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Telkom
University

OVERCOMING CRITICAL CONDITIONS THROUGH BIOMEDICAL TECHNOLOGY

CONTENT

BIOMEDICAL TECHNOLOGY

Everyone undeniably wants a healthy life. People even provide a big budget to ensure their health in the future time. Changes in life and life style become the two factors determining one's health. Along with the development in technology, there is also a growing number of diseases that may harm humans anywhere and at any time. However, there are also different strategies that can be taken to overcome various kinds of diseases.

The efforts in overcoming diseases commonly depend on the competence of medical practitioners like doctors and nurses. The effectiveness of the medications used to treat the diseases should also be improved. Different studies pertaining to health will continue. It is because health is a risky subject that may put human life in danger. Furthermore, development and studies in modern medication had long been started from the era of Ibnu Sina or Avicenna (980 – 1037 AD).

Nowadays, development in medical field has likely been extended to also include different fields of study. There are a far growing number of technologies that can support the field, particulary the ones that can overcome diseases like different sophisticated medical equipments and devices used to treat patients. Unfortunately, most of them belong to the innovation from international scientists and researchers.

It is this condition that motivates a number of Indonesian researchers to give their contributions. Accordingly, there are recently a growing number of researchers who start to develop biomedical technology, i.e. research in technology that can be implemented in medical field.
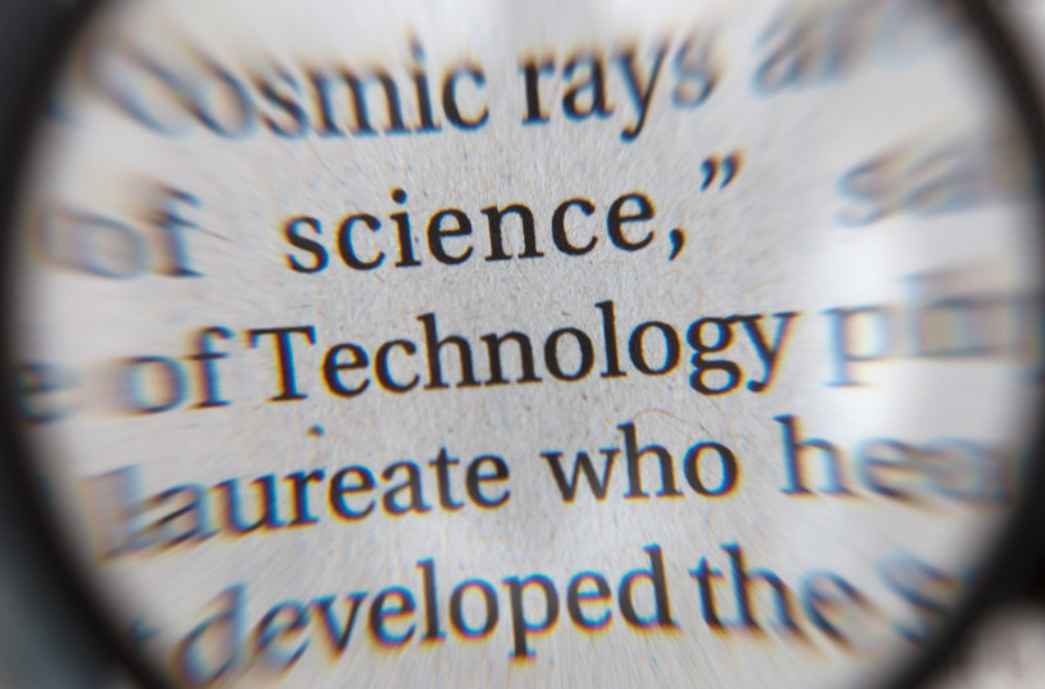
As a university focusing on informational technology, Telkom University (Tel-U) has also put biomedical technology as one of its research focuses. Some researchers of Tel-U indeed concern on biomedical technology. Even, there are several shared studies facilitated to be produced, under the cooperation with Bandung Techno Park (BTP).

It is certainly not easy for Tel-U to develop research in biomedical technology. Though a number of studies in biomedical technology have been developped into some prototypes as the outcome, it is still challenging to either bring them to the market or to produce them massively. The studies that relate to biomedical technology at Tel-U include Rado-Care, Brainstat, Mini Wireless ECG, etc.

Recently, the production of the result of the studies is not only carried out by BTP, but also by Kementrian Riset, Teknologi dan Pendidikan Tinggi (the Ministry of Research, Technology, and Higher Education) or so called Kemenristekdikti. The ministry has accommodated some research at Tel-U focused on biomedical technology. However, again, the process is complicated, mainly when it comes to the clinical test process. As has been explained above, technology pertaining to humans' health cannot be used disruptively as it may endanger their lives. ❖

Management of Intellectual Property at Universities

May Increase the Capacity of Sentra HKI

Intellectual property (IP) has become an important thing for a country in this modern era. Realizing that their natural resources are decreasing, a number of countries rely on intellectual property as one their sustainable assets. It is because that intellectual property determines the intellectuality of civilized human resources of a country.

Dr. Sadjuga, M.Sc

Unfortunately, the awareness to increase the number of IP in Indonesia is still low, including that of academicians in higher education. In fact, one of the key detrminants of innovations potential for IP is higher education.

Therefore, the government should encourage higher education to give more attention to the importance of IP, including through Kementerian Riset, Teknologi dan Pendidikan Tinggi (The Ministry of Research, Technology and Higher Educaiton) or so called Kemenristekdikti. Since 1999, the ministry has started the formation of Sentra HKI (Intellctual Property Right Center) in a certain number of research and development centers in either university or non university.

In general, IP can be divided into two, communal and individual IP. Communal property is usually in the form of traditional knowledge or any other thing pertaining to trandition in an area or geographical indication. However, the individual one consists of 7 regimes including copyright, brand, patent, integrated circuit topography, hybrid plant variety, industrial design, and trade secret.

Under the authority of Directorate General of Reinforcement of Research and Development, Directorate of Management of Intellectual Property of Kemenristekdikti, issues a number of policies pertaining to the awareness on the management of IP property in higher education particularly the individual one.

According to the Managing Director of Intellectual Property of Kemenristekdikti, Dr. Sadjuga, M.Sc, there are several programs conducted in improving the number of registrations of IP, particularly for patent, in higher education. The first is competitive program of incentives for the management of Sentra

HKI. Second, there is also training on drafting patent for lecturers or researchers who have conducted studies from different research schemes of Kemenristekdikti which are potential for patent. The last is through the selection on proposal of UBER KI and Raih KI programs.

"By the reinforcement in the management of Sentra HKI, the revenue can be used to propose the registration of IP, particularly patent. Besides that, there is also a workshop in drafting patent for lecturers or researchers who have gained some results of study from different research schemes of Kemenristekdikti which is potential for patent. Besides, Sentra HKIs at university can join the registration without any charge by proposing the study results through UBER HKI. If they have fulfilled all requirements, we will invite them and fund them," said him.

The incentive program for Sentra HKI is aimed at improving the capacity of Sentra HKI through the development program, mainly at increasing the number of patent. It is because though the proposal for registering patent to Kementrian Hukum dan Ham (the Ministry of Law and Human Rights) or so called Kemenkumham is only 2-3 million rupiahs, the process yet takes much time and requires a specific skill in terms of drafting.

Meanwhile, according to Head of Subdirectorate of Valuation & Facilitation of IP of Directorate General of Reinforcement of Research and Development of the Ministry of Research, Technology and Higher Education, Dedi Alamsyah, recently, the number applicants for the insentive program of Sentra HKI is still low so that Kemenristekdikti gives a wide chance for those who expect to propose an incentive program of Sentra HKI. "In the case of naming, Telkom University, for instance, takes Klinik HKI, it will not be

a problem as it is still under the authority of Unit Penelitian dan Pengabdian Masyarakat (Research and Community Service Unit). If you want to join, just fulfill the requirements. This February, we will reanncounce the opening of the program for 2017," said him.

Sadjuga also states that, though KIinik HKI of Telkom University (Tel-U) is affiliated to Kemenkumham, yet it has been in line with Sentra HKI launched by Kemenristekdikti. It is because that their main duties and functions are same, namely to manage IP resulted from a study.

"Kemenkumham indeed tends to encourage the number of registered IP, the training for the management of Sentra HKI as well as the registration. However, they do not have

Dadi Alamsyah

the schemes that Kemenristekdikti has," he added.

Dadi further said that in 2016, there are 26 Sentra HKIs accepting incentives for Sentra HKI reinforcement. "It seems that the management of IP has already been encouraged to manage IP as what has been carried out by Telkom University. Recently, Advent Univerisity of Bandung also visited Kemenristekdikti as to ask about the program. Please submit the criteria including the complete document, organization structure for Sentra HKI, the total number of IPs, particularly patent, or other kinds, if any. All about criteria and requirements, announcement, as well as the tutorial can be seen on Simlitabmas. There are still a small number of applicants so there is still a wide chance for it," said Dadi.

Increasong the awareness on IP, especially on patent is undeniably difficult, even in higher education. It is for that reason that Sadjuga expects that IP, especially patent can be develop into a course in higher education. "We hope that patent can be a course in higher education so that it can increase the awareness for IP, particularly for certain of majors which are potentials in producing hardware, process, etc. There are in fact different regimes of IP, yet the patent is the most complicated one. Consequently, lecturers

Left - right : Aldi Haryadi, Suwitno, Palti Marulitua Sitorus, Sadjuga, Dadi Alamsyah.

should be more aware on this. Recently, there are a number of universities that have made patent as a course, Unindra for instance. There are also some universities which trust the course to the Faculty of Law though one of the requirements to be patent examiners is that they are not an attorney, they should be an engineer," said him.

Pertaining to the course, a university cannot take the rules of Ditjen Belmawa Kemenristekdikti for granted that the formation of compulsory course cannot be determined by the respective university. However, a number of private universities have anticipated the condition by setting it as optional subject course. ❖

The Ministry of Law and Human Rights Encourages Intellectual Property of Higher Education

The support from government as to increase the number of intellectual property (IP) is growing. One of the sources for the property is university that has ability to innovate in research. Therefore, government keeps supporting any research that can generate IP.

One of the supports is through the Ministry of Law and Human Rights (Kemenkumham) in terms of right protection and through the Ministry of Research, Technology and Higher Education (Kemenristekdikti) in terms of increasing the number of innovations and IPs produced. Though, the efforts aimed at increasing the number of IPs as well as protecting them are also taken by Kemenkumham and other ministries.

It is delivered by the Head of Section of Partnership and Intellectual Property of the Ministry of Law and Human Rights, Suzy Heranita, SH., MH. "We have an MoU (Memorandum of Understanding-red) with several ministries as well as with either state or non state research institution pertaining to the management and agendas in IP protection, depend on the IP it produces. With Kemenristkdikti, the agreement has been carried out since 2011 and even for years before, when research and technology were not in the same institution with higher education. Kemenristekdikti, for instance, has Uber HKI, Raih HKI, and Sentra HKI. It shows that Indonesia actually is still potential for the registration of IP, not only from higher education, "said her.

Suzy admits that one of the challenges in the management and protection of IP in higher education is how to boost the number of registered patents. Though a number of universities already have a number of patents, as Institut Pertanian Bogor (IPB) so called as Bogor Agricultural University, the products have not been used for commercial purpose yet. The patents are used for increasing the cumulative credit point of the institution. In fact, one of the indicators for development of a nation is the development of technology determined by innovation. The innovations can be preserved and protected through patent so that it will not be copied by other countries unless under the approval of the license owner. Therefore, patents can be used as one of the sources for state revenue when there is any other country interested in implementing the patents.

"It is why having a patent is difficult since one of the requirements is novelty that others do not have. The document registration is easy that may only take a day. Yet, to get a certificate is a long process. It relates to a number of resources in ministries," she continues.

The number of local IP is actually still lower than that of international one, especially for patent. The number of Indonesian patents, recently, is in the 99th rank out of 138 countries. Besides, the protection of patent is territorial, i.e. the patent is protected only in the place where the patent is registered. It makes several patent owners from Indonesia that has ever registered their patent in other countries did not get any protection for his patent from the countries where the patents are not registered. ❖

Suzy Heranita, SH., MH

Dr. Palti Marulitua Sitorus, MM

Two years after Tel-U operated its Intellectual Property Clinic (Klinik HKI) service for academicians planning to register their intellectual property, as a university, it is neccessary that Tel-U concerns on the management of intellectual property resulted either from learning process, research or community service.

Two Years of Intellectual Property (IP) Clinic of Tel-U

Management of Academicians' IP

Klinik HKI established on 14 December 2014 by The Ministry of Law and Human Rights helps lecturers and students in the registration of intellectual property. Tel-U is undeniably aware of the importance of IP. This campus has more than 200 products either registered or on progress. Therefore, the campus has been admitted to be able to build Klinik HKI by The Ministry of Law and Human Rights.

According to the Director of Penelitian dan Pengabdian Masyarakat (Research and Community Service) or so called PPM of Tel-U, Dr. Palti Marulitua Sitorus, MM., there are two important roles of Klinik HKI for these two year periods. "First, in terms of the time efficiency that it is not necessary for academicians, either lecturers or students, who intend to register their IP documents to come to the ministry in Jakarta. Second, the existence of Klinik HKI makes the information pertaining to IP from Kemenkumham to Tel-U more symmetrical and it can be directly informed to the others, so all are informed," said him.

Kllinik HKI of Tel-U is under the authority Directorate of PPM which affiliates to Kemenkumham in terms of its policies pertaining to the registration of IP document. However, Klinik HKI of Tel-U has already been acknowledged by Kemenristekdikti as one of Sentra HKIs that has a duty in managing IP pertaining to the research in higher education. Furthermore, Klinik HKI can join Incentive Program of the Management of Sentra HKI that has been conducted by Kemenristekdikti since 2016.

The existence of Kilinik HKI of Tel-U supports the researchers who have conducted some research. It is because that every research that has IP as its output, particulary the one funded by other parties like Kemenristekdikti, should be administratively managed. Funding a research becomes a contract binding between the researcher and the funder. Consequently, the result should also be reported as a form of accountability. On the other side, the government also has some targets to be achieved by the researchers or innovators, considering the fund given.

Palti further states that the intellectual property produced by a university cannot be separated from the study conducted by academicians, including patent and copyright. Based on the data from Klinik HKI of Tel-U, in 2016, there were 115 copyrights, 47 industrial designs, and 9 trademarks that had been registered. Meanwhile, in the case of patent, recently there are 5 patents which are still on progress for registration and substantive examination. However, in 2016, there were 67 IPs which had been registered and 109 which were still on progress of registration.

"In the case of patent, the process is the most complicated and lengthy. The examination should be conducted by an eligible reviewer and the investigation should not only be conducted in the country but also in other countries. Hopefully that in 2017, there will have been any patents registered from Tel-U. Related to the result of studies, Kemeristekdikti also provides some guidelines on the IP. Thus, when we conduct a study of which one of the outputs is IP, after it is properly processed, the property should be reported to Kemeristekdikti. If Kemenristekdikti insists that the IP of the product should be registered, we will directly register it to Klnik HKI. It is because it has been administratively proper it also does not break the rules," he added.

Palti hopes that in these two years, Klinik HKI can facilitate the registration of more IPs from the academicians at Tel-U and increase the number of IPs registered. "We will never know that in the future, in other places, there is someone who has similar idea with us. If it has been registered, we will have the IP earlier than him. It is not easy as we also have other duties. However, at least the relation between the researcher and PPM or Kemenkumham has been well maintained," said him. ❖

Intellectual Property Center Should Carry On Commercialization Function

After it was launched by the Ministry of Research and Technology (Kemenristek) in 1999, Intellectual Property Center (Sentra HKI) was then also been established in a number of universities and research and development institutions. It is noted that in 2010 there are 80 Sentra HKIs. However, there are only 18 which are active and 11 which have the legality of the establishment. It is because there are still many Sentra HKIs which are still weak in terms of management of Intellectual Property Rights including professional commercializations which are supported by legal aspect. It is actually disappointing since it makes the management of Intellectual Property (IP) not developed in Indonesia.

One of the objectives in the establishment of Sentra HKI is to perform the IP commercialization function where it should be able to be the markerter or the intermediator between the owner and the user of IP. Up to the present time, many of the Sentra HKIs have only been socializing IP. In fact, they should prepare themselves to be an intermediator in the commercialization of the result of research and development or a TLO (Technology Licensing Office), as what has been developed in Japan and other countries. Therefore, the government through the Ministry of Research, Technology and Higher Education (Kemeristekdikti) in 2016 issued an Incentive Program of Sentra HKI. In academic realm, recently, there are some Sentra HKIs owned by universities which have already been either active or able to manage the institution.

The first Sentra HKI is the Sentra HKI of Institut Pertanian Bogor (IPB) or Bogor Agricultural University established in 1999. This campus has become the institution with the most number of patents of IP resulted from the research and development it conducted. Even, in 2016, IPB was chosen as the most productive Sentra HKI and received an award of cooperation with foreign researchers from Kemenristekdikti. It was chosen as the most productive Sentra HKI as it has reached the most number of patents not only in the form of document but they can also be used publicly and commercially. Meanwhile, the award of Cooperation with Foreign Researchers was given to IPB as the institution is used to processing the registration of its foreign researchers to Kemenristekdikti so that they have the license for the research and are not considered as illegal researchers.

Based on the website of Sentra HKI of IPB, in 2016, there were 231 patents on the process of registration and 100 certified patents. In terms of Copyright, IPB is in the process of registering 6 of its products and has already had 4 certified products. However, in terms of Brand, there are 10 products which are still in the process of registration while 4 products have already been certified.

Besides IPB, there is also Sentra HKI of Universitas Muhammadiyah Malang (UMM) or Muhammadiyah University of Malang which was established in 2002. It has already had 9 certified Patents. Meanwhile, 55 of its products are in the registration process. In terms of Copyright, UMM has already had 55 certified products and 93 of its products are on progress. However, in terms of Brand, it has 8 certified products and 51 of its products are on the progress of registration. Sentra HKI of UMM has also had certified IP Consultant so that it can accept any registration of IP from other institution. It also regularly holds a socialization pertaining to IP. ❖

No Need to Queue
to Detect a Dental Problem

Have you ever got tootache? It is likely that everyone has ever got this irritating and suffering problem. No wonder it causes some pain even when there is a little noise. It may be resulted from different causes can be various: too much sweet food, hardly brushing teeth, or the tooth condition that cannot take various kinds of food. The easiest and fastest solution is to remove the tooth after the pain has gone. However, should the pain be ended with removing the tooth?

Dental problems can actually be diagnosed by using x ray in radiology. Later, the result can be received in 2-3 days and it should be taken to the dentist as to be examined. Unfortunately, the diagnosis is still taken manually by a dentist so that it is sometimes not accurate. Besides, it takes time since the process of taking the picture of the tooth condition in radiology can only be taken in a hospital.

Considering this condition, there should be any improvement in the length of dental treatment. One of the strategies is by using effective technology that can help dentists in interpreting x-ray pictures. It is this condition that underlies the study in digital image processing toward x-ray picture of patients, which is focused on generating a device and developed in the Signal Processing Laboratory of the School of Electrical Engineering

The research started in 2010 was focused on detecting some dental problems, namely granuloma and pulpitis. Generally, there are four kinds of dental problems including pulpitis, granuloma, cyst, and abscess. However, the most challenging is in determining what dental treatment to take for pulpitis since the pain level caused by the problem can be various. As a result, the treatment will also be different. It will not always end with removing the tooth, but it may perhaps also be filled.

The data for this study is comprised by x-ray picture from Radiology Divison at Rumah Sakit Gigi Universitas Padjadjaran (Dental Hospital of Padjadjaran University). The data was priorly processed so that it becomes the database for dentists in interpreting dental problems when they face similar cases. The most challenging part is in data collection since patients cannot be x-rayed without any reasons. Humans have some limitation in the amount of x-ray they tolerate, since it can cause radiation.

The data collection spent for 6 months can only gather 20 cases of granuloma and pulpitis. Another difficulty faced in the study is in determining the devices to take the photo of x-ray picture, including a heavy SLR, big computer scanner, and pocket camera. Considering the objective of the study to make a device that can be used easily and quickly, finaly it was decided that the device to use are a small image scanner connected to handphone.

Profile
Head of Research Team

Earning his master and doctorate degree from Universite de Rennes at France in 1984 and 1988, Dr. Ir. Bambang Hidayat, DEA, is one of the founders of Telkom University. He, who was born in Boyolali, October 17, 1951, has been active in a number of trainings at PT Telkom as well as in lecturing in universities since 1990.

Furthermore, he, who was graduated from Electrical Engineering of ITB in 1975 has ever held some structural positions including the Head of Telkom Technology College or STT Telkom (1990 – 1994), which then became Telkom University, Director of Planning and Technology of PT Telkom (1999 – 2001) and Director of Planning, Technology, and Facility of PT Pos Indonesia (2001 – 2005).

Having a specific competence in Signal Processing and Telecommunication Signal Processing, he focuses on the research in this field. Some of his studies have been published in journals and proceedings. Even, his study entitled "G-Care & P-Care (Application Detection Granuloma Disease and Pulpitis in Teeth)" has been facilitated by Bandung Techno Park (BTP) and Kementerian Riset, Teknologi dan Pendidikan Tinggi (Kemenristekdikti) or the Ministry of Research, Technology and Higher Education to be further produced. ❖

Dr. Ir. Bambang Hidayat , DEA

This study on biomedical technology at least involves more than 32 students since five years ago. Under the co-operation with the Faculty of Dentistry of Padjadjaran University, this research has been in the step of clinical test since it has also received some support from Bandung Techno Park (BTP) through its commercialization research program as well as from the Ministry of Research, Technology and Higher Education (Kemenristekdikti). Therefore, the output of this study should not only be limited to publication on journal but also be in the form of prototype which further passes the clinical test, certification, production and marketing.

In clinical test, the device is used by the dentist, radiologist, co-assistant, and students of dentistry. It is aimed at having the feedback that can be used for the improvement and development in future studies whether it is effective as well as practical, and can support dentists in interpreting x-ray picture in detecting dental problems, particularly in terms of granuloma and pulpitis. After the clinical test, the device should still be certified to see its eligibility by involving Asosiasi Dokter Spesialis Radiologi Gigi (Association of Dental Radiologist).

Moreover, while waiting for clinical test and device certification, the development for research is further conducted as to ensure that the device can detect some dental problems at any teeth. It is because that it is possible that the problem in front teeth is different from that of molar and premolar, considering the structure.

Research has been being developed over years to make the device perfect. Even, the development on the device pertaining to product design is required so that it looks more ergonomic and interesting before it is produced massively.

The target market of this device is more to the dental care, particularly the one in some areas far from big hospital. It is hoped that this device can help dentists to cut the time in detecting dental problems, particularly in remote areas where in the past time, as to detect the problems, it requires some reference from radiology, which is only available in big cities. Furthermore, the result can only be available after 2-3 days for the interpretation.

The present of this device can cut the two day process. It is because that an accurate interpretation on dental problems can be available in hours. Furthermore, patient should not queue in line. ❖

Abstracted from a study entitled: "G-Care & P-care (Application Detection Granuloma and Pulpitis in Teeth)" of Dr. Ir. Bambang Hidayat, DEA et al.

Photo. Researcher Doc

Mini Wireless ECG
Makes the Heart Check More Flexible

Heart disease is still the number one cause of death in Indonesia. Furthermore, recently, heart attack not only attacks adults. In a certain cases, heart disease has already attacked people under 30. Therefore, the condition of hearth should always be taken care for since, sometimes, the symptoms of heart disease are not noticeably detected that it is also called as silent killer. One of the easiest ways to check the condition is by monitoring the condition of heart using Electro Cardio Graph (ECG). This device has been proven to be helpful for patient with heart condition or athletes taking medical checkup.

SCHOOL OF ELECTRICAL ENGINEERING

E CG is an signal as a result of the electrical activity of heart. It is taken by placing electrodes on a certain spots in our body. The signal from ECG is specific so that it can be used by a cardiologist in determining one's heart condition. Therefore, the ECG signal is recorded by using an electrocardiograph device.

The monitoring of heart beat is usually conducted in a hospital equipped with standard ECG (Bed Side Monitor) facility, particularly for patient with heart disease. However, sometimes the patient or athlete to be examined feels bored if he has to stay on bed. It leads to an idea in creating portable ECG device.

This wearable mini ECG device has a modul to transmit the ECG signal. Later, the signal resulted from transmission will be displayed on an android based mobile device to

Photo. Researcher Doc
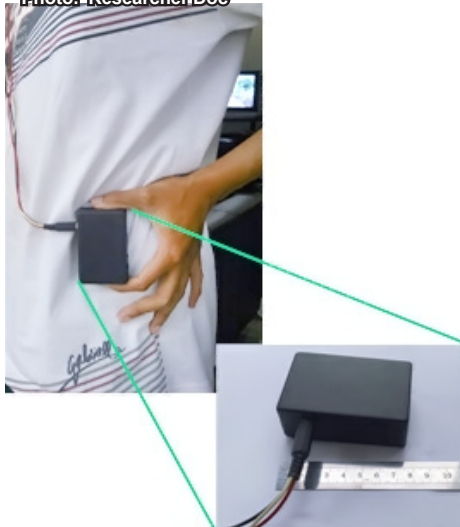
be saved, managed or transmitted to other places for other purposes.

Mini Wireless ECG is different from the ECG at hospital (bed side monitor). Mini wireless ECG is in matchbox (5 x 5 cm) size using a 3-lead signal processing. Recently, this 3-lead Mini Wireless ECG has been formed into a prototype and been developed for further research, i.e. into a bigger 12-lead Mini Wireless ECG.

3-lead Mini Wireless ECG has a similar function with a standard ECG used in medical field, including monitoring heart condition and heart rate. Furthermore, this ECG device is wearable. Inside the device, there is a Bluetooth module used to transmit the heart signal data that has been acquired from the body in the form of raw data to be further sent into Android based smartphone. The raw data is then reconstructed into a graphic as in the screen of standard ECG at hospital.

The function of this Mini Wireless ECG has not been as complex as a standard ECG. Standard (bed side monitor) ECG can either monitor heart and heart beat or diagnose a complex disease. However, a standard ECG is wire based and cannot be accessed online in a smartphone that it can only be displayed on a screen or printed in a piece of paper. On the other hand, Mini Wireless ECG can be accessed online if the user wants to see his heart beat signal and form.

Requiring Calibration with Standard Device

Though the study in Mini Wireless ECG, which has already produced a prototype, has been accomplished and success, yet it still needs further development. It is because

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■ Title :
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■ Researcher Team :
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Ratna Mayasari, S.T., M.T**
■ Research Group :
Jaringan dan Multimedia (JARMULMED) / Sistem Elektronika
■ Fund :
IDR 50,000,000
■ Scheme :
Government Grant Research 2016 (Last Year's Proposal)

■ Major :
Bachelor of Electrical Engineering
■ Title :
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■ Researcher Team :
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■ Research Group :
Sistem Elektronika
■ Fund :
IDR 50,000,000
■ Scheme :
Government Grant Research 2016 (Last Year's Proposal)

the studies particularly the ones related to medical field require a clinical test before they are passed for massive production and used by society and so does this 3 lead sized Mini wireless. The process includes the calibration of the device using similar standard device.

It is because though the signal from Mini Wireless ECG looks like similar to the signal from bed side monitor at hospital, the conformity of the signal acquired still needs a test. It is to avoid any mistake in the interpretation.

The calibration is aimed at finding the conformity of this device in terms of amplitude, voltage, delay, etc. As to see whether the device is already eligible or not, the calibration can be conducted by a particular institution focusing on calibration for medical devices. The other method is by purchasing a standard (bed side monitor) ECG as to see the amplitude, voltage, delay, and the features. However, purchasing this device is certainly not a simple thing and needs a lot of budget.

Another development is the process of designing (packaging) of Mini Wireless ECG. It should not only consider the function of Mini Wireless ECG but also its aesthetics, so that it can be publicly accepted. Likely, in the previous study, the design tends to be very simple taking plastic as the casing material, since there has not yet involved any other parties like Telkom Creative Industries School (TCIS) in creating an aesthetical design. However,

3D printer can also be used in the process as it may help the design to be more ergonomic and aesthetic.

Besides the hardware, further development for this device may be focused on the development of Android application so that it can be integrated in smartphone and desktop. The application used is also developed so as to be able to diagnose heart disease in real time as a standard ECG device.

Recently, the Android Mini

Wireless ECG application uses NetBeans, while the hardware consists of Microcontroller Arduino Micro and Bluetooth module for data transmission. If we want to diagnose heart disease from the signal, Mini Wireless ECG can process it offline or not in real time, since it has to be saved and processed using Matlab before.

Though the device is still being under development, this 3-lead Mini Wireless ECG prototype has been able

Photo. Researcher Doc
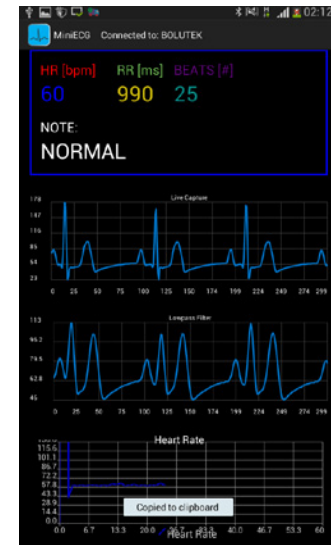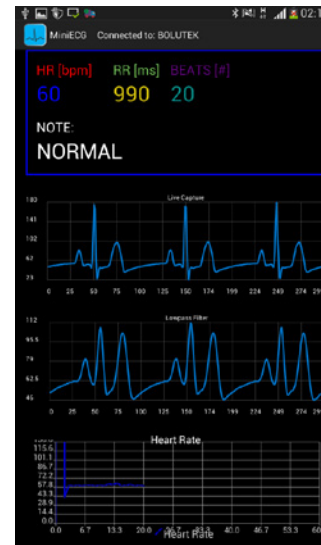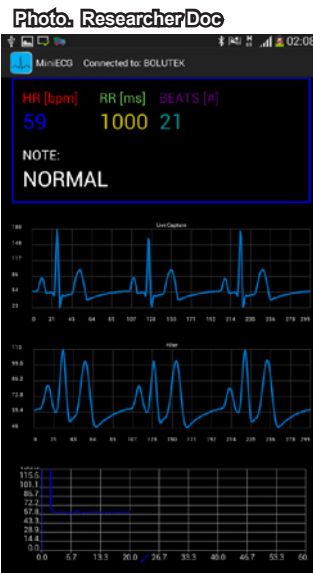
to be used for some trainings in heart monitoring in places where standard ECG devices are difficult to find as in Pusat Kesehatan Masyarakat (Community Health Center) or so called Puskesmas in remote areas or by medical workers as nurses and student nursing students.

The output of this study has been published in two Scopus indexed international journals. The first study was entitled "Microcontroller-Based Mini Wearable ECG Design" published in INKOM LIPI journal while the second one was entitled Mini Wireless ECG for Monitoring Athletes' ECG Signal Based on Smartphone" published in IOSRJEN Indian journal which is also published as proceeding for international seminar. ❖

Abstracted from a study entitled "Mini Wireless ECG untuk Atlit dan Pasien Jantung dengan Mobilitas Tinggi Berbasis Android" ("Android based Mini Wireless ECG for High Mobility Athlete and Patient with Heart Disease") of **Koredianto Usman, ST., M.Sc., Achmad Rizal, ST., MT., and Sugondo Hadiyoso., ST., MT**

Researcher Profile

Sugondo Hadiyoso, ST., MT.

Sugondo Hadiyoso, ST., MT., is an alumnus of Telecommunication Engineering of Telkom Institute of Technology (IT Telkom) graduated in 2010. After registering to be a lecturer in his almamater inthe same year, he continued his master degree in wireless communication at IT Telkom and graduated in 2012. He has a competency of study in the filed of Microcontroller Application, Biomedical Instrumentation and Internet of Things (IoT) Application.

His interest in biomedical technology arose when he tried to find a study in the field of technology which has not got much attention yet. After mastering Weak Current Electronics, he and his supervisor, Achmad Rizal, ST., MT., tried to study biomedical technology and focus on Biomedical Instrumentation. Recently, Sugondo has become a fulltime lecturer at Diploma Study Program of Telecommunication Engineering of the School of Applied Science of Telkom University (Tel-U). ❖

■ Major :
Master of Electrical Engineering

■ Title :
Implementation prototipe Adaptive Modulation and Coding and Adaptive Resource Block on Broadband Wireless Technology

■ Researcher Team :
Dr. Ir. Rina Pudji Astuti, M.T.
Dr. Arfianto Fahmi, S.T., M.T.
Linda Meylani, S.T., M.T

■ Research Group :
Transmisi Telekomunikasi (TRANSTEL)

■ Fund :
IDR 50,000,000

■ Scheme :
Government Grant Research 2016 (Last Year's Proposal)

■ Major :
Bachelor of Electrical Engineering

■ Title :
Design and Implementation of Guaranteed Cost Control ON DC motors Reaction Wheel for a review Support Development of Nano Satellites at the University of Telkom

■ Researcher Team :
Dr. Erwin Susanto, S.T., M.T.
Dr. Ir. Heroe Wijanto, M.T.
IG. Prasetya Dwi Wibawa, S.T., M.T

■ Research Group:
Sistem Elektronika

■ Fund :
IDR 50,000,000

■ Scheme :
Government Grant Research 2016 (New proposals)

Detection and Classification of Retinopathy
Using Application

Diabetes mellitus is a kind of disease that may turn to be complex for the patient. Besides complicated in the treatment, the patient will also feel some negative effects if he cannot live his healty life. The diet for patients with chronic diabetes cannot be the same with that of other common people that cannot avoid insulin. What makes it worse is that his body cannot repair its own cells when the patient is wounded.

Healthy eye

Esclerotic
Ciliar body
Iris
Cornea
Retina
Anterior chamber
Lens
Vitreous humor

Eye with diabetic retinopathy

Esclerotic
Ciliar body
Iris
Cornea
Retina
Anterior chamber
Lens
Haemorrhage
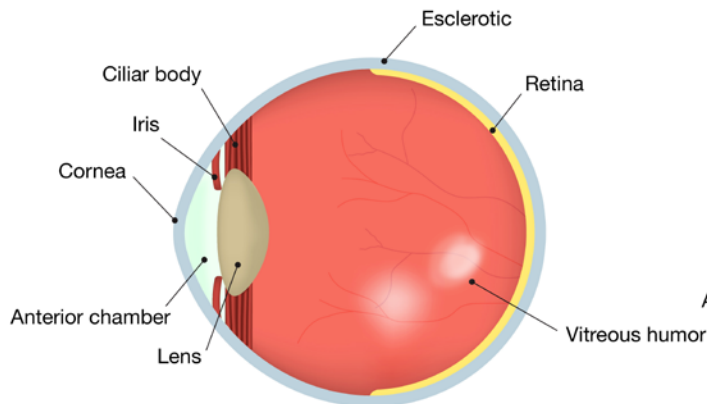
There are some negative effects of the disease. It can attack either the upper part of body as eyes or the lower part of body (the ability to move). The damaging effect of the disease on eyes is diabetic retinopathy that can attack retina.

However, so far, many of the patients do not realize the danger of diabetic retinopathy that they finally lose their eyesight. It is because the symptoms are not noticeable and some consider it to be identical with cataract which also leads to blindness.

The analysis and diagnosis taken by a doctor on eye condition is commonly conducted manually by using a flashlight. Though all doctors have been equipped with some adequate medical knowledge, yet they are still afraid of misclassify the level of retinopathy. It is this condition that leads to an idea to create a technological based application that can help doctors in classifying diabetic retinopathy.

This study was conducted in 2015 by using technology under the terms of signal processing, namely image processing. After taking an image of an eye with retinopathy, the image is then processed in an application installed in a Personal Computer (PC), so that the condition can then be examined.

There are four stages of retinopathy including normal, mild, moderate and severe. Previous research has classified retinopathy into mild, moderate, and severe by using digital imaging as to detect microanerism and haemorrhages. The accuracy is till low, i.e. 64% while other research aimed at classifying normal retina and retina with retinopathy, by using the same method, can reach the accuracy of 90%.

In this study, the system was made to a certain extent can detect and determine the stages of diabetic retinopathy (normal,mild, moderate, severe) in reference to the amount of bulges in the blood vessel walls (microanerysm) and protein fats (exudate) in retina. The method used in this study is Wavelet and Support Vector Machine (SVM). This method has indeed been old, yet is still very detail in sampling.

It takes six months to finish the study while the data collection on diabetic retinopathy takes three month period. It is because that there is no sufficient medical record of the patients with diabetic retinopathy, even in Cicendo Eye Hospital Cicendo Bandung. The sophisticated treatment for diabetes makes retinopathy is rarely found in big cities. For the areas lack of optichalmologist, the application can be used by an medical doctor, as in the Regency of Bandung.

Sampling is conducted in reference to the data resulted from the examination from the doctors in hospital as to see the differences of normal eyes and the ones with retinopathy based on the image. After that, the data are input into computer program, to be processed with MATLAB into database for similar cases. Where there is a new patient

SCHOOL OF ELECTRICAL ENGINEERING

- Major :
  Bachelor of Electrical Engineering
- Title :
  Multiband Spectrum Sensing Cognitive Radio Based On Multiple Testing Procedures with Random Sample Size
- Researcher Team :
  Dr. -Ing. Fiky Yosef Suratman
  Dr. Erwin Susanto, S.T., M.T.
  Ratri Dwi Atmaja, S.T., M. T
- Research Group :
  Sistem Elektronika
- Fund :
  IDR 50,000,000
- Scheme :
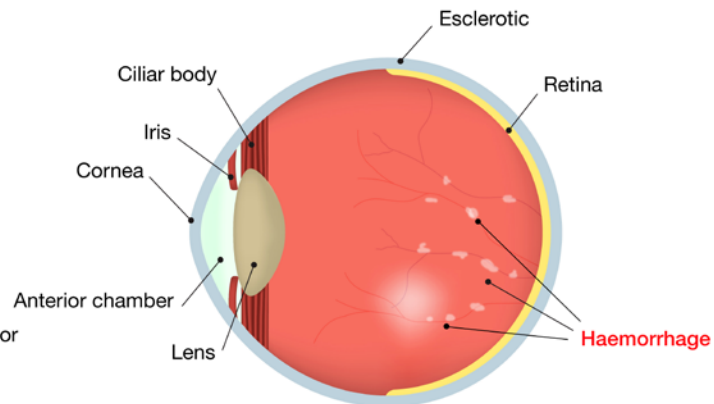 **Government Grant Research 2016 (New proposals)**

- Major :
  Bachelor of Physics Engineering
- Title :
  Ion binder material synthesis using Natural Zeolite And Clay as Media Seawater Desalination
- Researcher :
  Edy Wibowo, S.Si., M.Sc.
- Research Group :
  Rekayasa Instrumentasi dan Energi
- Fund :
  IDR 42,000,000
- Scheme :
  Government Grant Research 2016 (New proposals)

with diabetic retinopathy, it only requires an image of the eye taken by the camera to be connected to the application made. The result will then be available whether it is classified as normal, mild, moderate, or severe. The examination through naked eyes can only see the symptoms of red spots as the result of the leak in blood vessel burst or of white eyes as the symptoms of cataract.

This 8 month study did not lead to a prototype as it only used webcam connected to the application in the computer. When the image has been input into the program, the program will automatically identify and classify the retinopathy.

Unfortunately, after the test, the accuracy of the classification is still low. It is closely related to the small number of data.

Even, some of big hospitals in Bandung cannot provide the data that can represent the study. Consequently, the study should be terminated, as the available data cannot be further developed.

In big cities where modern medication for diabetes mellitus is accessible, diabetic retinopathy is rarely found. However, this study, which has also been published in ELKOMIKA journal, if it is further developed, can be used as to classify the stages of retinopathy, particularly in the areas with no sophisticated laboratory as in remote areas.

Besides, people, especially diabetes patients, should be more aware so that they can determine whether the eye sore is caused by diabetes mellitus or not. However, at the present time, doctors who examine patients' eyes are used to asking whether they have a diabetes record or not, since it may be related. ❖

Suci Aulia, ST., MT.
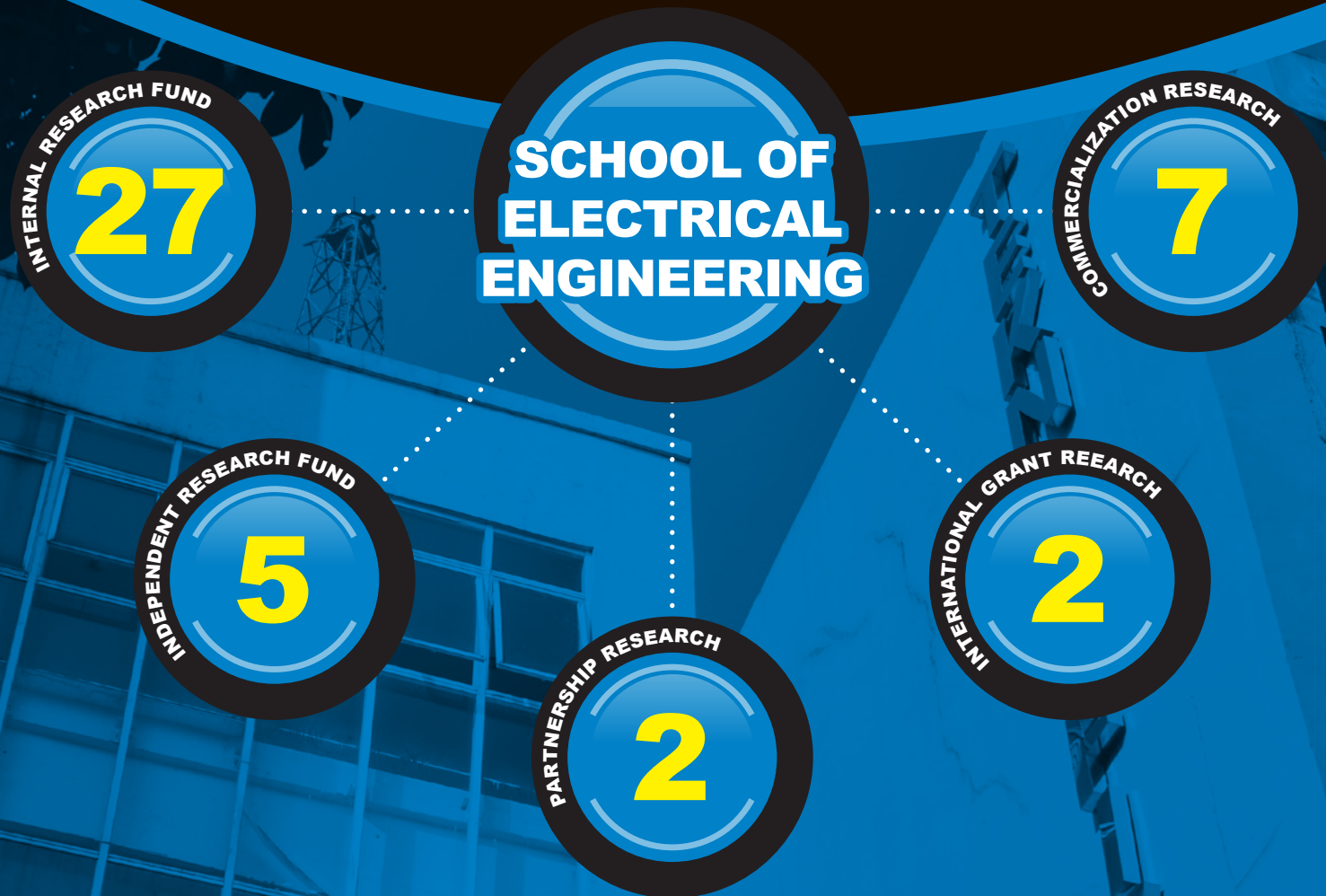
Profile
Head of Research Team

Suci Aulia, ST., MT., is a lecturer and researcher in the School of Applied Science of Telkom University (Tel-U). She completed her bachelor degree at Telecommunication Engineering at Telkom Institute of Technology in 2010. She is interested in studying signal processing. After continuing her study to the graduate school of Telkom University in 2012 focusing on wireless communication, she then concerns on studying digital image processing.

Her interest in biomedical technology has been started when she found that there are numerous people with Filariasis in the Sub-district of Dayeuhkolot, Bandung Regency. The symptoms of this disease, which has incubation period of 20 years after the mosquito sting the patient, cannot be easily identified, not until the patients' leg is swollen. She, who is also a lecturer born on December 17, 1986, then considered using image processing as to detect the disease by examining blood image. The study has become her first research in biomedical technology.❖

SCHOOL OF ELECTRICAL ENGINEERING

■ Major :
Bachelor of Physics Engineering
■ Title :
Development of Solar Cells with deposition of TiO2-Based Metals Copper Fix Method Using Current and Voltage Pulse Electroplating
■ Researcher :
Mamat Rokhmat, S.Si., M.T.
■ Research Group :
Rekayasa Instrumentasi dan Energi
■ Fund :
IDR 47,500,000
■ Scheme :
Government Grant Research 2016 (New proposals)

■ Majpr :
Bachelor of Telecommunication Engineering
■ Title :
Network Congestion Control OpenFlow-based SDN for Tactical Military Communications Systems
■ Researcher Team :
Sofia Naning Hertiana, S.T., M.T.
Ir. Burhanuddin Dirgantoro, M.T.
Ida Wahidah, S.T., M.T
■ Research Group:
Jaringan dan Multimedia (JARMULMED)
■ Fund :
IDR 50,000,000
■ Scheme :
Government Grant Research 2016 (New proposals)

TOTAL RESEARCH
FROM INTERNAL FUND 2016

INTERNAL RESEARCH FUND

27

SCHOOL OF ELECTRICAL ENGINEERING

COMMERCIALIZATION RESEARCH

7

INDEPENDENT RESEARCH FUND

5

PARTNERSHIP RESEARCH

2

INTERNATIONAL GRANT REEARCH

2

INTERNATIONAL RESEARCH FUND

8

PARTNERSHIP RESEARCH

10

SCHOOL OF INDUSTRIAL ENGINEERING

SCHOOL OF ELECTRICAL ENGINEERING

- Major :
  Bachelor of Computer System
- Title :
  Prototyping Hardware and Software for the Intelligent Speed Assistant Traffic Management System
- Researcher Team :
  Agus Virgono, Ir., M.T., CEH
  Randy Erfa Saputra, S.T., M.T.
- Fund :
  IDR 12,500,000
- Scheme :
  The Transition of DIKTI External Research 2016

- Major :
  Bachelor of Computer System
- Title :
  Prototype Design Fake POWERBANK as Tapping Tool Data on Mobile Devices Android for National Intelligence Tool Supporting Activities
- Researcher Team :
  Yudha Purwanto, S.T., M.T.
  Surya Michrandi Nasution
  Fairuz Azmi
- Fund :
  IDR 27,500,000
- Scheme :
  The Transition of DIKTI External Research 2016

TOTAL RESEARCH
FROM INTERNAL FUND 2016

SCHOOL OF COMPUTING

INTERNAL RESEARCH FUND

15

INTERNATIONAL GRANT RESEARCH

2

INDEPENDENT RESEARCH FUND

1

PARTNERSHIP RESEARCH

1

INTERNAL RESEARCH FUND

30

PARTNERSHIP RESEARCH

2
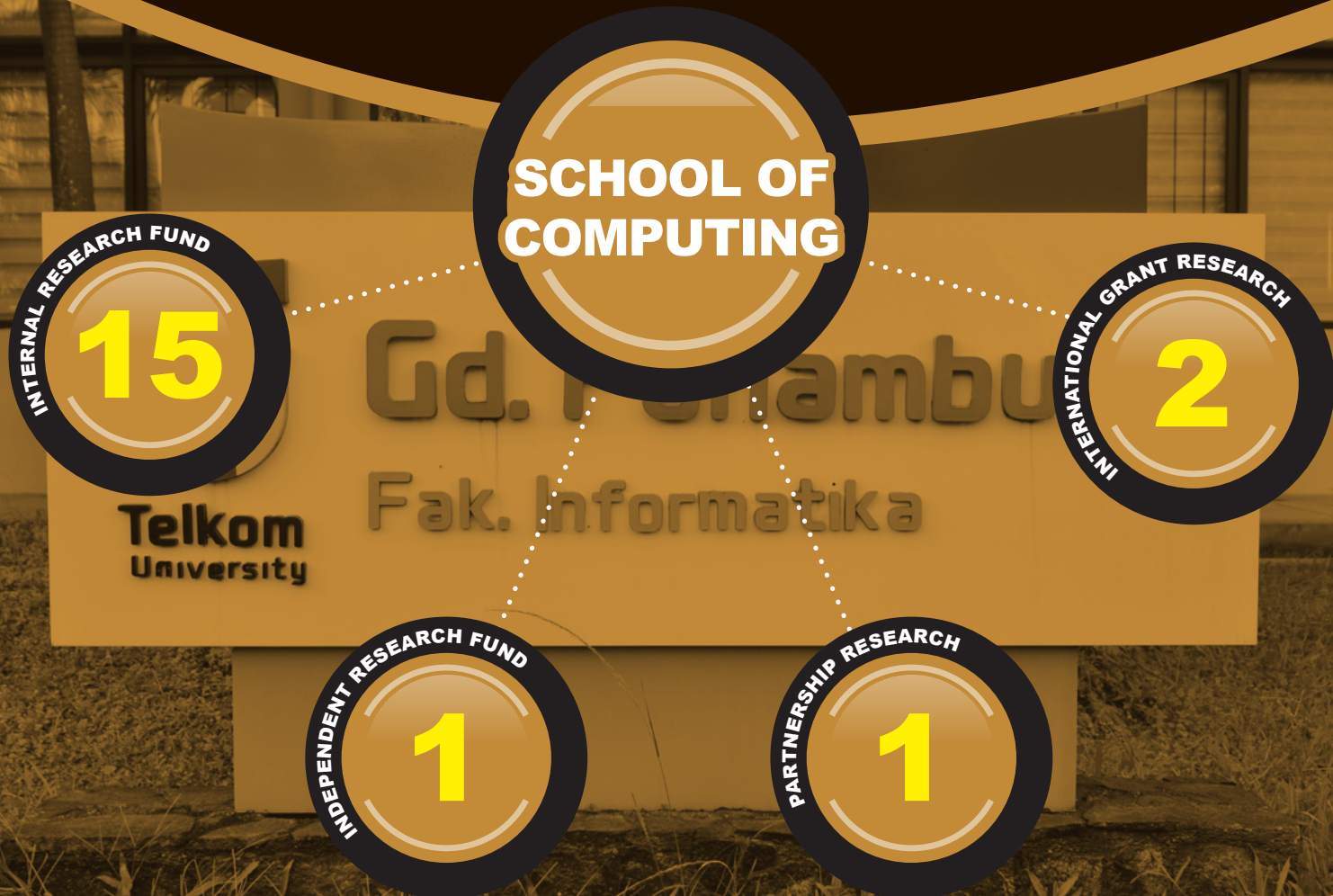
SCHOOL OF ECONOMICS & BUSSINESS

SCHOOL OF INDUSTRIAL ENGINEERING

■ Major :
Bachelor of Industrial Engineering
■ Title :
Prototype Development Business Intelligence Data Warehouse Based On Rice Logistics Systems to Support Food Security
■ Researcher Team :
Ari Yanuar Ridwan, S.T., M.T.
Ir. Wiyono, M.T.
Teddy Syafrijal, B.Eng., M.Sc
■ Fund :
IDR 26,250,000
■ Scheme :
The Transition of DIKTI External Research 2016

■ Major :
Bachelor of Industrial Engineering
■ Title :
Application Optimal Care System for Base Transceiver Station (BTS) Method Using Reliability Centered Maintenance (RCM), Life Cost (LCC), Reliability Availability Maintainability (RAM) and the Cost of Unreliability (COUR)
■ Researcher Team :
Judi Alhilman, Drs., MSIE.
Rd. Rohmat Saedudin, S.T., M.T.
Fransiskus Tatas Dwi, S.T., M.T.
Nurdinintya Athari, S.T., M.T
■ Fund :
IDR 25,000,000
■ Scheme :
The Transition of DIKTI External Research 2016

TOTAL RESEARCH
FROM INTERNAL FUND 2016

INTERNATIONAL GRANT RESEARCH

2

INTERNAL RESEARCH FUND

37

PARTNERSHIP RESEARCH

1

SCHOOL OF COMMUNICATIONS & BUSSINESS

SCHOOL OF CREATIVE INDUSTRIES

INTERNAL RESEARCH FUND

55

PARTNERSHIP RESEARCH

2

INDEPENDENT RESEARCH FUND

16

INTERNAL RESEARCH FUND

68

INDEPENDENT RESEARCH FUND

22

SCHOOL OF APPLIED SCIENCE

SCHOOL OF INDUSTRIAL ENGINEERING

- Major :
  Bachelor of Industrial Engineering
- Title :
  Company Management System Design Based on the Quality Management System, Environmental Management System and Health & Safety for Improving the Competitiveness of Companies
- Researcher Team :
  Sri Widaningrum, Ir., M.T.
  Wiyono, Ir., M.T.
  Heriyono Lalu, S.T., M.T.
  Muhammad Iqbal, S.T., M.M
- Fund :
  IDR 26,500,000
- Scheme :
  The Transition of DIKTI External Research 2016

Dody Qory Utama, ST, MT.

Developing Informatics based Biomedical Technology

Photo doc Private

One's weakneses may sometimes become his barrier in either expressing himself or producing some works. However, it does not happen to Dody Qory Utama, ST, MT, a lecturer and researcher of Telkom University (Tel-U). He uses his weaknesses as his trigger in creating valuable and beneficial works. He previously has a desire to be a doctor. Unfortunately, the diagnose judging him as a color-blind sufferer made him forget his dream. Therefore, having been graduated from senior high school, he decided to continue his study in school of computing at Tel-U.

I n 2009, Dody was offered to be a lecturer at Telkom University. He admits that informatics is not his passion. Surprisingly, he can combine the medical field he dreamt with the technique he studied in his undergraduate.

He finally studies biomedical science, a subject that is still rarely being studied in the global world. Different studies conducted by Dodi takes some references from MIT (Massachussets Institute Technology) that has already had the HST (Health Science Technology) major.

"I had ever dreamt to be a doctor but I could not realize it since I am color blind. Later, I randomly chose my second choice for college, informatics. I had ever tried to join PT Telkom. But, again, in the final medical test I was failed because of color blind. I was disappointed. I felt that I was discriminated because of color blindness. Since then, I committed to myself to hold a study pertaining to color blind sufferers, so that they are not discriminated," he said.

His study was started in 2011 where he created a device to test color blind. By using this device, it is expected that people with color blind can have their own credit and been distinguished from other common people like farsighted or nearsighted people who have their own credit. Dody expects that by using this device there will be no discrimination toward those with color blind.

"Actually, everyone is color blind, yet their eye capability is different. By using this tool it is hoped that there will be no discrimination to those with color blind, people with color blind are considered to be dangerous and incapable

- Major :
  Bachelor of Computational Science
- Title :
  Algorithm Implementation of Soft Computing On Mobile Device for Forecasting Planting Calendar Period (Case Study: Kabupaten Bandung)
- Researcher Team :
  **Dr. Deni Saepudin, S.Si., M.Si.
  Fhira Nhita, S.T., M.T.
  Danang Triantoro Murdiansyah, S.Si., M.T**
- Research Group :
  Modeling and Computational Experiment (MCE)
- Fund :
  IDR 50,000,000
- Scheme :
  Government Grant Research 2016 (New proposals)

- Major :
  Bachelor of Computational Science
- Title :
  Follicles Automatic Detection Application Development to Support Detection Based PCOS ultrasound image
- Researcher Team :
  **Jondri, M.Si.
  Dr. Adiwijaya, S.Si., M.Si.
  Dr. Maman Abdurohman, S.T., M.T**
- Research Group :
  Modeling and Computational Experiment (MCE)
- Fund :
  IDR 50,000,000
- Scheme :
  Government Grant Research 2016 (New proposals)

to work in a certain kinds of field, as in medical faculty. In medical faculty, people with color blind can still contribute, yet in a certain part, not in all parts," said him.

Another study Dody has ever conducted is LIFE, a hand-phone based application that optimizes survey on bad nutrition. He did the research in 2010. It is different from the former system since the system examined by Dody can optimize the survey by using handphone. In the same year, Dody cooperated with Telkom University students to create a heart detection called as Q-Talk.

In 2012, Dody created a monitoring device for drivers and riders named Brainstat. This device will send some information when the driver feels weary and sleepy thus it is expected that it can decrease the number of traffic accidents caused by the drowsy driver.

Completing his bachelor degree from informatics, Dody continued his study to ITB in 2010 taking biomedics focused on the study on color blind test. He should face a number

of barriers as there is limited reference on the test. He should find his own mathematical formula. Consequently, Dody spent relatively much time to finish his study. In 2013 Dody was graduated from his master degree and continued his doctoral degree as to develop his color blind test device.

"There has not been any color blind test device in the world. I had ever faced some difficulties in finding reference and tutorial. I had to find my own solution. After finishing this device, I will take my defense. My supervisor advised me to take my doctoral degree as to develop my study on color blind test device." said him, who was born on 25 September 1987.

In 2013, Dody has ever been asked by BKKBN (Badan Kependudukan dan Keluarga Berencana Nasional) or Family Planning Coordinating Board of West Java Provice to assist them in creating a survey system for Family Planning program. Then, since 2015 to the present time, he was asked by the Central of BKKBN as to do the mapping

system of medicine procurement in cooperation with the school of computing of Tel-U as to enhance and optimize the distribution of medicine. This device has been implemented in West Kalimantan, Central Java, West Java, and South Sumatera.

"I started cooperating with BKKBN in 2011. Since then, I was appointed to be the consultant. Recently, I am creating a mapping system for medicine procurement as to enhance and optimize the distribution of medicine. In remote area, the first aid for a patient is very slowly given as there are a number of barriers. It is common that people end their life due to the shortage in the distribution of medicine or even because of the lack of the medicine. By using this device I tried to enhance the distribution as well as to prevent the shortage so that there will be no more dead victim as a result of the late treatment. Handphone will help an officer to get the statistics of the available medicine." said Dody, who is also a lecturer in digital imaging and program-

ming.

Biomedical technology has not been too booming yet. However, the trend is increasing in line with the development of technology. Dody expects that the color blind test related to biomedical science can increase the popularity of biomedical science that can then make the device be accepted globally. Besides, Dody also wishes that there will be no more discrimination toward color blind sufferers. Apart from that, Dody also hopes that he can do a research in Harvard University.

"Biomedical technology is increasing recently. It is hoped that this device can be accepted globaly since it is still novel. The conventional device has been outdated as it is invented in 1907. There should be some refreshment of a new device. It is hoped that this device will help people with color blind not to be discriminated anymore. I also hope that I can get Nobel Prize if in the future this device can be accepted globally," said Dody.

His passion in medical field is inherited from his parents.

His mother is a midwife. Thus, he used to see his mother gave some medical treatment. He was born in Padang, September 25, 1987 yet he grew up in Jakarta, Surabaya, Sukabumi, Bogor, and Bandung.

Though he has a tight schedule, Dody feels satisfied with all activities he does. For him, commiting a work is like refreshing. His family also understands what Dody does since it is because of his hard work that he can get his achievements.

"What I did recently has finally returned some results. I did what I love so that I don't feel tired. What makes me disappointed that I find myself colord blind, finally leads to a good side. My family also understands and supports what I do.

My weaknesses should turn to be my strength leading me to create a work as well as to creativity. Do not take our weaknesses as our barrier in creating some works," ended Dody, who has already had a child. ❖
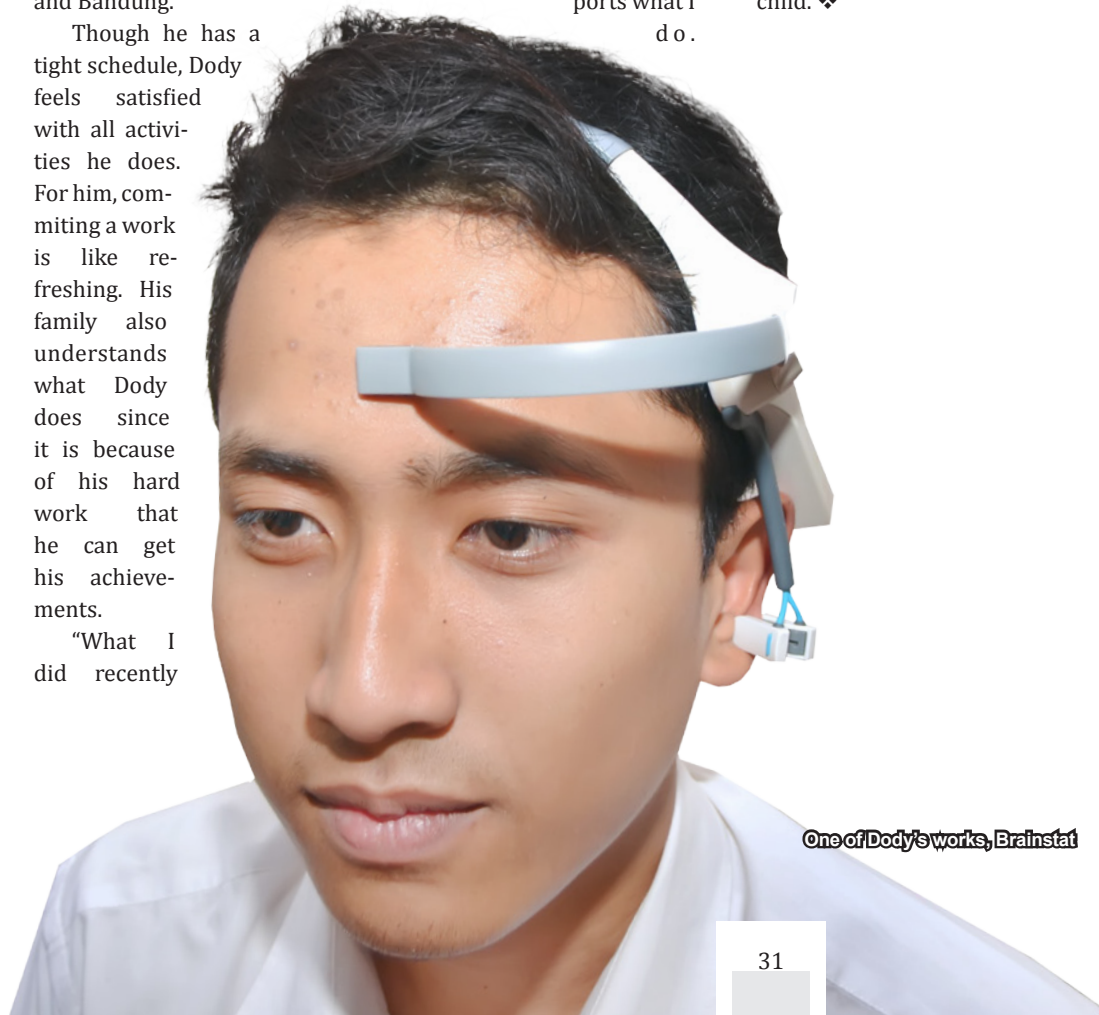
One of Dody's works, Brainstat

SCHOOL OF COMPUTING

- Major :
  bachelor of Computational Science
- Title :
  Stain-f based Optimal Algorithm for Solving Scheduling Problem at Graf Random Structure
- Researcher Team :
  Dr. Adiwijaya, S.Si., M.Si.
  Bayu Erfianto, S.Si., M.Sc.
  Dr. Maman Abdurohman, S.T., M.T
- Research Group :
  Modeling and Computational Experiment (MCE)
- Fund :
  IDR 60,000,000
- Scheme :
  Government Grant Research 2016 (New proposals)

- Major :
  Bachelor of Informatics Engineering
- Title :
  Upwelling Problem Solutions Freshwater Fisheries Based Wireless Sensor Network
- Researcher Team :
  Bayu Erfianto, S.Si., M.Sc.
  Novian Anggis Suwastika, S.T., M.T.
  Sidik Prabowo, S.T., M.T
- Research Group :
  Telematics (Tele)
- Fund :
  IDR 50,000,000
- Scheme :
  Government Grant Research 2016 (New proposals)

Fajar S.A. Prabowo, SE., MAB

Publishing a scientific paper in a journal is fundamental for researchers. However, it is not as easy as shooting fish in a barrel. Before submitting a paper into a journal, the researchers should consider two things, the efforts that should be made and the benefits that could be gained. If these two things are considered worth to the researchers, the journal will be much sought as a media to publish papers.

Indonesian Journal of Management
Pave the Way for an Accreditation

Researchers usually look into a journal before submitting a paper to it, starting from its national accreditation or international indexing as well as required times to select the accepted papers to be published.

The researchers will appear hesitate to submit a paper, if the journal has not been accredited and also applies a strict process in selecting the papers. Some of the reasons which might cause doubts to the researchers are that the possibility of the paper being rejected is high (since a strict process of selecting the papers is implemented), the efforts and the benefits of collecting paper are not balanced, and there may be other accredited and more feasible journals to submit their papers.

Related to this, Chief of Indonesian Journal of Management (Jurnal Manajemen Indonesia - JMI), Fajar S.A. Prabowo, SE., MAB. said "The experience of several researchers demonstrated that it took a year to submit a paper into an accredited journal until it was fully accepted. In fact, there were even some of them submitted in a year, but still rejected. So, it is better for new journals to put a higher concern firstly on their service and to make easy the process of selection without neglecting the rule of plagiarism. A very permissive journal is also able to destroy the journal's reputation and author's pride".

Indonesian Journal of Management (Jurnal Manajemen Indonesia - JMI), a journal by School of Economics and Business, Telkom University, never stops enhancing its quality. Although it has been issued for 16 years, in terms of recognition and status, JMI still is quite young. In other words, JMI still covers rather broad scientific fields. While on the other hand, people believe that journals with a limitation are considered more beneficial.

"Speaking of criterion, a scientific journal with a narrow scope is considered to have a specific contribution because it has a clear position and brand for the researchers. However, the narrow scope journal might find difficulties in selecting texts to be published (especially for the new-comer journal) and face hindrances in the process of accreditation. In the accreditation, it requires at least 500 pages in a journal as a point of assessment. Nowadays, JMI itself has 250-300 pages in each volume" as Fajar added.

In addition, JMI has three issues for each volume issuance. This journal is published in April, August, and December. It covers the topics on Human Resource Management, Financial Management, Operational Management, etc. Although it is still considered to be broad, what makes JMI unique is that the touch of ICT in each paper. Currently, JMI contributors are not merely local researchers, some of them are from India, Malaysia, and Japan. They contribute for the sake of spreading knowledge and building network.

Open Communication, External Publication, and Journal Portfolio

Currently, JMI puts a high effort to achieve the accreditation. The accreditation itself needs not only a good track record but also human resource commitment and financial support. Although JMI is still in the process of achieving the accreditation, its management has improved from time to time.

Fajar said that the 'young' journal organizers should have a good intake journal skill. When the journal receives 10 papers, and only 7 of them meet the journal criteria, so do not reject the rest of it. It will be better to return the papers to the authors for a better revision, and then offer a broader field of issues.

Direct communication between the journal managers and the researchers is fundamental as it could give a positive value for the journal itself. Therefore, JMI provides not only a 24 hours email correspondence but also a more private and direct correspondence service through WhatsApp (WA) application.

"We encourage them to put their best effort, and slowly but sure we also offer more precious benefits for them. We open a direct communication so they are able to know the submission process. If the paper should be revised, the journal organizers will inform and ask them to revise in a specified time. However, if the researchers have not responded to the revision process, we try to offer the paper to be published in subsequent issues without promising the paper to be published immediately. This process aims at avoiding the uncertainty of acceptance or rejection. Some experienced researchers do not matter about paper rejection as long as the information on whether it is accepted or rejected is not too long. Even some international journals with Scopus index are mostly giving six months for its substantial errors revision" he added.

Fajar also stated that currently JMI has been reinforced by fourteen internal and external reviewers. Five reviewers come from Telkom University and three reviewers are the publication staffs. However,

> **"**
> We encourage them to put their best effort, and slowly but sure we also offer more precious benefits for them. We open a direct communication so they are able to know the submission process. If the papers should be revised, the journal organizers will inform and ask them to revise in a specified time."

the number of external reviewers must be propagated both academically recognized and based on a wider geographical distribution. It is because the development of knowledge in each country or region might be varied. In addition, for assisting the process of accreditation, JMI has been incorporated with some journal associations such as Asosiasi Pengelola Jurnal Indonesia (APJURI) and Relawan Jurnal Indonesia (RJI). Besides, to make its management process possible to be done electronically, JMI is under the process to be an Open Journal System (OJS).

The next JMI program is External Publication. To realize it, JMI is in collaboration with several national and international journals in Indonesia; some of them are Binus Business Review (BBR), Ecodemica, Journal of Business and Economics (JBE), Ekobistek, Ikonomika, Journal of Management Universitas Tarumanegara, and many others. This program is implemented to accommodate external writers, researchers, Master of Management graduates from Telkom University, and outstanding thesis. It is expected that School of Economics and Business Telkom University could own not only a journal, but also a journal portfolio so that all incoming manuscripts could be absorbed.

"The journal is ideally in

ISSN 1411 - 7835

Vol. 15 No. 3 Desember 2015

Jurnal Manajemen Indonesia

the form of a portfolio where there are several journals with different qualities. A good paper could be included into an accredited journal, while a less- qualified paper could be included into other School of Economics and Business non-accredited journals. However, the scientific clump develops in the faculty or certain group expertise, so it would be better if the journal is covering a narrow or limited field as long as each journal appears to collaborate not to compete. In the School of Economics and Business, JMI has a branch journal named Indonesian Journal of Accounting and Finance (IJAF). It could be a recommended journal portfolio offered to researchers" he said.

To introduce JMI to the world, School of Economics and Business conducts a promotion through some journal partners such as other university libraries. Additionally, JMI is actively pursuing a number of contributors' email addresses who have joined conferences at Telkom University or from the internet. That is why, to avoid the accumulation of journals on campus, JMI printing was never done more than 50 copies in each issuance. Further, Fajar hopes that JMI will be the most reliable management journal and become a medium of learning on how to manage journals professionally.

"It is expected that JMI could be the most reliable journal in Indonesia based on its quality of the accreditation, indexing, and qualified papers. Besides, JMI could be the place for us to learn to organize and create different journal positions. Thus, School of Economics and Business could have a solid journal portfolio and JMI could be a reference for other journals such as IJAF. In addition, since our two international conferences i.e. SCBTII and ISCLO also have a journal, the management of journal portfolio is necessary to create the economics of scope and economics of skill value" he said. ❖

Photo. Doc ISCLO

An alteration is one thing that genuinely happens and is faced by someone including in the business world, especially in the digital age like today. Learning Organization is not merely learning on managing people but also learning on business process. Therefore, all organizations, both large and small organizations, have to improve themselves to face business challenges.

4th ISCLO 2016
Learning Organization in the Digital Age for Micro, Small, Medium Enterprises

This point obtains a high attention during the 4th International Seminar and Conference on Learning Organization (ISCLO) 2016 held on Tuesday and Wednesday (25-26/10-2016) at Grand Tjokro Hotel Cihampelas, Bandung. The theme of the event was "Continuous Improvement of Business Process and Expanding Possibilities in Digital Era" which tried to offer a discussion as the answers for many problems in an organization.

A visionary Management understands that a number of systemic factors greatly influence the organizational issues and change a variety of potential improvement rather than simply changing individual performance. These triggered the rapid social development and deployment of digital technology, and extended the traditional notions about effective leadership.

Micro, Small and Medium Enterprises (SMEs) is an organization that is expected to be able to do the learning organization, es-

Dr. Fetty Poerwita Sary

pecially in facing the digital era. As what was said by 4th ISCLO 2016 Keynote speaker, Veland Ramadani, Ph.D, on "SME's Transformation Into Learning Organizations: How Business Angel Can Help?".

Veland stated that SME's is considered flexible, a source of innovation, a source of new jobs as well as contributor to the Gross Domestic Product (GDP). Unfortunately, SMEs have a number of drawbacks, including inefficient management, lack of specialization, less ready to cooperate, diversified production program, as well as the lack of experience.

"So what is a learning organization? That is an organization where people sustainably expand their capacity to create the results in accordance with the wishes, where novelty and patterns of mind expansion continue to be maintained, where collective aspiration is something that is free, and where people are continually learning to see all of them collectively the same. There

Photo. Doc ISCLO

are several factors in the learning organization, namely investment and support learning, open to new ideas without fear of criticism or punishment, encourage teamwork, information sharing, oriented to the desire or objective, as well as improved performance," as said by Veland, the reviewer of International Journal of Entrepreneurship and Small Business (IJESB) and International Journal of Business and Globalization (IJBG).

According to Veland, from South East European University, Republic of Macedonia, the SME's need to do the learning organization, because there are Business Angel or personal investor who gave financial support (smart money) for the companies. Business Angel is ready to invest in new companies and help young entrepreneurs as well as realize the benefits simultaneously. With the Business Angel, organization or company will have several advantages such as innovation, quality im-

provement, increase employee engagement and loyalty, increase financial stability and a better market position.

Therefore, the process of learning organization in the level of SMEs is needed, because it covers a large scope of knowledge and fits into all business processes in the organization. The process of learning organization in SMEs level is expected to be able to bring the SMEs compatible and grow in the era

of digital as well as expand the range of possibilities that could be done.

According to the Chief Executive of ISCLO 2016, Dr. Fetty Poerwita Sary, learning organization has changed along with the development of digital age. She said "Learning organization has changed significantly. It is not only about how to manage people, but also systemic factors that influence the change itself and the development of social,

technology and other aspects. Take a look at the example. Nowadays, we have familiarized with the term Human Resource Information System (HRIS), Knowledge Management (KM), even a more digital decision making which influences the organization".

Considering that learning organization has been involved in each business process, therefore a large number of topics were offered in the 4th ISCLO 2016.

Photo. Doc ISCLO

Veland Ramadhani, Ph.D

Among others are Learning and Corporate Strategy, Leadership in Learning Organization, Measuring Learning Organization and Knowledge Management Audit, Multi-Culture Issues in Learning Organization, Learning for Innovation, Social Networks and Crowd Learning, and Learning Organization in Multi-Sector.

4thISCLO 2016 not only presenting Veland Ramadani, Ph.D., as a speaker, but also the President Director of IPC Corporate University (PT Peruri), Dr. Insania Nina K. Permana, S.Psi., MM and lecturer at the School of Economics and Business (FEB) Telkom University, Dr. Ratri Wahyuningtyas, ST., MM. This event was attended by 135 participants from various countries such as Bahrain, Algeria, Malaysia, Timor Leste, the Netherlands, and Indonesia. There were 65 papers that have been accepted which come from Indonesia, Mexico, Canada, Bangladesh, Pakistan, and Malaysia. Besides seminars and conferences, 4th ISCLO 2016 was also conducted a workshop titled "Publish or Perish: Pursuing Publication in Leading Scopus and ISI Indexed Journal" at Telkom University, Master of Management, Geger Kalong Bandung.

"We have co-operated with several reputable journals that have been indexed by Scopus such as IJBG, IJLC, Oeconomia Copernicana, and Journal of Competitiveness indexed DOAJ, EBSCO, ProQuest, and others, as well as Management and Business International Journal. Even, we have four lecturers who have been chosen as guest editor in the journals" continued Fetty. ❖

■ Major :
Bachelor of Informatics Engineering
■ Title :
Study and Application of Process Mining in Business Process Audit
■ Researcher Team :
Angelina Prima Kurniati, S.T., M.T.
Gede Agung Ary Wisudiawan, S.Kom., M.T.
Guntur Prabawa Kusuma, S.T., M.T
■ Research Group :
System Information and Data Engineering (SIDE)
■ Fund :
IDR 50,000,000
■ Scheme :
Government Grant Research 2016 (Last Year's Proposals)

■ Major :
Master of Informatics Engineering
■ Title :
Expansion method Performance Factor Analysis (PFA) to predict the group's knowledge on collaborative learning
■ Researcher Team :
Dade Nurjanah, S.T., M.T., Ph.D.
Hetti Hidayati, S.Kom., M.T.
■ Research Group :
Intelligence, Computing and Multimedia (ICM)
■ Fund :
IDR 50,000,000
■ Scheme :
Government Grant Research 2016 (Last Year's Proposals)

The Research Group of Modeling and Computation Experiment (MCE)

Mathematical Modeling to Fluid Dynamics

One of the scientific fields in Telkom University is the computing field, under the School of Computing, this field has a scientific assessment incorporated in the Research Group Modeling and Computation Experiment (MCE). This group was originally an amalgamation of two groups, namely Modeling and Simulation (MOSI) and the group of algorithms and computational skills (Alkom).

According to the chairman of MCE Research Group, Jondri, M.Si., there are several focus of the research, such as financial computation which is widely used in the financial field. This research conducts a prediction for company stock, pricing option, and portfolio optimization.

"People make an investment, and they expect to gain benefits with a minimum risk. Therefore, this research proposes the strategy to gain more benefits and minimum risk" he said.

Another research in MCE Research Group is fluid dynamic field. Fluid dynamic is a field that makes fluid as a model that moves (it could be a liquid or gas). One of the researches is related to Tsunami disaster. There are three doctorate students focus in this field.

"Tsunami is considered as one of the rarely happen disasters and most people want to know the safety point of the coastline. We tried to model it using data speed of the waves, the sea depth data, and the shape of the coastline, thus affecting the height of the wave, the extent to which the waves could reach the shoreline, "he said. Jondri also said that the advantage in the field of computational modeling is the researchers do not have to do a field research. They are able to model a condition similar to the original only by conducting a simulation.

"The advantage of computing research is that we are not required to

SCHOOL OF COMPUTING
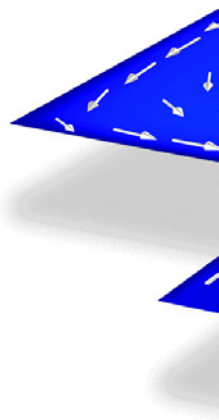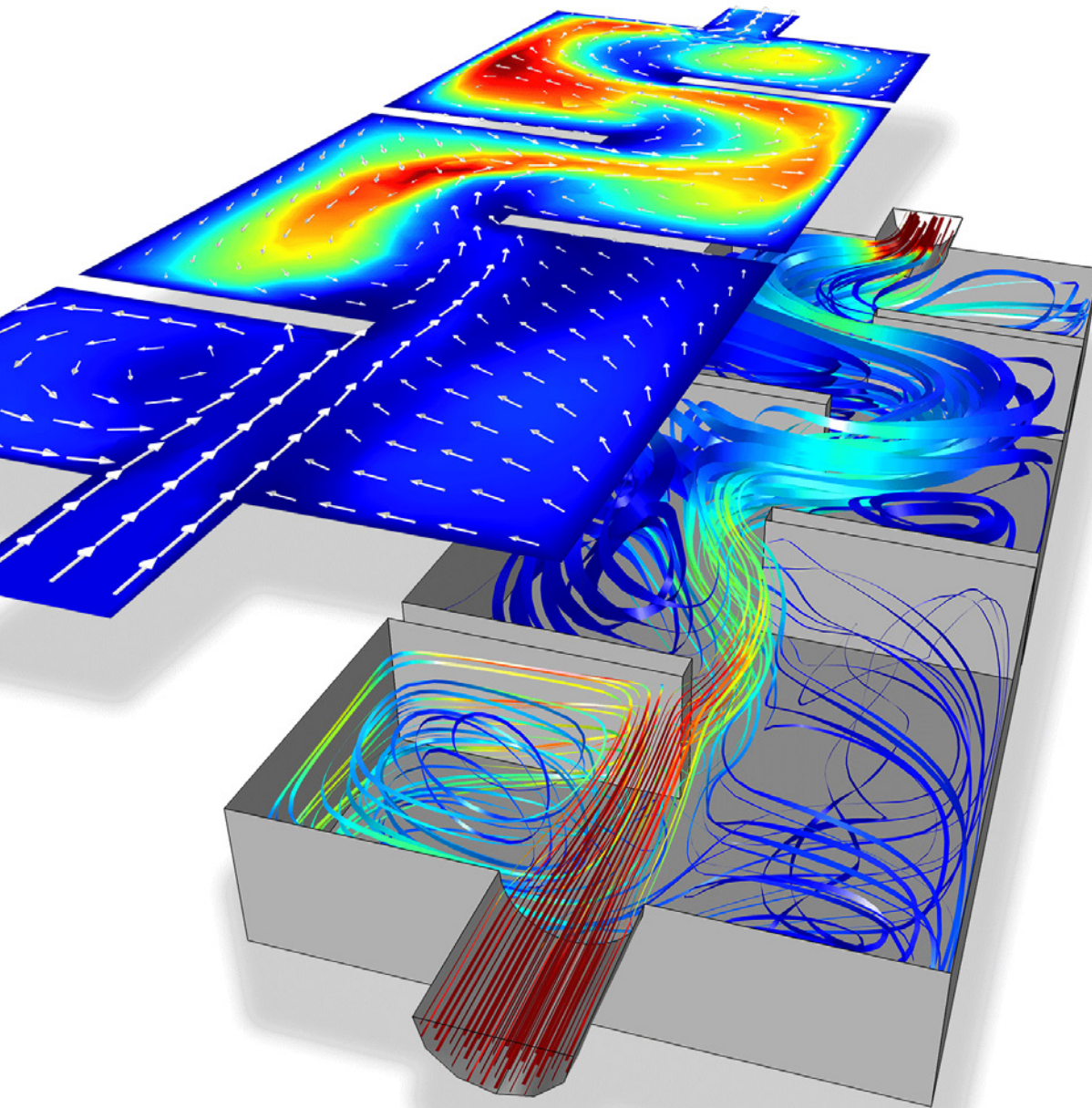
- Major :
  Bachelor of Informatics Engineering
- Title :
  Ontology Model for E-Learning Towards Personalization and Recommendation
- Researcher Team :
  Kusuma Ayu Laksitowening, S.T., M.T.
  Yanuar Firdaus Arie Wibowo, S.T., M.T.
  Amarilis Putri Yanuarifiani, S.T., M.T
- Fund :
  IDR 12,500,000
- Scheme :
  The Transition of DIKTI External Research 2016

investigate directly to the field. It requires a lot of time and is considered inefficient to do the field work. We can do through simulation. The simulation can be animated but is driven by mathematical models that represent the real situation. In addition, we need several important data to do the Tsunami research such as the data of the sea depth and seafloor shape that influence the height and speed of the wave for reaching the seashore" Jondri said.

Fluid dynamic field area appeared to have extensive research such as the research on Dam Bridge (simulated dam rupture), the design of breakwater tool, the measurement of the flow of fluid in humans' blood, and the making of traffic density simulation with the fluid dynamic concept.

Measuring the flow of the fluid in humans' blood is conducted to determine the cause of the blockage of blood flow in blood vessels. This research is very useful for people affected by stroke.

"Generally, strokes are caused by clots of fat in the blood vessels that create blockages. It accelerates blood pressure to be higher. Eventually rupture and often result in death. So, we can make the simulation when the blood flow, how the speed of
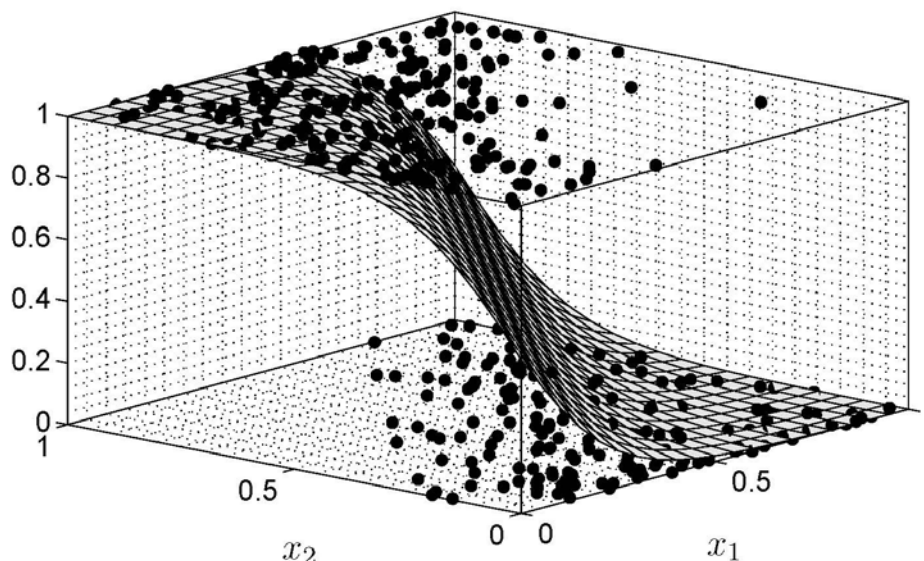
blood flow and blood velocity when there is a blockage in the blood vessels. Then calculate the pressure that could make this blood vessel rupture. There was even a lecturer here who does a research to simulate the traffic density. The vehicles that move were simulated as fluid moves" he continued.

High-Performance Computing (HPC) is used in MCE Research Group to support the simulation process in modeling, especially in using much data. The example of using the HPC is in a neural network research, it needs a high-performance computing because it has much data process. Therefore, a good facility of HPC laboratory is provided to support a parallel simulation in the MCE Research Group.

HPC Laboratory has a supercomputer cluster consisting of 60 cores, 500 GB of SSD memory, and 384 GB of DDR 4 memory

which is connected with InfiniBand. This cluster is dedicated to the research conducted by faculty members and students' final project.

Besides, HPC laboratory also has a low-cost cluster which consists of 6 PC core i7 and 6 PC core i5. This cluster is used for the practicum of related subjects, final project, and HPC study group. HPC laboratory also has 6 units of GPU Nvidia and some units of GPU AMD Radeon. Each GPU Nvidia has more than 1000 cores. MCE Research Group itself has 22 members, and 5 of them had a doctorate degree.

Colloquium and Cooperation

One of the regular activities in MCE Research Group is colloquium or seminar which is conducted four times in a year. The activity presents some invited speak-

ers from outside Telkom University who are competence in MCE field.

In 2016, MCE Research Group invited a researcher from the Ministry of Maritime and Fisheries Affairs to discuss the topic "Memodelkan Reduksi Gelombang Laut Menggunakan Mangrove". The speaker discussed the fluid dynamic on the benefits of mangroves as one of the natural alternative solutions to prevent coastal erosion and breakwaters.

Jondri stated that there is a possibility for Telkom University to hold a partnership with the Ministry of Maritime and Fisheries Affairs because Telkom University has a more representative laboratory facility to conduct modeling and simulation research. He said, "The possibility of our partnership is being followed up. Normally, we invite speakers who are related to our next research".

In 2016, MCE Research Group has conducted some partnership research with external parties. In addition, MCE Research involves Telkom University students to take a part because their contributions in giving research topics of their final project were very helpful for the development of MCE research.

"We hope that lecturers can improve their research to a higher level. If this year the lecturers can receive a research partnership scheme, it is expected that next year they can receive a higher research fund. The challenge will be very hard because the track record of previous research and the publication of research will be considered as an important point. It might be very hard, but once accepted, later will be much easier" he added. ❖

Jondri, M.Si

SCHOOL OF ECONOMICS & BUSSINESS

- Major :
  Bachelor of Management Business Technology and Informatics
- Title :
  Marketing Model Activities Political Decision Making Voters Starter In local elections at Regency / City Year 2015 Based on Government Regulation No. 1 of 2014
- Researcher Team :
  Dr. Achmad Manshur Ali Suyanto, MBA.
  Runik Machfiroh, S.Pd., M.Pd.
- Research Group :
  ICT Based Management (IBM)
- Fund :
  IDR 50,000,000
- Scheme :
  Government Grant Research 2016 (New proposals)

- Major :
  Bachelor of Management Business Technology and Informatics
- Title :
  Capacity Planning and Site Selection Cell tower in CAPEX Efficiency by Using Optimization Methods (Studies in Telecommunications Operator Indonesia West Java)
- Researcher Team :
  Dr. Drs. Palti Mt. Sitorus, M.M.
  Anisah Firli, S.MB., M.M.
  Sri Widiyanesti, S.T., M.M
- Researcher Group :
  Finance & Accounting Studies (FAS)
- Fund :
  IDR 50,000,000
- Scheme :
  Government Grant Research 2016 (New proposals)

Photo. Doc ICoTiC

2nd ICoTiC 2016

Definition of Communication in the Digital Age

In this modern era, technology turns communication process into a more complex way. The process is not only in the form of face-to-face communication, but it also attaches other aspects of life. Even though communication is considered to be a new science, but it has been embedded into various fields, such as business communication, politic communication, and many others. Therefore, communication became one of the topics in the 2nd International Conference on Transformation in Communication (ICoTiC) 2016, at Novotel Hotel, Bandung (23-24/11-2016).

MEDIA TRANSFORMATION

CONVERGENCE MEDIA
- ACCESS TO NEWS
- MARKETING CONTENT AND BUSINESS
- MORE EFFICIENT IN TIME AND COSTS

Based on ComScore's report
- 46 percent of internet users are women (This amount is lower compared to men)
- In average, women use 24,8 hours in a month online, longer than the average man who uses 22,9 hours per month online.
- On a social basis, women are also much more active
- They use an average of 16,3 percent of their time online on their social media accounts, while men only use 11,7 percent.

Photo. Doc ICoTiC

This annual event of School of Business Communication Telkom University has been conducted twice. The first ICoTiC was conducted in 2015 on the theme "Ethical Dialogue in Global World". While in 2016, ICoTiC was conducted on the theme "Bridging Communication among Communities in The Globalized Interconnected Era" as stated by the chairman, Syarif Maulana, S.IP., M.I.Kom.,

"This theme was chosen because we need to redefine the word of communication in the digital era. Communication is no longer a thing related to people and mass media. It is also related to the digital things such as the internet and a new way of communication. It is not merely the communication itself, but also connecting many things in the digital era" said by this lecturer of Philosophy of Communication.

2nd ICoTiC 2016 has invited some speakers from Indonesia and also other countries. Those were General Director for Communication and Public Information, Ministry of Communication and Informatics, Rosarita Niken Widiastuti; Terry Flew (Queensland University of Technology); Loes Witteveen (Van Hall Larenstein University); Norsiah Abdul Hamid (University Utara Malaysia); Setiawan Sabana (Bandung Institute of Technology); Dorien Kartikawangi (Perhumas Indonesia), and Ade Irma Susanty (Telkom University). There were 73 papers from 4 countries in this event;

SCHOOL OF ECONOMICS & BUSSINESS

- Major :
  Bachelor of Management Business Technology and Informatics
- Title :
  Design of Intellectual Capital Measurement Model to improve the Competitiveness of SMEs in Indonesia (Case Study 7 Sentra Industrial Bandung)
- Researcher Team :
  Ratri Wahyuningtyas, S.T., M.M.
  Yuhana Astuti, S.Si., S.E., M.T., M.Agr.
  Grisna Anggadwita, S.T., M.S.M
- Research Group :
  Strategy, Entrepreneurship and Economics (SEE)
- Fund :
  IDR 50,000,000
- Scheme :
  Government Grant Research 2016 (New proposals)

- Major :
  Bachelor of Management Business Technology and Informatics
- Title :
  Development of Open Source e-SCM As Integration Data Management for SMEs Farmers Fish at Ulekan Market Bandung
- Researcher Team :
  Yudi Priyadi, S.T., M.T.
  Jurry Hatammimi, S.E., M.M.
- Research Group :
  ICT Based Management (IBM)
- Fund :
  IDR 50,000,000
- Scheme :
  Government Grant Research 2016 (New proposals)

Photo. Doc ICoTiC

those were from Indonesia, Malaysia, Australia, and Thailand. There were also 150 participants attended this two-day event. Some of them were the representative of Universitas Islam Negeri Sunan Gunung Djati Bandung, Asosiasi Perguruan Tinggi Ilmu Komunikasi (Aspikom), Binus University, and Universitas Utara Malaysia.

"Currently, the scope of communication is getting wider. Therefore, the speakers of this event are not only the expert of communication field, but they are also able to connect the communication with economics, business, politics, art, and culture. The expert of communication should have a broad knowledge" said Syarif.

In this ICoTiC, it was discussed that communication has been clearly influenced by digital such as the use of the internet or social media. It is known that

90% of the internet users in Indonesia use the social media to communicate, disseminate information or even interpret information. Therefore, it is a good time to make the social media valuable both economically and socially. Through the use of social media in an appropriate way, many communities will gain benefits in economics, politics, social, and many others.

"In general, the conclusion of this conference was everything needs collaboration. There is no one concept that could possibly stand alone; it should be communicated with other concepts. Nowadays, the internet holds a great role in making certain community recognized by the world, not depend on certain conventional mass media. The example of this reality is shown by some community in Bandung such as traditional game community, bi-

cycle community, the creative writing community, and many others. Through various activities, they can be a liaison between individuals in order to collaborate each other. This is the main purpose of the ICoTiC 2016" he said.

Merely a Conference? Totally Not!

Even though it has been conducted twice, the ICoTiC 2016 still faces a number of challenges. The biggest challenge for ICoTiC 2016 is that within 11 months, all accepted papers should be published. Therefore, to reach the best result, the committee do their best not only during the process of the conference but also after the event. The ten month preparation with 26 members of committee still finds some points as an evaluation.

Syarif, the chairman of ICoTiC 2016, stated that there were some challenges in the process of communication within the committee members

Syarif Maulana, S.IP., M.Ikom

who were mostly lecturers and researchers. He said "the way we communicate with fellow lecturers is a bit different from the way we communicate with students. It needs a special approach. Besides leadership, we also need to be able to do some works that are not able to be done by others. To sum up, we must learn to understand and do the works".

Another challenge faced by ICoTiC 2016 was also how to collaborate with other Scopus-indexed journals, such as SEARCH and IJAMC. This was a great yet valuable challenge for an international conference. "This is an international event. We need to communicate with many parts including the foreign practitioners and academia. There is a different communication etiquette including the way we reply emails. Besides, taking care of papers to be published is considered complicated because it needs a neat plot and on time submission".

Syarif expected that the participants of ICoTiC could gain memorable experiences. Thus, the committee tried to create a not boring conference by presenting a different presentation than before.

"Through this conference, we hope that we could offer beneficial values for many people and could be an encounter place for lecturers and researchers from various universities so that they are able to set some research partnerships and to encourage the research publication. Even though not all participants join the conference having a purpose to publish their work to a Scopus-indexed journal, yet we hope that this conference is not merely providing some academic benefits but also contributing to valuable experiences for their future" said Syarif. ❖

SCHOOL OF ECONOMICS & BUSSINESS

- Major :
  Bachelor of Management Business Technology and Informatics
- Title :
  Effect of Work-Life Balance on Organizational Citizenship Behavior (Organization Citizenship Behavior) with Variable Mediator Job Satisfaction and Organizational Commitment to Hotel Employees in Bandung
- Researcher :
  Drs. Arif Partono Prasetio, M.M., CPHR
- Research Group :
  Strategy, Entrepreneurship and Economics (SEE)
- Fund :
  IDR 48,500,000
- Scheme :
  Government Grant Research 2016 (New proposals)

- Major :
  Bachelor of Management Business Technology and Informatics
- Title :
  Business Process Supply Chain Management Design for Small and Medium Enterprises Sentra Sablon Using SCOR Model (Supply Chain Operation Reference)
- Researcher Team :
  Dodie Tricahyono, Ir., M.M., Ph.D.
  Herry Irawan, M.M., M.T.
  Ratih Hendayani, S.T., M.M
- Research Group :
  Strategy, Entrepreneurship and Economics (SEE)
- Fund :
  IDR 50,000,000
- Scheme :
  Government Grant Research 2016 (Advanced Proposals)

AdWiTech
Ready to be the Next Center of Indonesia Telecommunication Technology

Telkom University puts a high concern on the development of telecommunication technology and is ready to be the center of its development in Indonesia.
It has been more than 20 years contributing to the development of telecommunication technology, finally, in 2016, Telkom University decided to build a research center on Advanced Wireless Technology (AdWiTech). To make the research center outstanding and well-managed, Telkom University even invited the Indonesian expert of wireless technology who has been succeeding in Japan, Dr. Eng. Khoirul Anwar, ST., M.Eng.

AdWiTech has a good track record in the field of telecommunication technology even though it is still relatively new. There are seven ongoing pieces of research and two of them are ready to be funded by government and industry. According to Anwar, AdWiTech adopted the concept of the research center in Japan and Finland, that is having some researchers inside as well as research based on government and industry projects.

"In connecting the university and European government, we can find Europe Commission in the University of Oulu Finland which is becoming the liaison between the university and government research. While in Indonesia, we still cannot find it. Therefore, we try to propose some projects and offer it to the government and funding institutions in Asia and Europe, as well as industry. If there is any domestic industry interested in the proposal, then we offer it to them. Meanwhile, if no one interested in it, then we try to offer to the foreign industry. I was so inspired by Japan where their industry researches are from universities" said Anwar.

Although the culture of research in Indonesia has not been harmonious like some developing countries, AdWiTech Telkom University is still doing an approach to the government by submitting joint research projects. As a result, some AdWiTech research projects have succeeded in facing the third stage of LPDP Dispro and the Ministry of Research, Technology, and Higher Education. Those researches are Polar-Raptor-Codes- Structured Super-Dense Wireless Networks for the Internet-of-Things (IoT) which is collaborating with two Japan universities; PATRIOT-Net which is collaborating with the government of Padang Province, West Sumatra; IoT-HANUMAN which is under consideration of Europe Funding Institution; and INDRA-Net.

"Because it is a more theoretical-based project, Polar-Raptor-Codes was conducted initially before PATRIOT-Net. Nowadays, the use of devices is higher than the number of population, and it was predicted that it is going to be 50 billion in 2025 or 1:10 between the number of people and devices. Therefore, to support this kind of condition, a more modern and supportive technology is needed. A simple example is when the demonstration of 212 happened that made the network drop. The network was not turned off, but because too many people accessing simultaneously in one location, then the network could not be powerful. Well, the technology that we created should be simple, in order to make its transmission and process become faster. If it is too complex, it will actually keep spinning and did not work out, "said Anwar.

Polar-Raptor-Codes is a combination of Polar Codes and Raptor Codes that have different roles in addressing the challenges of IOT and 5G technologies that require a very fast processing of data and a huge number of users. The final result will generate a theory, analysis, and applications that are very useful for the industry, such as Machine to Machine communication (M2M), intelligent transportation systems, to communication and reliable information related to disaster-prone areas. Simply stated, Polar Codes in theory is similar to the concept of Islamic law, halal, subhat, and haram. Where the similarities are made in order to be able to filter between the good, not so good, and bad network quality.

"We take an analogy that the good thing is named halal, the not-so-good thing is named *subhat*, and the bad thing named haram. So, we just take a good quality and the rest is discarded. While Raptor Codes is similar to the concept of *Qona'ah* in Islam. Thus, its similarities to create networks are expected to be sufficient. Someone will not desire to take more network when they have been fulfilled with particular megabyte network. The remaining network could be shared with other devices, so as to be able to work together" he explained.

The theoretical concept of Polar-Raptor-Codes was conducted in cooperation with Japan Institute of Science and Technology (JAIST) and Yamaguchi University. In the nearest time, AdWiTech team will visit some Japan industries, JAIST, and Yamaguchi University to report the progress of the research and then offer it to industry. The application of this theory then remade in the form of research projects named PATRIOT-Net which is used to map an area vulnerable to earthquakes, tsunamis, floods, and landslides and also the repairmen process.

"The final result of this project, including the system, application, and devices, is used to inform the disaster that is connected to a smart phone through hundreds of sensors to be installed in a number of areas. The difficulty might later to look for industries that want to make hundreds of sensors. We will put five sensors in the very beginning. Actually, there were some other disasters that were not included such as hurricanes and fire. The project was actually inspired by the disaster mitigation in Japan that use an application called Yurekuru. Japan uses this application to inform the earthquake, its strength, its location, the affected areas, up to a potential tsunami, to citizen's smart phone. So, if there is a tsunami, people are ready to save themselves, "he added.

Dr. Eng. Khoirul Anwar, M.Eng

The Development of AdWiTech, Laboratory, and Cooperation

There are 12 members of AdWiTech Telkom University who are focus in some research projects. The division of works is covering the basic theory to technology opportunities which is under Anwar's responsibility, Polar Codes which is under the responsibility of 5 members, Raptor Codes which is under the responsibility of 2 members, and Devices which is under the responsibility of 2 members.

Besides working on the research project, there are several activities undertaken by the members of AdWiTech. According to Anwar, AdWiTech adopts the Japanese culture in daily activities, began from research activities to appreciate the concept of time. Telkom University let Anwar applies his experiences in doing research during his stay in Japan. One of them is the activity called Zemi in the Japanese language which means Seminar.

"So, at least once a week, every member of AdWiTech learns to carry out the presentation and discussion of how to make a good and right paper in order to be published. The members have to learn to speak in public from the existing literature as material so that they are accustomed to speaking in public, "he added.

As to show university's concern, Telkom University has prepared a room beside the AdWiTech administration room to be a laboratory. However, according to Anwar, the room is still under construction. Besides, the University Management has also prepared one of research need which is a server that supports the accuracy of 10-5, so there will only be one error or mistake from 100,000/ bit. The server that is used for research can be worn up to 10 million/ bit. In addition, currently being initiated Tel-U Channel Model, where Telkom University will be the only reference for people who want to know about the 5G technology.

At the end of the conversation, Anwar stated his hope that AdWiTech not only as a research center of Telkom University but also "Hopefully, AdWiTech could be a source of water for others. If there is no water from a pot, how can we fill the water to other glasses? So, we hope that AdWiTech could be the source of knowledge for others" he said. ❖

3rd Bandung Creative Movement (BCM) 2016

Art and Design = Aesthetic, Economic, and Humane

Photo. Doc BCM

The enactment of Bandung as a creative city by UNESCO can not be separated from its people's support and resources in order to become the creative city. With a population of over 2 million people, most of which are productive age and has the potential to make the creative ideas and activities, Bandung is also supported by many colleges that can serve as a creative incubation. One of them is Telkom University.

Photo. Doc BCM

Telkom University through the School of Creative Industries seeks to participate and contribute to the development of creative industries in Indonesia. One such effort rendered through an annual event in the form of the International Conference named Bandung Creative Movement (BCM). BCM was born as a movement of artists and designer of Telkom University, in order to show the works in the field of art and design, as well as open up the development of art and design both domestic and abroad. In this third event, BCM was conducted on the theme "Multidisciplinary Design: harmonizing Design in Today's Society, Technology, and Business". The main event that contains conferences and seminars took place at the Hotel Papandayan, Monday (14 / 11-2016).

According to the Chairman of BCM 2016, Bijaksana Prabawa, M.Ds., the theme is taken according to the scientific growth of global design which has been collaborating with a wide range of other scientific fields. "Today, there are still many people who think the design is a thing that purely related to an aesthetic function. In fact, the design in its application is already affecting a wide range of life, such as an economy, technology, business, social, and culture. Design plays a role not only in a purely functional level, but already at the level of tactical, even strategic, both in micro and macro level. On the micro level, many companies such as Apple and Samsung are applying design leadership as one way to achieve competitive advantage. At the macro level, Bandung, through policies with a design thinking approach, has proved capable of making Bandung known as a creative city until today, "he said.

Photo. Doc BCM

In this third BCM, School of Creative Industries involving keynote speakers from various countries. They were selected based on their expertise. They are Head of International Affairs for the Cite du Design and Saint-Etienne School of Art and Design (ESADSE) who is also International Relations Cite du Design, Josyane Franc. He is one of the policy makers in the field of design in France. Next is the Director of Thailand Creative and Design Center, Kittiratana Pitipanich; President of the International Council of Design who is also Advisor to the Malaysian National Design Development Agenda, Zachary Harris Ong; Chairman of the Alliance Design Asia, William Harald-Wong; Director Packaging Design Japan, Takaki Mori; as well as the Chairman of the Professional Association of Visual Communication Design Indonesia (AIDIA), Hastjarjo Budi Wibowo. The selection of keynote speaker is expected to

be able to deliver the messages which are covered based on the theme.

Unlike other conferences and seminars which are generally offer only one activity, BCM has a series of activities which were held throughout the year before the main event. Those activities are; Talkshow "Kompilasi Komikus" and comic workshop that presents a French comic artist, Simon Hureau, on November 10th, 2016; Exhibition on "Collective Juncture" in Indonesia Menggugat Building; Greativity Seminar Series, Great Creative Activity, which was held for a month and brings 1,500 par-

ticipants; Designpreneur seminar; as well as the exhibition "Perupa Pengajar" at Gallery Idealoka, November 7th, 2016. At the last event, BCM presents 25 Indonesian artists, who are also the lecturers at various universities.

"Besides building the educational atmosphere of art and design, this event also as a reminding for fellow lecturer of art and design to keep creating their masterpiece," he said.

In addition, during the conferences and seminars of 3rd BCM 2016, no fewer than 200 participants followed the event and 80 papers have passed the selection. These papers are

not only from Indonesia, but also Malaysia, India, and other countries.

According to Bijaksana, Vice Governor of West Java, Deddy Mizwar, who attended the 3rd BCM 2016, was very interested in the issue that has been carried by the committee. Event the government of West Java Province interested in embracing the School of Creative Industries Telkom University in the agenda of the development of creative industries in West Java.

Starting to Open Up

The 3rd BCM 2016 is a bit different because for the first time it was held outside

the campus. According to Bijaksana, the purpose of conducting this event outside the campus was to encourage the artists and the lecturer to be more open to the development of art and design. Not only because it has some activities throughout the year (before the main event) that made this 3rd BCM 2016 unique but also this event is known as a part of art and design movement for artists and creative industries lecturer.

"Why do we call this a movement? Because this is a creative movement that comes from Telkom University for Bandung and how lecturer at the School of Creative Industries contribute to the development of creative industries. The next

question is why this event is only held in Bandung? Well actually, we have a dream to make this event recognized internationally. If it is realized, it is quite possible to conduct the event abroad. It will be possible to conduct the event in the City of Saint Ettienne France since the city is crowned as a creative city in the world. Besides, in the future, BCM might belong not only to the School of Creative Industries Telkom University but also to the community of art and design worldwide, even though the brand permanently belongs to us. What is for sure, this year we are starting to open up ourselves to a larger scope, it could be seen from the invited speakers such as the Cultural Center of France, Cultural Center of Japan, and Bank BJB," he explained.

Bijaksana continues that the issue of design and art gives a great contribution to the development of a country and also strongly supported by the presence of some influential decision makers in this field. A concrete example occurred in Bandung, within the last few

years, art and design have changed the physical appearance and the behavior of its people, which in turn can improve the economy.

Furthermore, to equalize BCM and other international conferences the School of Creative Industries has been working closely with other parties for offering Scopus Indexing for the accepted papers in BCM. Although Bijaksana as the Chairman realized that it is not as a piece of cake to make certain international conferences indexed by Scopus. Scopus indexing itself has some rules such as the conference has been conducted for at least three years and some other parameters value such as reviewer, the number of participating countries and other.

"Through BCM, we would like to express the passion for collaborating in various fields of science and not discriminating," he said. "In addition, the core of BCM this time was we wanted to bring awareness to people to change the perspective of the science of art and design, that the scientific design has a broader role in society." ❖

Bijaksana Prabawa, M.Ds

- Major :
  Diploma of Computer Engineering
- Title :
  Parking Markers with Ultrasonic Sensors Utilizing Alternative Energy Solar Panels
- Researcher Team :
  Giva Andriana Mutiara, S.T., M.T.
  Anak Agung Gde Agung, S.T., M.M.
  Rini Handayani, S.T., M.T
- Research Group :
  Embedded and Network System (ENS)
- Fund :
  IDR 50,000,000
- Scheme :
  Government Grant Research 2016 (Advanced Proposals)

- Major :
  Diploma of Infomatics Management
- Title :
  Designing and Utilizing Education Game "Indonesia Tribes" As a Means of Playing and Learning for Kindergarten Students
- Researcher Team :
  Pikir Wisnu Wijayanto, S.E., S.Pd. Ing., M.Hum.
  Yahdi Siradj, S.T., M.T.
  Simon Siregar, S.Si., M.T
- Research Group :
  Sistem Informasi Akuntansi (SIA)
- Fund :
  IDR 50,000,000
- Scheme :
  Government Grant Research 2016 (Last year's proposals)

Photo. Doc ICSEBS

3rd ICSEBS 2016
Multidisciplinary Conference

To be a star or the center of attention is not something impossible even for a new formed faculty. This expression seems squarely aimed at the School of Applied Sciences Telkom University (Tel-U). This faculty is unique because it is the only vocational school in Tel-U. It has eight courses of the different scientific field, the faculty successfully held international conferences and seminars in cooperation with three other universities. The three universities were the State Islamic University (UIN) Malang Muhammadiyah, University of Malang (UMM) and Universiti Putera Malaysia.

International Conference on Science, Engineering, Building Environment and Social Science (ICSEBS) was conducted three times. Previously, ICSEBS was held in Bali and Malang. ICSEBS 2016 held on Tuesday - Wednesday (29-30 / 11-2016) in the Auditorium Building School of Applied Science, Selaru. What makes this ICSEBS 2016 different from last year was that this year Telkom University was chosen as the core of conference host compared to only co-host last year.

According to the Chairman of ICSEBS 2016, Hariandi Maulid, S.T., M.Sc., this is a multidisciplinary conference with four types of knowledge disciplines. "There are four scientific disciplines in this ICSEBS which combine science, engineering, built environment, and social sciences. Actually, this event has been conducted for three times, but was not conducted in Bandung, so it makes this conference less familiar," he said.

Even though this is a joint conference of four universities, ICSEBS could be a great place for the lecturer of School of Applied Science Telkom University to learn to organize an international conference. Based on its road map, if the School of Applied Science is able to be the core committee of ICSEBS in 2016, and in 2017 ICSEBS will have a valuable cooperation with some international journals with Scopus index, thus in 2018, the faculty will be able to conduct their own conference.

Photo. Doc ICSEBS

Taking the theme of "Green Technology, Culture, and Humanity: An Integrating Approach of Science, Engineering, Built Environment and Social Science Perspective", ICSEBS is considered as a unique scientific conference because it has a various field of science during the conferences and seminars. It was also the main point expected by Hariandi for the faculty's conference.

"Generally, the scientific conference covers a linear field and limited subject. Meanwhile, the School of Applied Science has eight study programs which are likely a hodgepodge such as Informatics Engineering, Computer Engineering, Computerized Accounting, Telecommunication Engineering, Marketing Management, Hospitality Management until Multimedia Systems. So, we need a conference that can accommodate and represent all of these courses. Hence, ICSEBS is one of the multidisciplinary conferences, "as explained by this Informa-

tics Engineering Study Program lecturer.

In organizing the 3rd ICSEBS 2016, a number of speakers presented from within and outside the country. Among others are Dr. Putu Harry Gunawan (Telkom University); Prof. Dr. Syamsul Arifin, M.Ag (Universitas MUhammadiyah Malang), and Prof. Dr. Hj. Khairul Aidil Azlin Abd Rahman (Universiti Putera Malaysia). Later, Dr. Muhammad Mujab, M.Th (UIN Malang), Dr. Yusnani (Uni. of Brunei Darussalam), and Prof.

Dr. Mohammad Tajuddin Mohamad Rasdi (UCSI University Malaysia).

No less than 255-257 papers were submitted to 3rd ICSEBS 2016, but once selected, only 184 papers passed. Participants were quite numerous and came from 66 universities in Indonesia, Malaysia, Brunei Darussalam, Australia, Poland, and Iraq. The 3rd ICSEBS 2016, was collaborating with two international journals indexed Scopus, the Journal of Science and Technology (JST) and the Journal of

Social Science and Humanity (JSSH). In addition, there were six national journals not indexed in Scopus but involved in ICSEBS 2016.

"For the accepted papers, we would like to try to publish in two journals with Scopus index. However, if the quality does not meet the requirements for the two Scopus journals, the paper could be offered to be published to other journals," he said.

As it was believed by Hariandi , the Chairman of ICSEBS 2016, that the challenges will

> """
> We have no idea if the ICSEBS marketing of this year could spread everywhere. With so many participants, Tel-U gets kind of free promotion of brand image; it leads people to know more about the campus. Secondly, this conference became a kind of preparation for the lecturers to hold their own conferences, because they already had experience in conducting a conference. Third, the number of paper that passes from Tel-U reached more than 50 papers. If the papers can be published in international journals with Scopus index, it certainly would improve the acquisition not only of Tel-U but also of the lecturers in Scopus index,"

certainly appear in holding an international conference. "There were two major challenges in the implementation of ICSEBS 2016. First, communication problem with fellow committees from outside of Tel-U. It requires a good cooperation, because communication would affect the decision-making process. Second, the problem of the paper reviewers. The reviewers who came from some foreign countries were very selective in reviewing the papers," said Chairman of the Research Group's Programming and Interactive Multimedia.

However, the various challenges could not kill the pride of the success of the 3rdICSEBS 2016. Hariandi even added that there were some advantages gained by Telkom University from this event. One of them was that the number of the register was higher than last year. It was said that last year there were only 10 universities join ICSEBS while this year 66 universities were selected.

"We have no idea if the ICSEBS marketing of this year could spread everywhere. With so many participants, Tel-U gets a kind of free promotion of brand image; it leads people to know more about the campus. Secondly, this conference became a kind of preparation for the lecturer to hold their own conference, because they already had experience in conducting a conference. Third, the number of paper that passes from Tel-U reached more than 50 papers. If the papers can be published in international journals with Scopus index, certainly would improve the acquisition of Tel-U in Scopus index, as well as the lecturer, "he said. ❖

Hariandi Maulid, ST., M.Sc

Photo. Doc APWiMob

Two conferences organized by the School of Electrical Engineering (FTE) of Telkom University (Tel-U) took place simultaneously in 2016. First, an international conference, the 2nd International Conference on Control, Electronics, Renewable Energy and Communications (ICCEREC). Secondly, assigned by the Institute of Electrical and Electronics Engineers (IEEE) to hold the 3rd Asia Pacific on Wireless and Mobile (APWiMob) 2016. The two events were held simultaneously on Tuesday - Wednesday (13-14/9-2016) at the Grand Royal Panghegar, Bandung.

3rd APWiMob - 2nd ICCEREC 2016
Two Conferences in One Day

According to the Committee Chairman of 3rd APWIMOB 2016, Sigit Yuwono, Ph.D, APWiMoB was the conference organized by IEEE Explor and fully sponsored by the IEEE Communications Society (ComSoc) Indonesian Chapter. While ICCEREC was created by FTE alone. "This year, IEEE Explor designated Tel-U as a committee and was held in Bandung. Incidentally, in Tel-U, there was one IEEE official who became the steering committee for the APWiMoB implementation this year, "he said.

Due to the concurrent implementation of the two conferences, the participants and speakers who came attended the two conferences simultaneously. Sigit disclosed, there were advantages and disadvantages when it worked together with IEEE Explor in organizing a conference. APWiMoB that has been fully sponsored by IEEE became the IEEE proprietary in determining the implementation of the conference. While ICCEREC was only the technical co sponsor to the IEEE. So that, Tel-U still has this conference and is free to determine the setting of the conference in the next year. However, it still gets Scopus indexing of IEEE, because the IEEE Explor will only publish journals and proceedings affiliated with IEEE.

The 3rd APWiMoB and 2nd ICCEREC 2016 events were attended by no fewer than 130 participants, and presented 25 papers of 37 papers received by APWiMoB. Participants came from Indonesia, the UK, USA, Taiwan, Pakistan, Philippines, Estonia, and others. While the keynote speakers for both conferences who were present among others were Prof. Abdehak M. Zoubir of TU Darmstadt Germany, Prof. Haruhito Fujita of Niigata University of International and Information Studies, and Sigit P. Wigati Jarot, Ph.D of FTE Tel-U.

One of the discussions that corresponds to the fields of study of APWiMoB this time was entitled "5G and Internet of Things (IOT): Challenge and Opportunities" presented by Sigit P. Wigati Jarot, Ph.D. In his presentation, Sigit explained the challenges and needs of 5G-IOT from the standpoint of technology and policy, and discussed potential research directions of 5G-IOT.

Meanwhile, the first and the second speakers described the discussion related to signal processing and the development

of renewable energy variables that enter the field of study in ICCEREC. Abdehak explained "Advances in Robust Statistics for Signal Processing" and discussed advanced statistics robust and a solution for a variety of signal processing problems.

Haruhito explained "Variable Renewable Energies for Development" based on the experience in Japan when the earthquake and tsunami triggered the damage of nuclear power plant in Fukushima. For this reason also, the Japanese government stopped all nuclear power plants and looked for a variety of renewable energy that could be an alternative, such as biomass and palm oil in Indonesia and Thailand to solve social and environmental problems.

In addition to presentations from keynote speakers, 2nd ICCEREC and and 3rd APWiMoB 2016 held a tutorial session by Prof. Abdehak M. Zoubir, Prakash Suthar (Architect Principle) from Cisco Systems Inc. USA, and Dr. Mohammed Reza (Power System Specialist and Business Development Manager) Solvina International, Sweden.

Not Yet Accommodate All Study Programs

The Implementation of the 3rd APWiMoB and 2nd ICCEREC 2016 was a success although it was admitted by Sigit that there were some challenges. This time, Tel-U

Photo. Doc. APWiMob

collaborated with a service provider of paper reviewer submitted to a conference, i.e. the EDAS. However, the challenge in the two conferences was the implementation time which was close to the holiday feast and a number of major events in Bandung; one of them was the National Sports Week (Pekan Olah Raga Nasional - PON). This then made a number of participants from distant places needed to think twice to attend the two conferences. Since there was a change in the location of the conference, several papers that had passed the selection and review process could not be presented, because the author could not attend.

Another challenge came from the Tel-U internal. "Some committees of APWIMOB and ICCEREC of Tel-U have a structural po-

sition that is also important. For example, I am here as the Chairman of the Program. So, a problem may come from busy committees. However, we were lucky because in FTE Tel-U, there are some officials who also belong to the Technical Program Committee (TPC) of the IEEE. One of them is the Dean of FTE, Dr. Rina Pudjiastuti. So, it was easy for us to communicate with IEEE even when we had to change the venue because hotels in Bandung hwere completely booked for the event of PON," he continued.

Reflecting on the 3rd APWiMoB and 2nd ICCEREC 2016, Sigit still feels that there is something missing related to scientific fields covered in these two conferences. One of the study programs in FTE, namely Computer System, still has not been accommodated

Photo. Doc APWiMob

> APWiMoB belongs to IEEE, so next year it is up to them where will it be held. As for ICCEREC next year, I have been appointed as the Chairman of the Committee. Hopefully, next year, the topics presented will be able to accommodate all of the study programs in FTE so that the lecturers can submit their papers. ”

in these two conferences. It is also Sigit expectations as the appointed Chairman of the Committee ofICCEREC 2017.

"APWiMoB belongs to IEEE, so next year it is up to them where will it be held. As for ICCEREC next year, I have been appointed as the Chairman of the Committee. Hopefully, next year, the topics presented will be able to accommodate all of the study programs in FTE so that the lecturers can submit their papers. Then, the implementation for next year is no longer adjacent to other events, so that more participants can come. Lastly, we are considering will give discounts, especially for students who want to join the conference. So that more students can join," he replied ❖
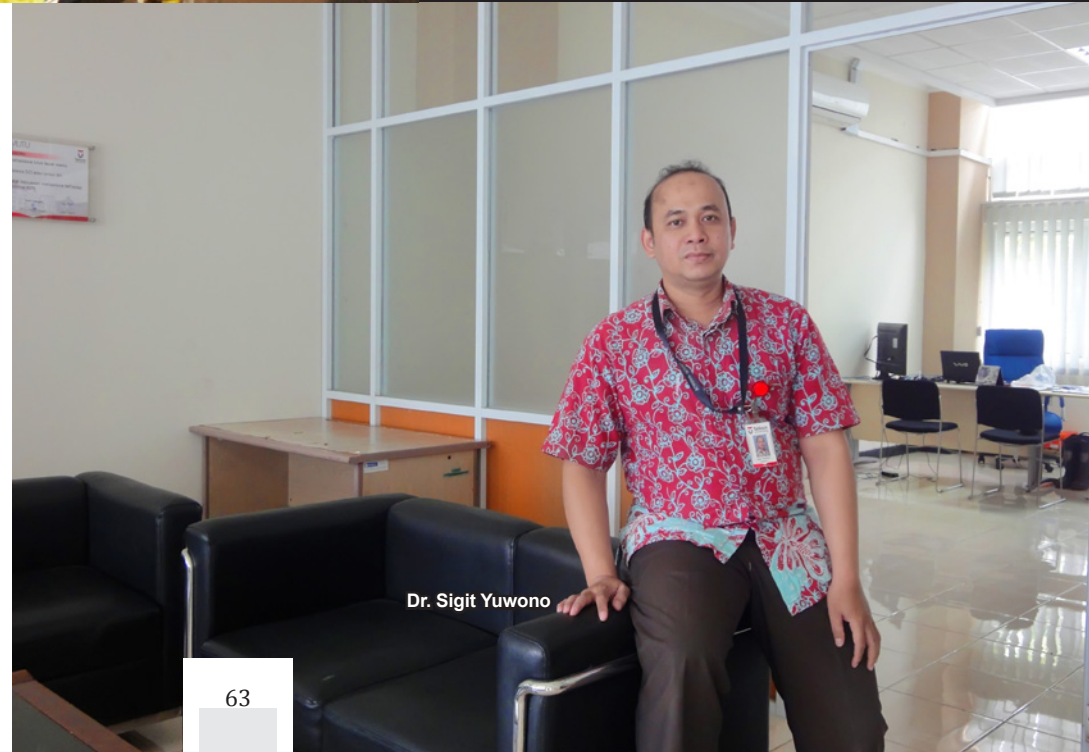
Dr. Sigit Yuwono
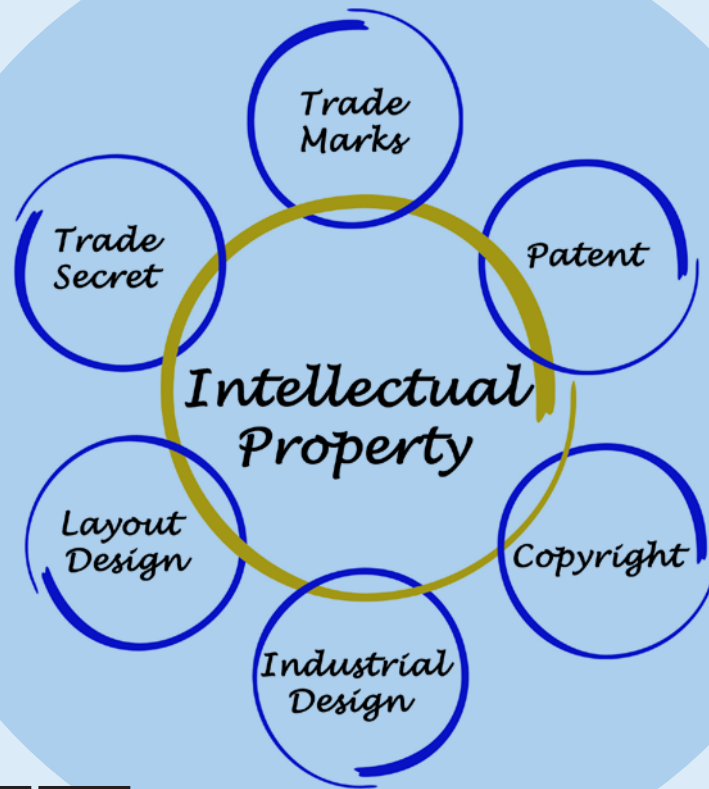
COPYRIGHT

When printing was invented by Johannes Guttenberg, there were many people who felt threatened. They were the publishers; because many papers could be propagated easily using Guttenberg printing press. Before the engine was found, effort and cost to reproduce a work was almost the same as the manufacture of the original work itself. Thus, the publishers were first to ask for legal protection of the works of prints that could be copied. This was the beginning of the management of copyright intellectual property (copyright).

Copyright was originally given to publishers to sell printed works. But after the copyright law was enacted in 1710 in the UK, this right is given to the authors and not to the publishers.

These regulations also set the period of validity of the exclusive rights of copyright holders, i.e. for 28 years. Berne Convention for the Protection of Artistic and Literary Woks (or the Berne Convention) in 1886 was the first legal umbrella to regulate copyright issues between sovereign states.

At the Berne Convention, copyright was automatically granted to the creative works and the authors did not have to register their works to get a copyright. Once a work was printed and stored in the media, the author automatically obtained the exclusive rights of copyright to the work, as well as to the derivative works, until the author explicitly stated otherwise or until the copyright term was over.

Nowadays, copyright governs the use of the results of casting certain ideas or information. Copyright also enables such holders to restrict unauthorized duplication of a creation. Copyright applies to various types of artwork or copyrighted works or the "creation". This creation includes poetries, dramas, and other writings, films, works of choreographic (dance, ballet, etc.), musical compositions, sound recordings, paintings, drawings, sculptures, photographs, computer softwares, radio and television broadcasts, and (in certain jurisdictions) industrial designs.

Some of the exclusive rights are granted to the copyright holders such as the rights to make copies or reproductions of creation and sell those copies (including general electronic copies); import and export of creation; create derivative works or derivative of creation (adapting creation); display or exhibit creations in public; sale or transfer exclusive rights to the other persons or parties.

The concept of co-exclusive rights are applied in Indonesia, which includes the exclusive right to translate, to adapt, to arrange, to interprete, to sell, to lease, to lend, to import, to display, to publicly perform, to broadcast, to record, and to communicate the creation to the public by any means. Moreover, in Indonesia "related rights" are also set, which deals with copyright and is also the exclusive rights of the perpetrators of the artwork (e.g., musicians, actors, dancers, etc.), phonogram producers and broadcasters to regulate the utilization of the documentation results of art activities performed, recorded, or broadcasted by them. All of this is incorporated in the latest Copyright Law, Law No. 28, 2014, for example, a singer has the right to forbid others from reproducing his singing voice recording.

Exclusive rights which are covered in copyright may be transferred. For example, by inheritance or written agreement (Law 28/2014 Article 16). The copyright owner may also allow others to carry their exclusive rights with specific license and requirements (Law 28/2014 Chapter IV).

Many countries recognize the moral rights owned by the creator of a work, in accordance with the use of the WTO TRIPS agreement (which, inter alia, requires the application of the relevant parts of the Berne Convention). In general, moral rights include the right in order of creation not to be altered or destroyed without consent and the right to be recognized as the creator of the creation. According to the concept Continental Law (France), author rights (droit d'auteur) is divided into two, namely the "economic rights" and "moral rights".

Copyright in Indonesia also recognizes the concept of "economic rights" and "moral rights". Economic rights are the rights to the economic benefits of a creation. Meanwhile, the moral rights are rights inherent to the creators or actors (arts, recording, broadcasting) which can not be removed for any reason, even though the copyright or related rights have been transferred. One example of the implementation of moral rights is the inclusion of the name of the creator in creation, although for example the copyright of the creation has been sold for the benefit of others. Moral rights are stipulated in Article 5-7 of Law 28/2014. ❖

INTELLECTUAL PROPERTY LIST 2016

SCHOOL OF ELECTRICAL ENGINEERING

Creator/ Designer/ Inventor/ Merk
Creator
Mohammad Ramdhani
Akhmad Hambali
Ridha Muldina Negara
Rohmat Tullah
Rizky Mahendra Pratama
Arina Fadhilah
Title
Aplikasi FOMApps (Fiber Optical Management and Analysis OSP Project System)
Intellectual Property Kind
Copy Righ
Certificate No
079091

Creator/ Designer/ Inventor/ Merk
Creator
Mohammad Ramdhani
Title
Buku Rangkaian Listrik
Intellectual Property Kind
Copy Righ
Certificate No:
079084

SCHOOL OF INDUSTRIAL ENGINEERING

Creator/ Designer/ Inventor/ Merk
Creator
Murahartawaty
Title
Alat Praktikum Online INDIGOLABS
Intellectual Property Kind
Copy Righ
Certificate No
079090

Creator/ Designer/ Inventor/ Merk
Creator
Yuli Adam Prasetyo
Title
Website PASARAMAI.COM
Intellectual Property Kind
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Certificate No
079089

SCHOOL OF COMPUTING

Creator/ Designer/ Inventor/ Merk
Creator
Isjhar Kautsar, S.Inf (Alumni FIF)
Kemas Rahmat Saleh Wiharja, S.T., M.Eng.
Gia Septiana Wulandari, S.Si., M.Si.
Title
Software / Aplikasi pengindeksan pada graph database
Intellectual Property Kind
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Certificate No
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Creator/ Designer/ Inventor/ Merk
Creator
Tjokorda Agung Budi Wirayuda
Prasti Eko Yunanto
Bambang Pudjoatmodjo, S.Si., M.T.
Febryanti Sthevanie
Title
Database Palm Print "Tel-U Palm-Print Data-Set V1.0
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Creator/ Designer/ Inventor/ Merk
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Zulikha Niniekasari
Fajar Sidiq Adi Probowo, S.E., MBA
Debita Ade Fadillah Harahap
Hidayat Saputra
Marsella Melinda
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Aplikasi Software Adventure Needs (Smart Maps)
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Shinta Mutiara Budiman
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Nevy Istra Azhar Nisrina
Hansa Mustada
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Muhammad Fadhli Rachman
Markan Ariel Saputra
Belva Damario Harsono

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Andrey Augusti Mulyana
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Random Decision APP**
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Safira Al Sakinah
Nadya Putri Pradhina
Teuku Raihan
Muhamad Rifki Nazhari Ali
Cheung Cheuk Chung**
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Rhaudia Rizkita Maghfira
Reinardus Felix Arron
Esther Kristiani Yustisiana
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Arsy Ghayah Hakiki
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Earlyan Abdiel Bernatapi
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Winda Aulia Probowati
Dimas Ahadiman Satria Dwiputra
Makrup Puji Laksono**
Title
Aplikasi Software Bokep Alert
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Creator
**Arif Rahmanto
Reza Aditya Asad
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Ridho El Wadi**
Title
**Aplikasi Software Bengkel
Online (Bengkol)**
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Mokhamad Ilham Fadhillah
Irene Trijayanti
Dhina Rachmatika Rianawati
Reynaldy Fauzan Wuryanto**
Title
Aplikasi Software Alarm NFC
Intellectual Property Kind
Copy Right
Certificate No
079473

Creator/ Designer/ Inventor/ Merk
Creator
**Jaury Indrasmara
Ayu Ika Sukaesih
Firda Amalia**

**Sophan Fernando
Wigardi Maswiguno**
Title :
**Aplikasi Mobile "Safe Teach
Application"**
Intellectual Property Kind
Copy Righ
Certificate No
079484

Creator/ Designer/ Inventor/ Merk
Creator
**Meilani Luciana
Andita Tisa
Radityo Pranandaru
Ilham Fadel Adhari
Revika Miladia Ichwan**
Title
Aplikasi Software Junkster
Intellectual Property Kind
Copy Right
Certificate No
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Creator/ Designer/ Inventor/ Merk
Creator
**Agung Febryanto
Luthfi Seftian Afif
Rizkya Putri Kartikasari
Allya Guswardhani
Azka Wahyu Setyan**
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Aplikasi Software Meetup
Intellectual Property Kind
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Certificate No
079475

INTELLECTUAL PROPERTY LIST 2016

SCHOOL OF ECONOMICS & BUSINESS

Creator/ Designer/ Inventor/ Merk
Creator
Azwinda Uriatul Ufla
Rhesa Ardimaputra
Avan Jaffar Pramudita
Muhammad Fahmi Ilma
Title
Aplikasi Mobile Save My Money
Intellectual Property Kind
Copy Right
Certificate No
079479

Creator/ Designer/ Inventor/ Merk
Creator
Satria Efendi
Diah Wahyu Anggrainy
Puspita Chandra Kumalasari
Dyandra Ersa Tianara
Surya Destian
Title
Aplikasi Software Game Si Unyil
Intellectual Property Kind
Copy Right
Certificate No:
079485

Creator/ Designer/ Inventor/ Merk
Creator
Aulya Rifqi Fatakhi
Suharno Gilang Wahyu Hidayat
Silvi Aisah
Muhammad Febrian Mukhrom
Title
Aplikasi Software Nationalisme
Interactive
Intellectual Property Kind

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Creator/ Designer/ Inventor/ Merk
Creator
Muhamad Almas Fadhani
Agung Satriyo Pujiariadi
Awandha Pratama Tampaty Putra
Dwita Adilah
Title
Aplikasi Web Walkside
Intellectual Property Kind
Copy Right
Certificate No
079590

Nama pencipta/ Pendesain/
Inventor/ Pembuat Merek:
Triki Aulia Akbar
Fandy Hervatarianto
Title
Aplikasi Mobile Stroke Control
Intellectual Property Kind
Copy Right
Certificate No
079594

Creator/ Designer/ Inventor/ Merk
Creator
Kurniawan Ilham R
Fatah Salahudin
Rizki Arifianto Wibowo
Title
Aplikasi Mobile Stop Smoking
Helper
Intellectual Property Kind

Copy Right
Certificate No
079595

Creator/ Designer/ Inventor/ Merk
Creator
Novianti Lestari Saepudin
Aisyah Wira Savitri
Fithian Hilmi
Sarah Amalia Hasana
Shendy Citra
Title
Aplikasi Web Smokeoff
Intellectual Property Kind
Copy Right
Certificate No
079591

Creator/ Designer/ Inventor/ Merk
Creator
Muh. Gery Nugroho Sakti
Reyhan Maulidian Salahuddin
Yolanton Febry Damara
Gumilang Adhi Negara
Title:
Aplikasi Mobile Rumah Gizi
Intellectual Property Kind
Copy Right
Certificate No
079597

Creator/ Designer/ Inventor/ Merk
Creator
Desfiana Elva Larissa
Putu Sendy Indra
Adhi Nugraha
Deavi Carina Asri

Title
Aplikasi Mobile Plus+
Intellectual Property Kind
Copy Right
Certificate No
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Creator/ Designer/ Inventor/ Merk
Creator
Muhammad Rizaldi
Verdian Siswandi
Mochamad Oksan Dirgantara
Thoriq Al Huda Laksamana Putra
Ghifari Dermatiar
Title
Aplikasi Mobile Pindah Yuk !
Intellectual Property Kind
Copy Right
Certificate No
079598

Creator/ Designer/ Inventor/ Merk
Creator
Muhammad Bambang Matofani
Amadhea Putri Geantoro
Kohsuke Putra Tejima
Randy Rozaan
Title
Aplikasi Web KOOY
Intellectual Property Kind
Copy Right
Certificate No
079596

Creator/ Designer/ Inventor/ Merk
Creator
Dian Mustawan

SCHOOL OF ECONOMICS & BUSINESS

Aryo Mahendra Sikken
Moh Rishad Affadel
Title
Aplikasi Game It Hacks
Intellectual Property Kind
Copy Right
Certificate No
079592

SCHOOL OF COMMUNICATIONS & BUSINESS

Creator/ Designer/ Inventor/ Merk
Creator
Retno Wulan
Title
**Program Komedi Televisi
"Kayaknya Berita"**
Film Dokumenter "Ngampung"
Intellectual Property Kind
Copy Right
Certificate No
074511
074510

Creator/ Designer/ Inventor/ Merk
Creator
Nadya Laras Ayu
Title
**Film Dokumenter "Di Balik
Kilang"**
Intellectual Property Kind
Copy Right
Certificate No
074509

Creator/ Designer/ Inventor/ Merk
Creator
Ibrahim R.
Akbar F.
Thomi F.
Faisal N.
Yongki
Jonah J.
Febrinando
Arga
Richson
M. Aditya
Title
Film "Dunia Twitter"
Intellectual Property Kind
Copy Right
Certificate No
071622

Creator/ Designer/ Inventor/ Merk
Creator
Gery A.
Zulendy N.
M. Taris
Rahmat A.
Tri Restu
Title
**Film Dokumenter "Mamat on
The Street"**
Intellectual Property Kind
Copy Right
Certificate No
071623

Creator/ Designer/ Inventor/ Merk
Creator
Ibrahim R.
Wildan
Faisal N.
Gama
Siti
Title
Program Televisi "Cari Tahu"
Episode "Magic Mushroom"
Intellectual Property Kind
Copy Right
Certificate No
071624

Creator/ Designer/ Inventor/ Merk
Creator
Mustafa R
Dico Willian
Desy Fiftina
Fatimah R.
Reza M. A.
Arif Rahman
Setia A. P.
Title
**Film Dokumenter "Ride The
Life"**
Intellectual Property Kind
Copy Righ
Certificate No
071577

INTELLECTUAL PROPERTY LIST 2016

SCHOOL OF CREATIVE INDUSTRIES

Creator/ Designer/ Inventor/ Merk
Creator
Inka Amalia
Title
Gambar Ilustrasi Karakter Kabayan
Intellectual Property Kind
Copy Right
Certificate No
079694

Creator/ Designer/ Inventor/ Merk
Creator
Sarah Hanifah Salsabil Z
Judul Kekayaan Intelektual :
Seni Motif (Happy Pom Pome)
Title
Intellectual Property Kind
Copy Right
Certificate No
079847

Creator/ Designer/ Inventor/ Merk
Creator
Syarifa Nisrinah
Title
Seni Motif (Cokoral)
Intellectual Property Kind
Copy Right
Certificate No
079848

Creator/ Designer/ Inventor/ Merk
Creator
Ranita Windriani
Miftahul Bagus Pranoto
Yunita Khumaeroh
Erda Guslinar, S.T., M.T.
Amir Hasanudin Fauzi, S.T., M.T.
Title
Perangkat Lunak Game berbasis Android dengan nama Jombie (Jomblo Indonesia)
Intellectual Property Kind
Copy Right
Certificate No
079087

Creator/ Designer/ Inventor/ Merk
Creator
Agung Wardhana Nasution
Erda Guslinar, S.T., M.T.
Rizza Indah Mega M, S.Kom., M.T.
Title
Aplikasi Mobile berbasis Android dengan nama "Pandawa Lima
Intellectual Property Kind
Copy Right
Certificate No
079088

Creator/ Designer/ Inventor/ Merk
Creator
Giva Andriana Mutiara
Rini Handayani
Title
Buku Ajar Representasi Data
Intellectual Property Kind

Copy Right
Certificate No
079588

Creator/ Designer/ Inventor/ Merk
Creator
Giva Andriana Mutiara
Periyadi
Title
Buku Ajar Sistem Komputer
Intellectual Property Kind
Copy Right
Certificate No
079589

Creator/ Designer/ Inventor/ Merk
Creator
Sugondo Hadiyoso
Achmad Rizal
Title
Buku Instrumentasi Bio Medis berbasis PC
Intellectual Property Kind
Hak Cipta
Certificate No
079849

Creator/ Designer/ Inventor/ Merk
Creator
Indrarini Dyah Irawati S.T., M.T.
Leanna Vidya Yovita
Tody Ariefianto Wibowo
Title
Buku Jaringan Komputer dan Data Lanjut
Intellectual Property Kind
Copy Right

Certificate No
079850

Creator/ Designer/ Inventor/ Merk
Creator
Simon Siregar
Muhammad Ikhsan Sani
Aris Pujud Kurniawan
Title
Aplikasi Sistem Antrian Puskesmas
Intellectual Property Kind
Copy Right
Certificate No
079852

Creator/ Designer/ Inventor/ Merk
Creator
Robbi Hendriyanto
Bastomy
Hendro Prasetyo
Title
Aplikasi Donasi berbasis Web "BGB Berbagi"
Intellectual Property Kind
Copy Right
Certificate No
079853

Creator/ Designer/ Inventor/ Merk
Creator
Tri Noviani Damayanti
Hasanah Putri
Title
Buku Sistem Komunikasi Serat Optik
Intellectual Property Kind

Copy Right
Certificate No
082031

Creator/ Designer/ Inventor/ Merk
Creator
Rahmat Hidayat, S.E., M.M.
Agus Maolana Hidayat, S.T., M.T.
Nellyaningsih, Dra., M.M.
Title
Jurnal Ilmiah berjudul "The Role's of Service Quality Dimension and Perceived Values for Increasing Customer Loyalty"
Intellectual Property Kind
Copy Right
Certificate No
075667

Jaringan Komputer dan Data
Indrarini Dyah Irawati, M.T.
Leanna Vidya Yovita, M.T.
Tody Ariefianto Wibowo, M.T.

LSP for Competent and Competitive Graduates

Currently, all workers everywhere must have certification of professional competence. It becomes a necessity and a must because there are no professional workers who do not have certification of professional competence. Since the Law on KKNI (Indonesia National Qualifications Framework) No. 8 in 2012 took effect, formal education has equality of their respective competences. Each level of education has an equality, skill, and competence.

Therefore, the existence of LSP (Professional Certification Agency) First Party (LSP P1) becomes very important, because every program study or expertise that is actualized in a diploma should be in accordance with the competency-based curriculum that reflects the skills and expertises in the study program.

Good news! Telkom University (Tel-U) has been appointed to be one of the institutions to hold the certification of professional competence. Submission of a license as a Professional Certification Agency (LSP) was delivered directly by the Chief of National Professional Certification Agency (BNSP), Ir. Sumarna F. Abdurahman, M. Sc to Telkom University Rector, Prof. Ir. Moch. Ashari, M. Eng, Wednesday (19/10-2016).

BNSP becomes the only legitimated and authorized institution to issue certification of competence. Certification itself is divided into three types of LSP. LSP P1 is given by educational institutions to students. LSP P2 is given by competence educational institutions to working professionals. LSP P3 is organized by institutions with regard to relevant associations related to profession, community, and industry. Tel-U is included into the LSP P1 which is specifically given to students at the Telkom University and foreign students who choose cooperation with Tel-U.

According to Telkom University Community Services Manager, Sampurno Wibowo, SE., M.Si, as Chairman of Certification LSP P1 Telkom University, all work fields require competency certification for candidates and employees in accordance with department and expertise. "For example, a journalist must have certification to become a journalist. This certification is also to assess whether the person is eligible or not to become a journalist. Of course, the existence of LSP Telkom University aims to prepare students to have a professional competence certification after graduating, "he said.

"In LSP P1 Telkom University, we prepare students who will graduate to have the certification of competence. So that, they are viable and able to compete with the candidate graduates from other universities in the world of work. It is mandatory in nature, because it is in line with the Law of KKNI No. 8 Year 2012. In addition, we are also able to assess and find out during the lectures that students have expertise in the enganging field. We're focusing on the process, "said Sampurno.

There are several requirements for establishing LSP, especially LSP 1. First, Telkom University must be a legal rducational entity. Second, it must have assessors (lecturers) in relation to the scheme which is owned and will be run. Lastly, it must have a BNSP licensed scheme. The scheme has certain requirements, which must be related to a competency-based curriculum. The tests are not so difficult because they are still associated with the competencies and skills that have been learned in the classroom by the students.

Currently in LSP P1 Telkom University, the scheme provided is available for the study programs in the School of Communication and Business (FKB). The fields of professions involve Public Relations Junior, Video Editing, and Communications Audit Planner Management. LSP is given full authority by BNSP to implement the test of competence in those fields of expertise. If the students pass, they are entitled to a certification of professional competence valid for 3 years. Sampurno hopes, next year another school can bring the scheme so that prospective graduate students can get certified competence.

"The short term target is to certify a number of students within the scope of FKB within the period of November to December 2016, ahead of graduation. Other schools at Telkom University can immediately trigger schemes that may be the competency test materials for the students. Target of 10 schemes for next year from various schools at Telkom University may start to be realized and run from January next year, " concludes Sampurno. ❖

Expectating the Contributions from Researcher Directory

In order to improve the climate for research, Telkom University (Tel-U) continues to improve. In addition to improving all facilities and infrastructure in the field of research, the quality of Human Resources (HR) continues to be encouraged because the HR is an important element in encouraging research climate on this campus.

One of the characteristics of qualified human resources can be seen from the level of education. Thus, Tel-U also encourages lecturers to improve their competences. One of the ways is by going back to school to pursue doctoral degree. In addition, this level of education is very influential on the increase in the Functional Academic Position (JFA) of the lecturers.

In 2016, there were already 103 lecturers with doctoral title. To that end, Tel-U launched Researcher Directory books that can be a medium for lecturers to study the possibility to conduct joint research with fellow lecturers and or third parties outside the institution.

Researcher Directory book launching took place at the closing of the third Birthday (HUT) of Tel-U in Convention Hall, Friday (21 / 10-2016). It was marked by the Rector of Tel-U, Prof. Ir. Moch. Ashari, M. Eng,

Ph.D, symbolically giving the copies of Researcher Directory book to the Minister of Tourism, Dr. Ir. Arief Yahya, M.Sc; the Vice Governor of West Java, Deddy Mizwar; and the Chairman of Telkom Education Foundation (YPT), Ir. Dwi Sasongko Purnomo.

Previously, on August 31, 2016, Ashari invited all lecturers possessing doctoral degree to explain the strategic plans of Tel-U in terms of education, research, and community service. In his presentation, Ashari expected the best contribution from the qualified human re-

Conducting Researches as Scheduled

sources in Tel-U.

Some of the expected contributions from the lecturers possessing doctoral degree include to conduct researches mainly with external funds, to have Scopus/Thomson Reuters-indexed international publications, and intellectual property, to increase the number of citations, H-index, to escalate the Functional Academic Position (JFA) towards senior lecturers or professors, as well as to write in the media concerning the solutions for latest national problems.

"Three years ago, on August 31, 2013, the campus of Tel-U was formed from the merger of four institutions. After that, Tel-U created strategic plans for campus development until the year 2038. It is the responsibility of all of us, and ladies and gentlemen, as the holders of the highest academic license. The lecturers with doctoral title are the motor for improving the quality research at Tel-U, "he said.❖

I n 2016, the Ministry of Research, Technology, and Higher Education (Kemenristek Dikti) issued a new scheme for university external researches financed under this ministry. To determine the progress of the research activities being conducted in universities, Kemenristek Dikti held a monitoring and evaluation (M&E).

M&E of 2016 and multi-year Kemenristek Dikti external research grants was held on Friday-Saturday (28-29/10-2016) at Tokong Nanas Building, Telkom University, Bandung. This event was attended by 14 universities in West Java.

Among others were Telkom University, Parahyangan Catholic University, Maranatha University, Indonesia Computer University, STIE Ekuitas, Sangga Buana University, Post of Indonesia, STKIP Siliwangi, Surya Kancana University, STIKES Bhakti Tunas Husada, LP3I Polytechnic Bandung, Majalengka University, Muhammadiyah University Cirebon, and Institut Manajemen Koperasi Indonesia (IKOPIN). This event that took place for two days was attended by the

representatives from each university coming with their completed research reports to be given assessment by the evaluators.

The activities were carried out by digging regular information based on specific indicators. The goal was to direct the ongoing researches to be conducted in accordance with the agreed planning and procedures. Monitoring indicators included the essence of the activity and the targets set in the program planning.

In addition, they also included providing information to program managers in the appearance of obstacles and distortions as well as input in the evaluation. The goal of M&E was to assess the activities carried out by each university to be performed as planned.

The Evaluator of Sriwijaya University Palembang, Prof. Dr. Ir. Siti Herlinda M.Si revealed, "These monitoring and evaluation activities are related to technology research previously planned in each university based on the circular letter issued by Kemenristek Dikti. To find out if the researches are conducted according to plan or if there are any constraints. We will deliver some suggestions so that the researches can run as expected." ❖

Avoiding
"Predatory Journals"

What makes a researcher proud? Is it the royalty on the patents of research results and researches that are recognized? Long before that stage, it is when his paper is successfully published in international journals indexed in Scopus, ISI, Thomson/Reuters, and others. Because, this is what makes scientific researchers recognized by the international community. In fact, there is a possibility later that his paper would be a reference (citation) for academics from anywhere that has the same competence.

It is realized by researchers from Telkom University (Tel-U), some already successfully penetrated the journals, but it was full of struggle. So, to motivate the researchers in Tel-U, Information System Study Program of the Industrial Engineering School (FRI) held a workshop on Journal Writing on Wednesday - Thursday (23-24 / 11-2016). Inviting a researcher from Universiti Tun Hussein Oon Malaysia University (UTHM), Prof. Mustafa Bin Mat Deris, this event held at Tokong Nanas Building was attended by researchers from several fields.

In the beginning of his presentation, Mustafa warned researchers not to get caught by the "Predatory Journals " in their efforts to publish the paper. "At this time (2016), there are more than 923 'journal predators' worldwide. Usually, many from Africa, India and other third world coun-

Prof. Mustafa Bin Mat Deris

tries. These journals are only looking for profits, not recognized by the indexers like ISI or Elsevier, and the paper review process is not clear, "he said.

A number of "predatory journals " exist due to the needs of researchers who want to publish papers in international journals and academic demands to increase their functional academic positions. The problem, in the "Predatory Journals " is that the paper review process is not clear; the board of editors is incompetent so that the quality of papers is not of concern. To that end, Mustafa reminded researchers of Tel-U to be careful.

According to Mustafa, Indonesian researchers should not only target Scopus indexed journals to increase the Impact Factor (IF). Mustafa, who has been an academician and researcher since 1998, has been continuously writing papers since he earned his Ph.D. Many of his papers have been published in ISI indexed journals.

"To be accepted in ISI indexed journals is harder; many of the journals have a great impact factor," he continued.

Mustafa explained the technical matters related to writing a paper for journals, starting from the title, abstract, introduction, methods, works related to the results and conclusions. "Many have difficulties in writing paper, because it is derived from experience. A title greatly affects whether the paper will be read or not. The title must be objective, methodical, and significant. Furthermore, an abstract is like a researcher telling the readers of what his research is. Its contents should be made brief on the overview of the research. Furthermore, the introduction includes the content and writing flow. Do not write too long, about 2 pages. The introduction highlightes the field of science, the research problems and proposed solutions, " he said.

Furthermore, Mustafa said, in the introduction, the related works should be included. They can be taken from the indexed journals as a requirement to enter Q1 (Impact Factor). Meanwhile, there are three types of methods in papers: applications-based, experiments-based, and fundamentals-based.

Some participants asked questions related to the phenomenon of journal writing in between the explanation of paper writing techniques, including how to choose topics that could catch the attention of journals.

"There are two ways to choose a topic that could catch the attention of journals, which is choosing global issues or the latest issues that have contributed significantly to the world. Some examples of global issues are global warming, war-crime, or green technology. While the hottest issues, among others are corruption, big data, epidemic diseases such as zika, ebola, and others, or in here, it is maybe the Ahok case. Then

some of the topics that contribute to global issues are the problems of education and poverty, food security, and others. However, when choosing sensitive topics, you have to be careful not to put yourselves in trouble, "said the Dean of the Faculty of Information Technology & Multimedia UTHM.

Concerning the results and conclusions, Mustafa suggested, it should be written in details and includes the development for future works that could be done. Mustafa also reminded the writers to avoid using the references from the "predatory journals " in order not to bring down the reputation of the submitted papers. Besides "predatory journals ", Mustafa also warned the writer not to get caught in the journal mafia.

"Even in the academic world, mafia exists, including the ones with regards to journals. For example, there are journals managed by Jews. Muslim writers or those with Muslim names will have difficulties to be accepted. We should avoid those kinds of journals, "he said.

Meanwhile, Director of Research and Community Service (PPM) of Tel-U, Dr. Palti MT Sitorus, MM., strongly supported this activity, because the Tel-U publication indexing was still under Binus, only 165. To that end, in 2017, Tel-U has a target to reach 330. Consequently, the efforts from the faculty, Research Group, and the PPM should be greater.

"There are several PPM strategies for this, among other, degrading the functional academic positions. Senior lecturers must write papers in the Scopus or Thomson indexed journals. In addition to that, increasing incentives to researchers, as well as preparing the patent incentive up to IDR 50 millions," he explained. ❖

IPR Clinic of Tel-U
in Innovation and Creativity Market of 2016

Foto. Doc PPM

Telkom University (Tel-U) that has an Intellectual Property Rights (IPR) Clinic participated in the exhibition of "Innovation and Creativity Market 2016" organized by the Directorate General of Intellectual Property, Ministry of Law and Human Rights (Kemenkumham). The event conducted on Thursday - Friday (3-4/11-2016) was held at Graha Pengayoman Kemenkumham, Jakarta.

Foto. Doc PPM

Innovation and Creativity Market 2016 was opened with the submission of Certificates of Geographical Indications (IG) to six typical products, namely IG of Coffee Mandailings, IG of Pala Tomandin Fakfak, IG of Gloves Silk Mandar, IG of Clove Moloku Kie Rah, IG of Mete Mun, and IG of Jeruk Soe Mollo. On that occasion, the Minister of Law and Human Rights, Yasonna Laoly, handed in the operational license to the Collective Management Organization (CML), Division of Literacy of Indonesia Works Reproduction Society (PRCI).

In addition to the exhibition that was attended by 26 stands including IPR Clinic Tel-U, this event also presented a talkshow entitled "To Create Young Innovators". The speakers of the talk show were the Director of the Copyright and Industrial Design, Brand Director, Director of Patents, as well as the creator of the Smart Trash Bin prototype of Academy High School Jakarta, Timothy Ryan.

No fewer than 200 participants attended the talkshow. They came from various backgrounds, such as government institutions, academics, entrepreneurs, creators, artists, inventors, students and the stakeholders of other Intellectual Property (IP).❖

Foto. Doc PPM

The Work of Art
Should be Scientific

One of the obstacles of research and scientific publications in Telkom University (Tel-U) is faced by the School of Creative Industries (FIK). The reason is that the research outcomes from this faculty are in the form of artwork, instead of writing (paper). This creates a problem for the Unit of Research and Community Service (PPM) in selecting the works of art that can be considered the same as publication in journals. The goal is that the researchers who are also lecturers at Tel-U Nikken can increase their Functional Academic Positions (JFA).

To that end, on Wednesday (30/11-2016), PPM, together with the officials of FIK, held a workshop to discuss the equivalence of art exhibition to scientific publications. It was conducted in the meeting room. The event was opened by the Dean of FIK, Dr. Agus Achmad Suhendra, MT and attended by PPM Research Manager, Eka Widhi Yunarso, ST., MT.

According to the Head of Intellectual Property and Publications of PPM, J. Catur Prasetiawan, ST., MT., PPM only has guidance from the Ministry of Research, Technology and Higher Education, that concerns the publication criteria to improve the JFA. "PPM has not created a relevant guidance for FIK lecturers' works that can be equalized as publications. This is significant not only to the increase of JFA, but also to the research grants, " he said.

Having the same opinion as PPM, FIK who was represented by the Chairman of the Study Program and Expertise Groups (KK) worked together to formulate the parameters that can be used to equalize the works of art to the scientific publications. According to the lecturer and senior researcher of FIK, Dr. Didiet Widiatmoko Suwardikun, M.Ds., scientific publications in general are always viewed from the accreditation or Scopus indexed publications. However, that does not mean that researchers in the field of art and design cannot participate in raising the JFA kum.

"Apart from the publication in journals, kum value can be obtained from the value of IPR (Intellectual Property Rights) on the artwork and design of the monumental artwork. The kum value of IPR is a big one. Forty is for the national level, while 60 is for international. Then, exhibition of artworks can be calculated similar to scientific publications. The condition is that the exhibition is published in the media. If it is published in local mass media such as the Pikiran Rakyat, the value is 10, in national media such as Kompas or Republika, the value is 15, and in foreign media, it is 20. Why is an exhibition valued only after published in mass media? It is to ratify the exhibition," he said.

FIK lecturers who are also artists can not create works of art like self-taught artists. They must create works of arts that are also scientific as a realization of his scientific knowledge in the field of art and design.

Some professors asked the procedure to calculate the kum value of their works of art sold to clients. According to Didit, that type of work can not be included, unless the works are monumental or awarded.

"For works of art created by clients' order, I think it can not be included because it is part of the professions, such as designers or artists and it is paid. But if the works become monumental or are awarded, they can be published for the needs of JFA kum, "said Didit.

In the beginning of the workshop on art exhibition equivalence to scientific publications, PPM and FIK representatives agreed that the artworks that are considered scientific must meet three requirements.

First, originality. Although the work is not really new and still take references from other people, but not plagiarism. Secondly, written concept. Although the work is in the form of objects, there is a written concept for the artworks created, such as descriptions of works, catalogs, artists' statements, or curatorial notes. Third, it is accessible to the public through exhibitions, discussed in the media, and others. ❖

Keep the Defense and Security in the Digital Age

The digital era that is marked by the rapid use of the internet is like a double-edged sword. On one hand, the convenience, efficiency and speed in obtaining information is a boon for anyone. But on the other hand, some sacrifices can not be ruled out, such as the increase in loss of privacy, the threat of disintegration as well as the proliferation of misleading information. As a result, there is a price to pay, which is the increasing vulnerability of the united diversity in this country.

Recognizing this, Telkom University (Tel-U) in collaboration with the University of Defense (IDU) held a national seminar entitled "National Defence and Security Management as a Support to Master the Technology, Productivity and Competitiveness in Deepening the United Diversity". Conducted on Thursday (8 / 12-2016) in Manterawu Building, the seminar was attended by three speakers, namely the IDU Rector, Dr. (Cand) I Wayan Midhio, M.Phil; the Vice-Rector of Research and Student Affairs of Tel-U, Dr. M. Yahya Arwiyah, SH., M. Hum; and the expert of Cryptography and Steganography of Tel-U, Ir. Ari Moesriami Barmawi, Ph.D.

In his presentation, Wayan pointed out the various challenges of defense and security fields that came from Indonesia and abroad. "At present, there are many foreign policies that affect the sovereignty of Indonesia, such as, the United States is enduring interests in the Asia Pacific region, the issue of ISIS, South China Sea dispute, the development of technology and various international crimes that are transnational. While in the country, back in the rampant issue of the hammer and sickle (communist), the spirit of nationalism is beginning to fade

among young people, corruption, LGBT, up to the dangers of drugs. In fact, it is mentioned that 40% of cyber crime (cyber crime) comes from Indonesia. Moreover, the current globalization is a bad influence on national circumstances. For example, the emergence of hate speech (hate speech) or hoax is viral in social media, "he said.

As part of the military, Wayan said, all citizens need to maintain the security of the state, namely through the defense of the country. In accordance with Law No. 3 in 2002, the government has set the movement to defend the country. In fact, President Joko Widodo has been promoting the Mental Revolution as a part to defend the country.

"Defense in military relies on National Army. As for non-military citizens, the concept of civil defense in accordance with Law No. 3 in 2002, is devotion as the military officers, civic education, basic military training and appropriate professional dedication. Creating the awareness of the country defense is conducted with character education, " he said.

Within the military itself, Indonesia has implemented Information Technology (IT) in the management of defense and security. Among them is the use of drones for traffic monitoring, manpack radio, radio transmitter, platforms (apache helicopters, Sukhoi 35, radar, etc.). Moreover, for the cyber security, military and police created Cyber Defence Operation System in 2010, Sub Directorate of Cyber Crime Police, IDCERT / IDSIRTI, and certification of security devices.

Yahya, talking about "Weaving the United Diversity in the Digital Age", stated that the nation of Indonesia experienced the culture shock because of technology. It is because the technology greatly affects social conditions, especially in the used normative aspects.

Our nation is also sometimes in a shock in the use of ICT. Many people utilize ICT for the wrong things. For example, accessing pornography or other negative behaviors. There are some digital skills that must be developed in the digital era, including digital access, digital commerce, digital communication, digital literacy, digital etique, digital law, digital rights and responsibilities, and digital security, "he explained.

The last presentation by Ari discussed "Trends and Challenges in the Field of Computer Securities". According to computer security experts, the sensitive data, especially data related to the state, are stored in the provider based abroad. "Securities if ICT Data aims to overcome the attacks, overcome weaknesses, and defense. People who work in the field of securities will tend to be cautious, because when you create a database system, a lot of holes could be compromised. Never use free emails for the use in a database system. In fact, if unknown emails come to our email, never click it, because it could be an entry of a hacker to break into our database system, "he explained.

To ensure a secured database system, according to Ari, system testing can be done to see whether there is a chance that might be compromised. With a code audit, test the system with blackbox and whitebox, control the acces with authentication, as well as encrypt the prevention detection. In addition, abnormality or unfamiliarity could be a sign of irregularities in a system.

"As much as 90% of companies have experienced a security attack. Even in England, no less than 700 pounds is provided for intrusion prevention security, "he added.

Responding to the explanation given, the seminar participants coming from IDU and Tel-U delivered a number of questions. Among other are the issues related to national sovereignty, defense and security, prevention of cybercrime, and ways applied by Tel-U in spreading the sense of nationalism. This seminar was the form of a continuation of the Memorandum of Understanding between Tel-U with IDU, signed in October 2016 ago.❖

LISKI

LINGKAR STUDI KOMUNIKASI

CALL FOR PAPERS

Jurnal Ilmiah LISKI terbit secara berkala, dua kali dalam setahun. Dengan jadwal terbit bulan Februari dan September. Jurnal Ilmiah LISKI dapat diakses di http://journals.telkomuniversity.ac.id/index.php/liski

LISKI merupakan singkatan dari Lingkar Studi Komunikasi. Jurnal ilmiah LISKI mempublikasikan karya ilmiah hasil penelitian di bidang kajian ilmu komunikasi, dengan menggunakan pendekatan kualitatif, dan/atau kuantitatif. Jurnal ilmiah LISKI membuka kesempatan bagi para peneliti dari berbagai bidang, untuk mempubliksikan karya ilmiah hasil penelitian yang mengkaji fenomena komunikasi.

KETENTUAN:
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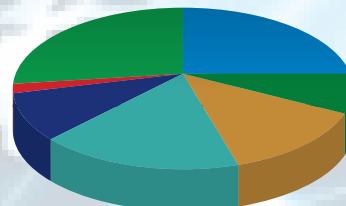
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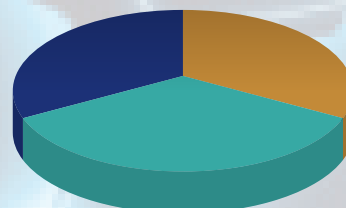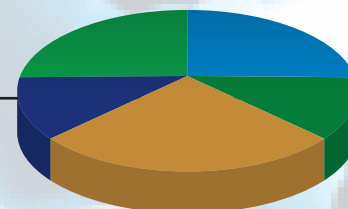
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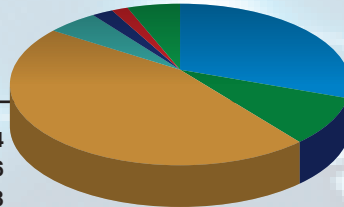
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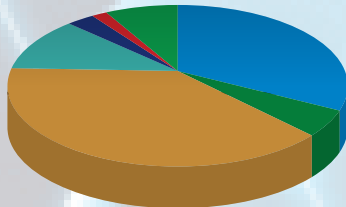
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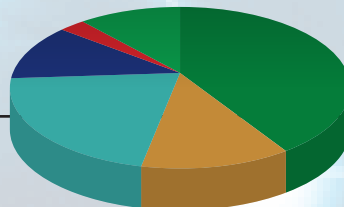
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