

## **E-MERIT AS A TOOL TO EVALUATE STUDENTS' PARTICIPATION ON SOFT SKILLS DEVELOPMENT**

Zurina A. S.<sup>1</sup>, Nur 'Izzati Z.<sup>2</sup>, Hukil Sino<sup>3</sup>, Koh K. W.<sup>4</sup>, Mohamad K. M.H.<sup>5</sup>, Norinsan K.O.\*

<sup>1</sup>) Social, Environment and Development Sustainability Research Centre (SEEDS), Faculty of Social Sciences and Humanities, UKM

<sup>2</sup>) Sustainability of Language Sciences Research Centre, Faculty of Social Sciences and Humanities, UKM

<sup>3</sup>) Diagnostic & Applied Health Sciences, Faculty of Health Sciences

<sup>4</sup>) History, Politics and Security Research Centre, Faculty of Social Sciences and Humanities

<sup>5</sup>) Tun Hussein Onn Residential College, UKM

<sup>6</sup>) School of Applied Physics Studies, Faculty of Sciences and Technology  
43600 UKM Bangi, Selangor

\*Correspondence Author email: insan@ukm.edu.my

### **ABSTRACT**

*The e-Merit system was introduced in Kolej Tun Hussein Onn, Universiti Kebangsaan Malaysia to provide students with recognition and appreciation whenever they join any activities handle or organize by the residential college in both level; university or college. The e-Merit system was designed as a tool to evaluate students' participation and credit will be given in marks or points over their active participation or contribution on the activities. Thus, in creating balanced students that have excellent academic and good soft skills to be more marketable, focus on academic and soft skills development is measure using the e-Merit System. The researchers find that the participation from the students of the residential college on learning innovation is measured in accordance with the rubrics on how the e-Merit system marks is count.*

**Keywords:** *e-Merit System, Industry Revolution, Soft Skills Development, Kolej Tun Hussein Onn*

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## **1. INTRODUCTION**

Technology advancement has changed human's perspective in the ability to change a better life in line with the present development. The emergence of high-tech tools such as phones, cars, planes and other machines have significantly changed the face of the world (Reischauer 2018; Duricin & Herceg 2018; Vaidya et al. 2018 ). Nevertheless, the rapid advancement of this technology provides important roles and responsibilities to the authorities especially in residential college of each University. Students mostly spend more of their time in their respective residential colleges rather than in class or faculty. Hence, it is possible for the students to develop their academic and soft skills whilst they staying in their room.

The 4.0 industrial revolution further emphasizes on the development of virtual technology. It can be seen that the use of human labor is no longer preferred and will certainly affects human life in particular (Saucedo et al., 2018). This is supported by Nawabjan et al. (2018) that explains the introduction to the "Internet of Things" (IoT) and industrial revolution 4.0 has opened a new perspective in human daily interactions. There are many applications that have been used and enjoyed by the global community as a proof that the Industrial Revolution 4.0 explains that the ability of information technology is capable in overhauling not only in the business world but also in human life (Vaidya et al., 2018). Therefore, the technology industry is increasingly unpredictable as today's society has a need for lifestyles, communications, jobs and others. According to Amir et al. (2018), he

stated that one third of the world's population uses social media to learn, share information and they become part of the community through the processes.

As there are rapid changes in the development of the industrial revolution and its needs to the world of careers and jobs, the effected target are those employees and students who demand to get a job after graduating with a Bachelor Degree. Their overall CGPA shows that they are eligible to apply for any jobs but companies nowadays needed more than that. Companies needed applicants with soft skills, career and life skills, learning and innovation skills and other skills as value added.

This is supported by Jamil et al. (2016), he explained that students need to have other skills together with excellent educational result as it helps the students to have the latest and relevant knowledge as well as soft skills that will drive the students to be positive and confident.

In encouraging the participation and involvement of students collectively, the size of the participation cannot be measured and assessed properly. Therefore, a system that can evaluate needs to be developed in order to assure the measurement and assessment is properly done. The e-Merit system is one of the online system developed by Kolej Tun Hussein Onn to measure the involvement of the college residential and to act as alternative system to replace manually merits filling in the merit books previously. In summary, it is a systematic assessment of individual performance with components and standard aspects provided. Therefore, the system has the ability to measure the involvement of students directly or indirectly.

### **1.1 Problem Statement**

- a) The function of a residential college that acts not only as a residence but also a center of human development among students.
- b) The previous manual merit system is somewhat complicated in implementation and inefficient in time.

### **1.2 Research Question**

- a) How to evaluate the students' participation on activities conducted or implemented by a residential college?
- b) Is the effectiveness of the e-Merit System (as a tool of measurement) in an alternative and comprehensive assessment works?

### **1.3 Research Objective**

- a) To identify the participation of college residents on the activities organized by the residential colleges
- b) To study the effectiveness of the e-Merit System (as a tool of measurement) in an alternative and comprehensive assessment works

Students nowadays need to face challenges of the new industrial revolution 4.0. Students now need to have value added such as soft and essential skills to survive in career after they graduated. Students currently tend to fail to identify the potential in themselves, and refused to develop and understand their own capabilities (Amir et al 2018). Therefore, students need to have confidence and understand that they have the potential and capacity to succeed like others. In the same time, they need to improve the skills they lacks in such as public speaking, innovative, group skills and others.

In addition, Othman et al. (2018) shows that students conquered ICT skills, teamwork and practice low communication compared to other soft skills. Therefore, students who stay in residential colleges should take the opportunity to participate in as many programs and events are organized by

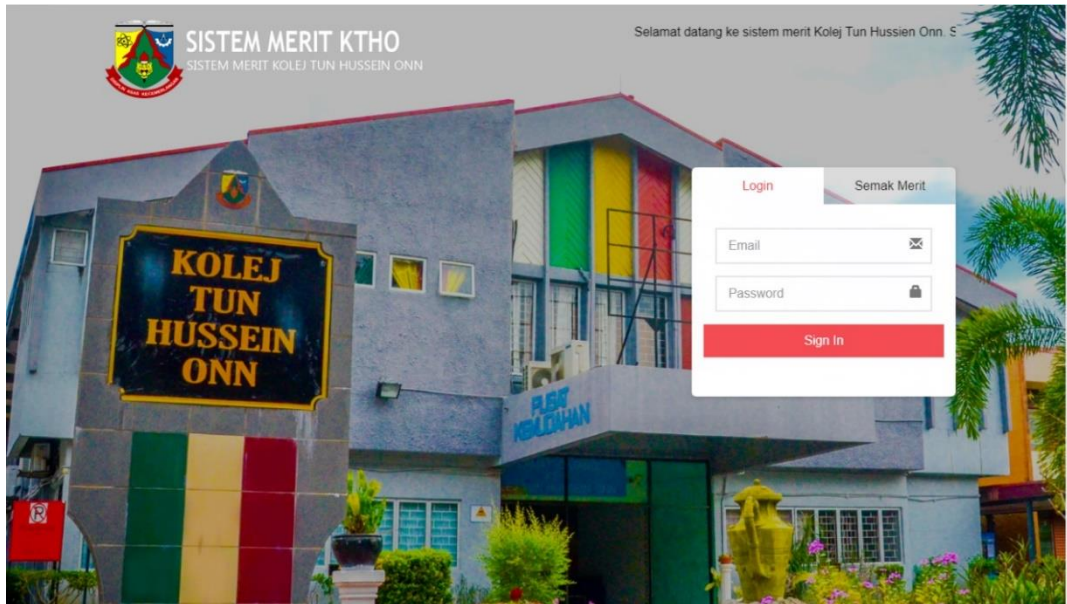
colleges or universities as they could. The residential college is seen as the second home of students throughout their study. Rather than that, residential college is also seen as the second learning center because they spend more time here compared to faculty. Hence, residential colleges need to organize more activities, events and programs that are useful to ensure that these students can develop value added that they should have. According to Othman et al. (2018) he emphasized that activities organized by residential colleges and universities have the objective of producing high-confidence, proactive and competitive students. Hence, various mega programs are held to meet the needs of students to be more marketable. Plus, good planning and implementation would help to improve their value added. This is proved by Darus (2008), the planning and implementation of college and university activities involved four main groups that are the administrators, advisors and observers, implementers and targeted groups. Therefore, the identified and the targeted groups are responsible in ensuring the success of the program.

To conclude, programs and events organized by residential colleges and universities provide high impact aspect on future and graduate students in long term directly or indirectly. For students who are active in faculty and residential colleges, they are able to seize the opportunity and seen to have the value added in line with the current market demand.

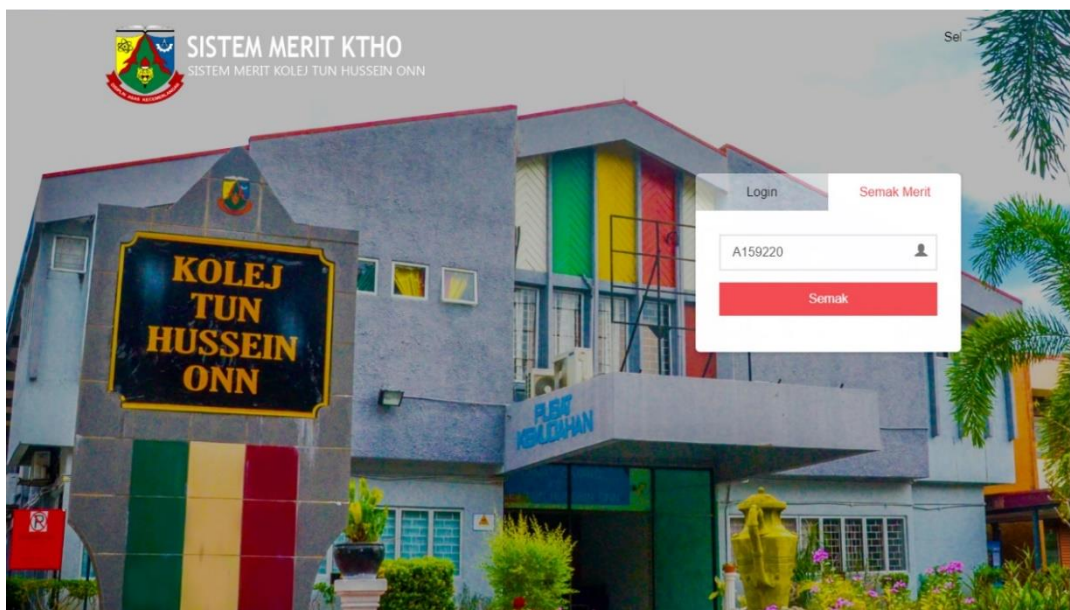
## **2. METHODOLOGY**

This study involved the students of Tun Hussein Onn College, Universiti Kebangsaan Malaysia. The students are in Year 1, Year 2, and Year-End (3 and 4) from 10 faculties in UKM. Distribution of questionnaires as the main database from iSTAR's final report is conducted using quantitative methods. Document analysis is also implemented as a method for collecting research data.

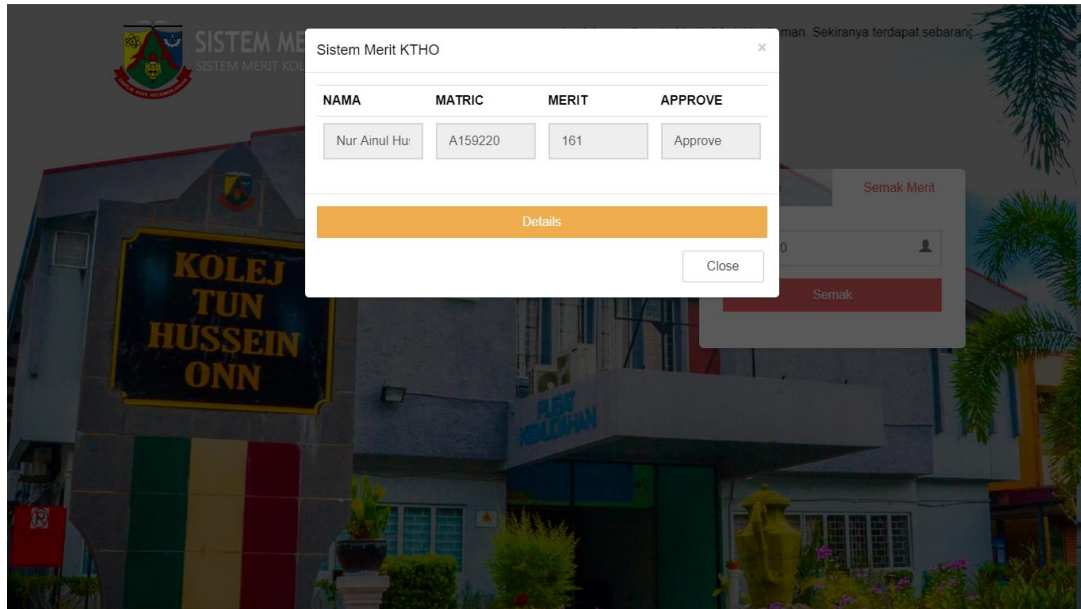
The e-Merit system aims to recognize students' participation in college and university activities. This is one of the medium used in the selection of the new students for each semester and session renewal. The e-Merit system also functions to record all activities and programs attended by Tun Hussein Onn College students. Below is the Tun Hussein Onn College e-Merit system portal and steps on how to access the system.



**Main page for the e-Merit System of Kolej Tun Hussein Onn**



**The “Check Merit” Menu by Logging in Matrix Number**



Total Merit Given will be shown

Nama	NURAINUL HUSNA BINTI BAZLAN
Matric	A159220
Tahun	TAHUN 2
Pengajian	PENGAJIAN BAHASA MELAYU
Fakulti	FSSK
Palapes	TIDAK

Id	Program/Ulasan	Jawatan	Merit	Status
1	KEMPEN DERMA DARAH	PESERTA / PENONTON	1	APPROVE
2	SEMPEC	AHLI JAWATANKUASA (PROGRAM BIASA)	6	APPROVE
3	TAKLIMAT PROGRAM MOBILITI/PERTUKARAN PELAJAR	MAJLIS TERTINGGI (PROGRAM BIASA)	10	APPROVE
4	MALAM ANUGERAH PELAJAR KE 21	AHLI JAWATANKUASA (PROGRAM MEGA)	8	APPROVE
5	KELAB AKADEMIK	MEP	12	APPROVE
6	PROGRAM XPLOKASI MAKLUMAT	MEP	12	APPROVE
7	PERTANDINGAN 3 MINUTES PITCHING AIR ASIA	MEP	12	APPROVE
8	KELAB HELAA	MEP	12	APPROVE
9	AKTIVASI BLOK	MEP	12	APPROVE

The full list of their participations can be seen directly and print out

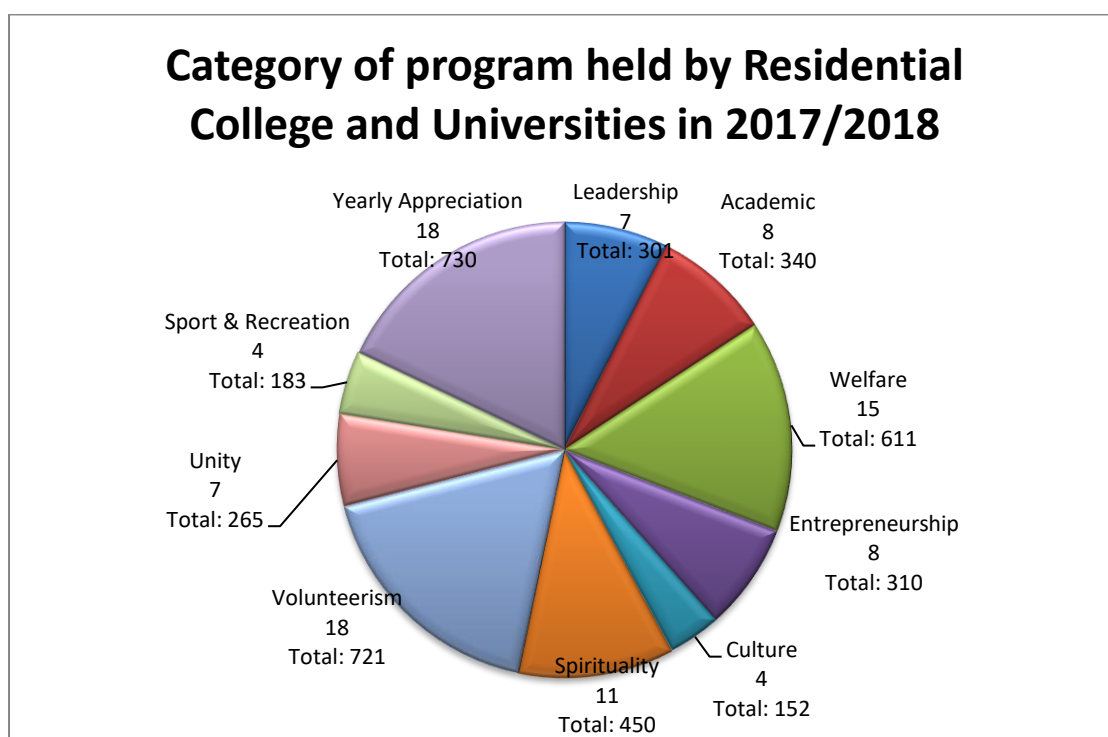
### 3. RESULT AND DISCUSSION

Table 1 and Diagram 1 shows the categories of program and students' participation in activities held by University or Residential Colleges. There are 10 categories available which are leadership, academic, welfare, entrepreneurship, culture, spirituality, volunteerism, unity, sport & recreation and

yearly appreciation. In total, there are 40 activities held throughout 2017/2018 session. In average, 406 students have joined each activity held. The most favorite categories joined are yearly appreciation and volunteerism.

**Table 1: Categories of Program Held by Residential College and Universities in 2017/2018**

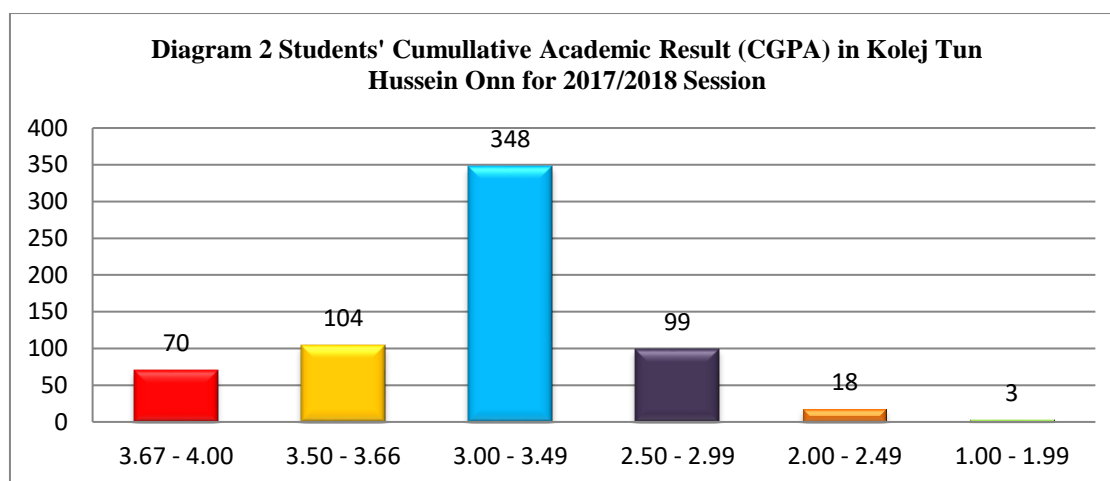
Category	Participation	Total Programs
Leadership	301	7
Academic	340	4
Welfare	611	6
Entrepreneurship	310	2
Culture	152	6
Spirituality	450	2
Volunteerism	721	8
Unity	265	3
Sport & Recreation	183	1
Yearly Appreciation	730	1



**Diagram 1: Categories of Program Held by Residential College and Universities in 2017/2018**

Diagram 2 shows the cumulative result of students' academic in Kolej Tun Hussein Onn for 2017/2018 session. 522 students (81.3%) managed to get 3.00 above, 99 students (15.4%) managed to get 2.50-2.99, and 21 students (3.27%) managed to get 1.00 – 2.49. Students who succeed to score 3.00 and above are classified as excellent student. In average, students that are actively involved in activities and program held by the university or residential college managed to get total CGPA of 3.00-4.00. In the same time, they managed to collect average of 30.6 marks for their e-Merit grading score.





**Diagram 2: Students' Cumulative Academic Result (CGPA) in Kolej Tun Hussein Onn for 2017/2018 Session**

e-Merit grading score through KTHO's students cumulative results (CGPA) is based on the overall average range of students of each session. Excellent grades ranging from 30 - 40 marks, Good Grades is 20 -29 while Medium Grades is 1 -19.

**Table 2: e-Merit Grading Score**

Marks	Grade
30-40	Excellent
20-29	Good
1-19	Fair

The result shows the assessment throughout the program in pre-program and post-program. 80% agreed that the secretariat had done their best, 72.0% agreed that the suitability of the venue held, 78.7% agreed on the suitability of the content, 80.0% on the activity effectiveness and 77.3% agreed that the objective of the program have been achieved. In average, this assessment achieved 78.0% and classified as A in e-Merit Grading Score.

**Table 3 : Assessment Throughout the Program = Pre and Post**

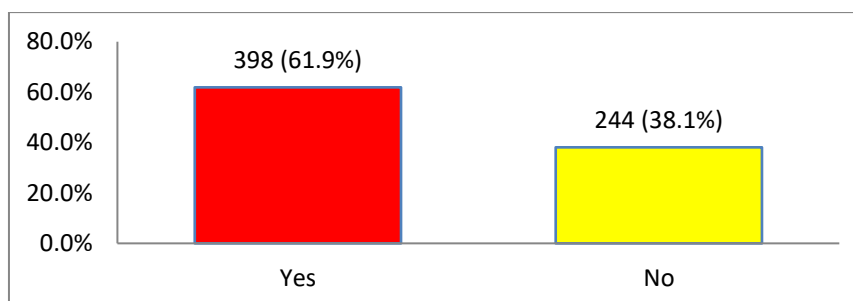
Category	Total (%)
Secretariat	80.0
Suitability of the Activity	72.0
Content of the Activity	78.67
Effectiveness of the Activity	80.0
The Process of the Activity	80.0
Achievement on the Objective Focused	77.33

The e-Merit scoring (Management Assessment) grade is based on the assessments provided throughout the program by the secretariat and participants. Grading scores are as follows. 75-100 (A), 49 -74 (B0), 23-48 (C) and 1 - 22 (D). This grading classification focused throughout the whole program and activities organized by colleges and universities to measure the success of each program.

**Table 4 : e-Merit Grading Score (Administration Assessment)**

Marks	Grade Given
75-100	A
49-74	B
23-48	C
1-22	D

Participation among college residential are collective because it is valued based on accumulated merit points. Therefore, the results of this study analysis shows that respondents have high involvement in each program organized by college and university. Through the analysis, based on Diagram 3, 61.9% agreed that the e-Merit System is easily accessible while 38.1% disagreed.

**Diagram32 : Accessibility of the e-Merit System**

The list of students' information can be accessed via e-Merit system. Students can also print their overall results by logging in using their Matrix Number.

#### 4. CONCLUSION

The e-Merit System has given a positive impact on the students' soft skills development. The findings have proved that the students who actively involved in activities held by university or residential college has more potential to score higher CGPA. Therefore, the e-Merit system acts as a tool of measurement in determining the ability of the students. In the same time, students are indirectly prepared to face their career and life challenges. In addition, it is highly-recognized that in organizing programs, the students possessed skills such as information acquisition skills, high level thinking skills, teamwork skills, communication skills and time management skills.

#### REFERENCES

- Saucedo-Martinez, J.A, Perez-Lara, M., Marmolejo-Sauceda, J.A., Salais-Fierro, T.E., Vasant, P. (2018). Industry 4.0 framework for management and operations: a review. *Journal of Ambient Intelligence and Humanized Computing* 9(3): 789-801.
- Reischauer, G. Industry 4.0 as policy-driven discourse to institutionalize innovation systems in manufacturing .(2018). *Technological Forecasting and Social Change* 132 pp. 26-33.
- Vaidya, S., Ambad, P., Bhosle, S. Industry 4.0 - A Glimpse (2018) *Procedia Manufacturing*, 20, pp. 233-238.



- Duričin, D., Herceg, I.V. Industry 4.0 and paradigm change in economics and business management . (2018). *Lecture Notes in Mechanical Engineering*, (9783319895628), pp. 37-56.
- Amir, R., Bunawan, H., & Yahaya, M.F. (2018). Cabaran mahasiswa dan kolej kediaman mendepani Revolusi Industri 4.0. *Prosiding Konvensyen Kepengetuaan dan Felo Penghuni Kolej Kediaman Universiti Awam Kebangsaan*, pp. 24 – 29.
- Othman, N.K., Saidi, Z.A., S., H. & W, K.K. (2018). Kajian mengenai penggunaan sistem e-Merit mesra pengguna atau tidak dalam kalangan pentadbiran Kolej Tun Hussein Onn. *Prosiding Konvensyen Kepengetuaan dan Felo Penghuni Kolej Kediaman Universiti Awam Kebangsaan*, pp. 152-164.
- Othman, N.K., Saidi, Z.A., Sino., H., Wei, K.K. & Wan Shukri, W.M.H. (2018). Tinjauan awal pembangunan sistem e-Merit: Penilaian alternatif penglibatan penghuni Kolej Tun Hussein Onn. *Prosiding Konvensyen Kepengetuaan dan Felo Penghuni Kolej Kediaman Universiti Awam Kebangsaan*, pp. 218- 230.
- Jamil, M.Z.A.M., Othman, N.K., Rahman, I.A., Mohamed, F. & Zainuddin, Z. (2016). Keberkesanan pelaksanaan sistem latihan amali/ industry dalam pengurusan penempatan latihan industry bagi pelajar Pusat Pengajian Fizik Gunaan. *Jurnal Personalia Pelajar* 19(6): 39-48.
- Nawabjan, A., Illahi, R.N., Ahyad, N.A., Xian, A.Y., Sharan, S.N.A., Hamidon, S.N.N.A., Ahmad, A.S. & Rahim, K.A. (2018). Pembangunan sistem merit dalam talian untuk kemasukan data permohonan kuota pengetua di Kolej Tuanku Conselor (KTC), UTM. *Prosiding Konvensyen Kepengetuaan dan Felo Penghuni Kolej Kediaman Universiti Awam Kebangsaan*, pp. 427-433.
- Darus, F.M. (2008). Peranan kepimpinan mahasiswa di kolej kediaman dalam memperkasakan kemahiran insaniah. *ESTEEM Academic Journal UiTM Pulau Pinang* 4(2):199-207.