

3rd International Conference on Engineering of Tarumanagara
Jakarta, October 4th-5th, 2017

CONFERENCE PROGRAM & ABSTRACT BOOK

"SMART ENGINEERING FOR FUTURE CITIES"



FACULTY OF ENGINEERING
UNIVERSITAS TARUMANAGARA
Main Building, Campus I, Jl. Letjen S. Parman No 1, Jakarta Barat
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38. Ir. Endah Setyaningsih, MT Universitas Tarumanagara, Indonesia

ABSTRACTS

3rd International Conference on Engineering of Tarumanagara
(ICET)

"Smart Engineering for Future Cities"
Jakarta, 4-5 October 2017



**FACULTY OF ENGINEERING
UNIVERSITAS TARUMANAGARA
JAKARTA-INDONESIA
2017**

FOREWORDS

RECTOR OF UNIVERSITAS TARUMANAGARA



Keynote speakers, Honorable Delegates, Ladies and Gentlemen,

It is a great pleasure for me to open the ICET 2017 and to extend to you all a very warm welcome. We are grateful for having a number of participants who come here to share experience, and discuss problems of mutual interest with delegates from different cities and disciplines.

The topic of this conference, "Smart Engineering for Future Cities", could not be more important and relevant. If we explore the most populous cities in Asia, each city faces many complex problems that require different types of action. Einstein once said that "We can't solve problems by using the same kind of thinking we used when we created them." Engineers have a key role to play in creating and maintaining sustainable communities across the planet and we have to rise to the challenges we face very quickly. As engineers, we need to adapt our thinking, embrace advocacy and business planning, technology and computer sciences, work across wider domains and ensure that cities are truly able to meet the full needs of our future.

It is envisaged that the intellectual discourse in this event will result in future collaborations between universities, research institutions and industry both locally and internationally, particularly around issues of smart engineering and future cities.

I would like to congratulate the Organizing Committee of ICET 2017, for their utmost efforts and dedication. I would also like to express my gratitude to the sponsors for their contributions in making this conference a success.

I wish the International Conference on Engineering of Tarumanagara (ICET 2017) a very useful and fruitful event.

Thank you for your attention and contribution.

Rector

Prof. Dr. Agustinus Purna Irawan

FOREWORDS

DEAN OF FACULTY OF ENGINEERING



I would like to welcome all of the participants of the 3rd International Conference on Engineering of Tarumanagara (ICET 3rd) at the Faculty of Engineering, Universitas Tarumanagara, Jakarta.

The 3rd International Conference on Engineering of Tarumanagara (ICET 3rd) is one of our traditions every 2 years to bring together researchers, academics, and professionals from all over the world, experts in architecture, civil, mechanical, electrical, and industrial engineering, regional and urban planning, and applied sciences. This year, the topic of the conference about "Smart Engineering for Future Cities". A City is a large human settlement which constantly and dynamically changes, so sustainable development using smart engineering needs to be utilized to satisfy the quality of human life.

The conference particularly encouraged the interaction of researchers, academics, and professionals to present and to discuss new and current work in research. I do hope, the conference to be a valuable forum for all and to share their good research, and also the conference will improve awareness and understanding of the better of life.

Please, enjoy your time in Jakarta and Universitas Tarumanagara.

Dean of Faculty of Engineering

Harto Tanujaya, S.T., M.T., Ph.D

CHAIRPERSON



contribute to the development of the country. We must be ready and equipped with the strongest tools and skills to face the challenges. Innovative and creative efforts.

I Hope this conference will be a valuable forum for all and to share their good research, and also the conference will improve awareness and understanding of the better of life. Sharing ideas through research is one of our objectives.

On behalf of the Faculty of Engineering, I thank the Foundation of Faculty of Engineering for its supports and contributions. We hope this conference will be realized. My sincere hope is that the conference will prepare the event for the future.

Finally, I wish you a successful conference in Jakarta.

Chairperson of 3rd ICET

Dr. Eng. Titin Fauziah

FOREWORDS

DEAN OF FACULTY OF ENGINEERING



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Please, enjoy your time in Jakarta and Universitas Tarumanagara.

Dean of Faculty of Engineering

Harto Tanujaya, S.T., M.T., Ph.D

FOREWORDS

CHAIRMAN OF THE ORGANIZING COMMITTEE



Welcome to the 2017 International Conference on Engineering of Tarumanagara.

This is the third event of the biannual international conference held by Faculty of Engineering of Universitas Tarumanagara since 2013. This time we choose the topic "Smart Engineering for Future Cities" in the hope that it will contribute to the dynamically changing world. Cities as human habitat should be ready and resilient to face those dynamic changes. Technology is one of strongest tools in our efforts of realizing the sustainability of our future cities. Innovative and smart engineering has an important key role to support those efforts.

I Hope this conference can give participants the opportunity to contribute valuable ideas as well as strengthen the networks among researchers, academics and professionals from different places, background and interests. Sharing ideas through research is the only way of achieving progress towards our objectives.

On behalf of the organizing committee, I would like to express our gratitude to the Foundation of Tarumanagara, Rector of Universitas Tarumanagara, Dean of Faculty of Engineering, partners and sponsors of ICET 2017, for their supports and helps. I also would like to thank the authors for their contributions. Without their contributions, this conference would never been realized. My sincere thanks go to my team who has worked really hard to prepare the event.

Finally, I wish you a nice day and enjoy the conference as well as the vibrant Jakarta.

Chairperson of 3rd ICET 2017

Dr.Eng., Titin Fatimah, S.T., M.Eng.

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ICET 2017 CONFERENCE PROGRAM

Day 1: Wednesday, October 4th, 2017

	Time	Activity
1	08.00-08.30	Registration + coffee break
2	08.30-9.30	Opening ceremony - Opening remarks from ICET 2017 chairperson - Opening remarks from the Dean of Engineering Faculty - Opening remarks from the Rector of Universitas Tarumanagara
3	9.30-12.00	Keynote Speaker I Prof. Dr. Stephen Cairns, Program Director of the Future Cities Laboratory, ETH Zurich <i>"Urban Transformations in Asia: Responsive Knowledge Strategies, Design Scenario, and Action Plans"</i>
		Keynote Speaker II Prof. Dr. Tech. Ir. Danang Parikesit, M.Sc. (Professor of Transportation Planning and Engineering UGM, Chair – Transportation Technical Committee, National Research Council) <i>"Updates on The Progress of Intelligent Transportation System for Indonesia Urban Areas"</i>
		Discussion (moderator: Dr. Danang Priatmodjo)
4	12.00-13.00	Lunch break
5	13.00-15.00	Parallel session I
6	15.00-15.15	Coffee break
7	15.15-17.00	Parallel session II

Day 2: Thursday, October 5th, 2017

	Time	Activity
1	08.00-08.30	Registration + coffee break
2	08.30-10.30	Parallel session III
3	10.30-10.45	Coffee break
4	10.45-12.15	Parallel session IV
5	12.15-12.30	Closing
6	12.30- end	Lunch break

Note :

- Opening ceremony and plenary session: Main Building, Auditorium 3rd floor
- Parallel session: Main Building, 14th floor

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EFFORT OF UPGRADING THE LAWEYAN TO BE NATIONAL CULTURAL CONSERVATION

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Abstract

Laweyan is an enclave shaped settlement region. Possession of houses with specific features, one of which is Javanese architecture. Batik merchants in Laweyan had no a respectful cultural position in Javanese society who were feudalistic that time. They were equal to the poor, but what made it different was batik merchants hold economical power. Wealthiness not seldom exceeding the noblemen and the royal. Therefore Laweyan deserves to be sustainable. In 2003 it started to hold researches, Laweyan was returnable into its glorious periode of time where batik businesses held significant role under the leadership of Laweyan's *mbokmase*. Research method used is survey, the writing or article using analitical descriptive technique in discussion of concepts related to Laweyan. Data search is with strategy of grounded theory research (Anselm Strauss, 1990). Finding; Laweyan held a potential products as enchantment, holding human resource support, holding strong motivation, supports of facilities and infrastructure, having the supporting facilities, & holding institution in cultural art sector, & available area of development. In order to have the expected result, it takes improvement in sectors of social culture & economy, by means of conducting development strategy, then to-do steps are program socialization of Laweyan development as Tourism Village. Conclusion; an improvement getting society involved as subject (active participation in the field), managed and packaged interestingly and naturally, Laweyan was ready to receive visits of tourists. Research outcome was responded by government as welcome. In 2004 Laweyan was enacted as Batik Village. In 2010 Regulation of Minister of Culture and Tourism was established; Laweyan as Cultural Conservation Region with No: PM.03/PW.007/MKP/2010 by Mayor of Surakarta City in 2013 and there was Decree of Mayor, no.646/1-R/1/2013 as alteration to Decree of Municipal Mayor of District Level II Surakarta no. 646/116/1/1997. Recently Laweyan is proposed to be National Cultural Conservation Region.

Key words: sustainability, improvement, and cultural conservation

EARLY STUDIES ON POTENCIES OF SUB-DISTRICT ADMINISTRATION OF JUWANA, DISTRICT PATI, CENTRAL JAVA

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Abstract

Juwana is a subdistrict city in north of Java on trajectory of post track (*Daendels*) from Anyer to Panarukan and it is one of coast line area passed by biggest river in district Pati namely Silugonggo (In Javanese language, Silu=river). Silugonggo is artery of Juwana, if it is inavailability of Silugonggo thus Juwana will never exist.

The fishermen with traditional wooden ship sought fishes in the sea and brought them in the auction whist they as hored. Development of settlement and trade preceded first long river and finally ended in the estuary and finally it developed on the coastline. Openness element of fisherman settlement was visible clearly in accordance with their life free in the midst of ocean. On the different viewpoint many chinese businessmen regularly arrived to occupy the rural area (today it becomes city hub of Juwana). Development in settlement pattern in Juwana started to change.

The research aims to establish teory from empirical condition at hand, then describes it into operational concept (*grounded research*) in settlement in Juwana.

Method used is decriptive-qualitative in the usage of way of *strategy grounded theory research*. Research is focussed on actors actively and passively getting involved in alteration process of Juwana settlement. With "Investigation Focus" directed on actors taking influence on the business either internally or externally. Investigation results are coupled with observation data of field, documentation, and literature study thus resulting in accurate findings. Finding data is analized by using: 1.C u l t u r a l M o d e l, 2.Economy Model, 3.T e c h n o l o g y M o d e l.

To-do steps are such as; conducting data of settlement based on its grouping namely businessmen, industries, employees, local community economy development, regeneration pattern, filterization and selection of tourism development, integrated system development, development with persuasive approace, *regulation, market mechanism*, development in social-cultural activities sector, political development for regional activities sector.

Our finding is that; pattern and form of settlement of Juwana hold potential products as enchantment, human resource support, strong motivation of society still living in the settlement, supports of facilities and infra structures, tourism activities support facilities, institution in cultural art sector, availability of development land.

Keywords: Juwana, Settlement, Potency, Development.

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1. INTRODUCTION

Laweyan is an enclave-shaped settlement. A former region of tax-free idiosyncrasy under Pajang kingdom, had developed since the sixteenth century. Land width of Laweyan region is 24,83 ha, consisting of arid land that was relatively flat, with specification e.g yard/building is 20,56 ha, whilst river, street, tomb, and so forth were in the width of 4,27 ha.

There are Javanese architecture houses not complete in its space (Java Architecture holds spaces; *Pendapa*, *Pringgitan*, *Dalem*, *Sentong*, *Gandok*, *Pawon*, and *Gudang* (Godown), bathroom and water-closed or WC). Besides there are historical sites such as: Complex of tomb of Kyai Ageng Henies, tomb of Kyai Ageng Beluk, tomb of Dawa (read *dowo-jw*), tomb of Kyai Haji Samanhudi (a figure for Islam Trade League's movement or SDI-Sarekat Islam/SI) and tomb of Kasunanan Surakarta's family, tomb of Kyai Adipati Djangrono II (Surabaya's Regent, 1709), *Langgar* Merdeka (the early was *Langgar* Merdiko built in 1877), Mosque of Makmur, *Dalem Djimatan* (ex-house of Kyai Ageng Henies), and many more as other heritages.

As a *living monument*, Laweyan was a typical societal group (batik merchants) and holding interfamilial marriage system. Batik industry grew swiftly upon finding of stamp

batik making technique, about in middle of the nineteenth century, Laweyan society lived prosperously with mark of ample buildings with merchant's house type of *Indisch*-style.

In 1970 batik businesses started to decline or was called as death. It was due to businesses in big scale, their sosial economy was stronger and more independent even it tended to be monopoly. Impacts were seen from batik merchant in Laweyan such as selling houses, doing rents of batik business spaces. Ample houses started to deteriorate, young generation started to seek other jobs outside Laweyan. Laweyan became temporary dead in purpose of reviving batik businesses in Laweyan.

In 2003, researches were held in a qualitative descriptive method in which their outcomes were used to propel businesses reviving batik businesses in Laweyan. In 2004 District Administration enacted Laweyan as Batik Village in Surakarta. Since then batik trade has been advancing, even when Government had necessitated that every Friday all employees, even the public or the private, shall wear batik dresses. In 2010 Regulation of Minister of Culture and Tourism had enacted Laweyan as Cultural Conservation Region with Letter No: PM.03/PW.007/MKP/2010. Since then Laweyan became one of destination in Surakarta. It was then by Surakarta City Mayor in 2013 there was Decree of Mayor No: 646/1-R/1/2013 as alteration to decree of Municipal Mayor of District Level II Surakarta No.646/116/1/1997.

Law no. 11 year 2010 chapter III article 5, about criteria of Cultural Conservation such as; Cultural Conservation Object, Cultural Conservation Building, or Cultural Conservation Structure in case it meets the following criteria: a. at age of 50 (fifty) year or more; b. represents style period in minimum at age of 50 (fifty) years; c. holds special meaning for history, knowledge, education, religion, and/or culture; and d. holds cultural value for national personality strengthening. Article 9; location can be enacted as Cultural Conservation Site if: a. containing Cultural Conservation Object, Cultural Conservation Building, and/or Cultural Conservation Structure; and b. saving information of human activities in the past time.

In article 41 Government and District Government can conduct ranking (upgrading) of Cultural Conservation based on its interest in order to be national rank, provincial rank, district rank, and city or municipal rank based on recommendation of Expert Team of Cultural Conservation.

The aim of research; Upon the establishment of Law No.11 Year 2010, on upgrading rank of Laweyan as National-level Cultural Conservation.

An expectant outcome from Cultural Conservation can be National-ranked Cultural Conservation.

2. RESEARCH METHOD

Qualitative-descriptive method, more focused on discussion by experts of Cultural Conservation and Sourcists already holding research for years in Laweyan, as well as dwellers still active as merchants (entrepreneurs) and live in Laweyan.

Analysis unit is on dwellers still actively live in Laweyan, discussion outcome of team and sourcists as well as facts in the field observable up to present, as well as scrutinizing historicity not revealed which yields a positive impact nationally. Analysis outcome is used by National Cultural Conservation Team in proposal application on Upgrading Laweyan as National Conservation Cultural Region, to Directorate General of Culture.

Respondents selected by National Cultural Conservation Team are sourcists mastering data on Laweyan (already tested in dissertation), dwellers still active, were following processes occurring in Laweyan. Data collected is "investigation focus" directed to the sourcists and dwellers selected in discussion. Basis doing investigation is data itself

without guidance of certain theory device. There are two main flows of investigation as follows; 1). collecting environmental physic data & Laweyan data; the pertinent data yielding contribution in Laweyan; interviews in depth, and direct observation to Laweyan. 2). literature study pertinent to a history at hand in Laweyan.

Ways of analysing; the investigation data consisting of interviews at depth, direct observation to Laweyan, archive study, is coupled with historical data of the past time's Laweyan, findings, as proposal subject for national cultural conservation.

3. RESULTS AND DISCUSSION

Seen from its potency thus Laweyan region is of enclave limited by as follows; the north is Dr. Radjiman street (it is provincial road), south is confined by river Kabanaran, west is Kalurahan Pajang, and east is Kalurahan Bumi. With a rigid limit thus the region can not developed again. All sites in connection to past time history are still preserved well and properly for instance; tomb of Kyai Ageng Henies and family's tomb of Pajang kingdom and Kasunanan, tomb of Kyai Ageng Beluk, Dowo's tomb, tomb of Adipati Jayengrono, tomb of Kyai Haji Samanhudi, a founder of Islam Trade League (SDI), Mosque of Laweyan, Mosque of Makmur, *Langgar* Merdiko (P.S langgar is small mosque), a house of historical value and from building side represents its epoch (*Indisch*) namely Dalem Djimatan (exhouse of Kyai Ageng Henies), Dalem Cokrosumartan (early independence time as a place for welcoming President Soekarno while visiting Laweyan entrepreneurs (when Indonesia was Independent, Laweyan entrepreneurs provide some of wealthiness to countries as done by kings of the archipelago), House of Mr/Mrs Sumarso that was previously ever used as SDI congress, site of Tirta Adisurya at the first time of publishing a newspaper Medan Merdeka (1911), site of cave under the house (as a hidden place when it was the second class), ex-site of Bandar Kabanaran (big port of Pajang kingdom's era). Figure like Kyai Haji Samanhudi as a National figure in founding of SDI or Islam Trade League (SDI in 1911), as well as Tirta Adisurya establishing the first native newspaper, Medan Merdeka in 1911, a visit of president Soekarno to Laweyan, and evidence in the field is still the site itself while the event occurred, it strengthened a fact that Laweyan region got participated in strife of national people in achievement of Independence.

From side of *living monument* thus Laweyan was a region in which their movement is very swift in terms of businesses. This can be seen from the past time (up to year 1970), type of batik cloth produced was batik cloth in written with batik process with canting, stamp batik cloth, and also there were also combination. Afterwards, there were merchants using ways of doing batik with printing. Each entrepreneur has individual batik motive and individual market place thus no conflict at all in entrepreneurs in Laweyan. With ample batik factories in Laweyan, societies in the corners of Laweyan became batik labors secured in their life.

To get rid of change in character of Laweyan region and business deterioration. Priyomarsono (LSAI 2015), said that; there are improvements necessary immediately to do, such as; FKBL (Communication Forum and Development of Laweyan Batik Kampung), shall be returned to previous concept, namely as think-tank of discussion between the residents, listening to their complaint either the young or the old. Reviving again pride becoming mbokmase and masnganten, growing concepts shared in joint life. Also it re-grows mutual cooperation concept today declining.

Cultural activities in 2003 already pioneered by one of researchers whose dissertation Laweyan, revived again as balancer between events of economy scial and culture. These made society friendly or close, not different between the haves and the

haves not. Improvement of *signage* in some places enables people to visit. It takes training to guide on decency, language, data, information, and history on Laweyan.

Cooperative of Sidoluhur as returned into the true function of cooperative, for instance asking merchants or entrepreneurs in joint venture to give mori cloth (as batik fundamental subject) directly to its factory, namely batik medicine. The latter is done in order to have cheaper cost price from marketplace's price. Besides it also helps market as well as makes standar price in sale (like quote) therefore proce war is avoided. It forms business entity in collaboration with District Administration, that function is to give input to society going to revitalize their houses into business places. Thus region character as Laweyan" can be defended.

The most emergency is making of PERDA (District Regulation) arranging building revitalization in Laweyan region. In terms of promotion of Laweyan thus it is necessary to do activites each month for two nights with a street closed for cultural event, sale promotion, batik, food and so forth in collaboration with Surakarta Tourism Authority. Homestay business in houses of entrepreneurs are done without changing its building as leverage to batik business. This is done on purpose that the tenant will feel himself as batik entrepreneur, enabling him to sleep, to learn batik and so forth .

Interview result with Mr Kurniadi (June 2015), said that in the past time (until about year 1970), batik production controller in factories was *masnganten* whilst one in charge of marketing was *mbokmase*. Batik products were sold in houses with buyers from outside city, and in Klewer market (batik market in Surakarta city). Relationship between production and sales was very harmonious, as in relationship between *mbokmase* and *masnganten*, including relationship with their batik labors. Couple of *mbokmase* and *masnganten* as guide for labors made them comfortable since their needs are sufficed. Therefore no any negative conflict in Laweyan.

Priyomarsono (LSAI, 2015) said; since the enactment of Batik Kampung is one of Surakarta city destinations, ample visitors visit Laweyan to shop, this causes alteration of thinking concept in practice of business. Concept becomes *mbokmase* and *masnganten* in stead of entrepreneur, gains big profit o the other hand, can be guide for their labors (labor society is secured in life) and starts to leave behind. What it does now is profit for individual (characteristic of merchant) not thinking other persons. Recently there are deterioration of businesses, and concept of *mbokmase* and *masnganten* shift, no other batik businesses absorbing ample batik labors, whose lives are adopted by the employer.

The majority of society live in Laweyan are no longer having pride to stay at Cultural Conservation Region whose historical value as well as having particular trait buildings. The latter is proved by the swift emergence of building faces from merchant's houses (*Indisch*) changed into rows of shops having no high sense of taste. Based on observation result, there are 70 showrooms available today, and if there are no *guiden lines*, thus showroom will grow and develop very quickly, this will be able to change character of Laweyan gradually.

Fact obtainable is; a. Based on result of field-visit, b. discussion with experts and some Laweyan societies competent, c. Legal standing is Law 11 Year 2010 on Cultural Conservation, article 42; Cultural Conservation can be enacted to be Cultural Conservation with National rank if it meets condition such as: 1. entity of nation unity; 2. Cultural Conservationg veri rare in species/type, unique in its design, and very less in number in Indonesia; 3. important example for traditional settlement region, cultural landscape, and/or spatial utilization potential to extinct.

Expert team for National Cultural Conservation (TACB) published recommendation of Laweyan Cultural Conservation Region with National Rank, in

consideration of: a. Regulation of Minister of Culture & Tourism No: PM.03/PW.007/MKP/2010 on date of 8 January 2010 on Johar Market Enactment, Laweyan Region, Asu temple, Lumbung Temple, Pendem Temple, Karaton Kasunanan Palace, complex of Ciptomulyo Mosque, Umbul Pengging, Complex of Pertirtaan Cabean Kunti, and Site of Menggung located in Central Java Province as Cultural Conservation Object, Site, or Cultural Conservation Region Protected by Indonesian Law No. 5 year 1992 about Cultural Conservation Object. b. In recollection: a. that based on Regulation of Minister of Culture and Tourism No: PM.03/PW.007/MKP/2010 dated 8 January 2010 on Johar market enactment, Laweyan Region, Temple of Asu, Lumbung temple, Pendem temple, Karaton Kasunanan Palace, Complex of Ciptomulyo Mosque, Umbul Pengging, Complex of Pertirtaan Cabean Kunti, and Site of Menggung located in Province of Central Java as Cultural Conservation Object, Site, or Cultural Conservation Region protected by Law No 5 Year 1992 on Cultural Conservation Object, b. that based on Decry of Surakarta Mayor No: 646/1-R/1/2013 on Alteration on Decry of Municipal Mayor District II Surakarta No.646/116/1/1997 on Enactment of Building and Historical Ancient Region in Municipal District Level II Surakarta protected by Law No.5 Year 1995 on Cultural Conservation, c. that based on Law No.11 Year 2010 on Cultural Conservation, thus Laweyan Cultural Conservation Region is not yet stipulated its rank. National Cultural Conservation Team had conducted studies on laweyan Cultural Conservation Region as National Rank Cultural Conservation with criteria and/or the ranking.

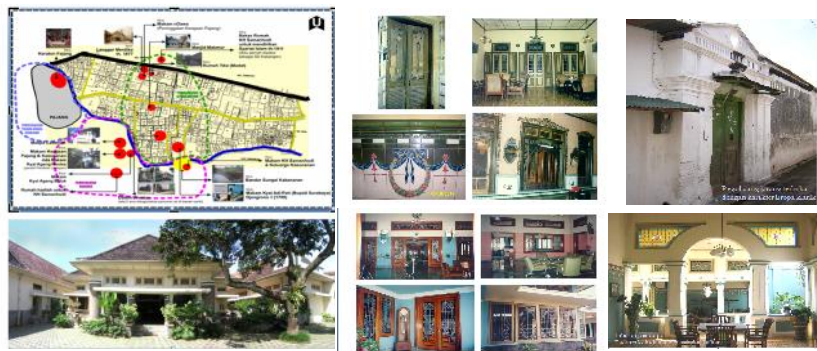


Fig. 1. Overview of Regions and House of Entrepreneurs in Laweyan
(Source: Personal Data, 2010, in LSAI, 2015)



Fig. 2. Prototype Mbokmase and Masnganten Laweyan
(Source: Personal Data, 2017)



Fig. 3. Hallways and writing as a sign
 (Source: Personal Data, 2017)



Fig. 4. Map and sample of the place where batik business in laweyan
 (Source: Personal Data, 2017)



Fig. 5. The Sarekat Dagang Islam meeting in Laweyan in 1911
 (Source: Personal Data, 2017)



Fig. 6. Kyai Haji Samanhudi (Founder of SDI) with President Sukarno's gift house, 1950
 (Source: Personal Data, 2017)



Fig. 7. The visit of President Soekarno in 1950 to Laweyan was entertained at the Cokrosoemarto family
(Source: Personal Data, 2017)

3. CONCLUSIONS

According to studies on data available up to present, thus National Cultural Conservation Expert Team recommended to Minister of Education and Culture about the importance of making Laweyan Cultural Conservation to rank as **National Rank Cultural Conservation**.

REFERENCES

- Bahari, Rachmad. "Laweyan Batik Merchant: Between Past Time Myth and Reality in Future." Paper presented to Technique Discussion named *Strategic Urban Area Revitalization of Tourism Potential*. Bandung: Puslitbang/Research Technology of Settlement and Area Development, Department of Settlement and Region Development of Republic of Indonesia, 2000. 17 July. p.1.
- Creswell, John W. *Qualitative Inquiry and Research Design, Choosing Among Five Traditions*. California: Sage Publication. 1968. p 100.
- Glaser, Barney G. L Strauss, Anselm. *The Discovery of Grounded Theory: Strategies for Qualitative Research*. USA: Aldine Transaction. 2010. pp. 101-116.
- Minister of Education and Tourism. *Regulation of Minister of Education and Tourism stipulating Laweyan as Cultural Conservation region with Decree No: PM.03/PW.007/MKP/2010*. Jakarta: Minister of Culture and Tourism of Republic of Indonesia. Year 2010. p. 1.
- Minister of Education and Culture. *Law No.11 year 2010. on Cultural Conservation. Indonesian Government*. 2010. p.11, 29.
- Priyomarsono, Naniek Widayati. Cultural Concepts-Tourism on Settlement of Karaton Kasunanan Surakarta. *Journal of Applied Environmental and Biological Sciences*, March 2, 2017. pp.180-182.

- . *Settlement of Batik Entepreneurs in Surakarta*. Yogyakarta: Gadjah Mada Press. 2004. p. 36, 45.
- . *Conservation Cycle from Preparation to Utilization f Post-Conservation (Case Study of Laweyan Surakarta)*. 2015. Gorontalo: LSAI. p. 5-7.
- Sarsono and Suyatno. *An Verbal Tradition Observation in Javanese Culture, Laweyan Societal Case Study in Surakarta*. Jakarta: Department of Education and Culture, Directorate General of Culture, Research Project and Study of Indonesian Archipelago (Javanology). 1985. p 6.
- Soedarmono. *"The emerging Group of Batik Businessman in Laweyan in Beginning Century of Twentieth."* Magister Thesis. Yogyakarta: Faculty of Post Graduate, University of Gadjah Mada. 1987. p 28.
- Surakarta. Mayor. *Decree of Surakarta Mayor no.646/1-R/1/2013, on Alteration on Decry of Municipal Mayor DIstrict II Surakarta no. 646/1-R/1/1997 on Building Enactment and Historical Ancient Region in Surakarta Municipality protected by Law No.5 Year 1995 on Cultural Conservation*. Surakarta: Mayor Surakarta Administration. 2013. P. 2.