

# LIKNAVYA

15 November 2018

Dr. D. Rosendo M. San Antonio  
Regional Director  
Department of Education - Division Office  
Cagayan de Oro City  
Region 10

*For SDS  
For your appropriate  
action, please  
Thank you, God Bless  
[Signature]*

RECEIVED  
11/20/18  
[Stamp and other markings]

Greetings!

PHYSIKA, UP Applied Physics Society is a duly recognized academic organization of applied physics students of the University of the Philippines Los Baños (UPLB). The organization aims to promote academic excellence and foster well-roundedness among its members. It also aims to encourage the appreciation of physics and applied physics as well as raising scientific literacy by initiating activities in line with the objectives of UPLB and the nation.

As part of our advocacy to raise scientific literacy in the fields of physics and applied physics, the organization will hold an academic competition for high-school students entitled LIKNAYAN 2019 with the theme "Physics in Motion" on January 25-27, 2019 at UPLB. This event aspires to impart substantial knowledge to its participants on the topics of physics and applied physics, and their significance to our society. LIKNAYAN also aims to provide a fun and memorable experience for high-school students and teachers through various activities. This year's activities include Solitaire of the Brains, Creative Writing, Photojournalism, Science Investigatory Project, seminars and workshop for students and teachers, and Amazing Race.

In line with that, we would like to ask your good office to accredit our event, LIKNAYAN 2019, which will be held at UPLB. Rest assured that this event will help the students in expanding their knowledge and appreciation in the fields of physics and applied physics.

For the general guidelines, attached are the important documents regarding LIKNAYAN 2019. Should you have queries and concerns, you may email us at [liknayanphysika@gmail.com](mailto:liknayanphysika@gmail.com) or contact Erlene Justine Enverga (09097224053).

We hope for your kind consideration. Thank you and more power!

Respectfully,

*[Signature]*  
Prof. Ruby M. Serrano  
[Stamp]  
*[Signature]*  
Prof. Araceli T. Quinsang  
[Stamp]

*[Signature]*  
Prof. [Name]  
[Stamp]  
*[Signature]*  
Prof. [Name]  
[Stamp]



/PHYSIKALIKNAVYAN



@PHYSIKALIKNAVYAN



[physikauplb.org](http://physikauplb.org)

TO: All Concerned

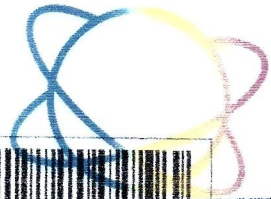
December 2, 2018

For your information, and guidance of all concerned.

*[Signature]*  
CHERRYLOU D. REPIA  
Schools Division Superintendent



# LIK NAYAN



15 November 2018

Dr. Diosdado M. San Antonio  
Regional Director  
Department of Education Region IV-A  
Office of the Regional Director  
Karangalan ES, Karangalan Village  
Cainta, Rizal, Philippines

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As part of our advocacy to raise scientific literacy in the fields of physics and applied physics, the organization will hold an academic competition for high-school students entitled LIKNAYAN 2019 with the theme "Physics in Motion" on January 26-27, 2019 at UPLB. This event aspires to impart substantial knowledge to its participants on the topics of physics and applied physics, and their significance to our society. LIKNAYAN also aims to provide a fun and memorable experience for high-school students and teachers through various activities. This year's activities include Battle of the Brains, Creative Writing, Photojournalism, Science Investigatory Project, seminars and workshop for students and teachers, and Amazing Race.

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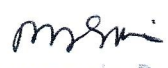
We hope for your kind consideration. Thank you and more power!

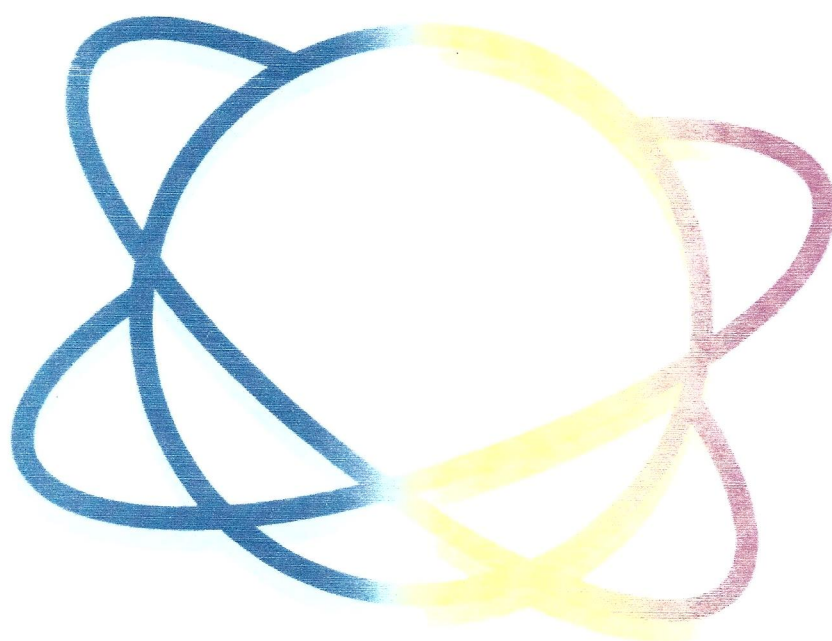
Respectfully,

  
John Radly M. Sevilla  
Activity Head

  
Prof. Jacqueline T. Cuansing  
Senior Adviser

  
Gian Paul Joshua DV. Arejola  
President

  
Prof. Rosemarie D. Eusebio  
Junior Adviser



2019

**liknayan**

PHYSICS IN MOTION



# GENERAL GUIDELINES

1. LIKNAYAN 2019 is open to all Grades 9 and 10 junior high school students.
2. LIKNAYAN 2019 shall be composed of five activities namely the (1) Battle of the Brains, (2) Photojournalism, (3) Feature Writing, (4) Science Investigatory Project and (5) the Amazing Race. Also, for this LIKNAYAN 2019, a socials night and Arduino Workshop for students will be hosted.
3. The contest points of the team will be the sum of the individual event points coming from Battle of the Brains, Feature Writing, Photojournalism, the Amazing Race, Science Investigatory Project.
4. The top three (3) schools with the highest accumulated points will be declared as champion, 1st runner up, and 2nd runner up respectively.
5. In case of a tie in the overall ranking, the following scheme will be used to break the tie:
  - i. The school that has more first places in all five events will be declared winner over the school/s that it has tied with; if not applicable then,
  - ii. The school that has more second places in all five events will be declared winner over school/s that it has tied with; if not applicable then,
  - iii. The school that has more third places in all five events will be declared winner over school/s that it has tied with; if not applicable then,
  - iv. The school with the highest ranking in the Amazing race will be declared winner over school/s that it has tied with.
6. The champion will bring home the revolving trophy for a year. Details regarding the revolving trophy are on a separate document.
7. PHYSIKA, UP Applied Physics Society has the right to revise the mechanics of the event. Any revision that will be made will be announced prior the opening of LIKNAYAN 2019.

## Registration Guidelines

1. There will be a registration fee of Php 7000.00 per participating team. A down payment of Php 3500.00 must be made upon registration. Full payment must be made during the registration in the event date.
2. Registration is confirmed once the down payment is paid. Teams can pay the fee directly to this bank account:

BPI Family Savings Account No.: 0919 3829 02  
Account Name: John Radly M. Sevilla  
(LIKNAYAN Activity Head)
3. The registration fee is inclusive of the following:
  - i. Arduino Workshop for students
  - ii. Lunch meal and Dinner meal for the first day will be provided. Breakfast meal and Lunch meal for the second day will be provided.
  - iii. Event Kit
  - iv. Souvenirs
  - v. LIKNAYAN Shirts
4. Upon confirmation, the following requirements must be sent to [liknayan.physika@gmail.com](mailto:liknayan.physika@gmail.com) with the subject ("Liknayan 2019, Registration, Name of School"):
  - i. Scanned copy of accomplished registration form
  - ii. High-resolution logo/seal
  - iii. Soft-copy of down payment's bank receipt (Screenshot if payment is made online).
5. In the event of changes in the lineup of team members, the organization must be notified not later than one week before the said event.
6. The deadline for submission of registration requirements is December 19, 2018 (Saturday).



# GENERAL GUIDELINES

## Event Guidelines

### A. Event Flow and Attire

1. The LIKNAYAN 2019 events will flow as follow and respective attire for each event is as follows:

First Day (January 26)	
7:00-8:00	Registration
8:00-9:00	Opening Program
9:00-12:00	Arduino Workshop
12:00-1:00	Lunch Break
1:00-3:30	Battle of the Brains
	Photojournalism
	Feature Writing
	Science Investigatory Project
3:30-4:00	Exhibit Viewing
4:30-5:30	Prep/break time
5:30-6:00	Gathering / Registration
6:00-9:00	Socials Night

Second Day (January 27)	
7:00-8:30	Breakfast and Registration
8:30-11:30	Amazing Race
11:30-12:00	Rest/Exhibit viewing
12:00-1:00	Lunch Break
1:00-3:00	Awarding and Closing Program

2. The participating students are expected to wear their respective school uniform with ID during the first day and P.E. uniform for the second day. Attires for the Socials Night must be casual (polo, pants, dress, etc.).

### B. Composition of Team

- Each school wishing to participate can send any number of team which is composed of seven (7), grade 9 and 10 students plus one (1) coach per team. A single team shall be composed of the following:
  - 3 Battle of the Brains contestants
  - 1 Photojournalism contestant
  - 1 Feature Writing contestant
  - At most 2 Science Investigatory Project representative
  - 1 Faculty-in-charge/Coach
- Six (6) students from the team (chosen by the team) will be the team's contestants in the Amazing Race. If the team is composed of seven (7) students, one (1) student must be a reserve for the Amazing Race.



# GENERAL GUIDELINES

## C. Scoring System

1. There will be five (5) different activities where the team can garner their points. The team will be ranked according to their total points and the events with their corresponding points is given below:

Battle of the Brains	100 Points
Feature Writing	100 Points
Photojournalism	100 Points
Science Investigatory Project	100 Points
Amazing Race	200 Points

## Awards and Prizes

1. A revolving trophy for the overall champion will be given to the school who garnered the most points during the event.
2. The champion, first runner up, and second runner up will be given plaque and certificate of recognition.
3. The rest of the participants will receive a certificate of participation.
4. The team that will be the 1st, 2nd, and 3rd placers for each event will receive medals, certificate of recognition. Goods and prizes worth the ff. will also be given:

Rank	Battle of the Brains	Feature Writing	Photojournalism	Science Investigatory Project	Amazing Race
1st	PhP 1500	PhP 500	PhP 500	PhP 500	PhP 3000
2nd	PhP 1000	PhP 300	PhP 300	PhP 300	PhP 2000
3rd	PhP 500	PhP 200	PhP 200	PhP 200	PhP 1000

## Boarding and Lodging

Boarding and Lodging are not included in the registration fee. However, we can provide you a list of hotels, dormitories, and apartments if you wish. We will follow-up the list of possible hotels, dormitories, and apartments to you through email or if you have any questions, feel free to contact Errione (09097224053).



# BATTLE OF THE BRAINS MECHANICS

The **LIKNAYAN 2019: Battle of the Brains** is an inter-school quiz competition that seeks to engage Grade 9 and 10 Junior high-school students with deep appreciation in the field of physics and applied physics in pursuing academic excellence. Also, the Battle of the Brains aims to foster a healthy competition among high-school students.

## 1. General Guidelines

- 1.1. The participants will be grouped into teams with three (3) members per team.
- 1.2. The participants should provide their own pens to be used for the contest. Only pens with black or blue ink will be accepted. Frixion pens are strictly prohibited.
- 1.3. Scratch papers will be provided by the event organizers.
- 1.4. The coverage of the quiz contest includes the ff.:
  - i. Classical Mechanics
  - ii. Thermodynamics
  - iii. Optics
  - iv. Electromagnetism
  - v. Astronomy
  - vi. General Information on the field of physics and applied physics
- 1.5. Every question will have only one final answer unless stated otherwise.
- 1.6. Each team is allowed to use one calculator. Programmable calculators are strictly prohibited. The event organizers will check the calculators before the competition.
- 1.7. Misspelled and incomplete answers will be considered incorrect.
  - 1.7.1. If the name of a person is being asked, full name should be stated.
  - 1.7.2. Abbreviations will not be accepted unless it is a unit of measurement.
  - 1.7.3. Units of measurement should be indicated whenever necessary.
- 1.8. Any form of cheating shall be grounds for the disqualification of the team.
- 1.9. Cellular phones, tablets, and any gadgets are not allowed in the contest area.

The participants must hand over their gadgets to their coaches for safe keeping.
- 1.10. Any form of coaching is prohibited.
- 1.11. A panel of judges composed of professionals in the field of physics and applied physics will monitor the event.
- 1.12. The decisions of the judges are final.



# BATTLE OF THE BRAINS MECHANICS

## 2. Contest Mechanics

- 2.1. There will be three (3) levels of difficulty in the quiz contest namely: (1) easy, (2) average, and (3) difficult.
- 2.2. The questions that will be given are in the form of Multiple Choice, Identification, True or False, and Problem Solving.
- 2.3. Each question will be projected on the screen and will be read twice by the quiz master.
- 2.4. Each question in any given level of difficulty has a corresponding time limit. For questions involving problem solving, teams would be given additional 30 seconds for answering. There will be a total of 20 questions. The team/s to answer all questions correctly will score a maximum of 135 points. The breakdown per round can be seen as follows:

Level of Difficulty	Number of Questions	Points per Question	Time limit (seconds)
Easy	10	5	10
Average	5	7	15
Difficult	5	10	30

- 2.5. Teams will write their answers on the sheet provided by their proctors.
- 2.6. Teams can only write their answers after the quiz master says the "Go" signal. Team(s) that will be caught writing before the "Go" signal will be given a warning for the first occurrence. Otherwise, if the team(s) will be caught again after a warning has already been given, they will gain no credit for answering.
- 2.7. After every question, teams should pass their answer sheets to their corresponding proctors. Late answers will not be considered.
- 2.8. Teams will 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.
- 2.9. After all questions have been asked, the top 3 scoring teams will be declared as winners. In case of a tie in the top 3 spots, a clincher question will be asked.
- 2.10. **CLINCHER QUESTION:** Teams in the clincher round will be asked an identification question. Each question has an equivalent of 1 point and the first team to have a lead of 1 point will be declared as the winner.

Team's event points is equal to  $\frac{\text{Team's points}}{(135 \text{ points})} \times 100 \text{ points (Rounded down)}$



# FEATURE WRITING MECHANICS

**The LIKNAYAN 2019: Feature Writing** is an inter-school feature writing contest that aims to promote appreciation of science and technology by raising the interests and enthusiasm of readers through in-depth stories about the latest developments in the fields of physics and applied physics.

**Feature Writing** is a branch of journalism that aims to satisfy the readers' curiosity about a topic at greater depth and usually, at greater length. A feature article describes a person, place, or idea in a more-detailed, in-depth, and facts-based manner. It utilizes creativity of writing style and storytelling devices to evoke interest and connect the reader to the overall narrative.

## 1. General Guidelines

- 1.1 The participants should provide their own pens to be used for the contest. Only blue or black pens is allowed. Frixion pens are strictly prohibited.
- 1.2 Entries shall only be written on the paper provided by the organizers.
- 1.3 Only the participating students, event organizers and other authorized personnel will be allowed to enter the designated venue.
- 1.4 Contestants must abide by the ethical rules of journalism.
- 1.5 Use of electronic devices, books, and the like is strictly prohibited during the contest.
- 1.6 Participants will have their own designated workspace in the venue of the event.
- 1.7 The panel of judges will be composed of professionals in the fields of physics and applied physics, journalism and writing.
- 1.8 The decision of the panel of judges is final and irrevocable.
- 1.9 Winning entries will be featured in Kasalag, the official publication of PHYSIKA, UP Applied Physics Society, and will be promoted in the Facebook page of PHYSIKA and LIKNAYAN.
- 1.10 All entries submitted to the contest organizers will become the property of PHYSIKA, UP Applied Physics Society. This means that the organization will have the right to publish and distribute copies of all the entries.

## 2. Contest Mechanics

- 2.1 Participants will be given two hours to compose their entries.
- 2.2 Entries must not have been previously published, and all participants must ensure the originality of their work.
- 2.3 The feature article must be in English with 500 to 1000 words. Failure to comply with this requirement will lead to deductions.
- 2.4 The participant's identity must not appear on any part of their entry. For identification purposes, only the participant's assigned number will be written on the final output.
- 2.5 A theme will be given at the start of the event. The participants must emphasize their ideas in the article they are about to write.

# FEATURE WRITING MECHANICS

- 2.6 Fact sheets will be provided. However, participants are not limited to the information contained on the sheets and are encouraged to include other topics that are highly relevant to the given theme.
- 2.7 After the allotted time, the participants must submit their works to the contest organizers for judging.
- 2.8 None of the judges will see any of the participants' names until the winners are chosen.
- 2.9 The judges will score the participants based on the given rubric below:

CRITERIA PERCENTAGE	
Accuracy and Completeness of Content	30%
Clarity and Logical Organization	20%
Creativity, Style, and Grammar	15%
Relevance to the theme	15%
Impact to the reader	10%
Originality/Uniqueness	10%
TOTAL 100%	

- 2.10. In case of a tie, the judges will deliberate who will rank higher and lower based on their entries.
- 2.11. The total number of points that a team can earn from the Feature Writing contest is equal to the average of the scores given by the judges.
- 2.12 You can visit Zeeya Merali's "Astrophysics: Fire in the Hotel" for a good example of a Feature Writing article. <https://goo.gl/CPLXHB>.



# PHOTOJOURNALISM MECHANICS

**The LIKNAYAN 2019: Photojournalism** is an inter-school photojournalism competition which uses photographs as a medium to tell a story and to convey information about the applications of physics.

## 1. General Guidelines

- 1.1. The registered participants should provide their own cameras. The brand of the cameras to be used are preference of the participants (Nikon, Canon, Sony, etc.). For DSLR, only kitlens (18mm-55mm) are allowed.
- 1.2. The use of other camera equipment such as tripod, stabilizers, flash, etc. is not allowed.
- 1.3. The memory storage device to be used (e.g. SD Cards, Memory Cards), must be cleared or void of any pictures and must be submitted upon registration. They will be returned before the contest starts.
- 1.4. All participants should abide by the ethical rules of journalism.
- 1.5. The participants must be at the assigned meeting place at exactly 1:00pm for initial instructions and strictly 3:00pm for submission of entries.
- 1.6. The participants can take photographs inside the UPLB vicinity only.
- 1.7. The panel of judges will be composed of professionals in the field of physics and applied physics, and photography.
- 1.8. The decision of the panel of judges is final and irrevocable.
- 1.9. Winning entries will be included in Kalasag, the official publication of PHYSIKA, UP Applied Physics Society.
- 1.10. All entries will become property of PHYSIKA, UP Applied Physics Society.

## 2. Contest Mechanics

- 2.1. The contest will last for two hours. In this time, the contestants are tasked to roam around the campus and take a photo of anything relevant to the given theme.
- 2.2. The theme for the contest will be announced at the start of the contest.
- 2.3. The contestant can only take pictures inside the University of the Philippines Los Baños campus.
- 2.4. Photo editing such as scaling and other additive and reductive alterations are strictly prohibited. However, enhancements such as brightness, contrast, cropping, hue, and others are allowed.
- 2.5. Use of props and actors are strictly prohibited.
- 2.6. One (1) output photo must be submitted to the head of the contest on or before the designated time.
- 2.7. Photo printing will be shouldered by the organization.
- 2.8. The participant's identity must not appear on any part of their entry. For identification purposes, only the participant's assigned number will be written on the final output.
- 2.9. Entries submitted must come with a one-sentence caption relevant to both the theme and the photo.



# SCIENCE INVESTIGATORY PROJECT MECHANICS

**LIKDAYAN 2019: Investigatory Project** is an inter-school academic competition which aims to develop the research and critical thinking skills of Grades 9 and 10 students by presenting a project/research in line to the theme of LIKNAYAN. Also, this sub-event will allow the students experience poster presentation in preparation during their higher years.

## 1. General Guidelines

- 1.1. Teams must consist of at most 2 students per school.
- 1.2. Teams must present a project/research related to the theme "Physics In Motion".
- 1.3. Presentations must be presented in a tarpaulin form.
- 1.4. Interactive projects/researches are allowed.
- 1.5. Presentations must have at least 10 references cited in APA format.
- 1.6. In case of plagiarism and duplication, the Event Head has the right to give penalties to the team.

## 2. Contest Mechanics

- 2.1. Presentations must be printed in a tarpaulin (7 ft long, 5 ft wide).
- 2.2. Presentations must include the following:
  - a. Title of the project/experiment/research
  - b. Name of team members
  - c. Abstract of the research/study
  - d. Introduction
  - e. Methodology
  - f. Results and Discussions
  - g. Conclusion and Recommendation
- 2.3. Presentations must be set-up on the venue before the time given by the Event Head.
- 2.4. Presenters must explain their project/research/experiment in English or in Filipino or both.
- 2.5. Five (5) judges will give score based on the pointing system below.
- 2.6. Maximum of thirty (30) minutes will be given to each presenter to present their study to the judges.

## 3. Pointing System

3.1. Three parameters will be graded by the judges, namely: Presentation, Poster Design, and Poster Content. The breakdown of the parameters can be seen as follows:

Presentation	40 POINTS
Poster Content	40 POINTS
Poster Design	20 POINTS



# SCIENCE INVESTIGATORY PROJECT MECHANICS

## PRESENTATION (40 POINTS)

Clarity of the Presentation	20 POINTS
Voice Modulation	10 POINTS
Appeal to the audience	10 POINTS

## POSTER CONTENT (40 POINTS)

Relevance to the Theme	20 POINTS
Cohesiveness and Correctness	20 POINTS

## POSTER DESIGN (20 POINTS)

Visual Clarity and Impact	10 POINTS
*Poster Layout <i>*a poster format will be provided</i>	10 POINTS

- 3.2. 100 points will be the maximum score for the Science Investigatory Project. The breakdown of the points in each parameter are seen above.
- 3.3. In case of a tie, the judges will deliberate who will rank higher and lower based on their presentation.
- 3.4. The event points of the team for the Science Investigatory Project will be the average scores coming from the five (5) judges.

# AMAZING RACE MECHANICS

## 2. Contest Mechanics

- 2.1. This contest will be composed of eight (8) different stations with each station equipped with a task that should be accomplished. Teams are compelled to run through all of the stations.
- 2.2. The teams will start at a common place and will draw a color. The color will represent the team and the color of the clues that will be given to them for each station.
- 2.3. Each station has its own task to fulfill that is unique to every other station.
- 2.4. Each team will be handed a detailed map of the UPLB campus that will include the locations of the stations.
- 2.5. After successfully completing a task, the teams will be given the clue to their next destination.
- 2.6. The team who finished the race with the fastest time will be awarded the first place, the second fastest team, awarded the second place, and so on.
- 2.7. The team's finishing position will have corresponding event points. The corresponding points are given below:

RANK	POINTS
1st	200
2nd	180
3rd	170
4th-6th	150
7th-10th	120
11th-15th	100
16th-20th	80



# REGISTRATION FORM

## LIK NAYAN 2019

Date: \_\_\_\_\_

Name of School: \_\_\_\_\_

School Address: \_\_\_\_\_

### Participant's Information

Full Name	Year Level	Contact Number	Signature	Event
_____	_____	_____	_____	Battle of the Brains
_____	_____	_____	_____	Battle of the Brains
_____	_____	_____	_____	Battle of the Brains
_____	_____	_____	_____	Photojournalism
_____	_____	_____	_____	Feature Writing
_____	_____	_____	_____	Science Investigatory Project
_____	_____	_____	_____	Science Investigatory Project

COACH:

\_\_\_\_\_  
(Signature over Printed Name)

\_\_\_\_\_  
Designation

\_\_\_\_\_  
Contact Number

NOTED BY:

\_\_\_\_\_  
(Signature over Printed Name)

\_\_\_\_\_  
Principal