



Republic of the Philippines
Department of Education
REGION V - BICOL
SCHOOLS DIVISION OFFICE OF CATANDUANES

UNNUMBERED MEMORANDUM
OSDS-CID-02/14/2024/NGC

TO : Education Program Supervisor (Science)
Public Schools District Supervisors
Secondary School Heads
All Others concerned

By Authority of the Schools Division Superintendent:

FROM : 
EVA S. TOLENTINO
Administrative Officer V
Officer-In-Charge

SUBJECT : LIKNAYAN 2024

DATE : February 14, 2023

1. Attached is Advisory No. 34 s. 2024 dated February 2, 2024 Re: LIKNAYAN 2024. The activity will be conducted by the PHYSICA, UP Applied Society on April 13-14, 2024 at the university of the Philippines Los Banos with the theme "Duality: Exploring the World Physics through Light"
2. This activity is designed to give high school students a fun and educational experience that will feature various sub-events including Battle of the Brains, Feature Writing, Science Investigatory Project, Career Talk, Amazing Race, Poster Making and Physics Communication.
3. Participation is on **voluntary** basis only.
4. For inquires, please email liknayan.physika@gmail.com or contact Ariane Josh Real at 0966 698 9892 or Francis Leal at 0917 177 4080
5. For information.



San Roque, Virac, Catanduanes
052-8114063
catanduanes@deped.gov.ph
www.depdrovcatanduanes.com / www.catanduanes.deped.gov.ph



ADVISORY No. 34 s. 2024
February 2, 2024

In compliance with DepEd Order (DO) No. 8, s. 2013
This advisory is issued not for endorsement per DO 28, s. 2001,
But only for the information of DepEd Officials,
Personnel/staff, as well as the concerned public

LIKNAVAYAN 2024

The PHYSICA, UP Applied Society will conduct the LIKNAYAN 2024 on April 13-14, 2024 at the University of the Philippines Los Baños with the theme “Duality: Exploring the World of Physics through Light”.

The activity is designed to give high school students a fun and educational experience that will feature various sub-events including Battle of the Brains, Feature Writing, Science Investigatory Project, Career Talk, Amazing Race, Poster Making and Physics Communication.

Participation is on voluntary basis only.

Enclosed is the event primer and guidelines of the activity.

For inquiries, please email liknayan.physika@gmail.com or contact Adriane Josh Real at 0966 698 9892 or Francis Lance Leal at 0917 177 4080.

For information.

DEPED V BICOL REGION

From: LIKNAYAN PHYSIKA <liknayan.physika@gmail.com>
Sent: Monday, 29 January 2024 2:41 pm
To: DEPED V BICOL REGION
Subject: LIKNAYAN 2024: Request for Recognition and Dissemination
Attachments: LIKNAYAN-Letter.pdf; LIKNAYAN-Primer.pdf; LIKNAYAN-Event-Guidelines.pdf

Greetings!

PHYSIKA, UP Applied Physics Society, is a duly recognized academic organization of Applied Physics students at the University of the Philippines Los Baños. The organization aims to promote academic excellence and foster well-roundedness among its members, while also encouraging the appreciation and awareness of Physics and Applied Physics through conducting activities aligned with the objectives of the University and the Nation.

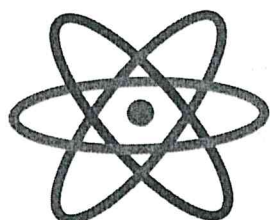
As part of the organization's initiative to enhance scientific literacy in the fields of Physics and Applied Physics, PHYSIKA is announcing the relaunch of **LIKNAYAN 2024**, scheduled for **April 13-14, 2022 at the University of the Philippines Los Baños**, with the theme "**DUALITY: Exploring the World of Physics through Light**". Designed to give high school students a fun and educational experience, the event will feature various sub-events including Battle of the Brains, Feature Writing, Science Investigatory Project, Career Talk, Amazing Race, Poster Making, and Physics Communication.

With this, **the organization is requesting from your esteemed office the recognition and dissemination of information about LIKNAYAN 2024.**

Attached, you will find the letter, event primer, and event guidelines. For any inquiries or concerns, please feel free to reach out to us via email at liknayan.physika@gmail.com or through our contact persons Adriane Josh Real (09666989892) or Francis Lance Leal (09171774080).

We eagerly anticipate your favorable response. Thank you very much!

Respectfully,






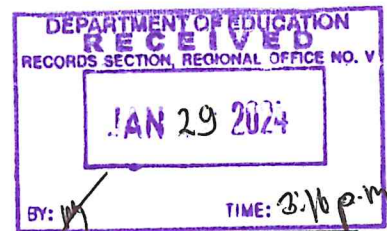
LIKNAYAN²⁰₂₄

Adriane Josh A. Real
LIKNAYAN Activity Head

LIKNAYAN 2024

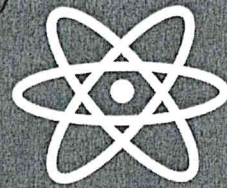
"DUALITY: Exploring the World of Physics through Light"

Visit and follow us on   



LIK NAYAN 2024

DUALITY: Exploring the World of Physics through Light



January 29, 2024

DR. GILBERT T. SADSAD
Regional Director
Department of Education – Region V
Rawis, Legazpi City

Dear Dr. Sadsad,

Greetings!

PHYSIKA, UP Applied Physics Society is a duly recognized academic organization of Applied Physics students at the University of the Philippines Los Baños (UPLB), which aims to promote academic excellence and foster well-roundedness among its members. Among its advocacies are to encourage the appreciation of Physics and Applied Physics among the youth and to raise scientific literacy through conducting activities in line with the objectives of the university and nation.

Over the years, we have been recognized for organizing LIKNAYAN, an academic competition for high school students that aims to impart substantial knowledge in Physics and Applied Physics to its participants and emphasize the significance of these fields to our society. Committed to its advocacies, PHYSIKA relaunches LIKNAYAN 2024 with the theme "DUALITY: Exploring the World of Physics through Light" on April 13-14, 2024 at the University of the Philippines Los Baños. Designed to give a fun and educational experience, the event will feature various sub-events including Battle of the Brains, Feature Writing, Science Investigatory Project, Career Talk, Amazing Race, Poster Making, and Physics Communication.

With this, we would like to request from your esteemed office the recognition and dissemination of LIKNAYAN 2024. Rest assured that this event will equip the participants the curiosity, appreciation, and knowledge in the fields of Physics and Applied Physics.

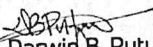
Attached to this letter are the general guidelines and the mechanics of each sub-event. Should you have any concerns or queries, we would be glad to respond to them through our email liknayan.physika@gmail.com or through our contact persons Adriane Josh Real (09666989892) or Francis Lance Leal (09171774080). We are hoping for your favorable response. Thank you very much!

Respectfully,


Adriane Josh A. Real
Activity Head


Jover M. Galliguez
President

Noted by:


Prof. Darwin B. Putungan
Senior Adviser


Asst. Prof. Anna Pamela O. De Jesus
Junior Adviser

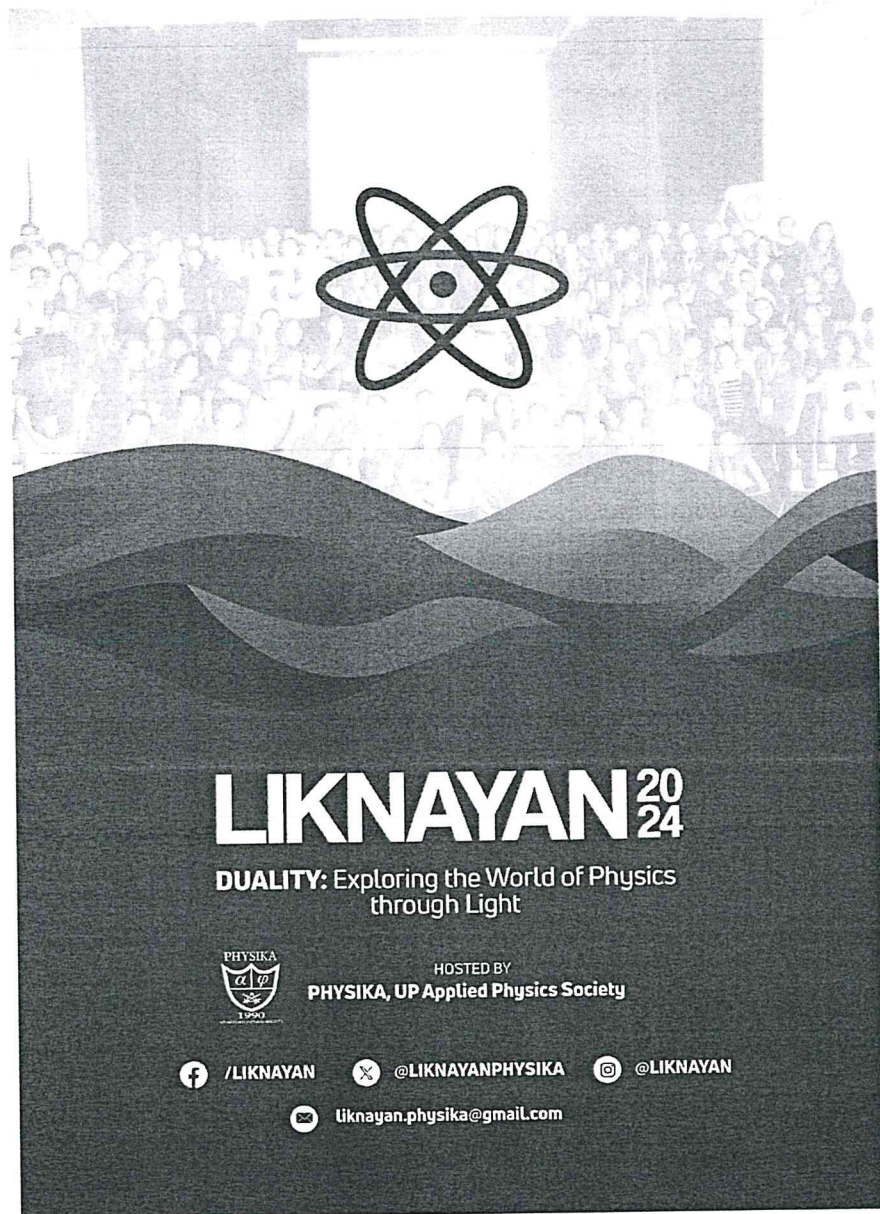


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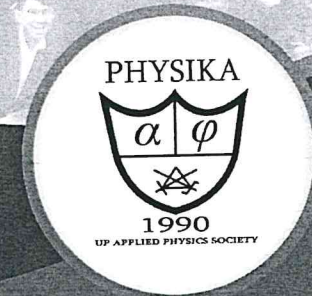
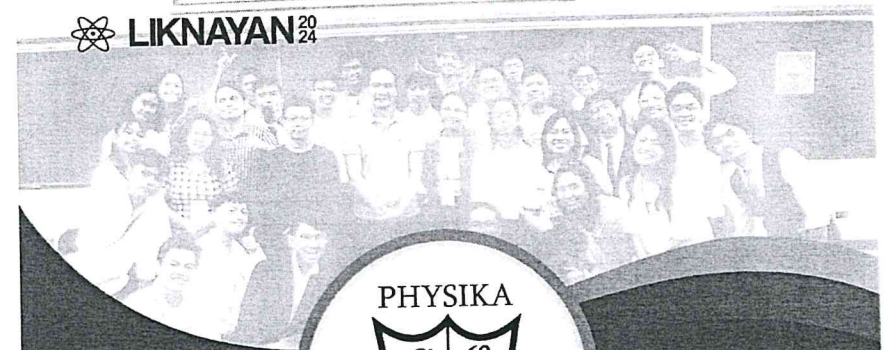
- 2** Message from the **LIKNAYAN** Head
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Message from the LIKNAYAN Head



LIKNAYAN is one of the **flagship face-to-face** events of our organization, with the goal of **promoting** the field of **physics and applied physics** to high school students. The most recent iteration of **LIKNAYAN** was held in 2022 as an online event. This year, we plan to bring back our face-to-face sub-events while also incorporating some aspects of the online event. To our future participants, we hope you can join us in our next iteration of **LIKNAYAN** and have a fun and insightful experience here at the University of the Philippines Los Baños.

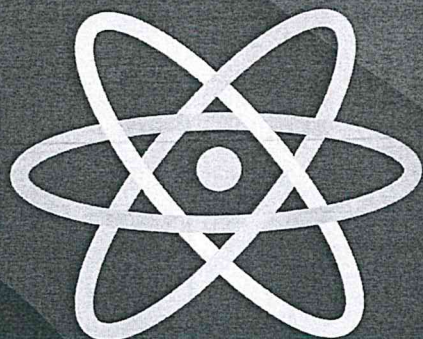
Adriane Josh A. Real
LIKNAYAN HEAD



PHYSIKA, UP Applied Physics Society

PHYSIKA, UP Applied Physics Society is a duly recognized academic organization of Applied Physics students of the University of the Philippines Los Baños. The organization aims to promote academic excellence and foster well-roundedness among its members. Moreover, it promotes the appreciation of and raises scientific literacy in physics and applied physics by initiating activities that are in line with the objectives of the university and the nation.

About LIKNAYAN



LIKNAYAN²⁰²⁴

DUALITY: Exploring the World of Physics through Light




LIKNAYAN is an **inter-school** event that aims to impart substantial knowledge to **high school students** and allow them to recognize the significance of **physics** in society while providing a memorable and worthwhile experience through various activities. For this year's LIKNAYAN, it will be implemented on **April 13 and 14, 2024**.

LIKNAYAN²⁰²⁴





LUZON

-  Caanawan National High School
-  Far Eastern University - Cavite
-  Ilocos Norte College of Arts and Trades
-  Laguna College
-  Maranatha Christian Academy - Imus
-  Philippine Science High School - Cordillera Administrative Region
-  Philippine Science High School - Ilocos Region Campus
-  Philippine Science High School - CALABARZON Region Campus
-  San Jose City National High School - Senior High School
-  Sisters of Mary School - Atlas, Inc.
-  St. Edward Integrated School Cavite Foundation Inc.
-  Unida Christian Colleges
-  University of the Philippines Rural High School
-  University of Saint Louis Tuguegarao
-  St. Edwards School Imus Campus

VISAYAS

-  Philippine Science High School - Western Visayas Campus
-  Philippine Science High School - Eastern Visayas Campus
-  Sotero B. Cabahug FORUM for Literacy

MINDANAO

-  Agusan del Sur National Science High School
-  Philippine Science High School - Central Mindanao Campus
-  Philippine Science High School - Southern Mindanao Campus
-  Philippine Science High School - Caraga Region Campus

Past Participants of LIKNAYAN

NCR

-  Don Bosco Technical College
-  Good Shepherd Cathedral School
-  Las Piñas City National Science High School
-  Pasig City Science High School
-  Philippine Science High School - Main Campus
-  Saint Jude Catholic School



What to Expect in LIKNAYAN 2024?

Battle of the Brains



Battle of the Brains is an interschool quiz competition that aims at engaging high school students with an intense curiosity in physics and applied physics in seeking academic achievement while also encouraging healthy competition among them.

Feature Writing

Feature Writing is an inter-school feature writing competition with the objective at cultivating readers' curiosity and enthusiasm for science and technology by telling in-depth facts about the latest breakthroughs in physics and applied physics.



Science Investigatory Project



S.ALPHY is an inter-school academic competition which aims to develop the research and critical thinking skills of high school students by presenting a project/research in line with the theme of LIKNAYAN 2024, "DUALITY: Exploring the Physics through Light". Through poster presentations, this sub-event will also allow the students to develop their skills in effectively communicating scientific data, a necessary skill in higher education.

APHY Talk

APHY Talk is a career symposium open to all physics students and enthusiasts, with the aim of fostering career awareness in the dynamic realms of physics and applied physics. Distinguished speakers across diverse disciplines and backgrounds share their personal journeys, first-hand experiences, and valuable insights on their respective career paths. The primary objective of this symposium is to broaden participants' perspectives with a variety of professional options and to guide them in identifying their personal career interests.



What to Expect in LIKNAYAN 2024?

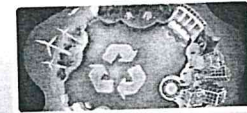
Amazing Race



Amazing Race is an inter-school race that tests student's knowledge of physics and teamwork skills. It aims to promote the application of physical principles to solve real-world problems under time pressure. Also, the Amazing Race aims to foster a healthy competition among high-school students.

Poster Making

Poster Making Contest is an inter-school competition that aims to foster the creative minds and visions of the youth in promoting and finding the significance in the fields of physics and applied physics in advancing national development through conventional or digital artworks.



Physics Communication



Physics Communication Contest is an inter-school video competition that aims to inspire creative thinking about science, specifically in the field of physics. This contest tests the student's ability to communicate complex physics ideas in engaging, illuminating, and imaginative ways.

Workshop

The **Arduino Workshop** aims to introduce highschool students in the use of Arduino microcontrollers for physics applications. This workshop teaches how to utilize the Arduino to create a measuring instrument.



Other Organizational Activities

Orientation



An activity for recruiting new members that are undergraduate students taking BS Applied Physics who may help the organization with envisioning the advocacies. This event aims to promote the organization to interested students who may want to proceed with the application process.

Open Tambayan

An activity that serves as a free dining lounge for all UPLB students, personnel, and civilians around Los Baños as a form of giving back to the community and as a way to promote the organization to students outside the Physics Division.



Outreach Program



An event dedicated to making a positive impact in communities, it focuses on fostering education, reaching out to diverse groups, providing resources, workshops, and support. Through collaborative efforts, it aims to inspire and empower individuals, promoting a sense of unity and creating pathways for a brighter future.

Exhibit

An event aims to showcase physics and applied physics in a fun and creative way, as well as to demonstrate the organization's goals and achievements over the years.



Other Organizational Activities

PHYSICASINO



A university-wide contest that shows the utility and beauty of physics through a game-show experience that tests the participants' understanding of the subject.

Alumni Homecoming

An event for welcoming and greeting alumni members of the organization. It aims to make connections between the old and new members of the organization through fun and engaging activities.



Workshops



It involves teaching co-members about various technical concepts applicable in the field.

PHYSIKALAN

An internal event within the organization that aims to promote teamwork and leadership among the members. This event includes traditional sports, esports, and street games that boosten individual's free thinking, sportsmanship and competitiveness.



Frequently Asked Questions (FAQs)

Can we include a mix of junior and senior level students for the sub-events?

YES, the year level of the students joining the sub-events for LIKNAYAN 2024 is for the schools to decide. However, it is desirable and preferable to send students who have already taken (or are at least knowledgeable about) General Physics 1 and 2 in their senior high school years to **Battle of the Brains**.

Are we allowed to send more than 1 team from our school?

YES, the school can send as many teams as it wants to LIKNAYAN 2024, as long as each team has no more than ten high school students and one coach. The registration cost, however, will be paid separately by the teams. Kindly note that there should always be one coach for each team.

Are we allowed to change the line-up of our team?

YES, teams are allowed to change their lineup for a certain sub-event. However, please send an email to LIKNAYAN addressed to the LIKNAYAN Programs Head (please see the contact details on page 13) until April 6, 2024, a week before the execution date of LIKNAYAN 2024, to notify them and explain your reasons for changing the team's line-up; otherwise, the change in your team's line-up will not be considered. Please wait for the acknowledgement email as well.

Frequently Asked Questions (FAQs)

Can we choose not to participate in any sub-event?

YES, a team may choose not to participate in any sub-event, but doing so will result in zero points and will be detrimental to their chances of becoming the LIKNAYAN 2024 Champion. The team will, however, pay the entire registration fee whether or not they participate in all sub-events.

Can we withdraw from the event, and for how long? Is there any refund policy?

NO, teams that have already registered for LIKNAYAN 2024 cannot withdraw and will not receive a refund. This is because the event organizers will close registration as soon as the maximum number of teams is reached. **However**, for those with specific cases, the event organizers will consider whether the case should be withdrawn. If approved, the team may withdraw but will not get a refund.

Is there a registration fee for the APHY Talk?

APHY Talk is free. Interested participants just need to pre-register once the pre-registration period is open. Kindly like and follow the LIKNAYAN Facebook page to keep you updated regarding this matter.

Frequently Asked Questions (FAQs)

Are we allowed to invite other students who are not registered for the LIKNAYAN event to participate in the career talk?

YES, you may. APHY Talk is open to all interested students, with the aim of driving career awareness in the fields of physics and applied physics. Non-participants in LIKNAYAN 2024 may also join the event by completing a separate registration form to be posted on our social media pages. With this, we are looking forward to having a bigger audience for this part of the event.

I am not registered for the LIKNAYAN event, but I participated in the career symposium. Will I still receive a certificate of attendance or participation?

YES, a separate certificate of attendance will be given to all of the participants (students and teachers) of the APHY Talk. Hence, if you participated in the LIKNAYAN event and also attended the Career Talk, then you will receive two certificates.

Are students allowed to participate in more than one sub-event?

YES, a team may send their students to participate in more than one (1) sub-event, considering that the schedules of each sub-event are not conflicting. However, the team still has to pay the full registration fee.

Contact Details

LIKNAYAN

Facebook

LIKNAYAN PHYSIKA

Email

liknayan.physika@gmail.com

LIKNAYAN 2024 Committee



Adriane Josh A. Real
LIKNAYAN Head



Francis Lance C. Leal
LIKNAYAN Co-Head



Rachelle L. Hayag
LIKNAYAN Programs Head



Monica M. Villamor
LIKNAYAN Letters Head



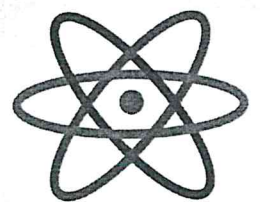
Angelo A. Redoblado
LIKNAYAN Publicity Head



Paulo Yvez Tolentino
LIKNAYAN Logistics Head



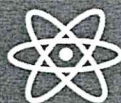
Jhan Leonard R. Bayaron
LIKNAYAN Finance Head



LIKNAYAN²⁰₂₄

LIKNAYAN 2024

DUALITY: Exploring the World of Physics
through Light



General Guidelines

A. Guidelines

1. LIKNAYAN 2024, with the theme "DUALITY: Exploring Physics through Light," is open to all junior and senior high school students.
2. LIKNAYAN 2024 consists of six (6) competitive sub-events, which includes Battle of the Brains, Feature Writing, Science Investigatory Project, Amazing Race, Poster Making Contest, and Physics Communication Contest. Aside from the aforementioned sub-events, there will be an Arduino workshop for participating students and a career talk, called APhy Talk, open to all.
3. The major sub-events of LIKNAYAN 2024—Battle of the Brains, Feature Writing, Science Investigatory Project, Amazing Race, Arduino Workshop, and APhy Talk—shall be held face-to-face on April 13–14, 2024 at the University of the Philippines Los Baños.
4. The preliminary sub-events—Poster Making Contest (PMC) and Physics Communication Contest (PCC)—shall be held online prior to the opening of LIKNAYAN 2024. The preliminary sub-events shall officially commence on March 22, 2024 and will end on April 04, 2024. An email containing the theme, guidelines, and mechanics of the PMC and PCC shall be sent to the email addresses of the coaches and participants.
5. The total points earned by each participating school's team in the competitive sub-events (Battle of the Brains, Feature Writing, Science Investigatory Project, Amazing Race, Poster Making Contest, and Physics Communication Contest) will determine their final ranking.
6. The top three (3) schools with the most cumulative scoring points from the competitive sub-events shall be declared as the champion, first runner-up, and second runner-up, respectively.
7. In the event of a tie in the overall placement of the competing teams, the system as follows will be employed to break it:
 - a. The team with the most first-place finishes in all six sub-events of LIKNAYAN 2024 will be proclaimed the winner over the tied team(s). If it does not apply, then
 - b. The team with the most second-place finishes in all six sub-events of LIKNAYAN 2024 will be proclaimed the winner over the tied team(s). If it does not apply, then



LIKNAYAN



@LIKNAYANPHYSIKA



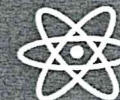
@LIKNAYAN



liknayan.physika@gmail.com

LIKNAYAN 2024

DUALITY: Exploring the World of Physics
through Light



General Guidelines

- c. The team with the most third-place finishes in all six sub-events of LIKNAYAN 2024 will be proclaimed the winner over the tied team(s). If it does not apply, then
 - d. The team with the highest ranking in the Amazing Race of LIKNAYAN 2024 will be declared the winner over the tied teams.
8. Non-competitive sub-events:
- a. APhy Talk: All instructors, coaches, and students are encouraged to attend the Career Talk.
 - b. Arduino Workshop: The Arduino Workshop is open to all participating students, and attendance is encouraged.
9. All participating schools must confirm their participation in LIKNAYAN 2024 by accomplishing the registration form and submitting the required documents. A complete registration process is shown in the Registration Guidelines sections.
10. Registration will be on a first come, first served basis. Only a maximum of 15 schools may register for the event. A school may also send more than one team to participate in the event given that each team undergoes a separate registration process, which includes paying for a separate registration fee, and has a separate coach.
11. All of the participating teams must use their birth names in all transactions during the LIKNAYAN 2024 timeframe. This is to keep track of the participants' submitted entries. Failure to do so will lead to disqualification.
12. All works and submissions sent to the event organizers for any sub-event activities shall become the property of PHYSIKA, UP Applied Physics Society. The organization will be able to use the inputs for any reason without obtaining permission or compensation from the participating teams.
13. PHYSIKA, UP Applied Physics Society reserves the right to amend any aspect of the event's mechanics and procedures. Any changes will be thoroughly publicized prior to the opening of LIKNAYAN 2024.
- ### B. Registration Guidelines
1. The registration period will officially start on February 16, 2024 and will end on March 20, 2024.



LIKNAYAN



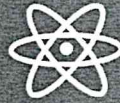
@LIKNAYANPHYSIKA



@LIKNAYAN



liknayan.physika@gmail.com



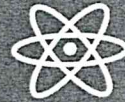
General Guidelines

2. The registration fee will be divided into two categories
 - a. **Early-bird rate:** The early-bird pricing applies to teams that registered between February 16 and 29, 2024. The early bird rate is only ₱9,000.00.
 - b. **Standard rate:** The standard registration fee is ₱10,000.00. The standard registration fee will be applied immediately following the early bird registration period, which runs from March 01, 2024 to March 20, 2024.
3. Teams must provide a down payment of ₱4,500.00, which is applicable to whatever rate chosen. Payment in full must be made at the registration on the event date before the opening program.
4. The registration fee is inclusive of the following:
 - i. Access to competitive and non-competitive sub-events
 - ii. Lunch and dinner meals for the first day
 - iii. Morning snacks and lunch meals for the second day
 - iv. Event Kits (including event ID)
 - v. Souvenirs
 - vi. LIKNAYAN 2024 Shirts
5. The team's registration is finalized once the down payment is completed. Teams can pay their registration fees directly to this bank account:

LANDBANK Account No.: 1896517879
 Account Name: John Onesimus Ancheta
 LIKNAYAN 2024 Position: Finance Committee Member

GCash Account No.: 09177144072
 Account Name: John Onesimus Ancheta
 LIKNAYAN 2024 Position: Finance Committee Member

6. The following documents are required for the confirmation of registration:
 - a. Soft/scanned copy of the accomplished Registration Form, with the file name: [LIKNAVAYAN 2024] <School Name> - Registration Form
 - b. High-resolution image of the school's logo or seal, preferably in PNG format with a clear background, with the file name: [LIKNAVAYAN 2024] <School Name> - Logo



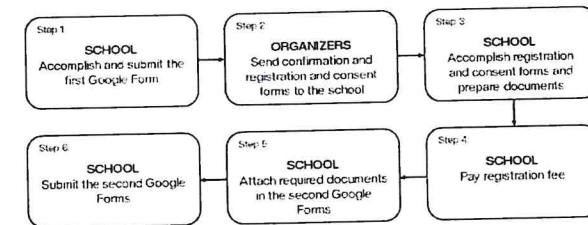
General Guidelines

- c. Soft/scanned copy of the accomplished Consent Form of the participants, with the file name: [LIKNAVAYAN 2024] <School Name> - Consent Form
- d. Proof of Payment (either soft copy or screenshot, if bank transfer), with the file name: [LIKNAVAYAN 2024] <School Name> - Proof of Payment

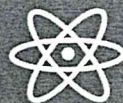
Example for Naming Convention	
Registration Form	[LIKNAVAYAN 2024] ABC High School - Registration Form
School Logo	[LIKNAVAYAN 2024] ABC High School - Logo
Consent Form	[LIKNAVAYAN 2024] ABC High School - Consent Form
Proof of Payment	[LIKNAVAYAN 2024] ABC High School - Proof of Payment

7. The event organizers must be informed of any changes to the team lineup no later than April 6, 2024, which is one week prior to LIKNAYAN 2024's execution date. Changes made beyond this deadline will not be honored except in cases of special emergency circumstances.

C. Registration Process



1. Each participating school must accomplish a registration link through Google Forms. All necessary information must be filled out completely. The registration link will be posted on the official page of LIKNAYAN.

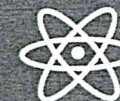


General Guidelines

- Upon submission, an email will be sent by the organizers to the provided email address of the participating school containing the Registration Form, Consent Form, and a link to a second Google Forms submission.
- The participants should accomplish the Registration Form and Consent Form by filling out the necessary details.
- The school should then pay the registration fee and keep the proof of payment for submission.
- The school should attach the proof of payment, school logo, and duly accomplished Registration and Consent Forms, following the suggested file naming convention, in the Google Forms. The school should then submit their response in the Google Forms link.

D. Criteria for Disqualification

- Several forms of misconduct are prohibited in LIKNAYAN 2024. Any violation of the following will be considered misconduct and will result in disqualification from the competition, effective immediately:
 - Cheating:** Any sort of cheating, whether subtle or apparent, by any team member or the team itself.
 - Coaching:** Any sort of coaching, whether discreet or explicit, by any team member, the team itself, or the faculty-in-charge.
 - False information:** Any information, whether personal or related to the sub-event activities, that is found to be false.
 - Improper behavior:** Any insult or rude/inappropriate comments made about another team, the organizers, or the speakers during LIKNAYAN 2024.
 - Inappropriate subject matter:** Any inappropriate work or submission, whether defamatory or discriminating, in any sub-event produced by a team member or the team itself.
 - Ineligibility:** The event is open solely to high school students. Teams that demonstrate that they have primary or undergraduate students as members will be immediately disqualified.
 - Multiple submissions:** Any team submitting more than one output for any sub-event will be automatically disqualified from the competition.



General Guidelines

- Plagiarism:** Any kind of plagiarism in any LIKNAYAN 2024 sub-event activity, whether in its entirety or in portion, created by a team or a team member.
- Use of Artificial Intelligence:** The use of artificial intelligence in any work or submission to any LIKNAYAN 2024 sub-event.
- Venue Etiquette:** Any disrespect or destruction of property at the venue where the LIKNAYAN 2024 is held, whether committed by coaches, team members, or the team itself, will result in the team's instant disqualification.

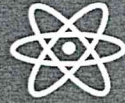
E. Program Flow and Attire

- The LIKNAYAN 2024 events will proceed as follows:

Day 1: April 13, 2024	
7:00 AM - 8:00 AM	Registration
8:00 AM - 9:00 AM	Opening Program
9:00 AM - 11:00 AM	Arduino Workshop
9:00 AM - 12:00 PM	Aphy Talk
12:00 PM - 1:00 PM	Lunch Break
1:00 PM - 2:30 PM	Feature Writing
1:00 PM - 3:30 PM	Science Investigatory Project
1:00 PM - 3:30 PM	Battle of the Brains

Day 2: April 14, 2024	
7:00 AM - 8:30 AM	Breakfast & Registration
8:30 AM - 12:00 PM	Amazing Race
12:00 PM - 1:00 PM	Lunch Break
1:00 PM - 3:00 PM	Awarding & Closing Program

- The venues for each segment of the program shall be given on the days of the event.
- The participating students are encouraged to wear their school uniform with their ID during the first day of the event and P.E. uniform during the second day.



General Guidelines

F. Composition of Teams

- Each school wishing to participate can send any number of teams. Each participating team shall consist of ten (10) high school students plus one (1) coach per team. The number of participants required per sub-event are as follows:
 - Three (3) participants in the Battle of the Brains
 - One (1) participant in Feature Writing
 - Two (2) participants in the Science Investigatory Project
 - One (1) participant in the Poster Making contest
 - Three (3) participants in the Physics Communication Contest
- A student may participate in more than one (1) sub-event, provided that the schedules of the sub-events are not conflicting.
- Five (5) participants from the team will be their representatives in the Amazing Race. If six (6) students from the team are present on the day of the sub-event, one (1) student must be a reserve participant for the Amazing Race.

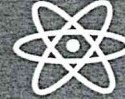
G. Scoring System

- There will be six (6) different activities in which the team can earn points. The team will be rated based on their overall points, and the events and accompanying points are listed below:

LIKNAVAYAN 2024 Sub-Events	Points
Battle of the Brains	100
Feature Writing	100
Science Investigatory Project	100
Amazing Race	200
Poster Making	100
Physics Communication	100
TOTAL	700

H. Awards and Prizes

- The team with the highest gathered points shall be declared as the champions and shall receive a trophy, plaque, and certificates of recognition.



General Guidelines

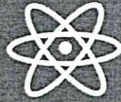
- The first and second runner-ups will receive a plaque and a certificate of recognition. The remainder of the participants will receive a certificate of participation.
- The teams/participants who win first, second, and third place in each sub-event will be awarded medals and certificates of recognition. Cash prizes will also be awarded to the winners of each sub-event. The initial cash prizes are shown below.

Sub-events	Rank 1	Rank 2	Rank 3
Battle of the Brains	₱ 1500.00	₱ 900.00	₱ 600.00
Feature Writing	₱ 500.00	₱ 300.00	₱ 200.00
Poster Making	₱ 500.00	₱ 300.00	₱ 200.00
Physics Communication	₱ 1500.00	₱ 900.00	₱ 600.00
Science Investigatory Project	₱ 1000.00	₱ 600.00	₱ 400.00
Amazing Race	₱ 2500.00	₱ 1500.00	₱ 1000.00

- All awards and prizes will be distributed to the participants on the second day of the event during the awarding ceremony.

I. Lodging

- The registration fee excludes lodging. We can, however, provide a list of hotels, dormitories, and apartments around UPLB. The possible hotels, dorms, and residences you would want to consider will be followed up on by the LIKNAYAN Logistics Head.

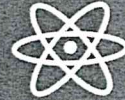


Battle of the Brains

The **LIKNAYAN 2024: Battle of the Brains** is an interschool quiz competition that seeks to engage high school students with deep appreciation in the field of physics and applied physics and promote the pursuit of excellence while fostering a healthy competition among them.

A. Guidelines

- The participants will be grouped into teams with **three (3) members each**.
- The participants should bring their own pens for the contest. **Only pens with black ink will be accepted.** Friction pens are strictly prohibited.
- The event organizers will provide scratch papers.
- The coverage of the quiz contest includes the following:
 - General Physics
 - Classical Mechanics
 - Kinematics
 - Statics
 - Dynamics
 - Celestial Mechanics
 - Hydrodynamics
 - Electromagnetism
 - Circuits
 - Electric and Magnetic Fields
 - Maxwell's Equations
 - Oscillations and Waves
 - Optics
 - Waves
 - Oscillators
 - Electromagnetic Waves
 - Interference and Diffraction
 - Special Relativity
 - Quantum Mechanics
 - Probability Waves
 - Structure of Matter
 - Thermodynamics and Statistical Physics
 - Every question will only have **one final answer** unless stated otherwise.
 - The use of calculators or any gadgets during the contest is **strictly prohibited**. The team caught violating this rule shall be disqualified immediately.
 - Misspelled and incomplete answers** shall be considered incorrect
 - If the name of a person is being asked, their full name should be stated.
 - Abbreviations will not be accepted unless they are units of measurement.
 - Units of measurement should be indicated whenever necessary.
 - Any form of cheating shall be grounds for the disqualification of the team.
 - Any form of coaching is prohibited. If this rule is violated, the team(s) involved shall be disqualified immediately.

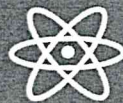


Battle of the Brains

- A panel of judges composed of professionals in the fields of physics and applied physics will monitor the event.
- The decisions of the judges are final and irrevocable.

B. Mechanics

- There shall be **three (3) levels of difficulty** in this round: **Easy, Average, and Difficult**.
- The questions shall be in the form of multiple-choice and problem-solving.
- Each team shall receive answer sheets and scratch papers for their calculations. The school that each team represents should be written on the scratch paper.
- The teams can only write their answers after the quiz master gives the "go" signal.** Team(s) caught answering before the "go" signal for the first time will be warned. Team(s) caught for the second time will gain no credit for answering the question. Team(s) caught for the third time will be automatically disqualified.
- Only the final answers must be written on the answer sheet. All solutions shall be placed on the scratched papers,** which must be turned over to the proctors once the contest is finished.
- The quiz master(s) will project each question onto the screen and read it twice.
- There shall be a corresponding time limit for each question, depending on its nature. The organizers reserve the right to adjust the time limit for a question depending on its nature.
 - For the easy level, participants are given 10 seconds to answer the questions. However, if the question involves problem solving, the time limit can be extended to 15 seconds.
 - For the average level, participants are given 20 seconds to answer the questions. However, if the question involves problem solving, the time limit can be extended to 30 seconds.
 - For the difficult level, participants are given 40 seconds to answer the questions. However, if the question involves problem solving, the time limit can be extended to 90 seconds.



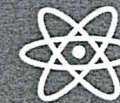
Battle of the Brains

8. There will be a total of 20 questions for this sub-event. The team that answers all the questions correctly will garner a maximum score of 70 points. The breakdown per round is as follows:

Level of Difficulty	Number of Questions	Points per Question	Time Limit
Easy	10	2	10-15
Average	5	4	20-30
Difficult	5	6	40-90

9. After each question, the teams must submit their answer sheets to the proctors assigned to them. Late submissions will not be considered.
10. The teams shall be allowed to raise clarifications after the correct answer is revealed. The panel of judges will be consulted regarding the clarification, and the decisions made by the judges are final. When the next question has been read, clarifications regarding the previous question will no longer be entertained.
11. Only the members of each team are allowed to raise questions.
12. After all questions have been asked, the top three scoring teams will be declared the winners.
13. In the event of a tie in the top 3 spots, a clincher question will be asked.
14. **CLINCHER QUESTION:** Teams in the clincher round will be given an identification type of problem. Participants are allowed to write down their answers immediately while the question is being read. Once a team answers the question correctly, the other team(s) will automatically be eliminated. Otherwise, the Clincher Round will continue until a team answers the question correctly. The clinching question will have the same time limit as the average round.
15. The amount of points that a team will earn from Battle of the Brains is given as follows:

$$\text{Team's event points} = \frac{\text{Team's points}}{70 \text{ points}} \times 100 \text{ points} \quad (\text{Rounded down})$$



Feature Writing

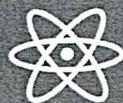
The **LIKNAVAYAN 2024: Feature Writing** is an inter-school feature writing contest that aims to promote appreciation of science and technology by using writing skills to pique the interests and enthusiasm of readers through in-depth stories about the latest news and developments in the fields of physics and applied physics.

A. Guidelines

- One (1) participant per team shall participate in Feature Writing.
- Participants must abide by the ethical rules of journalism.
- Participants shall provide their own pens to be used for the contest. **Only black pens are allowed.** Friction pens are strictly prohibited.
- Only the papers provided by the organizers may be used for submissions.
- Only the participating students, event organizers, and other authorized personnel will be allowed to enter the designated venue.
- The use of electronic devices, books, and the like is **strictly prohibited** during the contest. Participants caught violating this rule will be automatically disqualified.
- Participants will have their own designated workspace in the venue of the event.
- The judge shall be a professional in the fields of physics and applied physics, journalism, and writing.
- The decision of the judge is **final and irrevocable**.
- Winning entries will be featured in **KALASAG**, the official publication of PHYSIKA, UP Applied Physics Society, and will be promoted on the Facebook pages of **PHYSIKA, UP Applied Physics Society and LIKNAYAN**.
- By participating in this sub-event, you are giving PHYSIKA, UP Applied Physics Society permission to publish and distribute copies of your work.

B. Mechanics

- Participants will be given **1 hour and 30 minutes** to write their entries.
- Participants will be given sheets of **lined A4 paper**. They will be allowed to request as many sheets as they need to write their entries.
- The theme and additional contest mechanics, including the restrictions for word count, will be provided before the contest begins.
- Entries must be **original**. Participants caught reusing previously published works, i.e., committing plagiarism, will be disqualified.

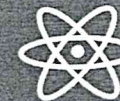


Feature Writing

- Entries must be written in English. Failure to comply with this requirement will result in a deduction of points.
- Participants must not write their name, school, or any identifying features or remarks on the sheet provided. The event organizers will mark each entry with a distinct number assigned to a participant to identify who wrote the entry. Participants caught violating this rule shall receive deductions.
- Fact sheets will be provided as the basis for the entries, but the participants are not limited to the information in the sheets and are encouraged to include other information and topics relevant to the given theme.
- After the allotted time for writing, participants must submit their works to the event organizers. Failure to submit the outputs on time will not be considered.
- The judge will score the participants based on the given rubric below, which is lifted from the National Schools Press Conference feature writing contest guidelines:

RUBRICS	
Technical <ul style="list-style-type: none"> Grammar and syntax Organization and progression of ideas Creative presentation of facts Creativity of the title Use of appropriate feature types relevant to the theme 	30 pts
Content <ul style="list-style-type: none"> Use of facts to bolster the credibility of statements and/or narratives Uniqueness and originality Balanced presentation of ideas from the fact sheets and those of the writers' perceptions 	60 pts
Ethics <ul style="list-style-type: none"> Practice of ethical and professional standards for journalism Citation of sources Observation of copyright laws 	10 pts
TOTAL	100 pts

- In the event of a tie, the judge will decide who will rank higher or lower based on their entries.



Investigatory Project

The **LIK NAYAN 2024: S.Ai.Phy** is an inter-school academic competition that aims to develop the research and critical thinking skills of high school students by presenting a project or research in line with the theme of LIKNAYAN 2024, "DUALITY: Exploring the Physics through Light". Through poster presentations, this sub-event will also allow the students to develop their skills in effectively communicating scientific data, a necessary skill in higher education.

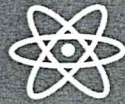
A. Guidelines

- Two (2) participants per team shall participate in the Science Investigatory Project, entitled S.Ai.Phy.
- Teams must present a project or research related to the theme "DUALITY: Exploring the Physics through Light".
- Presentation must be presented in a tarpaulin form.
- Interactive projects and research are allowed.
- Presentations must have at least 10 references cited in APA (7th Ed.) format. Guidelines on how to use the APA format can be found in this link: <https://libguides.csudh.edu/citation/apa-7>.
- The project or research must be unique. In cases of plagiarism and duplication, the team(s) will be disqualified.
- Each team must submit a soft copy of their presentation to liknayan.physika@gmail.com on or before 11:59 PM of April 12, 2024, following the format stated below. Non-submission before the deadline will result in a deduction of 5 points.
 - Filename format: S-Ai-Phy_<School Name>_<Title of Presentation>
 - Subject title: [LIK NAYAN 2024] S.Ai.Phy: <School Name>

B. Mechanics

- Presentations must be printed on tarpaulin (7 ft. long, 5 ft. wide).
- The presentation must include the following:

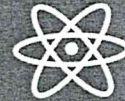
a. Title of the project, experiment, or research	e. Methodology
b. Name of team members	f. Results and discussion
c. Abstract	g. Conclusion and Recommendations
d. Introduction	h. References



Investigatory Project

- Presentations must be set up at the venue before the time given by the Event Head. Failure to comply will result in a deduction of 15 points.
- Presenters must explain their project in either English, Filipino, or both.
- Three (3) judges will give a score based on the pointing system below.
- A maximum of ten (10) minutes will be given to each presenter to present their study to the judges. After the presentation, the judges are free to ask the presenter questions regarding their SIP.
- For the pointing system, three parameters will be graded by the judges, namely: Scientific Thought, Poster Content, and Poster Presentation. The breakdown of the criteria is as follows:

RUBRICS	
Scientific Thought (30 pts)	
Problem	15 pts
<ul style="list-style-type: none"> Relevance of the problem Potential contributions or practical value of solving the problem Clarity of objectives Novelty of the idea 	
Research Framework	15 pts
<ul style="list-style-type: none"> Efficiency and creativity in finding ways or means to undertake the project 	
Research Content (50 pts)	
Literature	10 pts
<ul style="list-style-type: none"> Familiarity with scientific literature in the field related to the problem 	
Experiment/Prototype	20 pts
<ul style="list-style-type: none"> Appropriateness of the design and execution of the experiment Use of laboratory instrumentation or innovative resources 	



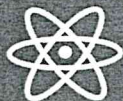
Investigatory Project

Data Collection and Presentation	20 pts
<ul style="list-style-type: none"> Appropriateness of data collection methods Appropriateness of the statistical methods used Sensible interpretation of data 	
Poster Presentation (50 pts)	
Poster	10 pts
<ul style="list-style-type: none"> Visual clarity and organization of the poster 	
Data Collection and Presentation	10 pts
<ul style="list-style-type: none"> Clarity and thoroughness of the discussion of the project Shows mastery of their project Follows the specified time limit 	
TOTAL	100 pts

- In case of a tie, the judges will deliberate who will rank higher and lower based on their presentation.
- The event points for the team for S.Ai.Phy will be the average scores coming from the three (3) judges.
- Winning entries will be featured in **KALASAG**, the official publication of **PHYSIKA**, **UP Applied Physics Society**, and will be promoted on the Facebook pages of **PHYSIKA**, **UP Applied Physics Society** and **LIKNAVAYAN**.
- By participating in this sub-event, you are giving **PHYSIKA**, **UP Applied Physics Society** permission to publish and distribute copies of your work.

LIKNAYAN 20
24

DUALITY: Exploring the World of Physics
through Light



Amazing Race

The **LIKNAYAN 2024: Amazing Race** is an inter-school race that tests students' knowledge of physics and teamwork skills. It aims to promote the application of physical principles to solve real-world problems under time pressure. Also, the Amazing Race aims to foster healthy competition among high school students.

A. Guidelines

1. Teams are required to bring their own **black pens** and correction tape for this contest. Friction pens are not allowed. Only **non-programmable calculators** are allowed. The event organizers will meticulously verify all of the school items that attendees bring, such as pens and calculators. The gadgets, such as mobile phones and tablets, of the participants shall be surrendered to their respective coaches for safekeeping.
2. Teams are requested to wear their **school's PE uniform** for the Amazing Race. In the event that a team member cannot provide a PE uniform, the participant is requested to wear any comfortable clothing but must wear or bring their **LIKNAYAN ID**.
3. Each team will be assigned with one usher. The usher can only do the following for their team:
 - Observe the performance of their team members.
 - Raise the questions and inquiries of their team for clarification.
 - Provide counterarguments in cases where circumstances are not favorable for the team.
 - Must not provide answers for the students or provide information in any way. This action will be counted as cheating and will be dealt with accordingly.
4. This race will cover the **practical applications of physics and applied physics**.
5. Cheating is strictly prohibited. Any contestant guilty of cheating merits automatic disqualification from the team.
6. Any form of coaching is prohibited and will also merit disqualification for the team.



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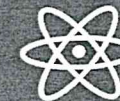
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LIKNAYAN 20
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DUALITY: Exploring the World of Physics
through Light



Amazing Race

B. Mechanics

1. This contest will be composed of seventeen (17) stations. Each station has its own task to fulfill that is unique to every other station. Teams are compelled to run through all stations.
2. The teams will begin by drawing a color at a common location that the organizers will announce. The color will represent the team and the color of the clues that will be given to them for each station.
3. Each team will be handed a detailed map of the lower UPLB campus that will include the locations of the stations.
4. After successfully completing a task, the teams will be given a clue to their next destination.
5. The team that finishes the race with the fastest time will be awarded first place, the second fastest team will be awarded second place, and so on.
6. The team's finishing position will have corresponding event points. The corresponding points are given below.

RANK	POINTS
1 st	200
2 nd	180
3 rd	160
4 th - 8 th	130
9 th - 12 th	110
13 th - 15 th	90



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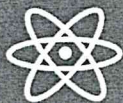
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LIKNAVAYAN 20
24

DUALITY: Exploring the World of Physics
through Light



Amazing Race

Data Collection and Presentation <ul style="list-style-type: none">• Appropriateness of data collection methods• Appropriateness of the statistical methods used• Sensible interpretation of data	20 pts
Poster Presentation (50 pts)	
Poster <ul style="list-style-type: none">• Visual clarity and organization of the poster	10 pts
Data Collection and Presentation <ul style="list-style-type: none">• Clarity and thoroughness of the discussion of the project• Shows mastery of their project• Follows the specified time limit	10 pts
TOTAL	100 pts

7. In case of a tie, the judges will deliberate who will rank higher and lower based on their presentation.
8. The event points for the team for S.Ai.Phy will be the average scores coming from the three (3) judges.
9. Winning entries will be featured in **KALASAG**, the official publication of PHYSIKA, UP Applied Physics Society, and will be promoted on the Facebook pages of **PHYSIKA, UP Applied Physics Society** and **LIKNAVAYAN**.
10. By participating in this sub-event, you are giving PHYSIKA, UP Applied Physics Society permission to publish and distribute copies of your work.

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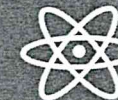
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24

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Poster Making

The **LIKNAVAYAN 2024: Poster Making Contest** is an inter-school competition that aims to foster the creative minds and visions of the youth in promoting and finding the significance of the fields of physics and applied physics in advancing national development through conventional or digital artworks.

A. Guidelines

1. The sub-event will last for **twenty (20) days**. The competition organizer's computer is the official clock for the competition. **The competition officially starts on March 22, 2024 and ends on April 10, 2024.**
2. One (1) participant per team shall participate in the Poster Making Contest.
3. The participants should provide their own materials or devices for the contest.
4. Any form of poster and any medium or technique for creating a poster are allowed. **Physical art and digital art are allowed.**
5. Only one entry per participant is allowed.
6. The panel of judges will be composed of professionals in the fields of physics, applied physics, and the arts.
7. The decision of the panel of judges is final and irrevocable.
8. Winning entries will be featured in **KALASAG**, the official publication of PHYSIKA, UP Applied Physics Society, and will be promoted on the Facebook pages of **PHYSIKA, UP Applied Physics Society** and **LIKNAVAYAN**.
9. By participating in this sub-event, you are giving PHYSIKA, UP Applied Physics Society permission to publish and distribute copies of your work.

B. Mechanics

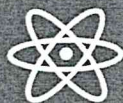
1. The theme shall be announced on the day of the official opening of the minor sub-events which shall be on March 22, 2024. It will be sent to the participants and coaches through email and will also be posted on the LIKNAVAYAN Facebook page.
2. The participants have **fourteen (14) days to create their posters and captions.**
3. Adding text, slogan, watermark, datestamp, any copyrighted or plagiarized material, school logo, or anything else that could be used to identify the school of the participants is **prohibited**. The organization shall not be responsible for any infringement of intellectual property rights committed by the participant. The participant will be deducted 5 points for committing such acts.

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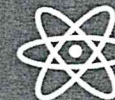
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Poster Making

4. After finishing their artworks:
 - Physical artworks: The participants should take a picture or scan their artworks with a minimum resolution of 8 megapixels. To avoid noise, perspective distortion, and mismatches of colors, the participants should ensure that the artwork is upright or straight while being illuminated sufficiently, preferably by natural light, when taking a photo.
 - Digital artworks: The participants should export their works into images with a minimum resolution of 300 pixels per inch (ppi).
5. Failure to comply with the preceding requirements will result in a deduction of 3 points.
6. The final image of the poster must be in JPG, JPEG, or PNG file format with the filename: Poster_<School Name>_<Surname>_<Given Name>.
7. A caption containing a description of the artwork (not less than 150 words but not greater than 170 words) and a brief description of the medium and/or technique used should be typewritten in a PDF file with the filename Caption_<School Name>_<Surname>_<Given Name>.
8. The two files must then be compressed into a ZIP file with the filename PMC_<School Name>_<Surname>_<Given Name>.
9. The ZIP file should be sent to liknayan.physika@gmail.com with the subject line [LIKNAVAYAN 2024] PMC: <School Name> - <Surname>, <Given Name>. For example: [LIKNAVAYAN 2024] PMC: ABC High School - Dela Cruz, Juan.
10. Failure to comply with the preceding instructions for the file name and format will result in a deduction of 5 points.



Poster Making

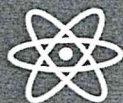
11. The judges will grade the posters based on the criteria given:

RUBRICS	
Content <ul style="list-style-type: none"> • Accuracy and relevance of scientific facts to support the physics concepts presented • Demonstrates a deep understanding of the subject matter • Uniqueness and originality 	40 pts
Creative Presentation and Audience Impact <ul style="list-style-type: none"> • Use of creative visuals that enhance the understanding of physics concepts • Makes physics concepts relatable and interesting for the audience • The number of likes and shares on the participant's Facebook post will be considered as an indicator of audience impact 	20 pts
Artistic Quality <ul style="list-style-type: none"> • Effective use of creative visuals, diagrams, or illustrations • Graphics contribute to the overall artistic appeal of the poster 	20 pts
Creativity of the Title <ul style="list-style-type: none"> • Originality and creativity of the title • The title contributes to the overall uniqueness of the poster 	10 pts
Ethics <ul style="list-style-type: none"> • Poster adheres to ethical and professional standards for presenting scientific content • Maintains integrity in conveying physics concepts • Poster adheres to copyright laws, avoiding any infringement of intellectual property rights 	10 pts
TOTAL	100 pts

12. The top 3 scoring individuals will be declared the 1st, 2nd, and 3rd place winners accordingly.

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Poster Making

- In case of a tie in the top 3 spots, the entries that have the highest sum when combining all of the Facebook reactions and shares shall be declared the winners over the entries that they have tied with.
- All posters and captions should be submitted on or before April 4, 2024. Late submissions are allowed only until 11:59 p.m. of April 5, 2024 and shall have a 5-point deduction. Entries submitted beyond the said time and date shall not be accepted.
- Entries will be posted on the PHYSIKA, UP Applied Physics Society Facebook page, and the corresponding participant will be mentioned in the post. Starting on April 6, 2024, at 10:00 a.m. to April 10, 2024, at 11:59 p.m., the teams may share the original post of their entry to gather Facebook reactions and shares. However, the only Facebook reactions and shares counted are those from users who also liked and followed the PHYSIKA, UP Applied Physics Society Facebook page. Moreover, only one (1) share per user shall be counted. The total number of reactions plus shares will determine the score for the audience impact.



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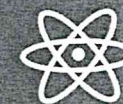
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Physics Communication

The **LIKRAYAN 2024: Physics Communication Contest** is an inter-school video competition that aims to inspire creative thinking about physics. This contest tests the student's ability to communicate complex physics concepts in engaging, illuminating, and imaginative ways.

A. Guidelines

- The sub-event will last for **twenty (20) days**. The competition organizer's computer is the official clock for the competition. **The competition officially starts on March 22, 2024 and ends on April 10, 2024.**
- Each participating PCC team shall be composed of three (3) members only.
- Teams are allowed to use any software or equipment available to them.
- Only one entry per team is allowed.
- The panel of judges will be composed of professionals in the fields of physics and applied physics.
- The decision of the panel of judges is final and irrevocable.
- Winning entries will be featured in **KALASAG**, the official publication of PHYSIKA, UP Applied Physics Society, and will be promoted on the Facebook pages of **PHYSIKA, UP Applied Physics Society** and **LIKRAYAN**.
- By participating in this sub-event, you are giving PHYSIKA, UP Applied Physics Society permission to publish and distribute copies of your work.

B. Mechanics

- The participants have fourteen (14) days to create their video entries.
- Participating teams are free to choose the topic that they wish to discuss, as long as it is related to LIKRAYAN 2024's theme. Participating teams will be given a list of topics or guides related to LIKRAYAN 2024's theme that they may or may not follow.
- There must only be one (1) student explaining throughout the video.
- The explanation, script, or content that the one student will be explaining throughout the video shall be submitted on separate paper in PDF format with a file name of [PCC] <School Name> - Script. This is to prevent plagiarism.
- Video entries must have a maximum length of three (3) minutes and a quality of at least 720p.



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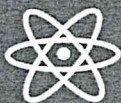
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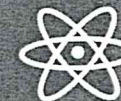
Physics Communication

6. Video entries that exceed the maximum time limit shall have a deduction of 1 point per second from the final score.
7. Entries must have subtitles and a title.
8. The final output must be in MP4 file format with the filename [PCC] <School Name>.
9. Putting the logo or anything that can be associated with or used to identify their schools in the video is not allowed. The organization shall not be responsible for any infringement of intellectual property rights committed by the participant. The participant will be disqualified for committing such acts.
10. Entries must be submitted to liknayan.physika@gmail.com with the subject line [LIK NAYAN 2024] PCC: <School Name>. For example:
 - Script: [PCC] ABC High School - Script.pdf
 - Video Entry: [PCC] ABC High School.mp4
 - Email subject: [LIK NAYAN 2024] PCC: ABC High School
11. The judges will grade the posters based on the criteria given:

RUBRICS	
Content <ul style="list-style-type: none"> • Use of facts to bolster the credibility of statements and/or narratives • Uniqueness and originality • Ideas are presented in a coherent and logical sequence, facilitating the audience's understanding of the physics concepts • Smooth transitions between ideas contribute to the overall organization and progression of the video 	40 pts

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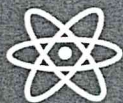


Physics Communication

Creative Presentation and Audience Impact <ul style="list-style-type: none"> • Use of creative visuals, animations, or graphics that enhance the understanding of physics concepts • Utilizes creative approaches, such as storytelling, analogies, or demonstrations, used to captivate the audience and make physics concepts more relatable • Effective use of technology or multimedia tools to enhance the overall creativity of the video • The number of likes and shares on the participant's Facebook post will be considered as an indicator of audience impact 	25 pts
Technical <ul style="list-style-type: none"> • The video displays clarity and good visual appeal • Narration is audible and free from unnecessary distractions • Scripted content, pacing, tone, and good overall delivery 	15 pts
Creativity of the Title <ul style="list-style-type: none"> • The title is relevant to LIKNAYAN 2024's theme, contributing to the overall alignment of the video with the contest's objectives • The title effectively communicates the essence of the video in a clear and concise manner 	10 pts
Ethics <ul style="list-style-type: none"> • The video adheres to ethical and professional standards for journalism, maintaining integrity in presenting the content • Sources are properly cited in the video • Video adheres to copyright laws, avoiding any infringement of intellectual property rights 	10 pts
TOTAL	100 pts

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Physics Communication

- Video entries will be posted on the PHYSIKA, UP Applied Physics Society Facebook page, and the members of each participating team will be mentioned in the post. Starting on April 6, 2024, at 10:00 a.m. to April 10, 2024, at 11:59 p.m., the teams may share the original post of their entry to gather Facebook reactions and shares. However, the only Facebook reactions and shares counted are those from users who also liked and followed the PHYSIKA, UP Applied Physics Society Facebook page. Moreover, only one (1) share per user shall be counted. The total number of reactions plus shares will determine the score for the audience impact.
- The final score of each entry will be the average of the scores given by the judges.
- Teams garnering the most points will be declared the 1st, 2nd, and 3rd place winners accordingly.
- In case of a tie in the top 3 spots, the entries that have the highest number of Facebook reactions and shares shall be declared the winners over the entries that they have tied with.



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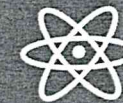
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Career Talk

The **LIKNAVAYAN 2024: Aphy Talk** is a career symposium open to all physics students and enthusiasts, with the aim of fostering career awareness in the dynamic realms of physics and applied physics. Distinguished speakers across diverse disciplines and backgrounds share their personal journeys, first-hand experiences, and valuable insights on their respective career paths. The primary objective of this symposium is to broaden participants' perspectives with a variety of professional options and to guide them in identifying their personal career interests.

A. Guidelines

- Aphy Talk is open to all. LIKNAVAYAN 2024 participants are automatically registered to this career symposium.
- Non-LIKNAVAYAN participants may still join the event by accomplishing the registration form (through Google Forms) to be posted on the official LIKNAVAYAN Facebook page.
- During the symposium, participants of the Aphy Talk are asked to turn off their gadgets or put them on mute to avoid distractions.
- Participants are highly encouraged to participate during the program. A Question and Answer (Q&A) portion will follow each of the speaker's presentation, wherein participants may ask their questions to the speakers.



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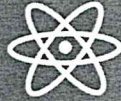
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Workshop

The **LIKNAVAYAN 2024: Arduino Basics** is a workshop that aims to introduce highschool students in the use of Arduino microcontrollers for physics applications. This workshop teaches how to utilize the Arduino to create a measuring instrument.

A. Guidelines

1. The event flow of the arduino workshop will be as follows:
 - Introduction to Microcontrollers and Arduino
 - Building session
 - Presentation
2. The participants in the workshop are limited by the number of Arduino kits available.
3. Each participant will need to **bring their own personal laptop with the Arduino IDE software** installed before the start of the workshop.
 - Download link for the Arduino IDE software:
<https://www.arduino.cc/en/software>
4. Each student will be given an Arduino kit containing: an Arduino uno, an LM35 temperature sensor, an LCD display, breadboard, jumper wires, and extra components like resistors and potentiometers.
5. A cheat sheet containing information on each component and the relevant Arduino code will also be given.

B. Mechanics

1. The workshop will last for **2 hours**.
2. The participants will be tasked to create a **thermometer with an LCD display** using the provided materials.
3. The facilitators will give instructions on how to use each component.
4. At the end of the workshop, each participant will present their final output.