

# **On Line One Stop Government and Open Government from Citizens Perspective (Case: Bogor City and District, West Java, Indonesia)**

**Eneng Tita Tosida, Fajar Delli Wihartiko**

Department of Computer Science, Faculty of Mathematics and Natural Sciences, Universitas Pakuan, Indonesia  
enengtitatosida@unpak.ac.id; fajardelli@unpak.ac.id

**Abdul Talib Bon**

Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia  
talibon@gmail.com

## **Abstract**

The era of data disruption and the Industrial Revolution (IR) 4.0 provides an increasingly strong challenge for the government to prepare and optimize all its resources so that they are able to compete. Likewise, local governments are aggressively making real efforts to meet the challenges of IR 4.0. One of the central government policies that continues to be passed down to regional governments is the policy regarding the development of on line one-stop services (on line one-stop government), which are integrated through an open government format. Local governments of Bogor City and Bogor District are two of the local governments that have implemented on line one-stop government and open government. The main objective of this research is to conduct a comparative study on the implementation of on line one-stop government and open government. The method used is referring to open government maturity model (OGMM), and the case study is in the City and District of Bogor, West Java Province, Indonesia. The five basic principles of one-stop on line government have been implemented, although they have not yet fully succeeded in providing optimal services for the community. The basic principles referred to include downsizing, managerial, decentralization, debureaucratization and privatization processes. Bogor City already has a one-stop on line service, and the document transaction process until the application status has been well managed. Bogor District has completed the one-stop on line service with a video tutorial process, but document transactions are still done manually. The development of continuous studies to increase the value of data through the application of the Big Data concept to the open government system of Bogor City and District is very potential to be carried out.

## **Keywords:**

Big Data, Industrial Revolution, Maturity, On Line One Stop Government, Open Government

## **1. Introduction**

The open government system has been initiated by many countries since fifteen years ago. Developed countries such as America, Japan, China implement an open government system in accordance with the culture of each country. However, in principle, the role of information and communication technology is very important in the development of an open government system. The open government system in each country has different characteristics, but all have the same vision, namely to transform government and community relations, through participatory and collaborative and managerial paradigms and approaches that are optimal (Veith & Huntgeburth, 2014).

The era of data disruption and RI 4.0 has further strengthened governments in various countries to implement an open government system. No exception to Indonesia, which has carried out the process of implementing an open government system, both at the central and regional governments. The focus of this study is on the City and District governments. Bogor, through the one-stop on line service that both of them have. This study was conducted through a review of the five basic principles of one-stop on-line services which include downsizing, managerial, decentralization, debureaucratization and privatization, which are elaborated through the concepts of: 1) life-event metaphor; 2) ethical regulation of society in interacting with the government; 3) systems or media that can be used by the public to access available government data or information, participate or collaborate; and 4) implementation of a contest, social network, or social vote in the open government process. The purpose of this

study is to analyze the conditions of one-stop on line service in Bogor City and District, so that it can provide a description of each condition, and discover the potential for developing research related to the concept of open government.

## 2. Research Methodology

The method used to evaluate the implementation of open government is Open government Maturity Model /OGMM (Lee dan Kwak 2012) as seen in Fig 1.

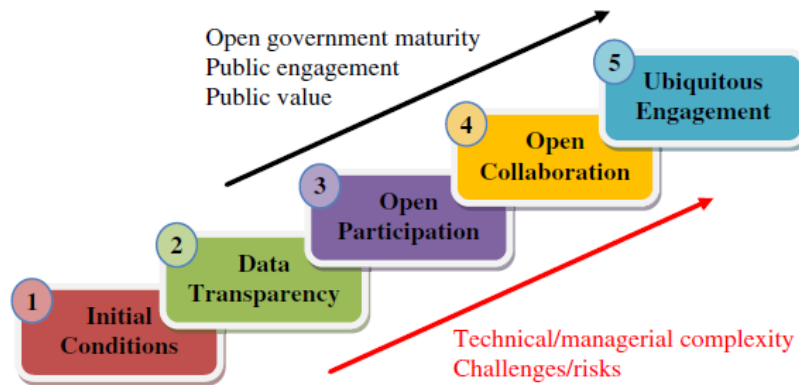


Fig 1. Open government Maturity Model (OGMM).

Level 1 of OGMM refers to an early stage where there is little or no open government capability. Social media is never used or rarely used. Level 1 government agencies focus on cataloging and broadcasting information to the public. Level 2 represents the first step towards open government. The use of social media to foster open government is still relatively limited at Level 2 and it contributes to increasing data transparency to some extent. Level 3 of the Maturity Model focuses on increasing public open participation in government work and decisions through a variety of methods and tools including social media. Open participation enhances government policy and service decisions by welcoming and leveraging input from the public. After government agencies reach the maturity of open participation, the next step is to foster open collaboration between government agencies, the public, and the private sector. Open participation refers to the involvement of the public in relatively simple interactive communication. It relies primarily on expressive social media to connect people and help share their ideas. Open collaboration, on the other hand, refers to the involvement of the public in complex tasks or projects that aim to co-create specific outputs (Bovaird, 2007). e-Rulemaking is a great example of how government agencies and communities openly collaborate on complex tasks through technological capabilities (Coglianese, 2006). Level 5 can be characterized by two important attributes. First, public engagement is becoming easier and more universally accessible via mobile computing devices and applications and everywhere. Second, government data, public engagement methods, social media, and government services are seamlessly integrated within and across government agencies so that the public can easily navigate and engage in various government activities without having to jump around across applications or stay logged in and Exit. Open government data, applications, and processes can be operated across agencies (Gottschalk, 2009) and they are vertically and horizontally integrated (Layne & Lee, 2001; Pardo & Tayi, 2007).

## 3. Discussion result

### 3.1 Initial Condition that Represented by Data Life-event metaphor

In accordance with the concept of one-stop on line service in the concept of open government, in Bogor District already has an Informative and Systematic Transparent Licensing Online System (OPTIMIS), which can be accessed through the <http://optimis.bogorkab.go.id/> page. OPTIMIS already has the online licensing concept of ONE

ACCOUNT, ONE EMAIL, and ONE COMPANY. In an OPTIMISTIC system, many types of services are provided. Citizens can choose what permits to apply for, and when they are about to apply for the type of permit, they need to log in first by creating a specific account. The accounts used are corporate or corporate accounts and personal accounts. Tutorial for creating accounts and permissions are shared on the social media channel youtube <https://youtu.be/s5ZEMVkf2UI>. The initial view of the OPTIMIST System is shown in Figure 2.a, and the tutorial video display of using the OPTIMIST System is shown in Figure 2.b.

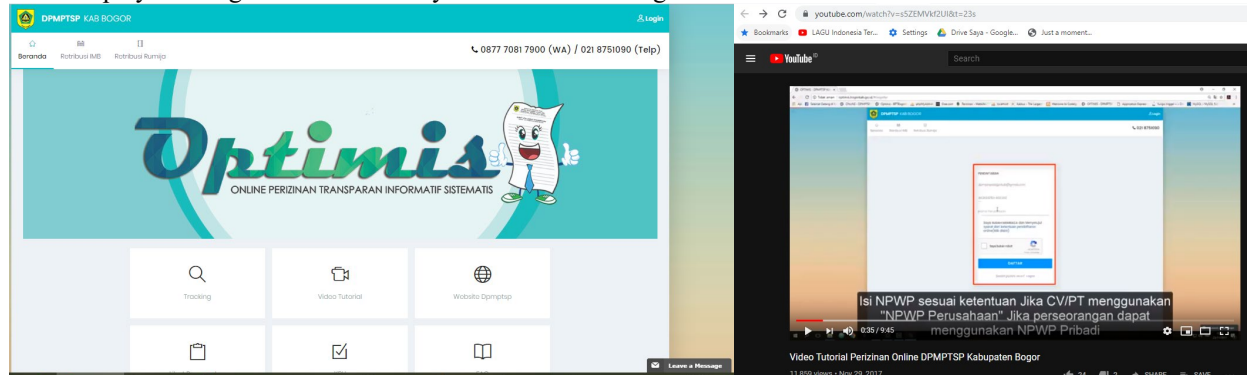


Fig 2. OPTIMIST

### 3.2 Data Transparency that Represented by Regulations regarding public ethics in interacting with government both executive and legislative online

Regulations regarding public ethics in interacting with the government, both executive and legislative, are regulated by the ITE Law Article 40 Paragraph (1) "Facilitating the use of Information Technology, including the management of Information Technology and Electronic Transactions that is safe, ethical, intelligent, creative, productive, and innovative. This provision includes facilitating the wider community, government agencies and business actors in developing Information and communication technology products and services. In addition, it is strengthened by regent and governor regulations in each region according to local local wisdom and what types of online services will be regulated.

Likewise in the District. Bogor has provided regulations regarding community ethics in interacting with both the executive and legislative governments, one of which is the Bogor Regent Regulation (Perbup) No.15 of 2019 concerning Electronic Licensing and Non-licensing Services through the Systematic Informative Transparent Licensing Online System in Bogor Regency. This regulation discusses the ethics of Electronic Licensing and Non-licensing Services through the Online System, which is explained in Chapter V, Articles 7 to 13.

The focus of regulation related to ethical regulation is in Article 12, although it is only described in general terms, the meaning and purpose of the contents of the regulation is clear (Jes'us & Roberto 2. Even the guarantee of the legality of the licensing process has also been regulated in Article 13. managerial, decentralization and debureaucratization (Gkoulalas-Divanis & Aonghusa, 2013; Veit & Huntgeburth, 2014). Regulations related to the existence and optimization of OPTIMIST systems need to be better managed in an adequate repository management (Haiwei et al. 2016; Yannis et al. 2016).

### 3.3 Open Participation and Open Collaboration that Represented by Systems or media to access available, participating or collaborative government data or information in Bogor City

Systems or media that can be used by the public to access government data or information, participate or collaborate in the city of Bogor, including through the Mobile Application for the Complaints and Advice Sharing Information System (SiBadra), which was launched in April 2019. Through this application, it is hoped that all agencies and related parties can respond quickly and in an integrated manner, to conditions reported by residents, including complaints, suggestions, complaints, and especially to requests for emergency services. This application is mobile based, can be found on GooglePlay, and is easy to install via mobile phone devices. This is consistent with Hatem et al. (2017) who analyzed the development and use of mobile applications for Open Government Data

(OGD) in the UAE. The most important factors in developing a mobile application for OGD are completeness of the data set, data format and development support. If this gets a strong point, the level of reusability of the OGD will be better, so that the level of participatory and collaborative success of citizens in achieving the goals of the OGD will provide added value that is good for the life of citizens (Setiawati et al. 2015; Concilio et al. 2017) . The SiBadra application is claimed to be able to facilitate citizens in a fast, easy and integrated manner. SiBadra display is shown in Figure 3.

The participatory principle that encompasses knowledge is widespread to the public, and public officials benefit from having access to this distributed knowledge. Thus, participatory government can increase its effectiveness and improve the quality of its decisions. The collaborative principle encourages the government to proactively take advantage of "local policies" by involving citizens in government work. Moreover, public administration needs to take advantage of this system so that it allows all parties to work together / collaborate, and be able to identify opportunities for collaboration with non-profit organizations and businesses (Veit & Huntgeburth 2014).

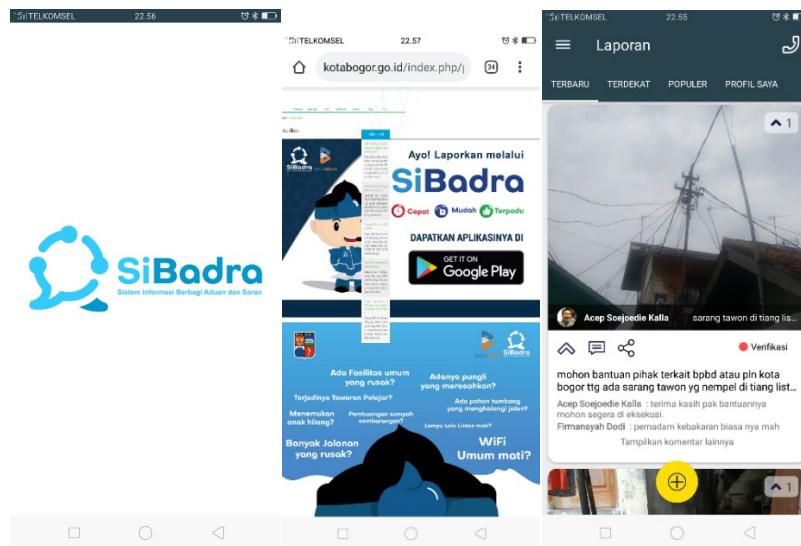


Fig 3. SiBadra, an easy, fast and integrated media for citizens of Bogor City

### 3.4 Open Participation and Open Collaboration that Represented by Systems or media to access available, participating or collaborative government data or information in Bogor District

Information and socialization of Regional Innovation Event (Gelar Inovasi Daerah / GID) in Bogor District is submitted to the website of the Regional Development Planning, Research and Development Agency (Bappedalitbang) Bogor District with a link like this: <https://bappedalitbang.bogorkab.go.id/topik/formulir-pend-Registration-gelar-inovasi-daerah-kabamatan-bogor-tahun-2019/>. Contest preliminary information is displayed in the form of a brochure as on the site. The complete brochure form is shown in Figure 4. The registration form as in Figure 10 can be downloaded and filled out manually. Prospective participants fill out forms and send forms and proposals via email to one of the Bappedalitbang employees. The next communication media is carried out through the Whatsapp Group social media that was created in the previous GID activities (Figure 4). More detailed information was also submitted manually through the judges. GID judges are representatives of universities in the City and District, Bogor. This contest program is followed by various components of society, and the contest is grouped based on the background of the participants. The community groups in question include, school groups, university groups, and general public groups. Citizen participation is increasing along with the massive socialization carried out by the local government, especially Bappedalitbang Bogor District (Ismael 2017; Setiawati et al. 2015).



Fig 4. Bappedalitbang site that contains information about the GID Contest

Information starting from the socialization process, technical meetings, submitting forms and proposals, exposures and announcements of GID winners is conveyed through the WAG and the Bappedalitbang website. Empowering community members to participate collaboratively through innovation contests, at the same time providing a very valuable impact. The requirements for developing innovation have the potential for community empowerment-based business development to be successful if the government is able to provide assistance in various schemes in a sustainable manner (Concilio et al. 2017).

The process of strengthening open government involving the participation and collaboration of citizens in Bogor Regency through Social Networks has been carried out through the Bogor Regency Government's Online Aspirations Official Service (LARAS ONLINE) website. This site is one of the media for the delivery of information, aspirations and is based on community participation and collaboration. On the LARAS ONLINE site, citizens can convey various development problems and public services through various media. The media in question includes SMS center, Aspiration web & mobile, and other social media such as Facebook and Twitter. This site is also equipped with a service usage guide that can be accessed through the various media provided. This makes this site more and more actively used by residents (Ismael 2017; Haiwei et al. 2016).

This social network has been equipped with a Complaint Tracking facility, so that citizens can know the status of complaints at what level. Even residents can see and access jointly related to the form or types of complaints along with several solutions shared by fellow citizens, or solutions provided by the local government through the site. This site does not include SOPs for follow-up complaints or aspirations sent by residents. On this site, the aspirations and various questions that appear are only left for the latest transactions as of December 2, 2019. So it is very natural that the local government of Bogor District has not yet provided a follow-up. The complete site view is presented in Figure5.



Fig 5. LARAS online site, Bogor Regency's Official Online Aspiration Service

### 3.5 Ubiquitous Engagement that Represented by Social Vote

Activities of ubiquitous engagement to strengthen open government through participatory and collaborative citizenship can also be done through social votes. In the United States this activity has been carried out by involving at least five thousand citizens to determine the name of the iconic building in that country. Pooling is carried out

through certain media, and residents are given 4 names. The result of the majority of names being elected is not at once the final choice, because the government has other, more substantive considerations. However, a social vote pattern like this is able to encourage citizens to participate and collaboratively provide their knowledge to be considered for certain policies. In the Bogor City and District Social Vote practice has never been done. However, the more open and transparent the government is, and even inviting citizens to proactively participate and collaborate, then the development of knowledge that is managed optimally, especially being able to integrate the concepts of Big Data and Data Science, will produce more targeted policy recommendations in accordance with the expectations of citizens and stakeholders. One of the social vote activities has been carried out in Indonesia by choosing the name of a certain street. The media used is a variety of social media, and this process is only seen as decision support. Absolute decisions are not only with the leaders, but in essence decisions are made based on the identification and analysis of comprehensive problems, by promoting participatory and collaborative principles. The ubiquitous engagement activity on open government can actually be done by optimizing the telematics SMEs in the Bogor area (Tosida et al. 2015; Tosida et al. 2017). Indonesia has been strengthened with human resources in the field of telematics produced from SMK graduates (Tosida et al. 2019). This can be optimized by local governments to work together and collaborate in building sustainable ubiquitous engagement activities using local human resources who are competent in telematics (Tosida et al. 2020).

#### 4. Conclusion

The implementation of an open government system and one-stop on line service system is one of the results of the existence and strength of the influence of the era of data disruption and the challenges of RI 4.0. Bogor City and District have implemented open government and one-stop on line services. The basic principles of the successful implementation of an open government system and one-stop online service have become the foundation for its development. Proactive encouragement of citizens through various media and systems that have been facilitated by the City and District Governments. Bogor has been able to improve the function and quality of the system. The one-stop on line service system in Bogor Regency has been given a very popular name, namely OPTIMIS, equipped with a video tutorial system. This condition has increased the optimization of the system. OPTIMIS which is equipped with various social media to support activities and even online mass media also strengthens the foundation of the system. SiBadra and Laras are a form of the seriousness of the City and District Government of Bogor in realizing open government. The system built is managed in such a way as to become a personal system according to the perspective of the citizens. Through this system, the life-event metaphor becomes the strength of an open government. Strengthening the regulation of one-stop on line services, enabling this activity to accumulate knowledge based on participation and collaboration. Contests, social networks and social vote activities are one solution to various problems.

#### References

- Abasilim, UD & Edet, LI (2015) E government and its implementation challenges in the Indonesian public service, *ACTA Universitatis Danubius* , Vol. 7 (1), pp: 30-42
- Bovaird, T. (2007). Beyond engagement and participation: User and community coproduction of publik services. *Publik Administration Review*, 67(5), 846–860.
- Coglianesi, C. (2006). Citizen participation in rulemaking: Past, present, and future. *Duke Law Journal*, 55(5), 943–968.
- Concilio Grazia, francesco.molinari, Nicola Morelli 2017. Empowering Citizens with Open Data by Urban Hackathons,978-1-5090-6719-0. © 2017 IEEE DOI 10.1109/CeDEM.2017.28, pp.125.
- Corrêa Andreiwid Sheffer, Andreiwid Sheffer Corrêa, Flávio Soares Corrêa da Silva, 2014. Really Opened Government Data: A Collaborative Transparency at Sight, 2014 IEEE International Congress on Big Data pp 806.
- Cui, Jing. 2011. Constructing Transparent Government in China's Municipalities, 978-1-61284-109-0/11/\$26.00 ©2011 IEEE, pp.241-243.
- Gkoulalas-Divanis A, P. Mac Aonghusa. 2013. Privacy protection in open information management platforms. . Digital Object Identifier: 10.1147/JRD.2013.2285853,
- Gottschalk, P. (2009). Maturity levels for interoperability in digital government. *Government Information Quarterly*, 26, 75–81.

- Haiwei Dong, Gobindbir Singh, Aarti Attri, Abdulmotaleb El Saddik. 2016. Open Data-Set of Seven Canadian Cities, 2169-3536 2016 IEEE Access, Multidisciplinary, Open Access Journal, pp 529-543. DOI 10.1109/ACCESS.2016.2645658. ISBN 978-89-968650-9-4, pp 341-347.
- Ismael Peña- L Ó Pez . 2017. **Citizen Participation And The Rise Of The Open Source City In Spain.** Copyright: Research Outputs From This Project Are Licensed Under A Creative Commons License Attribution- Noncommercial-Sharealike 4.0 International (Cc By-Nc-Sa 4).
- Jes'us Cano, Carlos E. Jim'enez, Roberto Hern'andez, New tools for e-Justice: legal research available to any citizen. IEEE Access, Multidisciplinary, Open Access Journal, pp 108-111
- Jaeger, P. T., & Bertot, J. C. (2010). Transparency and technological change: Ensuring equal and sustained public access to government information. *Government Information Quarterly*, 27, 371–376.
- Kamar N, Ongo'ndo M (2007). Impact of e-Government on management and use of government information in Kenya, World Library and Information Congress: 73 rd IFLA general conference and Council, pp. 19-23 August 2007, Durban,
- Layne, K., & Lee, J. (2001). Developing fully functional e-government: A four stage model. *Government Information Quarterly*, 18, 122–136.
- Lee, Kwak 2012. An Open Government Maturity Model for social media-based public engagement. *Government Information Quarterly* 29 (2012) 492–503 Meijer, A., & Thaens, M. (2009). Public information strategies: Making government information available to citizens. *Information Polity*, 14(1/2), 31–45. Cabrera, K.I. (2015). Comparative analysis of public policies in open access models in Latin America. Brazil and Argentina cases. *RUSC. Universities and Knowledge Society Journal*, 12(1). pp. 15-24. doi <http://doi.dx.org/10.7238/rusc.v12i1.1947>
- Medeni Tunc, Ugurcan Kutluoglu, Asim Balci, Yasin Kahramaner Turksat, Ankara, 2010. Initial Analysis and Evaluation of Citizen Usage of E-Government Gateway in Turkey, International Conference on Electronics and Information Engineering (ICEIE 2010), 978-1-42 44-7681-7/ 2010 IEEE, pp.399-403.
- Nam Taewo.o 2011. New Ends, New Means, but Old Attitudes: Citizens' Views on Open Government and Government 2.0. 1530-1605/11 \$26.00 © 2011 IEEE,
- Setiawati, Cut Irna, Putri Meuthia Pratiwi, 2015, Conceptual Model of Citizen's Intention Associated to E-Government and Internet Behavior, 2015 3rd International Conference on Information and Communication Technology (ICoICT), 978-1-4799-7752-9/15. ©2015 IEEE, pp.336-341.
- Srimuang Chatipot, Nagul Cooharajanane, Uthai Tanlamai, Achara Chandrachai. 2017. **Open Government Data Assessment Model: An indicator development in Thailand**
- Tamimi Hatem, Salam Amir Hoshang, Essa Jasem Al Blooshi, 2017. Analysis of Uae Open Government Data Usability within Mobile Application Developmen IEEE 2nd International Conference on Big Data Analysis, 2017 IEEE 2nd International Conference on Big Data Analysis, , pp.437-441
- Tosida ET, Maryana S, Thaheer H, Damin FA. 2015. Visualization Models of Small and Medium Enterprises (SMEs) Telematics Services Potentiality Map in Indonesia. International Conf. on Information, Communication Technology and System (ICTS) 2015. 978-1-5090-0096-8/15/\$31.00 © 2015 IEEE.
- Tosida ET, Maryana S, Thaheer H, Hardiani. 2017. Implementation of Self Organizing Map (SOM) as Decision Supprot : Indonesian Telematics Services MSMEs Empowerment. IOP Conf. Series : Material and Engineering 166 (2017) 012017. DOI : 10.1088/1757-899X/166/1/012017.
- Tosida ET, F Andria, I Wahyudin, R Widiyanto, M Ganda, RR Lathif. 2019. A Hybrid Data Mining Model for Indonesian Telematics SMEs Empowerment. IOP Conf. Series : Material Science and Engineering 567 (2019) 012001. DOI : 10.1088/1757-899X/567/1/012001
- Tosida ET, Wahyudi I, Andria F, Djatna T, Ningsih WK, Lestari DD. 2020. Business Intelligence of Indonesian Telematics Human Resource : Optimization of Customer and Internal Balaced Scorecards. *Journal of Southwest Jiaotong University*, Vol. 55 No. 2, Apr. 2020. DOI : 10.35741/issn.0258-2724.55.2.7.
- Veit, Daniel, Jan Huntgeburth. 2014. *Foundation of Digital Government : Leading and Managing in the Digital Era.* Springer Heidelberg, New York, Dordrecht London. ISSN 2192-4333, ISBN 978-3-642-38510-0. DOI 10.1007/978-3-642-38511-7.
- Yannis Charalabidis, Charalampos Alexopoulos, Vasiliki Diamantopoulou, Aggeliki Androutopoulou, 2016. An open data and open services repository for supporting citizen-driven application development for governance. 1530-1605/16 \$31.00 © 2016 IEEE DOI 10.1109/HICSS.2016.325, pp 2596-2599.

### **Acknowledgements**

Acknowledgments are conveyed to the Institute for Research and Community Service of Pakuan University, The Computer Science Department of the Faculty of Mathematics and Natural Sciences, Pakuan University.

### **Biographies**

**Eneng Tita Tosida** is a lecturer in the Department of Computer Sciences, Faculty of Mathematics and Natural Sciences, Universitas Pakuan. She teaches in Simulation Techniques and Data Mining, Linear Programming and Optimization Models and research methods. She leads research group of Decision Support System (DSS) and Socio Informatic, and actives on educational digital media base on game, Augmented Reality and Virtual Reality research. She also actives on Indonesian Operations Research Association (IORA) as Secretary. Now is serving as head of Community Services Center, Universitas Pakuan.

**Fajar Delli Wihartiko** is a lecturer in the Department of Computer Science, Faculty of Mathematics and Natural Sciences, Universitas Pakuan. He teaches in Simulation and Data Mining, optimization and also actives on artificial intelligence, data mining and simulation research.

**Abdul Talib Bon** is a professor of Production and Operations Management in the Faculty of Technology Management and Business at the Universiti Tun Hussein Onn Malaysia since 1999. He has a PhD in Computer Science, which he obtained from the Universite de La Rochelle, France in the year 2008. His doctoral thesis was on topic Process Quality Improvement on Beltline Moulding Manufacturing. He studied Business Administration in the Universiti Kebangsaan Malaysia for which he was awarded the MBA in the year 1998. He's bachelor degree and diploma in Mechanical Engineering which his obtained from the Universiti Teknologi Malaysia. He received his postgraduate certificate in Mechatronics and Robotics from Carlisle, United Kingdom in 1997. He had published more 150 International Proceedings and International Journals and 8 books. He is a member of MSORSM, IIF, IEOM, IIE, INFORMS, TAM and MIM.