THE INVESTIGAT R R

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> PLTCOL EFREN L FERNANDEZ II, Ph.D. Director, NFSTI

THE EXTRACT

NEWS: Joint Virtual Graduation Ceremony CRIDEC IDC 2020-01, NIC 2020-01 TIC 2020-01

FEATURE: CYBER CRIME AND DIGITAL FORENSIC

NFSTI's Continuing Battle Against COVID-19



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EDITORIAL

The 4th industrial revolution has paved way to the new opportunities and threats to the public safety. The shifting of landscape in the daily transactions of the community provides comfort and efficient lifestyle. However, this digital landscape pushes crimes to mutate from the traditional to a more technologically inclined mode. As response to this growing cybercrime rate, the National Forensic Science Training Institute is crafting a Program of Instruction (POI) in helping the law enforcers agencies in solving cybercrimes. Currently, the Institute offers specialization in Investigation and Detection Course (IDC), Narcotics Investigation Course (NIC) and Traffic Investigation Course (TIC). The facilities, pool of faculty and proven track record is a guarantee that Digital Forensics Analysis and Investigation Course will be a significant training designed for different government agencies in bridging the gap between justice and crimes committed online.

ABOUT THE COVER

The cover is a prelude to the advancement of NFSTI in providing education and trainings towards Public Safety Digital Training Center. With the leadership of PPSC President, PLTGEN RICARDO F DE LEON (Ret.), Ph.D. and NFSTI Director, PLTCOL EFREN L FERNANDEZ II, Ph.D., the Institute is on its way to have the most responsive and relevant crime investigation and detection course in a digitalized world.



MESSAGE FROM THE PRESIDENT

MESSAGE FROM THE DIRECTOR



The entire Philippine Public Safety College congratulates the National Forensic Science Training Institute (NFSTI) for the publication of the 2nd half 2020 issue of "The Investigator" newsletter.

Upon the assumption of PLTCOL EFREN L FER-

NANDEZ II, my first marching orders was to make NFSTI the "Public Safety Digital Training Center" focused on information technology (IT) and cybersecurity further ensuring seamless connectivity not only within NFSTI but to other Constituent Units (CUs) as well.

NFSTI's new direction requires the new PIVOT to the FUTURE which includes the revitalization of the existing road map not only to review the problem of decreasing number of students but to address the concern of IT. With this, I am glad that NFSTI employed a more proactive approach through the B-R-R Concept or "Bring the Course Closer, Repack, and Re-Brand" as a marketing principle.

It is important to note that the course offering of the NFSTI is not ordinary. With the aim to train law enforcers in the conduct of their respective mandates in digital economy and offer a course similar to the other CUs, NFSTI has also began to implement the Cyber Fusion concept which is commendable.

With the country still experiencing the COVID-19 pandemic, the transition towards these online methodologies is only fitting further providing the prelude for the 2021 Digital Forensic Analysis Investigation Course to be delivered by a Cyber Corps of Professors with expertise in the field not only in the country but also abroad.

Despite the challenges, I urge everyone to remain vigilant. Continue to stay safe but remain committed in our goal to educate and train our public safety officers. Let us face the future with conviction, dedication, and patriotism.

More power to NFSTI!

PDDG RICARDO F DE LEON (Ret.) Ph.D. President, PPSC



First and foremost, on behalf of our team at the NFSTI, I would like to thank the President of the Philippine Public Safety College for its endless support to its constituent units The achievements of the National Forensic Science Training Institute would not be plausible if not for the able leadership of the President, PPSC. I write this year with hope and optimism for what the coming year will hold for NFSTI and for our future

students. For our team, the past year was an exciting one in which we realized a new vision and mission, deepened our partnership with our stakeholders across the country and engaged in development work that will produce new and revised frameworks in the coming months.

Digital organized based crime and frauds activities are constantly posing threat to people of the society and organizations in the nation. Investigation requires to play a major role to combat these crimes. Use of high technology and scientific means by potential criminals makes the task of detection more challenging because of the advent of technology. Imbedded in the institute's mission is to meet these technology challenges and provide high quality, on time and credible investigators to fulfill the need of forensic services of the nation to help in crime prevention and justice. NFSTI will enter the new year with a passion to see how far we can push ourselves and our efforts to provide quality training producing top caliber investigators in the country. With this, a move is being initiated to rebrand the NFSTI to be the Center of Digital Forensic training in the country, again raising the bar for the delivery of effective and efficient training for our country's uniformed personnel.

At the heart of our work is the conviction that teaching and learning will only truly improve if leaders commit to the training as a crucial lever for change. Though the pandemic has been proven a tough battle, the team wagers the battle through an unseen opponent, COVID-19. However, the Institute's commitment shall not waver as the implementation of the Flexible Learning Management System has proven to be effective and manageable. If the past shows training as one in which the Institute's primary job was to conduct courses wherein face-toface classes are essential, the incoming years shall show the implementation of standards, evaluation systems and programs albeit virtual with the use of online platforms and digital materials. This signals the NFSTI surging along its new path in which focus is given on how distance learning shall impact the experiences and learning environments of trainees, and how it will translate to the delivery of public service in policing.

We can't wait to fully establish the Institute as the Center of Excellence for Digital Forensic Training, looking forward for the critical work ahead. In this next phase, may our collective efforts be as strong as the hopes and dreams of the nation in terms of crime investigation.



PLTCOL EFREN L FERNANDEZ II Ph.D. Director

NEWS

Hail to Our New Crime Investigators

The National Forensic Science Training Institute (NFSTI) has conducted the 1st Joint Virtual Graduation Ceremony last November 27, 2020 via Zoom and simultaneously streamed on NFSTI Official Facebook Page. A total of 264 has completed the Crime Investigation and Detection Course (CRIDEC) under the blended learning approach. The virtual graduation ceremony was graced by Baguio City Mayor, Hon. Benjamin B. Magalong as Virtual Guest of Honor and Speaker. Dr. Ricardo F De Leon, President of the Philippine Public Safety College also gave his inspirational message.

"...The pandemic has drastically changed on how we look at the world. In fact, public service has never been more wheel than now. For so many coward fear and choose to stay home we continue to witness individuals who refuse to be governed by fear. Rise up because of the risk associated with the police force many will probably reconsider their profession. I am confident that as all of 264 of you graduate of CRIDEC completes another milestone. The pandemic shall not shake the result you possessed to be what you have envision yourself to be. Continue to advance your cause because saving lives makes every sacrifice worthy. We as a country has gone through a lot but each time we have always manage to survive and rise from it. CONGRATULATIONS SA INYONG LAHAT! And May the inspiration to serve the country burn even stronger even de-



spite the pandemic. MABUHAY PO KAYO!..." - HON. BENJAMIN B. MAGALONG, Mayor, Baguio City



"...we will develop WITH YOU as the first ALUMNI in the PHILIPPINES of the PUBLIC SAFETY DIGITAL TRAINING CENTER. The course you had not be an ordinary course. FIRST, we are still experiencing the PANDEM-IC; SECOND, your course became an Online Course with Online Performance Tasks THIRD, we have elevated and included Cyber subjects to your course which is a foreword for the 2021 Digital Forensic Analysis Investigation Course to be conveyed by Cyber Corps of Professors with proficiency in the field not only in the PHILIPPINES but also in Overseas..." -PLTGEN RICARDO F DE LEON (Ret.) Ph.D., President, PPSC

AWARDEES

IDC Alpha : 1. PCPL MA. ROAN ACCION GALOY-91.63% 2. PSMS ALVIN AGDA BORATA-91.36% 3. PCPL CINDY BILER FONTANOS-91.23% Marcher: PSMS ALVIN AGDA BORATA President: PCPL MA. ROAN ACCION GALOY

IDC Bravo : 1. PCPL CAROLINE TIWANG LANGNGA-89.793% 2. PCPL MICHAEL ANGELO ALAY-AY-89.256% 3. PSSG JENIROSE BALBALOZA DIZON-89.239% Marcher: PSMS SILVERIO LOMITAO BANDALES President: PSSG VOLTAIR VERBO MACALINTAL

IDC Charlie: 1. PCPL MANNIE BOY MALTEZO MANUEL-90.396% 2. PSSG JOHN DARWIN GARCIA CUDLI-89.616% 3. PCPL RYAN DUMOG ROSENDO-89.430% Marcher: PSMS JANICE JAVAREZ ARCEGONO President: PSSG ALPHIE ASUNCION GERONIMO

IDC Delta: 1. PCPL ALFREDO CASTILLO BERNARDINO-91.72% 2. PCPL REY JAY DE GUZMAN OFIAZA-89.49% 3. PCPL JIMBOY LAYSON TEPASE Marcher: PSMS ARTEMIO BATUTO TUMAKAY III

IDC Echo: 1. PCPL FRANKIE RYAN LANDICHO BRITO-92.604% 2. PCPL HERBERT VILLAVICENCIO MANE-91.898% 3. PCPL EDISON DELOS SANTOS LUBAT-91.440% Marcher: PSSG LEMAR RONQUILLO AGUS President: PSSG DINO BANAYOS AROC

IDC Foxtrot: 1. PCPL JORGE RUFFY GALICHA GALIN-92.39203% 2. PCPL JOHN BENEDICK PANGAN CABANG-91.55609% 3. PCPL MARK BUENDIA SY-91.32313% Marcher: PSMS RENATO FRANCO IBAÑEZ President: PSMS AR-GYL CHIEN TALEON

NIC: 1. PCPL JOAN MAT-AN MALIN-87.07% 2. PCPL WAYNE KYLE CHALIMEG KALANGEG-84.92% 3. PAT CHRISTIAN DAGA CORDOVA-84.88% Marcher: PSMS AURELIO CALINGO NERAL III President: PSSG ABDULLA SADJASANI ASIRI

TIC: 1. PSSG JERIL CARANGIAN BAUA-90.11% 2. PCPL MARYJOY YABEZ MARIO-89.72% 3. PCPL REIZEL PACAPAC BALLA-88.90% Marcher: PCMS EDISON MALANA PAREDES President: PSMS JENNY MAGISTRADO DULAWAN

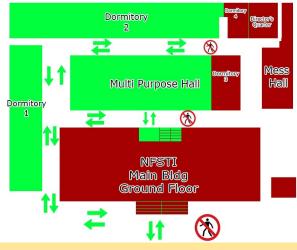


NEWS

NFSTI PPSC CARES



The NFSTI Team headed by PLTCOL EFREN L FERNANDEZ, II Ph.D., Director, are preparing the goods for distribution.



NFSTI'S BATTLE AGAINST COVID-19

The NFSTI utilizes online learning platform in the conduct of Crime Investigation and Detection Course until such time all students will be available and cleared from COVID19. Aside from Facebook account, this institute has established communication channels such as registrar@nfsti.gov.ph, info@nfsti.gov.ph and www.nfsti.gov.ph dedicated for any concerns related to

CRIDEC schooling and admin matters. No students will be allowed to physically visit

NFSTI without securing apail addresses and online channels.



proval through the aforementioned e-mail addresses and online channels.

For the 2nd half of 2020, this institute has launched the "Disiplina Muna", a nationwide advocacy campaign in rekindling the culture of discipline among Filipinos, led by the President PPSC, Dr. RICARDO F DE LE-ON and Vice President for Administration PBGEN FERDINANDO G SEVILLA

(Ret) together with NFSTI Director PCOL MARC ANTHONY C BAUN. The "Disiplina Muna" is one of the core doctrines of the Institute in strict observance of laid protocols of NFSTI including wearing of facemask, frequent hand washing and social distancing. As reinforcement, the NFSTI has created a digital campaign on COVID 19 measures, additional five (5) hand washing areas and COVID19 test results conducted/ validated by PRO4A Health Service as the major requirements for re-admission.



The Institute has identified restricted areas for the students and staff. There are designated areas for high risk and low risk students. A

heath declaration form was uploaded via Google Forms to identify students' risk classifications. The second floor and roof deck of the main building will be used as quarantine facility for those students who show COVID19 symptoms. To minimize physical contact, the Registrar's Office will be the venue for all student's transactions.



NEWS

2nd Half 2020 ACCOMPLISHMENTS @ Glance

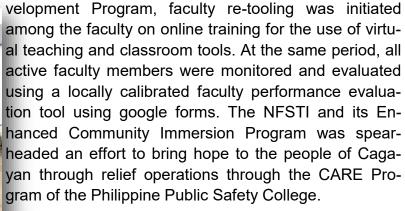
The National Forensic Science Training Institute (NFSTI) was challenged to assess its capability to fulfill its mandate, under the transformational pivot to the future of PPSC.

This Institute delivered eight (8) CRIDEC Classes and two (2) ongoing classes with a total of 278 students. For the 1st half, a total of five (5) CRIDEC classes were conducted and another 2 classes for the 2nd half. It surpasses the target of 9 Classes for AY 2020. It was a challenge and a threat to organize a class for reasons such as location, similar course, and the pandemic.

Making the threat an opportunity, a marketing concept was applied enti-



tled, "B-R-R" which means Bringing the Course Closer, Re-pack and Rebrand. On the Faculty De-



There is on-going construction of NFSTI perimeter fence and tiling of dormitory to enhance learning and living condition of the students and staff.

Believe you can and you're halfway there. –Theodore Roosevelt







WELCOM

MR. DEREK RAMSA

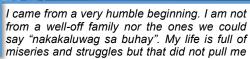
NESTI Virtual Eleg Raising Ceren

VIRTUAL FLAG RAISING CEREMONY

Since the pandemic, the National Forensic Science Training Institute is conducting flag raising ceremony online. CRIDEC students were given a chance to become a resource person to enhance their skills in public speaking. The resource person shared their experiences, motivations and insights to inspire their classmates to do well and become role model in their field of profession. The Institute firmly believes that a police officer should learn the skills in carrying themselves in public to trust.



Aside from students, the NFSTI has invited few personalities to be a Guest of Honor and Speaker in the like of PMGEN EFREN Q FERNANDEZ (Ret), the Father of PLTCOL EFREN L FERNAN-DEZ II Ph.D., Director NFSTI and Model, Host, Actor and Sports Enthusiast, Derek Ramsay to name a few.





"Don't decrease the goal. Increase the effort." -Tom Coleman

down to drain. Despite growing from poverty as being raise by my widowed mother, I was transferred from one relatives family to another. Sa murang edad I learned to bake and sell bread, I worked in a construction site, and be a "Konduktor" for jeepney drivers just to earn money to support my grandmother and younger sister. But all of those struggling years, I never ceased on dreaming for a greener pastures. I go to school even without "baon" or breakfast or lunch. I tried to finished my high school after stopping for quite some time and pursue my college degree just to elevate my status in life. Yes, at some point in my life I am at the rock bottom but I never thought of quitting nor lowering my dreams just to be more realistic in life. So from one job to another I looked for something that I may fit in.

I applied for Philippine Army and Philippine Coast Guard. Luckily, I passed both. However, I choose the PCG and tried to ask for help or backup from one of my uncles. Yes, I cannot do it alone. I need help from other people and most importantly, God. I waited for about a year as striker, someone who will do menial tasks for other people just to get by, ika nga-Tigas ako nuon, tigasaing, tigaluto, tiga-

laba, tigalinis, lahat na but I never complain kahit walang sahod. I just do whatever task they have given me while they are helping me to be included in the list of PCG trainees. I am blessed to have them as additional backer to help me enter the PCG service.

With my patience and determination, I was able to enter the PCG Non-Officer Corps and graduated in my class with an Award of Distinction for graduating with the highest grade for Non-Academics. I was then known as "Tarzan" or the strongest trainee in our class which I am proud of. This made me realized that life prepared me to be strong and resilient for me to be ready and to be able to reach my first destination or goal in life. Despite reaching my goal, having been able to find a stable job with a nice pay, allowances and benefits, I never stop in dreaming again. I underwent Coast Guard K9 Handlers Training for almost a year to be a proud and gallant member of CGK9 Force. Again, after finishing it, I undergo another training, the Explosive Ordnance Disposal Course (EOD), to be an specialized K9 Handler. As you all know, again and again I never stop aiming to enhance my self and my capabilities. Currently, I am taking Crime Investigation and Detection Course (CRIDEC) to learn more and be a better version of me. You see. I am not a graduate of any baccalaureate courses. I am just a unit earner of BS Criminology. But despite on the differences between our educational background or status in life, I never lowered my goal but instead I doubled or tripled or gave more effort in everything I do. In my Tyears in the PCG service I was able to help my family financially, acquired knowledge and skills to be a better Coast Guardian, and continuously improved myself by not letting it be stagnant in life. So, let's keep on going and aiming for a greater goal. Even how hard or rocky it is. Even how many unfortunate events we may face. Or how many obstacles we must overcome. Let us not stop on setting a greater goal in our life. Even if it may too ambitious or unrealistic. Let us keep on dreaming and aiming for bigger things not only for ourselves but also for our family.

Remember, our God is greater than any adversities. Do not lose hope and faith. He will eventually lead us to our destinations in life. Muli, I am SN1 Jupiter Jabone Cadalzo 007671 PCG. Maraming salamat po for lending your ears and time with me. Magandang umaga sa ating lahat.— SN1 Jupiter Jabone Cadalzo, Resource Speaker during the 14th NFSTI Virtual Flag Raising Ceremony



FEATURES

Cyber Crime and Digital Forensics*

ABSTRACT

The growing number of smart phone ownership and access to internet has made the Philippines exposed to cyber criminals. The rising popularity of online transaction and social media is an opportunity for cyber criminals to take advantage of victimizing people through identity theft, fraud and malwares - Cyber criminals is seeing light from the dark web. Despite the present of law related to cybercrime, increases in cases were reported. The lack of supervision, awareness of the people on protecting themselves against cybercrimes, weak infrastructure, the technical knowledge of law enforcers and justice system may falling short against on-line criminals.

KEYWORDS

cybercrime, Philippines, internet, cyber security, online, digital forensics

INTRODUCTION

The world is getting connected through the internet and the rise of the internet-of-things makes the community across the globe highly vulnerable in cyber crime (Lillis etc, 2015). The emerging world wide web, smart phones and other computer enabled devices pushed the people to interact online and offline and can freely performed unethical social engagements or simply conducts criminal liabilities (Holt, etc., 2015) As defined, Internet-of-things is the interconnection of all devices using computing devices using the internet infrastructure (Perumal, 2015). The internet-of-things opens a lucrative opportunities in different fields but introduces a new challenge in the area of digital forensic investigations (Zawoad and Hasan, 2015). Criminals are shifting to digital channel as they looked for a shining light in the dark web as they are eyeing for \$2.3 trillion retail industry and is putting conventional retailers at risk of shutting down (Hurlburt, 2017). Another target for cybercrime is the global banking and financial institutions (Camillo, 2017). The transnational crime in the developing world amounting to \$1.6 to \$2.2 trillion and was committed in 11 crimes including the crimes committed online (Kar and Spanjers, 2017). The figure indicates that there is really a need to step-up the cyber security and implement pro-active measures seriously (Abomhara, 2015) and there is no question that this is going global as compared to terrorism (Pakes, 2017).

As the Philippines being part of the emerging digital users is at high risk in cyber attacks which primarily includes fraud, malwares, identity theft and among others. Information on cybercrimes in the country are limited, thus this paper will review on how the government is performing in securing the public against cyber attack.

OBJECTVES OF THE STUDY

This review discussed how developing countries including the Philippines are getting highly vulnerable in cyber attacks and how the authorities are responding

*The research article is the output of Vergel O. Santiago on the Seminar/Morkshop on Publishable Review of Related Literature.

RESULTS AND DISCUSSIONS

Cyber Security as Human Right

The access in the internet is considered as an emerging human right (Shackelford, 2017) because it is also a way of giving an individual freedom of expressions (Benedek & Kettema, 2014). Internet is a channel that encourages the users to express their thoughts, ideas and sentiments on certain issues specifically in different social media platform and can be anonymous, free from censorship and permission less innovations (DeNardis & Hackl, 2015). Since access to internet is a human right, the government must be committed to ensuring the internet's universality, reliability and sincerity (Tully, 2014). To protect the people, the government is reinforcing its capability to cyber attacks through the improvement of their strategy for digital economy (Teoh & Mahmood, 2017). Private and government are putting investment in cyber security on top of their agenda (Gordon, (2015).

Internet Usage of Filipino

On the average, 22% of adult Filipino has smart phones ownership and 40% internet usage between 2013 to 2015 (Poushter, 2016) and grows to 44% and 56% respectively after two years (Poushter, et al., 2018). Based on study, a significant increase of Filipino using internet is 50% and 94% are using mobile devices accessing inside their homes (94%), 22.2% using free WiFi access inside the malls, 11.1% in restaurant and 38.9% access to other public areas (Omorog & Medina, 2018). The number is substantial to put Filipino at risk in cyber attacks such as malware and phishing. As first steps in cyber security, the Philippine government is in need to increase the awareness of the Filipino on crimes committed online.

Cybercrime and the Philippines

The Philippines has first tasted internet in 1998 with only 9% internet usage (Labucay, 2014) and has started the Philippines susceptible to hackings. After nearly ten years, internet remains to be a problem and is getting complex (Parcon, 2017). The Republic Act 10175 or the Cybercrime Prevention Act of Philippines has now been in full implementation; still many Filipino became victim of different cybercrimes (Tarun, 2018). In the years 2011 to 2015, there were 55 reports and articles stating that the victim were from nine regions with age ranging from 18 months to 17 years old who were sexually exploited and abused online (Hernandez, et.al, 2018). The rapid growth of online banking and e-payments paved ways to Filipino got engaged to crypto currencies (Geronimo, 2018).

However, the lack of regulatory supervision of crypto currencies has provided cyber criminals to take advantage financial transfer discretely (Biswas, 2018). Trolling, is a new breed of cybercrime appeared in 2016 in which subjective form of expression were published on different social media platform (Cabañes & Cornelio, 2017). Equally, 'keyboard armies' tends to manipulate civil society the manner they think on certain issues and known personality in politics and entertainment arena (Sombatpoonsiri, 2018). Credit cards, online payment and banking have become famous in cyber crime in the Philippines and victims suffer from social and economic sabotage due to identity fraud (Funcion, 2017). To the Philippine government has established a 'cyber-cop' to combat crimes committed in cyber arena through the Philippine National Police Anti-Cyber Crime Group and the Department of Justice (McMahon et al., 2016).

To combat cybercrime, different tools in the crime prevention and detection techniques were being utilized as discussed by Glance (2017):

Cybercrime is a multifaceted and forever changing phenomenon. It is found that Cyber criminals who are becoming more classy and stylish are making consumers of both private and public organizations their prey. To prevent attacks additional layers of defense are required. It has been observed that Cyber crime has increased in density and complexity and financial costs ever since organizations have adopted the use of computers in carrying out their business processes. An example of the case studies carried out on cyber crimes is the Parliament attack case. Various prevention techniques and detection techniques like Tripwires, Honey Pots, anomaly detection system, configuration checking tools and operating system commands, various acts that have been imposed against Cyber crime and online safety tips are also discussed.

In the Philippines, a 12 years imprisonment will be imposed to anyone found guilty on online crime (Rama, 2018) and is somehow control the people in committing relevant crimes.

Digital Forensic and Investigation

The growing cyber crime reported is alarming (and, the government has started strengthening its personnel for digital forensic training based on volume of the objects of forensic area, importance, unclear network parameters and boundless networks, especially on methodology for conducting the investigation (Perumal, et al., 2015). Digital Forensic Investigation Framework for IoT (DFIF-IoT) that is able to support future IoT investigative capabilities with a degree of certainty (Kebande, 2016). Despite the breakthrough in the areas of Digital Forensic, there is a variety of new digital evidence sources that pose new and challenging problems for the investigator from an identification, acquisition, storage and analysis perspective (Lillis, 2016).

CONCLUSIONS

The advancement of technology and communication has speed-up transaction among people across culture and countries.

However, this put the people vulnerability to cybercrimes which includes fraud, identity theft, and malwares. The increase awareness to cyber security is a challenging task for the government. Though there is already an established laws related to cyber crime, there is a gap in the supervision and implementation. The Philippines being one of the fast growing economy in the world is in high risk being attack online. The number of smart phone users and ease of access in the internet make the Filipino more exposed in cyber crimes. The war against cybercrime is one of the top priorities of the Philippine government. The presence of RA 10175, inter-agency coordination and campaign are visible. Generally, the developing countries including the Philippines still need more support and training from the advance government to have a cyber crime free community.

FEATURES

RECOMMENDATIONS

It is recommended that the Philippine government shall exert more effort in increasing the awareness of the Filipino people on cyber crimes. As of this writing, this is the only and most feasible way to prevent crimes in the cyber space. Likewise, comprehensive trainings are implemented to the member of the cyber crime group and increase visibility in the international organization to gather support from advance countries. Infrastructure related to cyber security must be in placed as dark web is gaining strength rapidly.

LITERATURE CITED

Abomhara, M. (2015). Cyber security and the internet of things: vulnerabilities, threats, intruders and attacks. <i>Journal of Cyber Security and Mobility</i> , 4(1), 65-88.
Benedek, W., & Kettemann, M. C. (2014). Freedom of expression and the Internet. Council of Europe. Biswas, R. (2018). Combating Terrorism and Organized Crime: Cryptocurrencies and Cybercrime. In Emerging Markets Megatemads (pp. 217–227). Palgrave Macmillan, Cham.
Cabañes, J., & Cornelio, J. (2017). The rise of trolls in the Philippines (and what we can do about it). A Duterte Reader: Critical Essays on Rodrigo Duterte's Early Presidency, 231-250.
Camillo, M. (2017). Cybersecurity: Risks and management of risks for global banks and financial institutions. Journal of Risk Management in Financial Institutions, 10(2), 196-200.
DeNardis, L., & Hackl, A. M. (2015). Internet governance by social media platforms. <i>Telecommunications Policy</i> , 39 (9), 761-770.
Funcion, D. G. D. (2017). Content Analysis of Online Documents on Identity Theft Using Latent Dirichlet Allocation Algorithm. Journal of Science, Engineering and Technology, 5, 57-69.
Geronimo, R. S. Q. (2018). Bitcoin and Cryptocurrency Regulation in the Philippines. Available at SSRN 3138051.
Glance, A. Q. (2017). Cyber Crime and Cyber Security. <i>Detecting and Mitigating Robotic Cyber Security Risks</i> , 160.
Gordon, L. A., Loeb, M. P., Lucyshyn, W., & Zhou, L. (2015). Externalities and the magnitude of cyber security underinvestment by private sector firms: a modification of the Gordon-Loeb mod- el. Journal of Information Security, 6(1), 24.
Hernandez, S. C. L. S., Lacsina, A. C., Ylade, M. C., Aldaba, J., Lam, H. Y., Estacio Jr, L. R., & Lopez, A. L. (2018). sexual Exploitation and Abuse of Children Online in the Philippines: A review of online news and Articles. Acta Medica Philippina, 52(4), 306.
Holt, T. J., Bossler, A. M., & Seigfried-Spellar, K. C. (2015). Cybercrime and digital forensics: An introduction. Routledge.
Hurlburt, G. F. (2017). Shining Light on the Dark Web. IEEE Computer, 50(4), 100-105. Kebande, V. R., & Ray, I. (2016, August). A generic digital forensic investigation framework for internet of things (io). In 2016 IEEE 4th International Conference on Future Internet of Things and Cloud (FiCloud) (pp. 356-362). IEEE.
Kar, D., & Spanjers, J. (2017). Transnational crime and the developing world.
Labucay, I. D. (2014). Patterns of Internet usage in the Philippines. The Internet and the Google age: Prospects and perils, 27.
Lillis, D., Becker, B., O'Sullivan, T., & Scanlon, M. (2016). Current challenges and future research areas for digital forensic investigation. arXiv preprint arXiv:1604.03850.
McMahon, R., Bressler, M. S., & Bressler, L. (2016). New global cybercrime calls for high-tech cyber-cops. Journal of Legal, Ethical and Regulatory Issues, 19(1), 26.
Omorog, C. D., & Medina, R. P. (2018). Internet Security Awareness of Filipinos. International Journal of Computing Sciences Research, 1(4), 14-26.
Pakes, F. (2017). Comparative criminal justice. Routledge.
Parcon, R. M. L. C. (2017). Addressing Cyberspace Vulnerability: The ASEAN and the Philippines.
Perumal, S., Norwawi, N. M., & Raman, V. (2015, October). Internet of Things (IoT) digital forensic investigation model: Top-down forensic approach methodology. In 2015 Fifth International Conference on Digital Information Processing and Communications (ICDIPC) (pp. 19-23). IEEE.
Poushter, J. (2016). Smartphone ownership and internet usage continues to climb in emerging economies. <i>Pew Research Center</i> , 22, 1-44.
Poushter, J., Bishop, C., & Chwe, H. (2018). Social media use continues to rise in developing countries but plateaus across developed ones. <i>Pew Research Center</i> , 22.
Rama, M. (2018). Redrawing Battle Lines in the Struggle for Civic Space: Insights from the Philippines. CIVIC SPACE, 51.
Shackelford, S. (2017). Exploring the 'Shared Responsibility'of Cyber Peace: Should Cybersecurity Be a Human Right?.
Sombatpoonsiri, J. (2018). Manipulating Civic Space: Cyber Trolling in Thailand and the Philippines.
Tarun, I. M. (2018). Legal Consequences of Social Networking Malpractices: Users' Perspectives versus the Reality of Cybercrime Prevention Act of the Philippines. Advanced Science Letters, 24(11), 8111-8114.

- Teoh, C. S., & Mahmood, A. K. (2017, July). National cyber security strategies for digital economy. In 2017 International Conference on Research and Innovation in Information Systems
- economy. In 2017 International Conterence on Research and Intervation International Conterence on Research and Intervation Intervational Conterence on Services Computing (pp. 279-284).

FEATURES

The Institute commit itself for the development and enhancement of its personnel. With the restriction of face-to-face conduct of seminars and workshops, the NFSTI has encouraged the staff to attend relevant webinars for personal and professional enrichment.

Tsunami Preparedness

Cherryll M. Gonzales , Admin Clerk Rosario R. Estonilo, Utility

The webinar aims to provide an online learning platform that will educate and increase knowledge of the general public to understand tsunami hazards,

and to prepare for and respond to tsunami amidst Covid-19 Pandemic.

ENSURING SKILLS AND DEVELOPMENT OF STAFF AMIDST UNCERTAINTIES



Volunteerism in the Public Sector Attendees Janice A. Gaduena, Admin Clerk Ma. Carla G. Felipe, RN School Nurse

The said online forum was very timely with the many challenges the COVID-19 pandemic has effected worldwide and the series of typhoons that recently caused devastations in the country. These disasters created public awareness and ignited the "Bayanihan" spirit in us. It deepens the appreciation on the value of volunteerism, that even simple acts can go a long

DPO ACE TRAINING PROGRAM ACCOUNTABILITY COMPLIANCE ETHICS

Attendees Genilyne C. Pedrosa, Registrar Clerk Cherryll O. Morados, Admin Clerk

The webinar was attended by different government sectors representative and a total of 200 participants. The training program is covered by seven (7) modules: (1) Data Privacy Act of 2012; (2) Data Privacy Principles; (3) Data Protection Officer; (4) Privacy Impact Assessment; (5) Privacy Management Program; (6) Security Measures and (7) Breach Management.

The best DPOs will have expertise in data protection law and a complete understanding of their company's IT infrastructure, technology, and



technical and organizational structure. An existing employee may be designated as the DPO, or the DPO could be hired externally. Companies and organizations should look for candidates that can manage data protection and compliance internally while reporting non-compliance to the proper Supervisory Authorities. The right DPO will be both reliable and independent, with no prior commitments that would interfere with the monitoring responsibilities of the DPO role.

<u>ONE COVID19 EXPERIENCE</u>

By: Ma. Carla G. Felipe, RN, School Nurse

The first reported case of COVID19 in the country was in late January of 2020. Then, the news of two more cases in February broke out, then few more cases in early March. At the time, I did not seem to believe the progression of the disease although there was slight fear in me of the news. Until on March 16, 2020, the government placed the entire country under Enhanced Community Quarantine (ECQ) or total lockdown due to the outbreak of the virus. Only then that I realized the seriousness of the situation. Day by day, by the minute, by the hour, cases steadily increased and number of deaths all over the news and social media caused more fear and anxiety in everyone. I felt exactly



FEATURE

the same. Fear not for myself but for my family especially my parents. The entire time I obsessively tried to disinfect everything in the house. At work around August, with the resumption of schooling we had 14 cases of COVID19 among our CRIDEC students that I handled, one with moderate symptoms whom we had admitted to a hospital and had recovered. I thought that was all for me on COVID.

However, as fate would have it by early September my father took ill. Initially, I took him for RT-PCR or swab test and blood work three days into his fever. Days later things got worse. He was febrile, lethargic and confused but he had no cough nor sore throat. We rushed him to the nearest hospital and by this time he was already experiencing shortness of breath. Although his vital signs were stable laboratory tests said otherwise. His creatinine level and blood glucose were high. His electrolytes were unbalanced. Chest X-ray revealed that he had Pneumonia and the rapid antigen test taken initially confirmed that daddy was positive for COVID19. I was cautioned by the nurses to keep my distance from him but of course that would be impossible. As only one companion was allowed and as a nurse I willingly took care of daddy in the hospital. Once he was admitted, I was not allowed to go out the whole duration of his confinement. I was scared, I was anxious. The torment of uncertainty in this kind of situation would have anyone mentally weak. I was alone and had anything wrong happened I would be blamed for it. But I kept praying day in day out. It was my peace. My faith sustained me. I was calmed by the progress daddy was making after doses of remdesivir, dexamethasone and ceftriaxone, his body responded well to these medications. I also took care of myself by taking vitamins. I had to be well.

Thankfully, my father recovered fast and was discharged after 11 days. I home quarantined for 10 days, while I attended to his follow up medications and care. Luckily, I only had colds for a few days which I managed by taking ascorbic acid and drinking hot concoction of Turmeric, honey and Calamansi juice. Days later on his follow up check –up my father's attending doctor happily commented in amazement that daddy was very fortunate he was able to survive the ordeal as other patients his age were not as lucky. I must say that it is very important that prompt interventions be given to a suspected COVID patient with moderate to severe symptoms for a better outcome.

This personal experience of COVID19 was only a fraction of what doctors and co- nurses in the frontline had experienced at the height of the outbreak. I could only imagine the physical and mental exhaustion they must have felt. I am both proud and grateful of these people. It befell me that being a nurse is a sworn commitment that comes with huge responsibilities and that us, nurses are vital when and where need be.





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