# MS Office optimization assistance for residents and village officials of the Blanceran Village Government, Klaten Regency

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# **ABSTRACT**

Blanceran Village, Klaten Regency is one of the villages in Klaten which has quite good potential for natural resources and human resources. This is demonstrated by the existence of a variety of adequate village facilities (computers and village WIFI). The existence of these things has not been able to be utilized properly because of the limited knowledge possessed by residents, giving rise to various very complex problems. Problems in the field of law and the use of technology to support village governance. In the legal field, there are many problems regarding the existence of Village Regulation regulations that have not been properly legalized. This raises the consequences of debate and friction between citizens in overcoming a problem. In the field of informatics there is a problem that so far, the village government has computer facilities, but it has not been maintained properly because human resources are not yet available properly so that it seems the computer is stalled and not being used properly. The solution is to provide education about optimizing the use of computers, especially MS Office. Village apparatus and prospective village apparatus require assistance to improve soft skills and computer optimization to lighten the workload. This can also be applied, especially in filing Village Regulation (PERDES) documents. The results of this service had a significant impact, namely 99% of residents and village officials experienced an increase in knowledge.

KEYWORDS Microsoft Office; Village apparatus; Blancerans;



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# 1. Introduction

Klaten district is one of the regencies in Central Java province which has quite fertile natural resource potential. Geographical conditions are very strategic for developing agriculture, animal husbandry, fisheries, and the tourism sector. This really supports the government's program, which is about regional or village independence. Blanceran Village, Klaten Regency is one of the villages in Klaten Regency which has these characteristics. The diversity of livelihoods, the mindset of the people, as well as the quality of natural resources owned make the atmosphere of Blanceran Village a potential for development. This is of course with the support of various sides. Blanceran Village has good and up to date facilities and infrastructure. An example is the Blanceran Village Government (Pemdes) which already has a set of computers equipped with LCD facilities, printers, and also adequate wifi installation. The initial purpose of the Pemdes providing this computer was to facilitate the work of the Blanceran Pemdes apparatus in completing their tasks, providing facilities to Blanceran residents or Village-level Job Training Institutions (LPK) to utilize village computers as learning media. However, due to limited human resources, this computer has not been utilized properly by Pemdes and residents/LPK.

The government has promoted a very good program, namely the Village Owned Enterprises (BUMDES) program where this program is to provide stimulus to villages towards food security and independent economic security. In government regulation number 11 of 2021 concerning BUMDES it states that village development can be carried out through stimulating and dynamicizing community economic enterprises and serving basic needs and the general needs of the community. In line with this, the Blanceran Village Government has initiated a coordination line with BUMDES related to community activities so as to minimize conflicts between village officials and BUMDES managers and

residents. Even though this has been coordinated, there is still space for various parties to criticize and update each other. In addition to the existence of BUMDES, the dynamics of the Blanceran community, which are still partly conventional, have triggered conflict and friction among residents, especially regarding customary norms or customary law. The existence of Village Regulations that have not been formally legalized can cause endless problems. Village Regulations (PERDES) are important instruments that are very decisive in the framework of realizing good governance at the village level.

The distribution of the diversity of people's livelihoods is also an important factor in determining the direction of Blanceran Village government policies and village management. The population of Blanceran Village as of 2021 is 4097 people. The distribution distribution is shown in Figure 1. The majority of Blanceran Village residents are farmers, which is equal to 30%, and the second rank is private employees, where the private employees here are the parameters, some of them work odd jobs and breeders. Odd employees have erratic income. Figure 1 shows the distribution of professions.

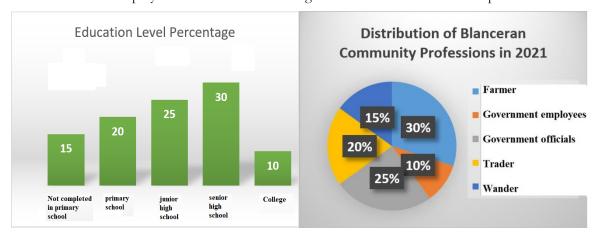


Fig. 1. Distribution of Professions for the Blanceran Village Community in 2021

From the results of the situation analysis, problems emerged, namely problems in the field of technology utilization to support village governance. Technology utilization has been studied by previous researchers Digital technology utilization and related factors among health science students at Mettu University, Southwest Ethiopia: A cross-sectional study investigated by Demsash Demsash [1]. Non-linear digital storytelling: Effects on technology utilization and writing self-efficacy researched by Özüdoğru Özüdoğru [2]. A comparison of Premium Technology Utilization in Total Hip Arthroplasty Between a Safety Net Hospital and a Non-Safety Net Hospital was studied by Sarkovich [3]. The influence of pedagogy and the use of information technology on the creation of innovations with the SECI model was studied by Songkram [4]. The impact of cognitive and social distance on supply chain capabilities: the moderating effect of information technology utilization was investigated by Hu [5]. Development of coffee farming: Utilization of e-commerce technology researched by Panggabean [6]. Use of Technology in Black Adolescents with Type 1 Diabetes: Exploring the Decision-Making Process was studied by Mencher [7]. Challenges and Prospects for Utilizing Virtual Reality and Augmented Reality among Elementary School Teachers: A Developing Country Perspective was researched by Alalwan [8]. The study of the Application of Blockchain Technology in the Construction Industry was researched by Kim [9]. The Impact of Climate Change and Adaptation Strategies of Cassava Farmers in Ebonyi State, Nigeria was investigated by Osuji [10].

Advances in Genetic Engineering Technology and Its Application to the Aspergillus oryzae Mushroom Industry was investigated by Jin [11]. Modeling consumer information acquisition and 5G technology utilization: Is personality relevant? researched by Irfan [12]. Results of using health information technology in nursing homes: Is the implementation process important? studied by Hamann [13]. Reaching Beyond the Boundary, the S-shaped Well the Farthest Step in the Deep Gas Well Project was researched by Syamsudhuha [14]. Use of mHealth technologies in the Arab world: a systematic review of systems, uses, and challenges researched by Alsswey [15]. Modeling consumer information acquisition and 5G technology utilization: Is personality relevant? studied by Benes [16]. Predictive Analysis of Utilization of Emerging Technologies in the Construction Industry in the United States and China was investigated by Qi [17].

Factors affecting the resilience of small and medium enterprises (SMEs) during the COVID-19 outbreak were investigated by Thekkoote [18]. The use of health information technology and its impact on COVID-19 vaccination was investigated by Prescott [19]. The Blockchain Technology Utilization Model for Copyright Protection was researched by Lee [20]. The perspective of Indonesian parents on international school partnerships that involve millennial learners is researched by Muslims [21]. Multivariate and geospatial analysis of technology utilization in US states was investigated by Sarkar [22]. Hidayah [23] researched the use of technology in empowering parereja villagers during the Covid-19 pandemic. Assessment of China's green governance performance based on the integrative perspective of technology utilization and actor management was researched by Tang [24]. Household-based critical influence factors of the use of biogas generation technology: The case of Punjab province in Pakistan was investigated by Jabeen [25]. The success of installing the longest 9 5/8 production casing in a highly aberrant ERD well was investigated by Hashmi [26]. Advanced spectral noise sophistication and utilization of high-precision temperature recording technology in Iraqi oilfields: an integrated approach to diagnosing well performance complications was investigated by Zeinalabideen [27]. Use of Technology in Health Sciences Education During Covid-19: Experience from Sharjah University researched by Rahman [28]. Optimizing the use of geographic information system-based information technology as a marketing medium for micro, small and medium enterprises to increase competitiveness in Bantul Regency, Indonesia was researched by Hardiyanto [29].

Blending Academic Writing: Utilizing Technology for Teaching in the Middle of the Covid-19 Pandemic was researched by Setiawan [30]. Utilization of Health Information Technology in Inpatient Teenagers and Young Adults Undergoing Hematopoietic Cell Transplants was studied by Brookshire-Gay [31]. The Use of Quipper School Technology in Learning Children's Literature in the Era of the COVID-19 Pandemic to Increase Interest in Reading in Elementary Schools was researched by Arafik [32]. Benefits and Opportunities for Utilizing Wireless Technology for High Voltage Circuit Breakers and Power Transformer Test Equipment was investigated by Ostojic [33]. The Study of Techno-Commercial Factors Influencing Adoption of Hyper-Automation in Selected Industry Verticals was investigated by Farzana [34]. Utilization and Competence of Mobile Technologies among College Students was researched by Bindorob [35]. Qualitative Study of the Functions of Using Information and Communication Technology in Teaching Students with Intellectual Disabilities: Implications for Teaching Techniques/Job Training was researched by Maebara [36]. The effectiveness of the use of information and communication technology in the distance education system was studied by Faisal [37]. Extension of academic library services during the COVID-19 pandemic: considerations in higher education institutions in Gauteng Province, South Africa research by Dube [38]. The impact of using alternative feed technologies, between increasing feed costs and income on rural cattle farms, was investigated by Osak [39]. Evaluating Factors Associated With Continuous Glucose Monitoring Utilization With Type 1 Diabetes Exchange Registry was studied by Bailey [40].

From the results of previous research on issues in the field of law and the use of technology, this community service was organized to support village government. In the legal field, there are many problems regarding the existence of Village Regulation regulations that have not been properly legalized. This raises the consequences of debate and friction between citizens in overcoming a problem. In the field of informatics there is a problem that so far, the village government has computer facilities, but it has not been maintained properly because human resources are not yet available properly so that it seems the computer is stalled and not being used properly. The main objective of this community service activity is to realize the vision and mission of the university which is reduced to 8 Key Performance Indicators. In general, this activity supports IKU-2, namely students studying off-campus (MBKM), IKU-5, namely the application of lecturer research through higher education Tridharma activities, and IKU-6, namely increasing study program partnerships.

## 2. Method

The method of implementing this community service program includes several stages, namely:

a. The first stage is a survey and situation analysis study, which includes deeper exploration of partner problems, population numbers, distribution of professions, mapping of the soft skills of village officials and residents of Blanceran Village, especially computer use.

- b. The second stage is socialization, introduction and mentoring of the Community Service Program. This activity will be carried out by involving the Village Administration and residents to implement the program according to its stages.
- c. The third stage is MS Office optimization assistance which includes MS Word, MS Excel, MS Power Point, and Canva. This stage was divided into 3 groups, namely the group for village officials, the group that already had knowledge of MS Office, and the group that had no knowledge of MS Office at all. Assistance is carried out for 2 months.
- d. The fourth stage is education and legal assistance. For this activity, mentoring and education were provided for the preparation of Village Regulations (PERDES), the legalization process, and outreach to residents. This takes approximately 3 meetings. This activity involves the ranks of the Village Government and residents
- e. The fifth stage is education and assistance on maintaining the Blanceran village web which is integrated with the population administration, maintaining village computers for education on their optimal utilization. This stage involves all village apparatus within the Village Administration.
- f. The sixth stage is monitoring and evaluation. At this stage, monitoring and evaluation of the success of the program will be carried out involving all village government officials. At this stage, continuous monitoring will be carried out. Students and lecturers will monitor 2-4 times every month for 1 semester as a form of recognition from the course in Table 3. Students make a report or logbook as a portfolio and make a final presentation as a resume of this community service activity. This is to fulfill the Graduate Learning Outcomes (CPL) for the course.

#### 3. Results and Discussion

Community service with Blanceran Village partners, Karanganom District, Klaten Regency has been completed. The field of informatics, the creative economy, chemical engineering, and the legal field have all been completed. The current position is at the stage of continuous monitoring and evaluation as well as continuous improvement synergies for improvement and improvement of activities that have been educated to the people of Blanceran Village.

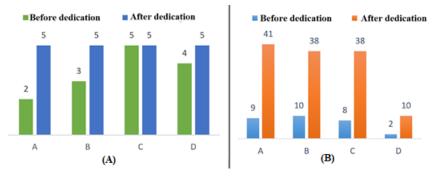
Education and training on optimal use of computers for village officials, such as optimizing village web presence, maintaining village population databases. The type of output is increasing the knowledge skills of village officials regarding population database management, assistance in making a logo for a trade product of local residents who have a trading business. Apart from that, increasing the knowledge of residents in terms of making trade product logos by using village computer facilities so that the facilities are not stalled. The achievement indicators are the facilities are not stalled and are well utilized. Creative economy programs come alive.

Activities starting from August-September 2022 every Friday and Saturday. Friday consists of 1 shift, namely 13.00-15.30, for Saturday consists of 2 shifts, namely 09.00-11.30 and 13.00-15.30. This activity includes educating residents about optimizing Microsoft office (MS Word, MS Excel, MS Power Point, Canva) by using the facilities available at the Kelurahan Office. Participants are divided into several shifts, divided based on group experience using computers. There are 3 shifts, namely the shift for village apparatus and prospective village apparatus (10 people), the shift for residents who already have the provision to use a computer/MS Office (30 people), and finally the shift for residents who have never owned a computer or are still new to it. with computers but have a passion for continuous learning (40 people). The participants varied, including high school/vocational high school graduates, students, housewives, gentlemen. In addition to training on optimizing MS Word, education on the use of G-Drive was also conducted for village officials to simplify the filing system and carry out routine work in the office. For people who already have a business, they are also given education about Canva to create logos, images and videos in order to promote their products.

The Informatics Division, apart from providing training services in using Microsoft Office, also develops the Blanceran Village Web Portal. The development of the Blanceran Village web portal in order to promote the excellence of Blanceran village is packaged in the MBKM Program, so that students will get recognition for one subject, namely the Student Internship Lecture with a weight of 3

credits. In its implementation, it was assisted by UNS Informatics students and UMS Engineering students.

Indicators of the achievement of this program include an increase in the soft skills of residents by 99%. This is shown in Figure 2.



**Fig. 2.** (a) Graph of Partners' Situation (village officials) and (b) Graph of Partners' Situation (residents)

This activity turned out to be very useful for the residents of Blanceran Village, especially for village officials and prospective village officials for the Blanceran Village Government. Utilization of information technology can facilitate archiving activities. This is measured from the results of interviews, questionnaires, and also during the training process. Based on interviews conducted during the initial socialization of this field of informatics, 50 residents interviewed were not familiar with MS Office in detail, and almost 99% did not know about the existence of a G-drive. Existing village apparatus and prospective village apparatus are also the same. Based on the questionnaire that was filled in by the participants, which were divided into 2 groups, namely a questionnaire for residents (50 participants) and a questionnaire for village officials (5 participants), presented in Figure 4. Question items include (A) Do you understand excel?, (B) Do you understand Word?, (C) Do you understand PPT?, (D) Do you understand Google Drive?





Fig. 3. Documentation of MS Office Assistance Activities and Legalization of Village Regulations

Based on Figure 2, there has been a significant increase in this community service activity. The social impact to the community and to village officials is very beneficial. An example is village officials so far carrying out administrative tasks by hiring people or being put into computer rentals. With this service activity, they are now able to optimize the facilities already owned by the Blanceran Village Government. There was an increase of almost 99% in knowledge of MS Office, especially in power point material. For residents, there has been a very large increase, especially in excel material.

Assistance for the legalization of making village regulations (PERDES), both for village government officials and residents so as not to cause friction. Activities begin in early September to mid-September. This activity started with optimizing the G-Drive followed by training in making village regulations. This activity involves village stakeholders and community representatives. Involvement of village officials such as Kadus, RT, RW, BPD, village government officials, and also community representatives. Education has been carried out on how to make a village regulation or legal drafting. After making

village regulations, socialization was carried out to the community regarding village divisions so that it was hoped that the community would already understand and implement village regulations as they should. Figure 3 is a documentation of several activities.

## 4. Conclusion

This activity has a good impact on people's motivation to always learn to improve their knowledge and soft skills. Utilization of existing village facilities is the key to the smoothness and success of this assistance. The existence of a computer in the Blanceran Village Sub-District Office has been put to good use, it is no longer stalled because residents can learn. Residents learn by using these computers for free and good wifi facilities. Blanceran Village is an Educative Village which has the potential to be developed into an educational village tourism object.

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## **Author Contribution**

The activity plan in order to assist in MS Office optimization which includes MS Word, MS Excel, MS Power Point, and Canva. This stage was divided into 3 groups, namely the group for village officials, the group that already had knowledge of MS Office, and the group that had no knowledge of MS Office at all. Assistance is carried out for 2 months.

## **Funding**

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## **Conflict of Interest**

The authors declare no conflict of interest.

## References

- [1] A. W. Demsash, M. D. Emanu, and A. D. Walle, "Digital technology utilization and its associated factors among health science students at Mettu University, Southwest Ethiopia: A cross-sectional study," Informatics Med. Unlocked, vol. 38, p. 101218, 2023.
- [2] G. Özüdoğru and H. Çakır, "Non-linear digital storytelling: Effect on technology utilization and writing self-efficacy," Technol. Soc., vol. 67, p. 101798, Nov. 2021.
- [3] S. Sarkovich, A. Chapple, V. Dasa, and P. Krause, "Comparison of Premium Technology Utilization in Total Hip Arthroplasty Between Safety-net Hospitals and Non-safety-net Hospitals," J. Am. Acad. Orthop. Surg., vol. 30, no. 21, pp. e1402–e1410, Nov. 2022.
- [4] N. Songkram and S. Chootongchai, "Effects of pedagogy and information technology utilization on innovation creation by SECI model," Educ. Inf. Technol., vol. 25, no. 5, pp. 4297–4315, Sep. 2020.
- [5] Q. Hu, H. Yu, H. Wu, and J. Chen, "Impacts of cognitive and social distances on supply chain capability: the moderating effect of information technology utilization," Int. J. Logist. Manag., Mar. 2023.
- [6] Y. B. S. Panggabean, M. Arsyad, Mahyuddin, and Nasaruddin, "Coffee farming business development: E-commerce technology utilization," IOP Conf. Ser. Earth Environ. Sci., vol. 807, no. 3, p. 032011, Jul. 2021.

- [7] S. R. Mencher, S. A. Weinzimer, L. M. Nally, M. Van Name, M. Nunez-Smith, and L. S. Sadler, "Technology Utilization in Black Adolescents with Type 1 Diabetes: Exploring the Decision-Making Process," Diabetes Technol. Ther., vol. 24, no. 4, pp. 249–257, Apr. 2022.
- [8] N. Alalwan, L. Cheng, H. Al-Samarraie, R. Yousef, A. Ibrahim Alzahrani, and S. M. Sarsam, "Challenges and Prospects of Virtual Reality and Augmented Reality Utilization among Primary School Teachers: A Developing Country Perspective," Stud. Educ. Eval., vol. 66, p. 100876, Sep. 2020.
- [9] K. Kim, G. Lee, and S. Kim, "A Study on the Application of Blockchain Technology in the Construction Industry," KSCE J. Civ. Eng., vol. 24, no. 9, pp. 2561–2571, Sep. 2020.
- [10] E. E. Osuji, C. O. Igberi, and N. C. Ehirim, "Climate Change Impacts and Adaptation Strategies of Cassava Farmers in Ebonyi State, Nigeria," J. Agric. Ext., vol. 27, no. 1, pp. 35–48, Jan. 2023.
- [11] F.-J. Jin, S. Hu, B.-T. Wang, and L. Jin, "Advances in Genetic Engineering Technology and Its Application in the Industrial Fungus Aspergillus oryzae," Front. Microbiol., vol. 12, no. 3, Feb. 2021.
- [12] M. Irfan and M. Ahmad, "Modeling consumers' information acquisition and 5G technology utilization: Is personality relevant?," Pers. Individ. Dif., vol. 188, p. 111450, Apr. 2022.
- [13] D. J. Hamann and K. C. Bezboruah, "Outcomes of health information technology utilization in nursing homes: Do implementation processes matter?," Health Informatics J., vol. 26, no. 3, pp. 2249–2264, Sep. 2020.
- [14] A. Syamsudhuha et al., "Reaching Beyond the Limit, the Furthest Step Out S Shape Wells in Deep Gas Well Project," in Day 2 Thu, March 02, 2023, 2023.
- [15] A. Alsswey, H. Al-Samarraie, and B. Bervell, "mHealth technology utilization in the Arab world: a systematic review of systems, usage, and challenges," Health Technol. (Berl)., vol. 11, no. 4, pp. 895–907, Jul. 2021.
- [16] F. Benes, P. Stasa, J. Svub, G. Alfian, Y.-S. Kang, and J.-T. Rhee, "Investigation of UHF Signal Strength Propagation at Warehouse Management Applications Based on Drones and RFID Technology Utilization," Appl. Sci., vol. 12, no. 3, p. 1277, Jan. 2022.
- [17] B. Qi, S. Qian, and A. Costin, "A Predictive Analysis on Emerging Technology Utilization in Industrialized Construction in the United States and China," Algorithms, vol. 13, no. 8, p. 180, Jul. 2020.
- [18] R. Thekkoote, "Factors influencing small and medium-sized enterprise (SME) resilience during the COVID-19 outbreak," TQM J., Mar. 2023.
- [19] G. M. Prescott and W. A. Prescott, "Health information technology utilization and impact on COVID-19 vaccination," J. Am. Pharm. Assoc., vol. 61, no. 4, pp. e230–e232, Jul. 2021.
- [20] J. Lee and H. Jung, "Blockchain Technology Utilization Model for Copyright Protection," in 2022 IEEE/ACIS 7th International Conference on Big Data, Cloud Computing, and Data Science (BCD), 2022, pp. 297–300.
- [21] A. B. Muslim, H. Salim, and S. Setyarini, "Indonesian parental perspectives of international school partnerships involving millennial learners," J. Res. Int. Educ., vol. 19, no. 2, pp. 106–119, Aug. 2020.
- [22] A. Sarkar, J. B. Pick, and J. Rosales, "Multivariate and geospatial analysis of technology utilization in US counties," Telecomm. Policy, p. 102572, Jun. 2023.
- [23] I. Hidayah, Tatirah, L. Latiana, and Widowati, "Technology utilization in parereja villagers' empowerment during covid 19 pandemic," J. Phys. Conf. Ser., vol. 1918, no. 4, p. 042156, Jun. 2021.
- [24] Y. Tang, R. Yang, Y. Chen, and X. Miao, "Assessment of China's green governance performance based on integrative perspective of technology utilization and actor management," Int. J. Sustain. Dev. World Ecol., vol. 29, no. 8, pp. 827–839, Nov. 2022.
- [25] G. Jabeen et al., "Household-based critical influence factors of biogas generation technology utilization: A case of Punjab province of Pakistan," Renew. Energy, vol. 154, pp. 650–660, Jul. 2020.
- [26] M. A. Hashmi, M. Al Suwaidi, G. Salem, Y. Nunez, and S. Al Yamani, "Successful Deployment of Longest 9 5/8 Production Casing Across Highly Deviated ERD Well," in Day 2 Wed, May 24, 2023, 2023.
- [27] M. J. Zeinalabideen, M. M. Al-Hilali, and A. Savinkov, "State of the art of advanced spectral noise and high-precision temperature logging technology utilization in Iraqi oil fields: an integration approach to diagnose wells performance complications," J. Pet. Explor. Prod. Technol., vol. 11, no. 4, pp. 1597–1607, Apr. 2021.

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- [28] S. A. Rahman et al., "Technology Utilization in Health Science Education during Covid-19: Experience from University of Sharjah," in 2022 IEEE 46th Annual Computers, Software, and Applications Conference (COMPSAC), 2022, pp. 1393–1395.
- [29] D. Hardiyanto, M. Sholeh, and R. Y. Rachmawati, "Optimization of information technology utilization based on geography information system as a marketing media for micro, small, and medium enterprises to improve competitiveness in Bantul Regency, Indonesia," IOP Conf. Ser. Mater. Sci. Eng., vol. 807, no. 1, p. 012010, Mar. 2020.
- [30] M. Setiawan, M. T. Prawati, and C. H. Karjo, "Blending Academic Writing: The Use of Technology to teach amid Covid-19 Pandemic," in 2023 11th International Conference on Information and Education Technology (ICIET), 2023, pp. 237–240.
- [31] K. Brookshire-Gay et al., "Health Information Technology Utilization by Adolescent and Young Adult Aged Inpatients Undergoing Hematopoietic Cell Transplantation," J. Adolesc. Young Adult Oncol., vol. 10, no. 1, pp. 100–104, Feb. 2021.
- [32] M. Arafik, Y. K. Barus, A. F. Nisa, and N. Wiarsih, "Technology Utilization of Quipper School in Children's Literature Learning during COVID-19 Pandemic Era to Increase Reading Interest in Elementary School," in 2022 2nd International Conference on Information Technology and Education (ICIT&E), 2022, pp. 414–419.
- [33] R. Ostojic, S. Vucicevic, B. Fazlic, and K. Obarcanin, "Benefits and Opportunities of the Wireless Technology Utilization for High Voltage Circuit Breaker and Power Transformer Test Instruments," in 2020 19th International Symposium INFOTEH-JAHORINA (INFOTEH), 2020, pp. 1–4.
- [34] A. Farzana, G. G. Hallur, and N. A. Natraj, "The Study of Techno-Commercial Factors Influencing The Adoption of Hyper-Automation Across Select Industry Verticals," in 2023 Somaiya International Conference on Technology and Information Management (SICTIM), 2023, pp. 78–83.
- [35] M. H. Bindhorob and K. Salmen, "Mobile Technologies' Utilization and Competency among College Students," Int. J. Adv. Comput. Sci. Appl., vol. 12, no. 2, 2021.
- [36] K. Maebara, A. Yamaguchi, T. Suzuki, and A. Imai, "A Qualitative Study on The Function of Information and Communication Technology Utilization in Teaching Students with Intellectual Disabilities: Implications for Techniques of Teaching/Job Coaching," J. Intellect. Disabil. Diagnosis Treat., vol. 10, no. 1, pp. 13–20, Feb. 2022.
- [37] P. Faisal and Z. Kisman, "Information and communication technology utilization effectiveness in distance education systems," Int. J. Eng. Bus. Manag., vol. 12, p. 184797902091187, Jan. 2020.
- [38] T. V. Dube and L. Jacobs, "Academic library services extension during the COVID-19 pandemic: considerations in higher education institutions in the Gauteng Province, South Africa," Libr. Manag., vol. 44, no. 1/2, pp. 17–39, Mar. 2023.
- [39] R. E. M. F. Osak, T. F. D. Lumy, and M. L. Rundengan, "Impact of alternative feed technology utilization, between the increase in feed cost and revenue on rural cattle farming," IOP Conf. Ser. Earth Environ. Sci., vol. 575, no. 1, p. 012077, Oct. 2020.
- [40] R. Bailey, S. Donthi, S. Markt, C. Drummond, and J. Cullen, "Evaluating Factors Associated With Continuous Glucose Monitoring Utilization With the Type 1 Diabetes Exchange Registry," J. Diabetes Sci. Technol., p. 193229682210912, May 2022.