



Project Management Office
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ACTIVITY REPORT

ACTIVITY TITLE: MindaCELLs Clean Energy Webinar Series 2: Climatic Risks and GIS Profiling of Electric Utilities in Mindanao

DATE: October 8, 2021

VENUE: Online Zoom

PERSON/INSTITUTION HEADING THE ACTIVITY: Mindanao CELLS

1. Head of the Activity: Mindanao CELLS

NAME	DESIGNATION	OFFICE
Dr. Rogelio C. Golez Jr.	Project Leader	XU MindaCELLs
Julemer Ann G. Aying	Project Manager	XU MindaCELLs
Marc Nico B. Labadan	Admin Assistant	XU MindaCELLs
Siegred Jade R. Lastimoso	Project Monitor	XU MindaCELLs
Engr. Jefferson R. Vallente Jr.	Component Leader	XU MindaCELLs
Engr. Rayette L. Abucejo	Junior Research Assistant	XU MindaCELLs

Participants:

- **71 (47.4%)** participants are from *Xavier University- Ateneo de Cagayan*;
- **32 (21.3%)** participants are from *Capitol University*;
- **32 (21.3%)** participants are from *University of Science and Technology of Southern Philippines*;
- **11 (7.7%)** participants are from various organization such as (Philhealth Region X; PICE; Civil Engineers).

2. OBJECTIVES OF THE ACTIVITY:

- At the end of the activity, participants are able to



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- Understand the Climate Risk faced by Distribution Utilities in Mindanao.
- Understand the different results of GIS-Aided Profiling of Electric Power Distribution Utilities in Mindanao, Philippines
- Enhance knowledge of the participants about the topic.

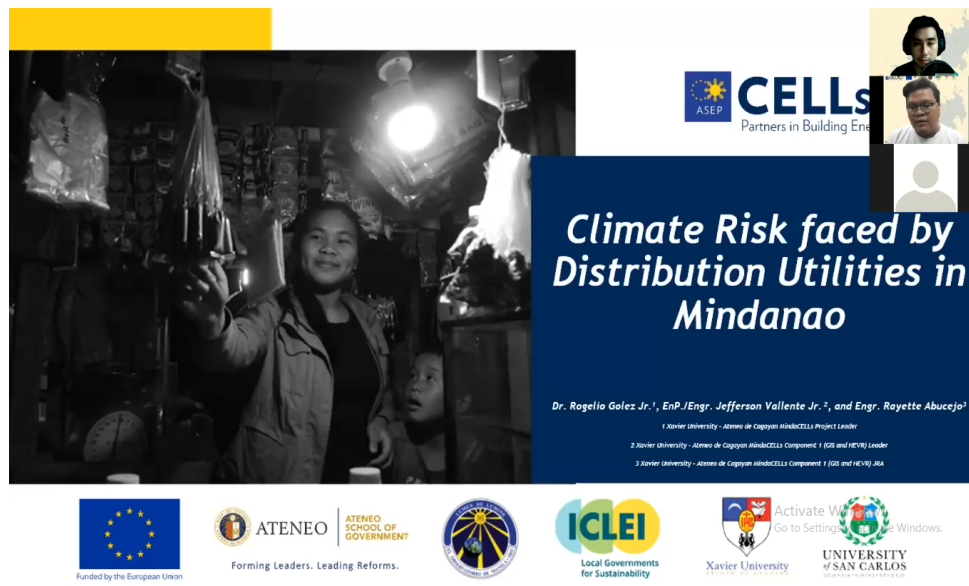
3. OUTPUT OF THE ACTIVITY:

Results of pre-test analysis
Activity report and Documentation
Attendance

4. HIGHLIGHTS OF THE ACTIVITY

The Program started with Dr. Rogelio giving the Welcoming remarks

After the welcoming remarks proceeded with the 1st presentation by Engr. Jefferson Vallente Jr. on “Climate Risk faced by Distribution Utilities in Mindanao”

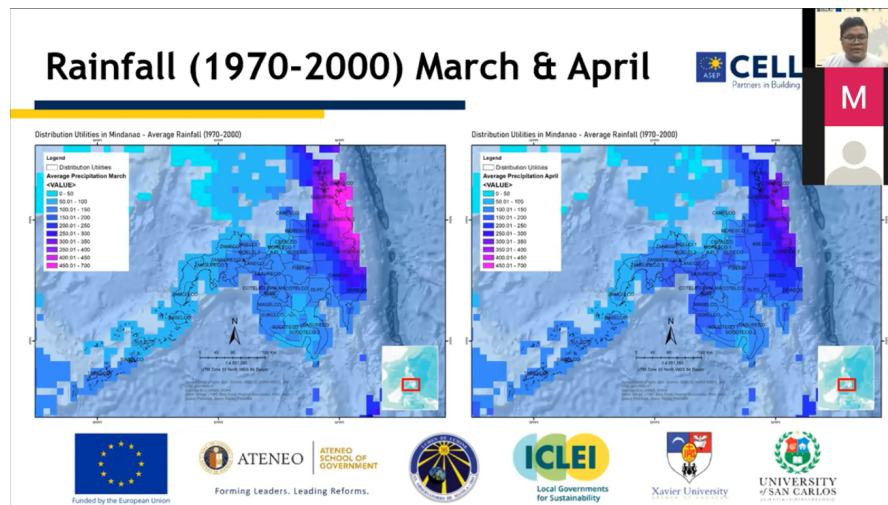


He gave the Introduction of the Study, wherein the study attempts to present the Multi Hazards faced by DU from flood, earthquake and tropical cyclones.

He showed the different applications of geographic information systems when coupled with programming, scripting and also computational.

presented the different methods that are available, Quantitative approaches and Qualitative approaches.

discussed different Extreme weather events that damages/delays energy generation, severe transmission lines, interfere fuel production and distribution, electricity shortages.



He presented the map data on tropical cyclones occurrence, climate types in Mindanao, data on rainfall.

They have already mapped out the no. of households connected to the grid; they have found out that there are higher numbers in the southern Davao area. Supply is primarily given to HUCs (Zamboanga, Cagayan de Oro, Davao, General Santos and Industrial Zones). they have considered in the study on the road networks that is improved where most power plants are located.

Then the program proceeded to a quick open forum, there were engaging discussions regarding the price of electricity, the improvement for energy generation without interruption and, alternatives for safety energy distribution

proceeded to the 2nd presentation with Engr. Rayette presenting the study on GIS-Aided Profiling of Electric Power Distribution Utilities in Mindanao Philippines.



GIS-Aided Profiling of Electric Power Distribution Utilities in Mindanao, Philippines
Dr. Rogelio Golez Jr.¹, Julemer Ann Aying², Engr. Jefferson Vallente Jr.³, and Engr. Rayette Abucejo⁴

¹ Xavier University - Ateneo de Cagayan MindoCELLs Project Leader
² Xavier University - Ateneo de Cagayan MindoCELLs Project Manager
³ Xavier University - Ateneo de Cagayan MindoCELLs Component 1 (GIS and HEVR) Leader
⁴ Xavier University - Ateneo de Cagayan MindoCELLs Component 1 (GIS and HEVR) JRA

Logos at the bottom: European Union, ATENEO, ATENEO SCHOOL OF GOVERNMENT, ICLEI, Xavier University, UNIVERSITY of SAN CARLOS.

Engr. Abucejo discussed the 39 Electric Distribution Utilities and their responsibilities in distributing electricity within their franchise, in the study identified the two types of Distribution Utilities: Private investor-owned Utility and Electric Cooperatives. With this their aim of the study is to utilize the data gathered from the Distribution Utilities to determine clustering of events in a map.

ELECTRIC POWER INDUSTRY



She showed the step by step of electricity distribution.

A few of their objectives also aim to generate comparison maps for the supply and demand of electricity for each DU in Mindanao and to determine and compare the current and previous status electrification in Mindanao.

However, due to the availability of the data only 37 DU in Mindanao were mapped. in their methodology, He explained where the sources of data are gathered and yet there is other data to be prepared in order to attain the average annual growth rate in partnership with C3..



DATA AND RESULTS

Supply and Demand Profile

YEAR	2015	2016	2017
Supply Contracted	209.25	245.21	408.26
Demand: Captive Customers	165.39	164.44	195.38

Status of Energization

YEAR	2015	2016	2017
No. of Households	187,949	182,573	187,240
No. of Energized Households	112,611	119,891	126,327
Percentage of Energization	59.92%	65.67%	67.47%

Data from Department of Energy Distribution Development Plans (CEPALCO)



Engr. Rayette was able to show the data and results from the existing data they gathered on energy distribution to different customers and CEPALCO Energy sales (2015-2017).

currently they generated 36 maps which accounts the customers and Energy Sales of Residential, Commercial, Industrial and others. they also plotted the supply and demand maps and energized household maps.

The program proceeded with the open forum, the Participants were able to give good questions regarding the distribution of energy, they were trying initiate if climatic risks can be turned into an advantage for the utilities and were trying to share/explore more innovative ideas for better solutions.

5. ISSUES/CHALLENGERS/RECOMMENDATIONS:

Issues/ challenges	Recommendations/ agreements
Zoom traffic due to internet speed	Participants to turn-off their webcam

6. NEXT STEPS:



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- Preparation for the next webinar series 3
- Activity report and documentation of event.

Prepared by:


Marc Nico B. Labadan
Admin Assistant

Endorsed by:


Julemer G. Aying
Project Manager


Dr. Rogelio C. Golez Jr.
Project Leader

Results and discussions of survey questions:



What hazards have you experienced that caused a power interruption your area?

146 responses

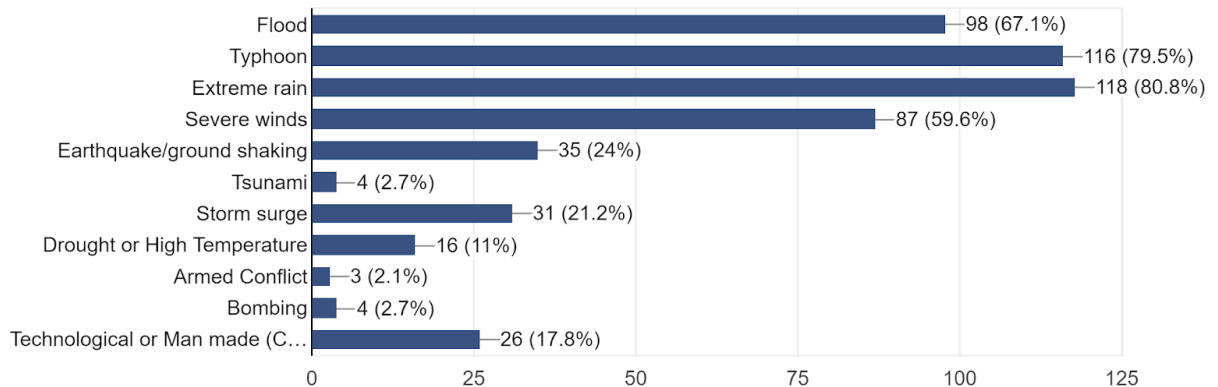


Figure 1. Result of survey question

A section in the pre-registration form involves a quick assessment regarding on what hazards have the participants experienced in power interruption within their area. According to the chart,

the highest poll by **118 (80.8%)** with **Extreme Rain** as the cause of Power Interruption,

followed by **Typhoon** as the 2nd highest poll by **116 (79.5%)**.

The 3rd and 4th highest poll according to the participants are **Floods** and **Severe Winds** by **98(67.1%)** and **87(59.6%)**.

Following by Earthquake, Storm Surge, Technological or Manmade, Drought, Tsunami, Bombing, and lastly Armed Conflict as the lowest poll.



Institution

146 responses

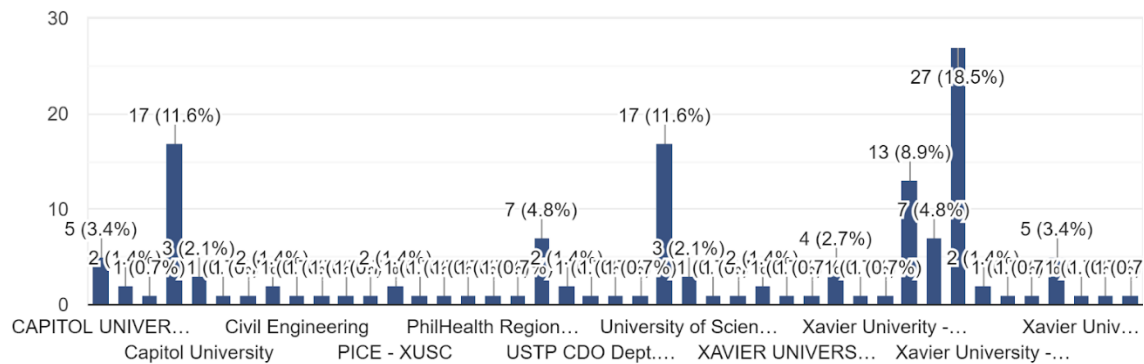


Figure 2 Bar charts of number of students per institutions participated

According to the Chart from the Webinar Series 2 Pre-registration, Among the total number of participants –

71 (47.4%) participants are from *Xavier University- Ateneo de Cagayan*;

32 (21.3%) participants are from *Capitol University*;

32 (21.3%) participants are from *University of Science and Technology of Southern Philippines*;

11(7.7%) participants are from various organization such as (Philhealth Region X; PICE; Civil Engineers).



Affiliation (e.g. "Faculty - Mechanical Engineering" or "Student - BSME 3")

146 responses

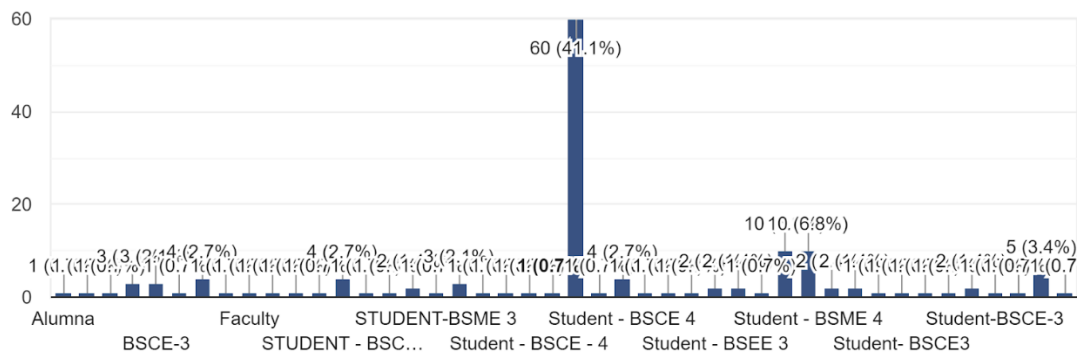


Figure 3 Pie Chart of students per courses and level

Among the total number of participants their affiliation-

140 (98%) participants are Bachelor of Science in Civil Engineering mostly in their 3rd and 4th year;

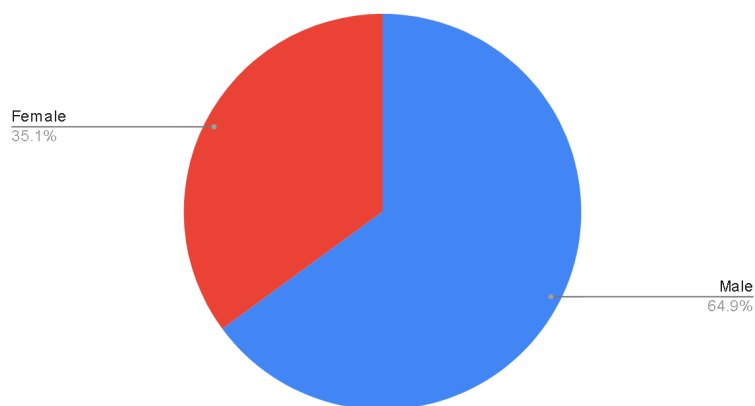
6(2%) participants are from various such as (Faculty; alumna & alumni).

Gender distribution of the participants:

There were 64.9 % male and 35.1% female.

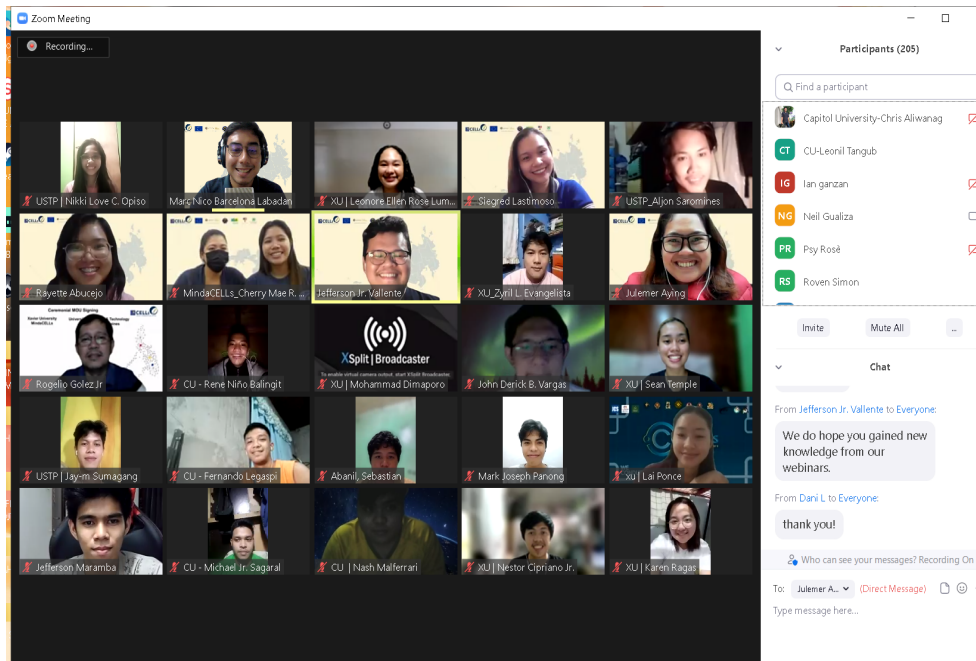
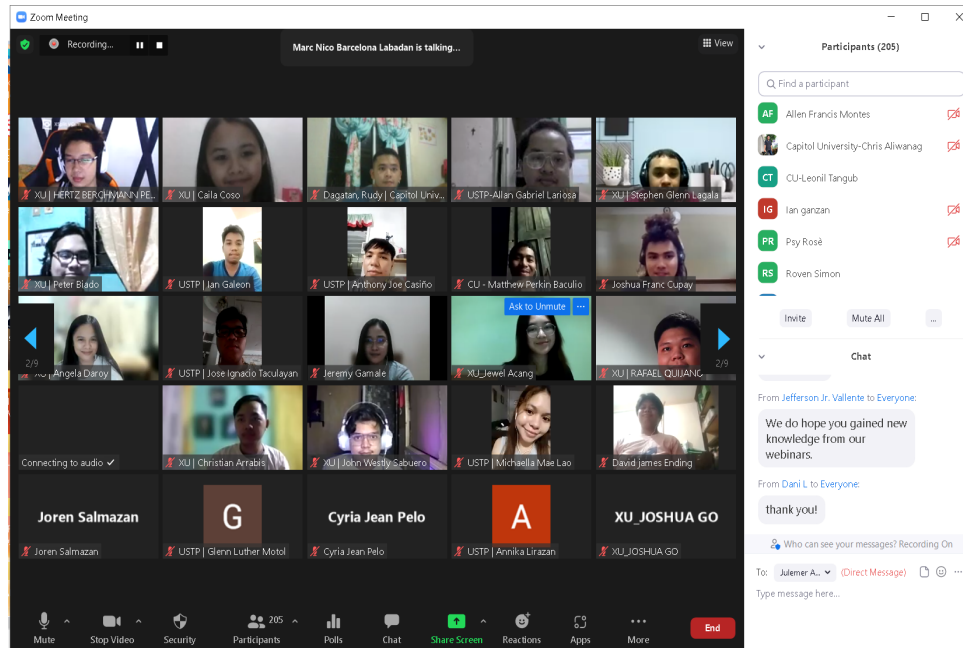


Count of Gender



APPENDICES

APPENDIX A. Online zoom picture with the participants.





APPENDIX B. List of participant's name, course and institutions.

Name	Designation	Organization
Alcantara, Leopold Stephen, C.	Student - BSCE 4	Xavier University - Ateneo de Cagayan
Rabusa, Leigh Anne Dave S.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Entrampas, Mary Louise, U.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Bela-ong, Jannel, C.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Disamburun, Abdul Carim Madale	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Sajelan, Kristine, I.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Guno, Lorenzo Lucas, A.	Student- BSCE 3	Xavier University - Ateneo de Cagayan
Disomimba, Norhailyn D.	Student-BSCE 3	Xavier University - Ateneo de Cagayan
Aguadera, Jila S.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Lumantas, Leonore Ellen Rose L.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Formaran, Marc Joshua, P.	Student- BSCE-3	Xavier University - Ateneo de Cagayan
Aves, Budz Louis C.	Student - BSCE 3	Xavier University - Ateneo de Cagayan



Apdua, Marvin, G.	Student	Xavier University - Ateneo de Cagayan
Tacang, Cae Roseianne Larks P.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Casiño, Christian James	Student - BSME 4	Xavier University - Ateneo de Cagayan
JACOBO, Jan Arianne A.	Student- BSCE3	Xavier University - Ateneo de Cagayan
PIIT, RALP JOEFIL, G.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Casiño, Christian James T.	Student - BSME 4	Xavier University - Ateneo de Cagayan
Mawile, Kurt Allen C.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Dy, Dridgely Ric, C.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Carloman, Krystelle, P.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Restauro, Kent Dwight, S.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Laguindab, khail hasiem, k.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Petre, Shaun, C.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Pelias, Hertz Berchmann	Student - BSCE-3	Xavier University - Ateneo de Cagayan
Rosales, Ranielle Carmeli R.	Student - BSCE 3	Xavier University - Ateneo de Cagayan



Velasco, Carmela Denielle A.	Students - BSCE 3	Xavier University - Ateneo de Cagayan
Ramos, Roselle Ann	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Acang, Jewel, E.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Cadusale, Milky John Anthony, R.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Opeña, Jov Cyril C.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Nambatac, Kenneth, C	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Asinero, Xaviery Jay E.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Maali, Kurt Axl, D.	Student- BSCE - 3	Xavier University - Ateneo de Cagayan
Dimaporo, Mohammad Fahad, P.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Aganan, Esther Jelene Y.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Chan, Alexander David, G.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Osa, Alrhen Jay	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Survilla, Anton, A.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Calunsag, Leonard, B.	Student	Xavier University - Ateneo de Cagayan



Llena, Angel Shane	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Tacastacas, Hannah Dale L.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Ebarat, Kent Nicole, G.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Cipriano, Nestor Jr., D.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Rellin, Francis Nino, S.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Cupay, Joshua Franc, A.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Coso, Caila Isobelle T.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Noynay, Jeff Keny P.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Espulgar, Viem, M.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Porras, Michelle, E.	Student-BSCE3	Xavier University - Ateneo de Cagayan
Saliot, Satrianni, G.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Magto, Isaiah Luiben	Student - BSCE3	Xavier University - Ateneo de Cagayan
Jungoy, Jeanny Pearl A.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Salcedo, Steve Kurt P.	Student - BSCE 3	Xavier University - Ateneo de Cagayan



Abejay, Kent Christian C.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Maleficio, John Philbert, L.	Student-BSCE 3	Xavier University - Ateneo de Cagayan
Daquiado, Mycca, D.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Chou, Sean Kyle P.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Ramiro, Dave Julann, M.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Ragas, Karen Claire B.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Saldua, Donabel G.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Walag, Brean Meg A.	Alumna	Xavier University - Ateneo de Cagayan
Gomez, Joemari T.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Sarraga, Djako Sebastian F.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Evangelista, Zyril L.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Cadusale, Milky John Anthony R.	Student - BSCE 3	Xavier University - Ateneo de Cagayan
Malinis, Beau Bennett, L.	Student - BSME 3	Xavier University - Ateneo de Cagayan
Cuerquis, Clifford Clint J.	Student - BSME 4	Xavier University - Ateneo de Cagayan



Emano, Erica Jascha Janela L.	Student - BSCE 4	Xavier University - Ateneo de Cagayan
Dela Cruz, Carlo A.	Faculty - Mechanical Engineering	Xavier University - Ateneo de Cagayan
Mapute, Catherine Gesila B.	Alumni	Xavier University - Ateneo de Cagayan
Salcedo, Lorenz Gene Y.	Student - BSCE - 4	PICE-XUSC
Baylin, Adrienne Raphael, C.	Student - BSCE 3	PICE - XUSC
Piator, Mark Gerry G.	Student - BSCE-4	PICE-XUCS
Canubas, Dexter Dave, A.	Student - BSCE 3	PICE – XUCS
Tinonga, Leo Miguel T.	Student - BSCE 4	PICE - XUCS
Simon, Roven, M.	Student - BSCE 3	PICE - XUSC
Collados, Gerald G.	BSCE 3	Capitol university
Fullo, Glorylourd Joana C.	Student - BSCE 3	Capitol university
Hinampas, Leobert T.	Student - BSCE 3	Capitol university
Cajes, Johnlery T.	Student - BSCE-3	Capitol university
Looc, Rey	Student - BSME-4	Capitol university
Tajale, Jay Dem L.	Student	Capitol university
Tejares, Apple Grace N.	Student - BSCE-3	Capitol university
Paragoso, Rachelle Mae B.	Student - BSCE 3	Capitol university
Zapanta, Sandy MAe T.	Student - BSCE 3	Capitol university
Longcob, Joymee D.	Student - BSCE 5	Capitol university
Narciso, Shandee M.	Student - BSCE 3	Capitol university



Emata, Jun Clark, S.	Student - BSCE-5	Capitol university
Tangub, Leonil C.	Student - BSCE 3	Capitol university
Meñoza, Mc Niel John A.	Student - BSCE 3	Capitol university
Temblor, CristeneJoy L.	Student- BSCE 3	Capitol university
Villareal, Joel E.	Student - BSCE 3	Capitol university
Dosdos, Mary Jane D.	Student - BSCE 3	Capitol university
Amores Paul Harry	Student - BSCE-3	Capitol university
Dagatan, Rudy Z.	Student - BSCE 3	Capitol university
Amores Paul Harry	Student - BSCE-3	Capitol university
Castrodes, Paolo A.	Student - BSCE 3	Capitol university
Cena, Diana Rose B.	Student - BSCE 3	Capitol university
De La Vega, Rhea Vanessa B.	Student - BSCE 3	Capitol university
Guibone, John Mark I.	Student - BSCE-3	Capitol university
Rosales, Manny	Student - BSME 4	Capitol university
Maramba, Jefferson V.	Student - BSC - 5	Capitol university
Paje, John Kenneth G.	Student - BSCE 3	Capitol university
Adante, Dimple M.	Student - BSCE 3	Capitol university
Balaba John Niño E.	Student - BSCE-5	Capitol university
Rosal, Jhay Clifford, I.	Student - BSCE 3	Capitol university
Balibagon, Psyrose B.	Student - BSCE-5	Capitol university
Mascardo, Kent Francis, C.	Student - BSME 3	USTP
Taghap, Edsel Jay O.	Student - BSEE 4	USTP



Villaber, Noven S.	Student - BS EE 4	USTP
Paclibar, Patrick Noriel D.	Student - BSEE3	USTP
Motol, Glenn Luther R.	Student - BSME 4	USTP
Apus, Shaneika Mae S.	Student - BSME 3	USTP
Venezuela, Justine O.	Student - BSME 3	USTP
Tubac, Doumar Anthony, N.	Student - BSME 4	USTP
EDULAN, SORAYAH MAE, C.	Student - BSME 3	USTP
Lawan, Edcel Benz R.	Student- BSME 4	USTP
Vargas, John Derick B.	Student - BSME 3	USTP
Arogancia, Corrairie Heart T.	Student - BSME 3	USTP
Ayento, Sophia Amor, B.	Student - BSME 3	USTP
Lobido, Rhea Marie B.	Student-BSME 3	USTP
Simine, El Humphrey S.	Student - BSEE 3	USTP
Mapandi, Amirah D.	Student - BSME 3	USTP
Marapao, Nicole Wyeth G.	Student - BSCE 4	USTP
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Urdaneta Jr., Ruel B.	Student - BSEE 4	USTP
Teomale, Rachelle Mae A.	Student- BSME 3	USTP
Ong, Dezyrish Mae Y.	Student - BSEE 3	USTP
Lariosa, Allan Gabriel, A.	Student-BSME 3	USTP
Jaraula, Cedie G.	Student - BSME 4	USTP
Tabay, Adrian James, A.	Student - BSME 4	USTP



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Pimentel, Joshua	Student - BSME 4	USTP
Pondulan, Jane A.	Student - BSME 3	USTP
Oclarit, Asizah Rebecca	Student - BSME 3	USTP
Llenares, Lorenzo, M.	Student - BSME4	USTP
Casiño, Gerard Patrick A.	Student - BSME4	USTP
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Baslot, Ian N.	Student-BSME 3	USTP
Angcla, Jullien Lorilli T	Student - BSME 1A	USTP
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