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Development of Disaster Preparedness Plan for Rizal Technological University

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CHAPTER I
THE PROBLEM AND ITS BACKGROUND

A. Introduction

Earthquakes, typhoons, floods, landslides, and volcanic eruptions are the major threats The Philippines has been encountering. The Philippines experience an average of twenty (20) cyclones annually, so basically, Filipinos are already used to or are adapting to these kinds of disasters; but not to earthquakes. Typhoons can be predicted; but earthquakes cannot.

Waiting for an earthquake to happen is not the right time to plan. Disasters affect communities around the globe each year. The community should be resilient throughout a disaster. Each community should have a disaster preparedness program at all levels. To make the program successful, awareness on the program should be increased, action plans should be developed, and people of the comunity should be practicing them.

Parents may feel that their children may be safe from man-made accidents when their children are in school, but not from natural disasters. How safe is safe enough? In case a disaster strikes, like an earthquake, both parents and students should know how to contact each other afterwards. Are they prepared for the disaster? Will they survive for the next one or two weeks after the calamity.

School officials, teachers, personnel, and students must be always informed on disaster preparedness. There should be a disaster prepared program implemented in the school. One-time drills are not enough for awareness. Some students, even some teachers or administrators, usually do not participate since they are aware that it was only a drill. What about the actual earthquake? Are they prepared?

Schools and universities should have a disaster preparedness handout given to students, teachers and administrators. The handout should provide information on what they should have in case of emergencies, like a strong earthquake. They should know what to do if the earthquake strikes when they are still inside the classrooms. The handout should indicate where the students, teachers and administrators should go incase of evacuation. There should be posters or signs seen in strategic locations on disaster preparedness. Preparedness is very important. There is no definite time to know when an earthquake will strike; how strong is it; and, how big is the area it will affect.

B. Conceptual Framework

The development of the Rizal Technological University's Disaster Preparedness Program depends upon the level of awareness of the selected student-respondents on disaster preparedness on earthquake based on existing programs per college and the evaluation of the existing programs.

The components of the disaster preparedness program on earthquake are the following: (a.) There is a disaster preparedness program in the university; (b.) Disaster preparedness drills were performed in the university ; (c.) Students are always informed ahead of time on preparedness drills; (d) Students know the things to do during a disaster; (e.) There are posted signs/instructions on what to do during a disaster; (f.) Students know who to approach after a disaster - like an earthquake; (g.) Students know where to get a first aide kit; (h.) Students know the components of an emergency preparedness kit; (i.) Students know that cell phones should always be fully charged before going to school; (j.) Students know that they should always keep emergency cash on hand; (k.) Students know that they should always carry a whistle to notify everybody of their location just in case they get trapped after a disaster such as an earthquake; (l.) Students know that they should always wear their Identification Card in case they get trapped and lost consciousness after a disaster; (m.) Students know that they should always have a flashlight and batteries at hand; (n.) Students know that they should always have a candle and match at hand; (o.) Students know that they should always have special needs items at hand, like medicines; (p.) Students know that they should always have water at hand; (q.) Students know that they should always have a

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sanitizer at hand; (r.) Students know that they should always have dry/wet toilet paper at hand; (s.) Students know that they should always have dust mask at hand; and, (t.) Students know that they should always have a radio at hand.

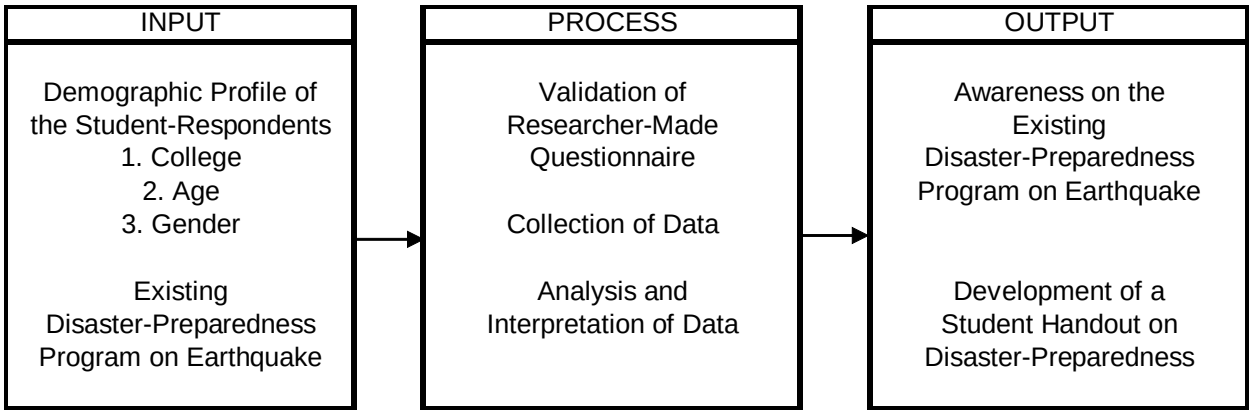

Figure 1. Conceptual Model

C. Statement of the Problem

This study aimed to determine the level of awareness of selected student-respondents on disaster preparedness on earthquake as basis for the development of the university student handout for disaster preparedness.

Specifically, it seek to answer the following

1) What is the demographic profile of the selected student-respondents?

a) Age

b) Gender

c) College

2) What is the level of awareness of the student-respondents on the following components of a disaster preparedness program on earthquake?

a) There is a disaster preparedness program in the university.

b) Disaster preparedness drills were performed in the university.

c) Students are always informed ahead of time on preparedness drills.

d) Students know the things to do during a disaster.

e) There are posted signs/instructions on what to do during a disaster.

f) Students know who to approach after a disaster - like an earthquake.

g) Students know where to get a first aide kit

h) Students know the components of an emergency preparedness kit.

i) Students know that cell phones should always be fully charged before going to school.

j) Students know that they should always keep emergency cash on hand.

k) Students know that they should always carry a whistle to notify everybody of their location just in case they get trapped after a disaster such as an earthquake

l) Students know that they should always wear their Identification Card in case they get trapped and lost consciousness after a disaster.

m) Students know that they should always have a flashlight and batteries at hand.

n) Students know that they should always have a candle and match at hand.

o) Students know that they should always have special needs items at hand, like medicines.

p) Students know that they should always have water at hand.

q) Students know that they should always have a sanitizer at hand

r) . Students know that they should always have dry/wet toilet paper at hand.

s) Students know that they should always have dust mask at hand.

t) Students know that they should always have a radio at hand

u) Is there significant difference in the level of awareness of the student-respondents based on their demographic profiles?

D. Hypothesis

There is no significant difference in the level of awareness of the student-respondents based on their demographic profile.

E. Significance of the Study

The beneficiaries from this study are the following:

1) The Students. For them to be aware of what to do in case of a disaster attack, like an earthquake.
2) The Administration. The administrators may conduct program seminars every semester on disaster preparedness for both faculty and students.
3) The Faculty. The may lead the student to safety in times of unscheduled disasters like an earthquake.
4) The Community. They will be able to learn on what to prepare before a disaster strikes.
5) The Future Researchers. They may use the information that they will gather as a stepping stone if they need to evaluate the results of the study or conduct the same study in a different locality and time.

Information gathered from this study may make people aware on disaster preparedness on earthquake.

F. Scope and Delimitation

This investigation was conducted to identify the level of awareness on disaster preparedness on earthquake and development of a student handout on disaster preparedness program for Rizal Technological University based on the data collected from the selected student-respondents. The study covered the school year 2015 – 2016.

The study covered the level of awareness of 745 selected student-respondents based on the data collected from the questionnaires distributed. Only awareness on disaster preparedness on earthquake was included in the study.

information. Collection of data will be done after acquiring permission from the different deans and heads of each academic department.

The respondents of the study will be the selected students of Rizal Technological University during school year 2015-2016 second semester. There were total enrollees of 21,813. Due to time constraint, the researcher involved only 745 college students. Selected administrators and faculty were interviewed for suggestions and recommendations on the development of the disaster preparedness on earthquake program for the University.

G. Definition of Terms

Some words acquire meaning in the context they are used. The following are defined to facilitate understanding of the discussions.

1) Aftershocks. The smaller earthquakes that occur afterwards in the same place as the mainshock. (Lisa Wald. https://earthquake.usgs.gov/learn/kids/eqscience.php)
2) Anxiety. A state of apprehension, uneasiness, and fear out of proportion to the real threat; the chief characteristic of the neuroses, commonly accompanied by somatic symptoms. (Dox, Melloni and Eisner, 1979, p. 21).

3) Disaster Preparedness. The measures taken to prepare for and reduce the effects of disasters. That is, to predict and, where possible, prevent disasters, mitigate their impact on vulnerable populations, and respond to and effectively cope with their consequences. (http://www.ifrc.org/en/what-we-do/disaster-management/preparing-for-disaster)
4) Disaster Preparedness Kit. It is simply a collection of basic items your household may need in the event of an emergency. (https://www.ready.gov/build-a-kit)
5) Earthquake. This is what happens when two blocks of the earth slip past one another. (Lisa Wald. https://earthquake.usgs.gov/learn/kids/eqscience.php)
6) Epicenter. The location directly above where the earthquake starts on the surface of the earth. (Lisa Wald. https://earthquake.usgs.gov/learn/kids/eqscience.php)
7) Fault or Fault Plane. The surface where the block of the earth slips. (Lisa Wald. https://earthquake.usgs.gov/learn/kids/eqscience.php)
8) Foreshocks. The smaller earthquakes that happen in the same place as the larger earthquake that follows. (Lisa Wald. https://earthquake.usgs.gov/learn/kids/eqscience.php)
9) Hypocenter. The location below the earth's surface where the earthquake starts. (Lisa Wald. https://earthquake.usgs.gov/learn/kids/eqscience.php)

10) Mainshock. The largest, main earthquake. (Lisa Wald. https://earthquake.usgs.gov/learn/kids/eqscience.php)

11) Panicked. A sudden overwhelming fear, with or without cause, that produces hysterical or irrational behavior, and that often spreads quickly through a group of persons or animals. (http://dictionary.reference.com/browse/panicked, 2015).

CHAPTER II
REVIEW OF RELATED STUDIES AND LITERATURE

This chapter presents the literature and studies that have direct bearing on the topic being studied.

A. Steps to Disaster Preparedness

10 actions to keep in mind when planning to mitigate disaster and resources to help prepare: (1.) Be ready at home—Prepare, plan and practice. It is important for individuals and families to increase their awareness, get educated, engage in preparedness conversations and stay informed. (2.) Be ready at work—Does your office have an emergency and evacuation plan? Have you communicated it? How do you stay in contact with local authorities to determine what to do? Finding answers to these and other questions will ensure greater safety and success when dealing with disaster. (3.) Know your community's vulnerabilities—Understanding what types of disasters are most likely to affect your location will help inform your plan. (4.) Learn about agencies and roles—Preparedness is a shared responsibility—all government agencies at every level have roles and responsibilities to fulfill in supporting preparedness. (5.) Find mitigation funding—A number of grant programs exist to fund disaster mitigation activities, reduce losses and protect life and property from future disaster damages. (6.) Conduct a risk assessment—Conduct a risk assessment to identify potential hazards and consequences and follow through with action to mitigate risks. (7.) Inform your plan with statistics—Did you know that the most recurring and expensive disaster is flooding? Reduce disaster risks and build resilience by understanding key data. (8.) Plan for all types of risks—Emergencies are not all related to natural hazards. Some are man-made (e.g., fires, industrial or transport accidents, oil spills, explosions). It is important to be prepared for all possible risk scenarios. (9.) Understand continuity of operations (COOP)—This is a universally accepted term describing the stability of essential functions in a community or for a business. Disaster preparation should include knowing what these function are, who performs them and what they require to continue to perform in a disaster environment. (10.) Research NGOs—Non-governmental organizations (NGOs) are an important component of and complement to every community's preparedness, assisting with disaster response and recovery. (Makarem, Filas N., 2015)

This literature is a good source of knowledge on how to be prepared before a disaster strikes.

10 Disaster Preparedness Tips You Can Really Use

(1.) Know what you'll face. Part of preparation is knowing exactly what kind of disasters you might face and knowing what to do in each situation. Living in Montana? You probably don't need to worry about hurricanes. California? Better be ready for an earthquake, but don't overlook your chances of severe weather or pandemic flu. (2.) Learn your area's evacuation routes and shelter locations. The time to figure these things out isn't while a hurricane is bearing down on your home, or after a tsunami warning has been issued. Evacuations are actually pretty common, so it will serve you well to know the details ahead of time. You should also know the escape routes from your own home, including the more obscure ones, like out that ground-level window in your bathroom. If you have kids, draw them a map and post it near their door. You should also plan where your family will regroup if you must evacuate your house. Pick one location right outside your home, and one outside the neighborhood, in case you must leave the area. Decide ahead of time where you would go in case of an evacuation, whether its a friend's or relative's house or a Red Cross shelter. (3.) Know how you'll reconnect with people who matter. If cell networks aren't working, you don't just need to worry about how your Netflix stream will be affected. Consider how you will contact your family or your roommates. How will you let others know you are alright? Figuring this out ahead of time can make everything so much easier in a difficult situation. The Red Cross recommends using an out-of-area emergency contact to have family members check in with, since it may be easier to make long distance calls. Everyone should also have a list of emergency contacts and local emergency numbers. (4.) Sign up for emergency alerts and know how officials will communicate with you during a disaster. You can get these on your cell phone, if you haven't disabled them already. We know the blaring noise overtaking the silent mode on your phone can be annoying, but this is probably the best way to learn about emergencies if you are constantly attached to your phone. The emergency alert system also broadcasts over the radio and television, and NOAA weather radio can tell you if severe weather is expected 24 hours a day, seven days a week. Tune in on social media as well, but don't expect to rely on it exclusively as you may not keep your Internet connection in an emergency. (5.) Learn what to do if you're caught away from home. Obviously you may not be at home when disaster strikes. In

the case of an unexpected emergency, you should be prepared to react from different locations, including your workplace or car. Most of this is pretty basic stuff — again, know your evacuation routes, communication plan and how you'll receive emergency notification. Have a plan for reconnecting with kids who may be at school, daycare or after-school activities. Talk to schools to see how they will communicate with families in an emergency, if they have a shelter-in-place plan and where they will go if they are forced to evacuate. (6.) Have a kit and know how to use it. Ok, we're not talking full-on doomsday prepper status here. We're talking about some basic necessities. This includes food, water, basic first aid supplies and other emergency equipment that you might already have (think flashlights and duct tape). Check out this full list by FEMA for tips. The key is to have this assembled and ready to use, not scattered all over your house. Make sure everything is in working order and that no one sneaks snacks from your finished kit. Some kits are available for purchase pre-packed, but remember, if you don't know how to use what you have, it could be useless. (7.) Keep in mind people who may need special preparation. Kids, infants, people with disabilities and seniors may all need special considerations while planning for an emergency. If you or a family member need medication or special equipment, make sure you have a plan to bring it with you. Talk to your neighbors about how you can help one another in a disaster, and check on each other in case of an emergency. (8.) Prepare for your pets. The goal of emergency preparedness is to keep the whole family safe — and that includes our pets. If you need to evacuate, you should never leave your pet behind. Try to evacuate to a friend or family member's house, as pets may not be allowed inside public shelters. Keep a pet emergency kit on hand with food and other important items. The ASPCA recommends micro-chipping pets so they can be identified and returned to you even without tags (or you may want to invest in a GPS tracker so you can find them yourself). The ASPCA app also helps you keep track of animal records required to board pets at an emergency shelter and has other helpful tips for a variety of situations. (9.) Learn emergency skills that can always come in handy. Make sure you know little things that can make a huge difference, like how to use a fire extinguisher or perform basic first aid. Get trained in CPR or the even simpler hands-only CPR, which could help save someone's life even when you least expect it. You can also learn how to shut off utilities in your house in case of a disaster that may damage gas, water or electrical lines. (10.) Find out how to help your community during a disaster. Want to help out even more? Learn how you can be a community leader during a disaster or teach others how to be prepared. Volunteer positions with local emergency response agencies or nonprofits are available in a huge range of capacities. (Boehrer, Katherine. 2017)
This literature is what most citizens are looking for when it comes to knowledge about disaster preparedness.

B. Earthquakes

1) What is an earthquake? An earthquake is what happens when two blocks of the earth suddenly slip past one another. The surface where they slip is called the fault or fault plane. The location below the earth's surface where the earthquake starts is called the hypocenter, and the location directly above it on the surface of the earth is called the epicenter. Sometimes an earthquake has foreshocks. These are smaller earthquakes that happen in the same place as the larger earthquake that follows. Scientists can't tell that an earthquake is a foreshock until the larger earthquake happens. The largest, main earthquake is called the mainshock. Mainshocks always have aftershocks that follow. These are smaller earthquakes that occur afterwards in the same place as the mainshock. Depending on the size of the mainshock, aftershocks can continue for weeks, months, and even years after the mainshock. (Lisa Wald. https://earthquake.usgs.gov/learn/kids/eqscience.php)

2) What causes earthquakes and where do they happen? The earth has four major layers: the inner core, outer core, mantle and crust. The crust and the top of the mantle make up a thin skin on the surface of our planet. But this skin is not all in one piece – it is made up of many pieces like a puzzle covering the surface of the earth. (figure 3) Not only that, but these puzzle pieces keep slowly moving around, sliding past one another and bumping into each other. We call these puzzle pieces tectonic plates, and the edges of the plates are called the plate boundaries. The plate boundaries are made up of many faults, and most of the earthquakes around the world occur on these faults. Since the edges of the plates are rough, they get stuck while the rest of the plate keeps moving. Finally, when the plate has moved far enough, the edges unstick on one of the faults and there is an earthquake. (Lisa Wald. https://earthquake.usgs.gov/learn/kids/eqscience.php)

3) Why does the earth shake when there is an earthquake? While the edges of faults are stuck together, and the rest of the block is moving, the energy that would normally cause the blocks to slide past one another is being stored up. When the force of the moving blocks finally overcomes the friction of the jagged edges of the fault and it unsticks, all that stored up energy is released. The energy radiates outward from the fault in all directions in the form of seismic waves like ripples on a pond. The seismic waves shake the earth as they move through it, and when the waves reach the earth's surface, they shake the ground and anything on it, like our houses and us. (Lisa Wald. https://earthquake.usgs.gov/learn/kids/eqscience.php)

4) How are earthquakes recorded? Earthquakes are recorded by instruments called seismographs. The recording they make is called a seismogram. The seismograph has a base that sets firmly in the ground, and a heavy weight that hangs free. When an earthquake causes the ground to shake, the base of the seismograph shakes too, but the hanging weight does not. Instead the spring or string that it is hanging from absorbs all the movement. The difference in position between the shaking part of the seismograph and the motionless part is what is recorded. (Lisa Wald. https://earthquake.usgs.gov/learn/kids/eqscience.php)

5) How do scientists measure the size of earthquakes? The size of an earthquake depends on the size of the fault and the amount of slip on the fault, but that's not something scientists can simply measure with a measuring tape since faults are many kilometers deep beneath the earth's surface. So how do they measure an earthquake? They use the seismogram recordings made on the seismographs at the surface of the earth to determine how large the earthquake was. A short wiggly line that doesn't wiggle very much means a small earthquake, and a long wiggly line that wiggles a lot means a large earthquake. The length of the wiggle depends on the size of the fault, and the size of the wiggle depends on the amount of slip. The size of the earthquake is called its magnitude. There is one magnitude for each earthquake. Scientists also talk about the intensity of shaking from an earthquake, and this varies depending on where you are during the earthquake. (Lisa Wald. https://earthquake.usgs.gov/learn/kids/eqscience.php)

6) How can scientists tell where the earthquake happened? Seismograms come in handy for locating earthquakes too, and being able to see the P wave and the S wave is important. You learned how P & S waves each shake the ground in different ways as they travel through it. P waves are also faster than S waves, and this fact is what allows us to tell where an earthquake was. To understand how this works, let's compare P and S waves to lightning and thunder. Light travels faster than sound, so during a thunderstorm you will first see the lightning and then you will hear the thunder. If you are close to the lightning, the thunder will boom right after the lightning, but if you are far away from the lightning, you can count several seconds before you hear the thunder. The further you are from the storm, the longer it will take between the lightning and the thunder. P waves are like the lightning, and S waves are like the thunder. The P waves travel faster and shake the ground where you are first. Then the S waves follow and shake the ground also. If you are close to the earthquake, the P and S wave will come one right after the other, but if you are far away, there will be more time between the two. By looking at the amount of time between the P and S wave on a seismogram recorded on a seismograph, scientists can tell how far away the earthquake was from that location. However, they can't tell in what direction from the seismograph the earthquake was, only how far away it was. If they draw a circle on a map around the station where the radius of the circle is the determined distance to the earthquake, they know the earthquake lies somewhere on the circle. But where? Scientists then use a method called triangulation to determine exactly where the earthquake was (figure 6). It is called triangulation because a triangle has three sides, and it takes three seismographs to locate an earthquake. If you draw a circle on a map around three different seismographs where the radius of each is the distance from that station to the earthquake, the intersection of those three circles is the epicenter. (Lisa Wald. https://earthquake.usgs.gov/learn/kids/eqscience.php)

7) Can scientists predict earthquakes? No, and it is unlikely they will ever be able to predict them. Scientists have tried many different ways of predicting earthquakes, but none have been successful. On any particular fault, scientists know there will be another earthquake sometime in the future, but they have no way of telling when it will happen. (Lisa Wald. https://earthquake.usgs.gov/learn/kids/eqscience.php) This literature discusses what is earthquake, what causes it, where do they happen, why does the earth shake during earthquake. This information is important for disaster preparedness.

CHAPTER III
MATERIALS AND METHODS

A. Research Method Used

The survey research design of descriptive research was used in this study. In survey method research (Jackson, 2009), participants answer questions administered through interviews or questionnaires. After participants answer the questions, researchers describe the responses given. In order for the survey to be both reliable and valid it is important that the questions are constructed properly. Questions should be written so they are clear and easy to comprehend.

According to Laurentina Calmorin (2003, p. 46-47), the descriptive survey approach is appropriate wherever the object of any class vary among themselves and one is interested in knowing the extent to which different conditions obtain among these objects. The word "survey" signifies the gathering of data regarding present conditions. A survey is useful in: (1) proving the value of facts, and (2) focusing attention on the most important things to be reported. In descriptive-surveys, it is necessary to determine the

psychological and social aspects of research by way of application or implementation of evidence to recognize between facts and influence. The data from a descriptive-survey when used as basis for inferences that may aid in solving practical problems is of value to the researcher rather than the principles and laws applied in conducting an experiment in the laboratory.

B. Population and Sampling Scheme

The basis for the selection of respondents on this investigation was the population of the college students of Rizal Technological University. The college students will be asked to answer the researcher-made questionnaire.

The formula of Pagoso, et. al. (1981, p. 46) for computing the size of the sample was used in this study.

$$n = \frac{N}{1 + Ne^2}$$

In which: n = the size of the sample
N = the size of the population
e = the margin of error

A total of 745 college students out of a total population of 21,813 of the Boni Campus constituted the sample of the study. The researchers used a non-probability sampling method, the convenience sampling method. Convenience sampling method is obtained by using any groups who happen to be convenient (Myers and Hansen, 2006).

C. Description of the Respondents

The participants to the study will be described using the following personal characteristics: age, gender, and college. Such description was done in problem number one of this study.

D. Instruments Used

A researcher-made questionnaire will be used. The first part of the questionnaire encompasses the demographic profile of the student-respondents which are the gender, age, and college. The second part of the questionnaire will deal with the level of awareness of the student-respondents on the following components of a disaster preparedness program on earthquake.

E. Validation of the Instrument

For the validation process, the questionnaire will be submitted to the researcher's adviser for any correction or suggestions. After checking and correcting, twenty-five (25) students will be asked to answer the questionnaires for the dry-run. The items will then be checked as to whether or not they were answered correctly or incorrectly. Items found to be deficient will be corrected. After correction, the questionnaire will be finalized. Approval of the adviser will be sought for the administration of the instrument.

F. Data Gathering Procedures

Permission was requested from Deans and Directors of the different campuses of Rizal Technological University to allow the researchers to distribute and collect questionnaires to the students. Due to time constraints, only 745 of the total population of college students were included for ease of tabulation and analysis of the data.

Selected administrators and faculty were interviewed for suggestions and recommendations for the proposed development of disaster preparedness plan program.

G. Statistical Treatment of Data

Descriptive statistics such as frequency, percentage, rank, and weighted mean will be used to quantify the data.

The data that were gathered were statistically treated using the following formula:

Frequency and Percentage These were used to determine the number of percentage of the respondents by profile who participated in the study. The formula is:

$$\% = \frac{f}{N}$$

Where: % = percent
f = frequency
N = total number of respondents

T-test

T-test is used to determine if there is a significant difference between awareness of the student-respondents components of a disaster preparedness program on earthquake and profile by gender . The formula is:

Where :
r = computed value of Pearson product moment correlation
n = number of observations

. One way Analysis of variance (ANOVA) – determined the significant difference between groups of means. It was used to determine awareness of the student-respondents components of a disaster preparedness program on earthquake and profile in terms of age and college. These are the dependent variables that were used in the study.

DF = SSt = (N-1)
SSw = (N-K)-D
SSb = (K-1) –N
Where N = Population
E = 5% Margins of Errors
N= Sample Size
Computation of ANOVA

$$C = \frac{(GS)^2}{N}$$

$$SSt = 2\text{-}C$$

$$SSb = \frac{T1^2 + T2 + \ldots + Tn^2 - C}{N}$$

$$SSw = SSt - SSb$$

$$MSC = \frac{SSb}{K-1}$$

$$MSE = \frac{SSw}{N-k}$$

$$F = \frac{MSC}{MSE}$$

Where:
X = is the mean
F = is the number of occurrences
Σfx = is the sum of products fx
Σf = is the total number of occurrences

CHAPTER IV
PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

This chapter presents the analysis and interpretation of data needed to answer the problems stated

Table 1
Frequency and Percentage terms of Age

Age	F	%
16-20	670	89.9
21-25	68	9.1
26-30	7	.9
Total	745	100.0

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Table 1 shows that majority of the respondents (670 or 89.9%) are between 16 to 20 years old., 68 or 9.1 % of the respondents are between 21to 25 years old and only seven (7) or 0.9% of the respondents are between 26 to 30 years old.

Table 2
Frequency and Percentage terms of Gender

Gender	F	%
Male	336	45.1
Female	409	54.9
Total	745	100.0

Table 2 presents the gender of the respondents 336 0r 45.14% of the respondents are male and 409 or 54.9% are female.

Table3
Frequency and Percentage terms of College

Course	**F**	**%**
Ipe	186	25.0
CED	59	7.9
Cas	113	15.2
Cbet	187	25.1
Ceit	189	25.4
Con	11	1.5
Total	**745**	**100.0**

Table3 presents the number of respondents in each College. 189 or 25.4% are the respondents in the College of Engineering and Industrial Technology. In the College of Business and Entrepreneurial Technology, 187 or 25.1%. The Institute of Physical Education has a 186 or 25% . The College of Arts and Sciences has a 113 or 15.2%. For the College of Education, 59 or 7.9% are the respondents. And lastly, the Collge of Nursing has 11 or 1.5% respondents which make it total of 745 respondents.

SOP2. What is the awareness of the student-respondents on the following components of a disaster preparedness program on earthquake

Table 4
Awareness of the student-respondents on the following components of a disaster preparedness program on earthquake

	Aware		Unaware	
	F	%	F	%
. There is a disaster preparedness program in the university.	527	70.7	218	29.3
. Disaster preparedness drills were performed in the university.	548	73.6	197	26.4
Students are always informed ahead of time on preparedness drills.	435	58.4	310	41.6
. Students know the things to do during a disaster.	651	87.4	94	12.6
There are posted signs/instructions on what to do during a disaster.	424	56.9	321	43.1
Students know who to approach after a disaster - like an earthquake.	493	66.2	252	33.8
. Students know where to get a first aide kit.	377	50.6	368	49.4
Students know the components of an emergency preparedness kit.	493	66.2	252	33.8
Students know that cell phones should always be fully charged before going to school.	660	88.6	85	11.4

. Students know that they should always keep emergency cash on hand.	597	80.1	148	19.9
Students know that they should always carry a whistle to notify everybody of their location just in case they get trapped after a disaster such as an earthquake.	512	68.7	233	31.3
Students know that they should always wear their Identification Card in case they get trapped and lost consciousness after a disaster.	628	84.3	117	15.7
. Students know that they should always have a flashlight and batteries at hand.	462	62.0	283	38.0
Students know that they should always have a candle and match at hand.	385	51.7	360	48.3
Students know that they should always have special needs items at hand, like medicines.	594	79.7	151	20.3
Students know that they should always have water at hand.	588	78.9	157	21.1
Students know that they should always have a sanitizer at hand.	551	74.0	194	26.0
Students know that they should always have dry/wet toilet paper at hand.	538	72.2	207	27.8
Students know that they should always have dust mask at hand.	432	58.0	313	42.0
Students know that they should always have a radio at hand.	376	50.5	369	49.5

Table 4 depicts the awareness of the student-respondents on the following components of a disaster preparedness program on earthquake. 527 0r 70.7% out of 745of the respondents are aware that there is a disaster preparedness program in the university while the rest are unaware. Almost 60% (438 or 58.4%)of the respondents are aware that Almost 75% (548 or 73.6%)of the respondents are aware that students are always informed ahead of time on preparedness drills. While the rest are unaware. Almost 90% (651 or 87.4%)of the respondents are aware that sstudents know the things to do during a disaster while the rest are unaware.
424 0r56.9% out of 745 respondents are aware that there are posted signs/instructions on what to do during a disaster. 493 0r66.26.9% out of 745 respondents are aware that students know who to approach after a disaster - like an earthquake. 377 0r50.6% of 745 respondents are aware where to get a first aide kit while the rest are unaware. 493 0r 66.2% of 745 respondents are aware about the components of an emergency preparedness kit. And the rest are unaware. 660 or 88.6%tof 745 respondents are aware that cell phones should always be fully charged before going to school .while the rest are unaware. 597 or 80.16% of 745 respondents are aware know that they should always keep emergency cash on hand. . 512 0r 68.7% of 745 respondents are aware that they should always carry a whistle to notify everybody of their location just in case they get trapped after a disaster such as an earthquake while the rest are unaware. 594 or79.7%t of 745 respondents are aware that that they should always have special needs items at hand, like medicines. While the rest are unaware. 588 or78.9.0% of 745 respondents are aware that they should always have water at hand. 551 or 74.0% of 745 respondents are aware that they should always have a sanitizer at hand.
538 or 72.2% of 745 respondents are aware that they should always have dry/wet toilet paper at hand. while the rest are unaware. 432 0r58.00% of 745 respondents are aware that they should always have dust mask at hand. 376 0r50.50% of 745 respondents are aware that they should always have a radio at hand.

SOP3. Is there significant differences in the of awareness of the student-respondents based on their demographic profiles?

Table 5

Independent Sample T- Test between awareness of the student-respondents components of a disaster preparedness program on earthquake and Profile by gender

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	t-value	p-value	Decision
. There is a disaster preparedness program in the university.	-.052	.959	p>.05, Accept Ho Not Significant
. Disaster preparedness drills were performed in the university.	-1.477	.140	p>.05, Accept Ho Not Significant
Students are always informed ahead of time on preparedness drills.	-3.430	.001	P<05,Reject Ho Significant
. Students know the things to do during a disaster.	.799	.425	p>.05, Accept Ho Not Significant
There are posted signs/instructions on what to do during a disaster.	.182	.855	p>.05, Accept Ho Not Significant
Students know who to approach after a disaster - like an earthquake.	-.102	.919	p>.05, Accept Ho Not Significant
. Students know where to get a first aide kit.	-2.506	.012	P<05,Reject Ho Significant
Students know the components of an emergency preparedness kit.	-1.191	.234	p>.05, Accept Ho Not Significant
Students know that cell phones should always be fully charged before going to school.	1.776	.076	p>.05, Accept Ho Not Significant
. Students know that they should always keep emergency cash on hand.	1.338	.181	p>.05, Accept Ho Not Significant
Students know that they should always carry a whistle to notify everybody of their location just in case they get trapped after a disaster such as an earthquake.	.939	.348	p>.05, Accept Ho Not Significant
Students know that they should always wear their Identification Card in case they get trapped and lost consciousness after a disaster.	.047	.963	p>.05, Accept Ho Not Significant
. Students know that they should always have a flashlight and batteries at hand.	.813	.416	p>.05, Accept Ho Not Significant
Students know that they should always have a candle and match at hand.	-.348	.728	p>.05, Accept Ho Not Significant
Students know that they should always have special needs items at hand, like medicines.	1.447	.148	p>.05, Accept Ho Not Significant
Students know that they should always have water at hand.	3.673	.000	P<05,Reject Ho Significant
Students know that they should always have a sanitizer at hand.	4.851	.000	P<05,Reject Ho Significant
Students know that they should always have dry/wet toilet paper at hand.	4.945	.000	P<05,Reject Ho Significant
Students know that they should always have dust mask at hand.	1.467	.143	p>.05, Accept Ho Not Significant
Students know that they should always have a radio at hand.	-2.127	.034	P<05,Reject Ho Significant

*df=743

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As presented in Table 5 is the independent sample t-test between awareness of the student-respondents components of a disaster preparedness program on earthquake and profile by gender . There is no significant difference between male or female respondents (t = .052, p = .959> .05) in the disaster preparedness program in the university. likewise, no significant difference between male or female respondents (t =-1.477, p = .140> .05) in the Disaster preparedness drills were performed in the university. However, there is significant difference between male or female respondents (t =-3.430, p = .001< .05) that sstudents are always informed ahead of time on preparedness drills.

. There is no significant difference between male or female respondents (t = .799, p = .425> .05) in the things to do during a disaster.likewise, no significant difference between male or female respondents (t =0.182, p = .855> .05) that There are posted signs/instructions on what to do during a disaster. Also, no significant difference between male or female respondents (t =-0.102, p = .919> .05) that students know who to approach after a disaster - like an earthquake. However, there is significant difference between male or female respondents (t =-2.506, p = .012< .05)that students know where to get a first aide kit.

There is no significant difference between male or female respondents (t =-1.191, p = .234> .05 that students know the components of an emergency preparedness kit likewise, no significant difference between male or female respondents (t =1.7762, p = .076> .05) that sstudents know that cell phones should always be fully charged before going to school.Also, no significant difference between male or female respondents (t =1.338, p = .181> .05)that students know that they should always keep emergency cash on hand. Moreover, there is no significant difference between male or female respondents (t =0.939, p = .348> .05) that students that should always carry a whistle to notify everybody of their location just in case they get trapped after a disaster such as an earthquake.

However, there is significant difference between male or female respondents (t = 3.673, p = .000> .05)that Students know that they should always have water at hand. Similarly, there is significant difference between male or female respondents (t =4.851, p = .000> .05) that students know that they should always have a sanitizer at hand. Also, there is significant difference between male or female respondents (t =4.945, p = .000> .05) that students know that they should always have dry/wet toilet paper at hand. There is no significant difference between male or female respondents (t =1.467, p = .143> .05) that they should always have dust mask at hand. there is significant difference between male or female respondents (t =-2.127, p = .034< .05) that they should always have a radio at hand.

Table 6

ANOVA between awareness of the student-respondents components of a disaster preparedness program on earthquakeand Profile by college

	F-value	p-value	Decision
. There is a disaster preparedness program in the university.	2.922	.013	P<05,Reject Ho Significant
. Disaster preparedness drills were performed in the university.	5.185	.000	P<05,Reject Ho Significant
Students are always informed ahead of time on preparedness drills.	.573	.721	P<05,Reject Ho Significant
. Students know the things to do during a disaster.	3.158	.008	p>.05, Accept Ho Not Significant
There are posted signs/instructions on what to do during a disaster.	1.555	.170	p>.05, Accept Ho Not Significant
Students know who to approach after a disaster - like an earthquake.	6.446	.000	P<05,Reject Ho Significant
. Students know where to get a first aide kit.	2.851	.015	P<05,Reject Ho Significant
Students know the components of an emergency preparedness kit.	3.839	.002	P<05,Reject Ho Significant
Students know that cell phones should always be fully charged before going to school.	1.930	.087	p>.05, Accept Ho Not Significant
. Students know that they should always keep emergency cash on hand.	1.062	.380	p>.05, Accept Ho Not Significant

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Students know that they should always carry a whistle to notify everybody of their location just in case they get trapped after a disaster such as an earthquake.	1.030	.399	p>.05, Accept Ho Not Significant
Students know that they should always wear their Identification Card in case they get trapped and lost consciousness after a disaster.	3.262	.006	P<05,Reject Ho Significant
. Students know that they should always have a flashlight and batteries at hand.	2.708	.020	P<05,Reject Ho Significant
Students know that they should always have a candle and match at hand.	3.845	.002	p>.05, Accept Ho Not Significant
Students know that they should always have special needs items at hand, like medicines.	2.987	.011	P<05,Reject Ho Significant
Students know that they should always have water at hand.	4.483	.000	P<05,Reject Ho Significant
Students know that they should always have a sanitizer at hand.	3.194	.007	P<05,Reject Ho Significant
Students know that they should always have dry/wet toilet paper at hand.	3.039	.010	P<05,Reject Ho Significant
Students know that they should always have dust mask at hand.	1.815	.108	p>.05, Accept Ho Not Significant
Students know that they should always have a radio at hand.	3.071	.009	P<05,Reject Ho Significant

As shown in table 6 is this computed ANOVA between awareness of the student-respondents components of a disaster preparedness program on earthquake and Profile by college. There is significant difference between colleges and disaster preparedness program in the university.(F =2.922, p = .013< .05) . Likewise, there is significant difference between colleges and. disaster preparedness drills were performed in the university(F =5.1852.922, p = .000< .05) .But, there is no significant difference between colleges and students are always informed ahead of time on preparedness drills(F =.573, p = .721> .05). There is significant difference between colleges and Students know the things to do during a disaster (F =3.158, p = .008> .05).

There is no significant difference between colleges and posted signs/instructions on what to do during a disaster. (F =1.555, p = .170> .05). But, there is significant difference between colleges and Students know who to approach after a disaster - like an earthquake. . (F =6.446, p = .000< .05). There is significant difference between colleges and. Students know where to get a first aide kit. . (F =2.851, p = .015< .05). There is significant difference between colleges and students know the components of an emergency preparedness kit. (F =3.839, p = .002< .05).

There is significant difference between colleges and Students know that cell phones should always be fully charged before going to school. (F =3.839, p = .002< .05).But, there is no significant difference between colleges and. Students know that they should always keep emergency cash on hand. (F =1.0629, p = .380> .05).Also, there is no significant difference between colleges and. Students know that they should always carry a whistle to notify everybody of their location just in case they get trapped after a disaster such as an earthquake. (F =1.030, p = .399> .05). There is no significant difference between colleges and Students know that they should always wear their Identification Card in case they get trapped and lost consciousness after a disaster. (F =3.262, p = .006> .05).

On the other hand, there is significant difference between colleges and . Students know that they should always have a flashlight and batteries at hand.. (F = 2.7086.446, p = .020< .05). There is significant difference between colleges and. Students know that they should always have a candle and match at hand. (F =3.845, p = .0002< .05). There is significant difference between colleges and Students know that they should always have special needs items at hand, like medicines. (F =2.987, p = .011< .05). There is significant difference between colleges and Students know that they should always have water at hand. (F =4.4832.987, p = .000< .05).). There is significant difference between colleges and Students know that they should always have a sanitizer at hand. (F

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=3.194, p = .007< .05). There is significant difference between colleges and Students know that they should always have dry/wet toilet paper at hand. (F =3.039, p = .010< .05).

There is no significant difference between colleges and Students know that they should always have dust mask at hand. (F =1.815, p = .108> .05).Conversely, there is significant difference between colleges and. Students know that they should always have a radio at hand.

(F =3.071, p = .009< .05).

Table 7

ANOVA between awareness of the student-respondents components of a disaster preparedness program on earthquakeand Profile byAge

	F-value	p-value	Decision
. There is a disaster preparedness program in the university.	1.836	.160	p>.05, Accept Ho Not Significant
. Disaster preparedness drills were performed in the university.	1.284	.278	p>.05, Accept Ho Not Significant
Students are always informed ahead of time on preparedness drills.	.460	.631	p>.05, Accept Ho Not Significant
. Students know the things to do during a disaster.	1.895	.151	p>.05, Accept Ho Not Significant
There are posted signs/instructions on what to do during a disaster.	.623	.536	p>.05, Accept Ho Not Significant
Students know who to approach after a disaster - like an earthquake.	1.819	.163	p>.05, Accept Ho Not Significant
. Students know where to get a first aide kit.	.121	.886	p>.05, Accept Ho Not Significant
Students know the components of an emergency preparedness kit.	2.641	.072	p>.05, Accept Ho Not Significant
Students know that cell phones should always be fully charged before going to school.	.034	.966	p>.05, Accept Ho Not Significant
. Students know that they should always keep emergency cash on hand.	.707	.494	p>.05, Accept Ho Not Significant
Students know that they should always carry a whistle to notify everybody of their location just in case they get trapped after a disaster such as an earthquake.	.289	.749	p>.05, Accept Ho Not Significant
Students know that they should always wear their Identification Card in case they get trapped and lost consciousness after a disaster.	.011	.989	p>.05, Accept Ho Not Significant
. Students know that they should always have a flashlight and batteries at hand.	.841	.432	p>.05, Accept Ho Not Significant
Students know that they should always have a candle and match at hand.	.551	.577	p>.05, Accept Ho Not Significant
Students know that they should always have special needs items at hand, like medicines.	1.323	.267	p>.05, Accept Ho Not Significant
Students know that they should always have water at hand.	2.404	.091	p>.05, Accept Ho Not Significant
Students know that they should always have a sanitizer at hand.	.386	.680	p>.05, Accept Ho Not Significant

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Students know that they should always have dry/wet toilet paper at hand.	1.636	.196	p>.05, Accept Ho Not Significant
Students know that they should always have dust mask at hand.	1.378	.253	p>.05, Accept Ho Not Significant
Students know that they should always have a radio at hand.	.065	.937	p>.05, Accept Ho Not Significant

Table7 shows the computed ANOVA between awareness of the student-respondents components of a disaster preparedness program on earthquake and Profile by age. There is no significant difference between age and disaster preparedness program in the university.(F =1.836, p = .160.> .05) . Likewise, .There is no significant difference between age and. Disaster preparedness drills were performed in the university (F =1.284, p = .278< .05) .Likewise, there is no significant difference between age and students are always informed ahead of time on preparedness drills (F =.460, p = .631> .05).

There is no significant difference between age and posted signs/instructions on what to do during a disaster. (F =1.895, p = .151> .05). Also ,there isno significant difference between age and Students know who to approach after a disaster - like an earthquake. . (F =1.819, p = .163> .05). there isno significant difference between ages and. Students know where to get a first aide kit. . (F =0.121, p = .886 >.05). There is no significant difference between colleges and students know the components of an emergency preparedness kit. (F =2.641, p = .072> .05).

There is no significant difference between age and Students know that cell phones should always be fully charged before going to school. (F =.034, p = .966< .05).Similarly, there is no significant difference between age and. Students know that they should always keep emergency cash on hand. (F =707, p = .494> .05).Also, there is no significant difference between age and. Students know that they should always carry a whistle to notify everybody of their location just in case they get trapped after a disaster such as an earthquake. (F =.289, p = .7499> .05). , there is no significant difference between age and Students know that they should always wear their Identification Card in case they get trapped and lost consciousness after a disaster. (F =.011, p = .989> .05).

Also, there is no significant difference between age and . Students know that they should always have a flashlight and batteries at hand.. (F = .841, p = 432.020> .05). there is no significant difference between ages and. Students know that they should always have a candle and match at hand.. (F =.551, p = .577> .05). there is no significant difference between age s and Students know that they should always have special needs items at hand, like medicines. (F =1.323, p = .267> .05). there is no significant difference between age and Students know that they should always have water at hand. (F =2.404, p = .091> .05).

Similarly, there is no significant difference between age and Students know that they should always have a sanitizer at hand. (F =.386 p = .680> .05). there is no significant difference between age and Students know that they should always have dry/wet toilet paper at hand.. (F =1.636, p = .196> .05). there is no significant difference between age and Students know that they should always have dust mask at hand. (F =1.378, p = .253> .05). There is no significant difference between age and. Students know that they should always have a radio at hand. (F =.065, p = .937< .05).

A. Findings

1) Majority of the respondents (670 or 89.9%) are between 16 to 20 years old, more than half of the respondents (409 or 54.9%) are female, coming from the six colleges, highest number of respondents from CEIT (189), and lower number of respondents from CON (11).

2) 2. 50% to 80% of the respondents are aware of the respondents are aware of the components of a disaster preparedness program on earthquake.

Between gender and awareness of the student-respondents components of a disaster preparedness program on earthquake there is no significant difference on disaster preparedness program in the university, Disaster preparedness drills were performed in the university. . Students know the things to do during a disaster. There are posted signs/instructions on what to do during a disaster. Students know who to approach after a disaster - like an earthquake. Students know the components of an emergency preparedness kit. Students know that cell phones should always be fully charged before going to school. . Students know that they should always keep emergency cash on hand. Students know that they should always carry a whistle to notify everybody of their location just in case they get trapped after a disaster such as an earthquake. Students know that they should always wear their Identification Card in case they get trapped and lost consciousness after a disaster, Students know that they should always have a flashlight and batteries at hand. Students know that they should always have a candle and match athand, Students know that they should always have special

needs items at hand, like medicines. and Students know that they should always have dust mask at hand.

3) Between gender and awareness of the student-respondents components of a disaster preparedness program on earthquake there is significant difference Students are always informed ahead of time on preparedness drills. . Students know where to get a first aide kit. Students know that they should always have water at hand. Students know that they should always have a sanitizer at hand. Students know that they should always have dry/wet toilet paper at hand, and Students know that they should always have a radio at hand.

4) Meanwhile between the profile college and awareness of the student-respondents components of a disaster preparedness program on earthquake there is significant difference on disaster preparedness program in the university, Disaster preparedness drills were performed in the university. Students know the things to do during a disaster. Students know who to approach after a disaster - like an earthquake. . Students know where to get a first aide kit. Students know the components of an emergency preparedness kit. Students know that they should always wear their Identification Card in case they get trapped and lost consciousness after a disaster. . Students know that they should always have a flashlight and batteries at hand. Students know that they should always have a candle and match at hand. Students know that they should always have special needs items at hand, like medicines. Students know that they should always have water at hand. Students know that they should always have a sanitizer at hand. Students know that they should always have dry/wet toilet paper at hand. Students know that they should always have a radio at hand.

5) There is no significant difference between college and Students are always informed ahead of time on preparedness drills. There are posted signs/instructions on what to do during a disaster. Students know that cell phones should always be fully charged before going to school. Students know that they should always keep emergency cash on hand. Students know that they should always carry a whistle to notify everybody of their location just in case they get trapped after a disaster such as an earthquake. Students know that they should always have dust mask at hand.

However, between the profile age and awareness of the student-respondents components of a disaster preparedness program on earthquake there is no significant difference on all components.

B. Conclusion

Deduced from the above findings, the conclusion drawn is that there is no significant difference in the level of awareness of the student-respondents based on their demographic profile.

C. Recommendation

Based on the results of the study in terms of awareness of the student-respondents on the components of a disaster preparedness program on earthquake, the following recommendations are drawn:

The administration should conduct frequent drills, lectures, symposiums on disaster preparedness for an increase in awareness.

The university handout on disaster preparedness should be made available for all, students, faculty, and administrative personnel.

Posters on disaster preparedness should be placed in strategic places for everyone to see and read.

List of things needed to include in the disaster preparedness should be given to students, faculty, and administrative personnel for them to know what to prepare.

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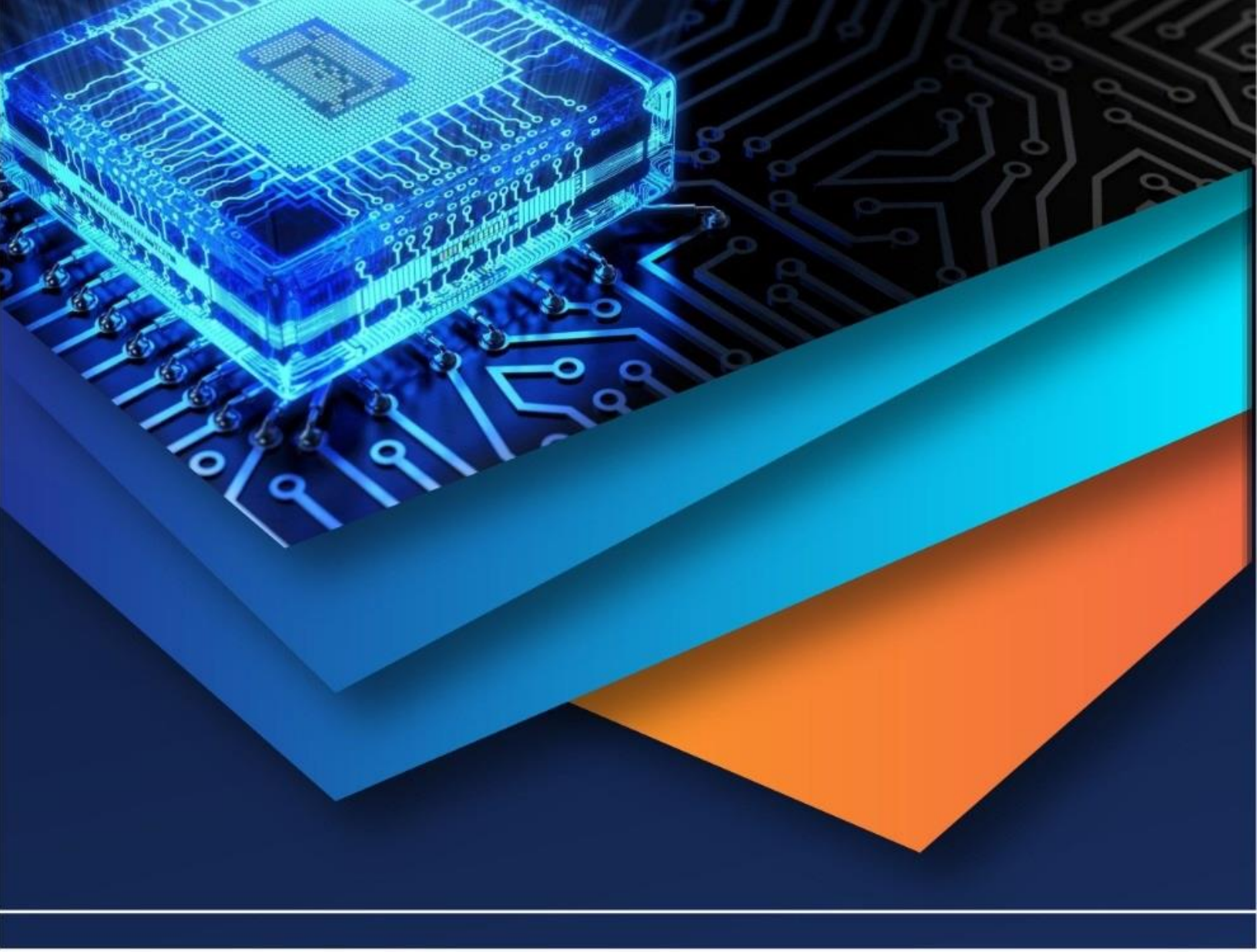

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