that the motivation for them visiting urban parks is for mental restoration such as reducing stress, relaxation, achieving peace and quiet without noise. The work of Karlsson & Grahn, (2011) extends the idea of Stigsdotter et al.'s, (2010) findings where they found that the most preferred activity type among the most stressed informants was 'rest activities' followed by 'animal activities' and 'walking activities'.

Notably, the research has different drawbacks of results on the activities performed for restoration and stress relief. This might be due to the impact of gender, age, culture or ethnicity, interests or expertise (Berto, 2014), expected restoration benefits (Herzog et al., 2003; Staats et al., 2003), and general preference (Purcell et al., 2001) from different individuals.

This research is inspired by similar work from previous studies. Although some progress has been made in the activity type for people's health, further research is needed in various types of outdoor activities that are associated with different levels of stress. This present study compares the variety of activities from previous research. The objectives of this study is (1) to assess the stress level and preference activities by urban dwellers; and (2) to analyze the most preferable activities by stressed people in urban parks. Thus, the result of this study is to offer research that can be used as the grounds for guidance and empiricism to improve the work of

local administrators and urban planners so that their planning and design of urban activity areas are relevant to the preferences and demands of stressed individuals.

### **3.0 RESEARCH METHODOLOGY**

A quantitative survey was conducted in this study in the form of a web-based questionnaire and blasted using social media platforms and snowballing techniques. The data of this study was obtained from Kuala Lumpur citizens including personal profile (gender, age, socio-economic status), preference of outdoor activities in urban parks, and their health status. This study only uses the answers from adults (18 years and above) among Kuala Lumpur's citizens. In the course of this study there is a pilot study where data was collected within one month starting from 1st July to the 31st of July 2020. A total of 62 (N) respondents took the survey. The distribution by gender was: 21% male, 71% female where 96.8% are Malays, 1.6 % Indians, and 1.6 % others.

The questionnaire consists of four parts. The first part asks about the respondent's profile data such as gender, age, and socio-economic status. The second part focuses on self-rating the respondent's health status. DASS 42 with Malay language translation by Ramli et al., (2012) was used in this study to obtain the health status of the respondents. DASS 42 was divided into three-dimensions: depression, anxiety, and stress scale. Each of the dimensions was divided into five group levels: normal, mild, moderate, severe, and extreme. The answers are listed on a 4-scale number: 0 = did not apply to me; 1=apply to me to some degree; 2 = apply to me to a considerable degree; 4 = apply to me most of the time. For this study, the discussion will focus only on the stress dimension. In the third part, the respondent was given a multiple-choice answer questionnaire to outdoor activities they prefer to do in urban parks. A list of 20 outdoor activities was prepared by referring to previous research (e.g. Sreetheran, (2017); Zainol & Au-Yong, (2016); Karlsson & Grahn, (2011); Grahn & Stigsdotter, (2010)). The fourth part is the preference for park characteristics in urban parks. However, the fourth part will not be discussed in this study. The statistical analyses were conducted using the statistical software package IBM SPSS 23.

### **4.0 RESULTS AND DISCUSSION**

#### **4.1 Types of Outdoor Activities People Reporting Stress Prefer**

From the questionnaire, the informants choose which outdoor activities they preferred in a multiple-choice answer questionnaire. The list of outdoor activities consisted of 20 different activities collected by qualitative method from previous research. From the five groups of stress levels, eleven percent of the respondent belongs to groups number four and five, which are the groups with severe and extremely stressful levels (Stress level >26).

To discover which of the outdoor activities that stressed people prefer when they visit the urban parks, a mean analysis was conducted only for the group with the highest stress level. Table 1 shows that people in severe stress levels (n=3) have the preference for enjoying the fresh air, rest, and relaxation activities. Meanwhile, for people with extreme stress levels (refer to Table 2), they enjoy nature, peace, fresh air, rest and relaxation, and stress-releasing activities are the most preferred. Referring to this result, the activities preferred by stressed people are not particularly physically demanding. Even though the respondents in this study did not seem too many, the result was in line with the study by Stigsdotter et al., (2010) regarding individuals who reported stress visited the green spaces to reduce stress and for relaxation, achieving peace and quiet without noise. The most recent study by Gao et al., (2019), found that the most stressed people were more likely to do quiet activities. Quiet activities do not mean absolute silence but can be achieved with birdsong or natural sound elements. Birdsongs also give the perceived stress recovery for stressed people in a study by Ratcliffe et al., (2013).

It is also found in Table 1 and Table 2 that activities related to social demands such as meeting up with people, socializing with others or family, playing remote-controlled toys,

cycling, enjoying sports, and exercising to stay healthy were found to be the least preferred by those people who experience stress. This finding is expected since gathering activities should be avoided for people who are experiencing stress as stated in Karlsson & Grahn, (2011). This argument is also consistent with recent findings from Hadavi et al., (2015) where rest and restoration activities are needed in the places where people want to be alone.

**Table 1: Mean analysis of preference regarding activity types, standard deviation and the preference ranking (n=3) for groups with severe stress**

Activity type	N	Mean	Std Dev	Rank
Enjoy fresh air	3	.750	.5000	1
Enjoy the peace	3	.750	.5000	2
rest and relaxation	3	.750	.5000	3
Photography	2	.750	.5000	4
sound of birds	2	.750	.5000	5
Enjoy nature	2	.500	.5774	6
Enjoy the sun	2	.500	.5774	7
release stress	2	.500	.5774	8
Watch others	1	.500	.5774	9
Picnic	1	.500	.5774	10
Accompany children at the playground	1	.250	.5000	11
exercising facilities	1	.250	.5000	12
Jogging and brisk walking	1	.250	.5000	13
Meet up with people	.0	.000	.0000	14
Socialize with others	.0	.000	.0000	15
Socialize with family	.0	.000	.0000	16
Play remote controlled	.0	.000	.0000	17
Cycling	.0	.000	.0000	18
Enjoy sports	.0	.000	.0000	19
Exercise to stay healthy	.0	.000	.0000	20

**Table 2: Mean analysis of preference regarding activity types, standard deviation and the preference ranking (n=4) for groups with extremely stress**

Activity type	N	Mean	Std Dev	Rank
Enjoy nature	3	.750	.5000	1
Enjoy fresh air	3	.750	.5000	2
Enjoy the peace	3	.750	.5000	3
rest and relaxation	3	.750	.5000	4
release stress	3	.750	.5000	5
Accompany children at the playground	2	.500	.5774	6
Jogging and brisk walking	2	.500	.5774	7
Exercise to stay healthy	2	.500	.5774	8
sound of birds	2	.500	.5774	9
Enjoy the sun	2	.500	.5774	10
Photography	1	.250	.5000	11
Watch others	1	.250	.5000	12
Socialize with others	1	.250	.5000	13
Meet up with people	0	.000	.0000	14
Picnic	0	.000	.0000	15
Socialize with family	0	.000	.0000	16
exercising facilities	0	.000	.0000	17
Play remote controlled	0	.000	.0000	18
Cycling	0	.000	.0000	19
Enjoy sports	0	.000	.0000	20

## 5.0 CONCLUSIONS

The findings from this study provide some indicators on how to plan and design urban green spaces to meet the needs and preferences of stressed people. The findings from this study reported that individuals with high levels of stress want to do relaxation and rest



activities, enjoying natural fresh air, and peace. If the objective of society is to promote the health and wellbeing of its citizens through increasing the use of the urban parks by enhancing their characteristics and qualities, it is probably a good way to achieve this objective. This suggests that urban green spaces need to be seen as public health promotion resources, particularly with a view to reducing socio-economic inequalities, which usually have a strong impact on health (Mitchell and Popham, 2008). As a consequence, there may be a need to analyze and partially redesign green open spaces in relation to today's urban context and the needs, preferences, and health problems of modern citizens. One method of doing this could be to provide the park design with space for outdoor activities. Within the field of landscape planning and human behavior, both scientists and practitioners will benefit from this study.

## REFERENCES

- Anambutr, R., (1989). Relationships between recreational experiences and behavioural setting in metroparks. Ph.D. Thesis. The University of Michigan, Ann Arbor.
- Arifwido, S. D., & Chandrasiri, O. (2020). Association between park characteristics and park-based physical activity using systematic observation: Insights from Bangkok, Thailand. *Sustainability (Switzerland)*, 12(6).
- Bailey, A. W., Allen, G., Herndon, J., & Demastus, C. (2018). Cognitive benefits of walking in natural versus built environments. *World Leisure Journal*, 60(4), 293–305.
- Berto, R. (2014). The Role of Nature in Coping with Psycho-Physiological Stress: A Literature Review on Restorativeness. *Behavioral Sciences*, 4(4), 394–409.
- Gao, T., Song, R., Zhu, L., & Qiu, L. (2019). What characteristics of urban green spaces and recreational activities do self-reported stressed individuals like? A case study of Baoji, China. *International Journal of Environmental Research and Public Health*, 16(8).
- Gidlow, C. J., Jones, M. V., Hurst, G., Masterson, D., Clark-Carter, D., Tarvainen, M. P., Smith, G., & Nieuwenhuis, M. (2016). Where to put your best foot forward: Psycho-physiological responses to walking in natural and urban environments. *Journal of Environmental Psychology*, 45, 22–29.
- Grahn, P., & Stigsdotter, U. K. (2010). The relation between perceived sensory dimensions of urban green space and stress restoration. *Landscape and Urban Planning*, 94(3–4), 264–275.
- Hadavi, S., Kaplan, R., & Hunter, M. C. R. (2015). Landscape and Urban Planning Environmental affordances : A practical approach for design of nearby outdoor settings in urban residential areas. *Landscape and Urban Planning*, 134, 19–32.
- Herzog, T.R., Maguire, C.P., Nebel, M.B., (2003). Assessing the restorative components of environments. *Journal of Environmental Psychology* 23, 159–170.
- Jansen, D.A., von Sadowsky, V., (2004). Restorative activities of community-dwelling elders. *Western Journal of Nursing Research* 26, 381–399.
- Kaplan, D., 1989. Model modification in covariance structure analysis: Application of the expected parameter change statistic. *Multivariate Behavioral Research*. 24, 285–305.
- Karlsson, U., & Grahn, P. (2011). Urban Forestry & Urban Greening Stressed individuals' preferences for activities and environmental characteristics in green spaces. *Urban Forestry & Urban Greening*, 10(4), 295–304.
- King, G.A., Law, M., King, S., Hurley, P., Hanna, S., Kertoy, M., Rosenbaum, P., (2007). Measuring children's participation in recreation and leisure activities. *Child: Care, Health and Development* 33, 28–39.
- Memari, S.; Pazhouhanfar, M.; Nourtaghani, A. Relationship between perceived sensory dimensions and stress restoration in care settings. *Urban For. Urban Green*. 2017, 26, 104–113.
- Mitchell, R., Popham, F., (2008). Effect of exposure to natural environment on health inequalities: an observational population study. *Lancet* 372, 1655–1660.
- Nilsson, I., Löfgren, B., Fisher, A.G., Bernspång, B., (2006). Focus on leisure repertoire in the oldest old. *Journal of Applied Gerontology* 25, 391–405.
- Peschardt, K. K., & Stigsdotter, U. K. (2013). Associations between park characteristics and perceived restorativeness of small public urban green spaces. *Landscape and Urban Planning*, 112(1), 26–39. <https://doi.org/10.1016/j.landurbplan.2012.12.013>.

- Purcell, T., Peron, E., Berto, R., (2001). Why do preferences differ between scene types? *Environment and Behaviour* 33, 93–106.
- Ramli, M., Rosnani, S., & Fasrul, A. A. (2012). Psychometric Profile of Malaysian version of the Depressive , Anxiety and Stress Scale 42-item ( DASS-42 ). *MJP Online Early*.
- Ratcliffe, E., Gatersleben, B., & Sowden, P. T. (2013). Bird sounds and their contributions to perceived attention restoration and stress recovery. *Journal of Environmental Psychology*, 36, 221–228.
- Raudsepp, M., (2005). Relations to forest and psychological well-being: an empirical study in Estonia. In: Gallis, C.T. (Ed.), *Forests, Trees, and Human Health and Well-Being: 1st European COST E39 Conference Proceedings*. Medical and Scientific Publishers, Thessaloniki, pp. 81–91.
- Schneider, S., Askew, C. D., Diehl, J., Mierau, A., Kleinert, J., Abel, T., Carnahan, H., & Strüder, H. K. (2009). EEG activity and mood in health orientated runners after different exercise intensities. *Physiology and Behavior*, 96(4–5), 709–716.
- Sreetheran, M. (2017). Exploring the urban park use, preference and behaviours among the residents of Kuala Lumpur, Malaysia. *Urban Forestry and Urban Greening*, 25(August 2016), 85–93.
- Staats, H., Kieviet, A., Hartig, T., (2003). Where to recover from attentional fatigue: an expectancy value of environ- mental preference. *Journal of Environmental Psychology* 23, 147–157.
- Tinsley, H.E., Johnson, T.L., (1984). A preliminary taxonomy of leisure activities. *Journal of Leisure Research* 16 (3), 234–244.
- Ulrich, R.S., 1983. Aesthetic and affective response to natural environment. *Hum. Behav. Environ. Adv. Theory Res.* 6, 85–125. <http://dx.doi.org/10.1007/978-1-4613-3539-9.3539-9>.
- WHO. (2006). *Physical activity and health in Europe: Evidence for action*. Copenhagen: WHO Regional Office for Europe.
- Zainol, R., & Au-Yong, C. P. (2016). What brings youth to recreational parks? *Planning Malaysia*, 14, 67–80.

Surat kami : 700-KPK (PRP.UP.1/20/1)

Tarikh : 20 Januari 2023

Prof. Madya Dr. Nur Hisham Ibrahim  
Rektor  
Universiti Teknologi MARA  
Cawangan Perak



Tuan,

**PERMOHONAN KELULUSAN MEMUAT NAIK PENERBITAN UiTM CAWANGAN PERAK  
MELALUI REPOSITORI INSTITUSI UiTM (IR)**

Perkara di atas adalah dirujuk.

2. Adalah dimaklumkan bahawa pihak kami ingin memohon kelulusan tuan untuk mengimbas (*digitize*) dan memuat naik semua jenis penerbitan di bawah UiTM Cawangan Perak melalui Repositori Institusi UiTM, PTAR.

3. Tujuan permohonan ini adalah bagi membolehkan akses yang lebih meluas oleh pengguna perpustakaan terhadap semua maklumat yang terkandung di dalam penerbitan melalui laman Web PTAR UiTM Cawangan Perak.

Kelulusan daripada pihak tuan dalam perkara ini amat dihargai.

Sekian, terima kasih.

“BERKHIDMAT UNTUK NEGARA”

Saya yang menjalankan amanah,

**SITI BASRIYAH SHAIK BAHARUDIN**  
Timbalan Ketua Pustakawan

*nar*

*Setuju.*

*27.1.2023*

PROF. MADYA DR. NUR HISHAM IBRAHIM  
REKTOR  
UNIVERSITI TEKNOLOGI MARA  
CAWANGAN PERAK  
KAMPUS SERI ISKANDAR