

# SPECTRUM

**VOL.01** IPHO 2017 NEWSLETTER  
YOGYAKARTA, INDONESIA - 17 JULY 2017

## TESTIMONIALS

**PAGE 3 - 6**

READ WHAT THE OFFICIAL  
AND PARTICIPANT SAY  
ABOUT IPHO 2017

## UNSTOPPABLE PASSION FILLED WITH HARDWORK

**PAGE 7**

IN-DEPTH LOOK OF LOCAL  
HOST TEAM PREPARATION

## IT'S LOCAL TIME!

**PAGE 8**

GET TO KNOW THE LOCAL  
PHRASE TO SAY DURING  
YOUR STAY IN YOGYAKARTA

# SUGENG RAWUH!



**395 STUDENTS**

**165 LEADERS** **76 OBSERVERS**

**14 VISITORS** **86 COUNTRIES**

## EDITORIAL DESK

### ADVISORS

Hamid Muhammad  
Purwadi Sutanto  
Kamsul Abraha

### MANAGER

Suharlan

### DIRECTORS

Asep Sukmayadi  
Hastuti Mustikaningsih

### FINANCE

Agus Mulyana

### CHIEF EDITOR

Rizal Alfian

### ASSOCIATE EDITOR

Leny Candra

### ART DIRECTOR

Putra Adi Setiyawan

### REPORTERS

Davin Rusady  
Pradana Fitra Zumario

### CREATIVE DESIGNER

Jihad Afghani Alghifari

### PHOTOGRAPHERS

Budhi Pramana  
M. Alharist Gari Rakai Sambu K.

SPECTRUM as the newsletter editorial name is taken from spectrum widely known in physics world as an image or distribution of components of any electromagnetic radiation arranged in a progressive series according to wavelength that can be found in rainbow as the separation of colors.

©IPhO 2017

Website: [ipho2017.id](http://ipho2017.id)

Facebook: [fb.me/ipho2017](https://www.facebook.com/ipho2017)

Twitter: [twitter.com/ipho2017](https://twitter.com/ipho2017)

Instagram: [instagram.com/ipho\\_2017](https://www.instagram.com/ipho_2017)



# WELCOME TO ENCHANTING YOGYAKARTA!

Transcendence from the heart of Java, Yogyakarta is more than just a region in Indonesia! It's a cultural center of the island, providing travelers, artists, researchers, and soul searchers with realm of inspirations. Yogyakarta is the host of the 48<sup>th</sup> International Physics Olympiad, from 16 – 24 July 2017. What makes the city even more special, it offers tons of excitement within range, which will be visited by all leaders and students who participates in the IPhO 2017. Here are a few of them:



## BOROBUDUR TEMPLE

Since 1991, Borobudur temple has been approved by UNESCO as one of the world heritages with its majestic structure and Buddhism root inside. After decades, this temple stays still, just about 30 minutes from Yogyakarta. You can find more than just old temple – the long wall reliefs that told story about life and death, reincarnation, and others. Strolling around the complex, you will experience the interaction and ambience you never have before. A must see tourism site you need to go to during your trip to Yogyakarta!



## AIR FORCE MUSEUM

The local name for the museum is “Museum Dirgantara Mandala”, a museum dedicated to documenting the history of Indonesian air force. The museum holds a lot of collections, such as Ki-43 plane made in Japan, Catalina, P-51 Mustang made In US, and more to experience! You can learn a lot from the place all day long, since the establishment opens every day. Just take your way down to Adisucipto airport complex, and you're in the right place.



## TEMBI VILLAGE

Not too far from Yogyakarta city center – in Bantul region, resides an eco-friendly village named Tembi. This village has been pioneering a cultural blend of communal village with environmental interest beneath. Tembi offers you tons of pleasure, from vast and green scenery to exciting activities such as batik making, and local cuisine cooking. Not stopping there, this village also has the best village homestay of South East Asia.

# OFFICIAL REMARK



## Muhadjir Effendy

Minister of Education and Culture of the Republic of Indonesia

“It is an honor for us to welcome all the participants of the 48th International Physics Olympiad, fellow students, leaders, and observers from around the globe. As the host of this year’s event, I personally feel thrilled to introduce the richness and diversity of Indonesian culture and knowledge to all participants. You will experience the comfort and friendliness from the local people of Yogyakarta, which we believe will become unforgettable memories to bring back to your home. Yogyakarta is long known as the famous tourism city of Indonesia, because of the unique blend of traditional Javanese and modern culture. It is a living gallery in every aspect of living, creating harmony that can be seen through the food, the way of life, and architecture. All of this makes a single phrase known as “Yogyakarta, the city of comfort”. Therefore, I hope you can feel the same experience during your 8 days journey in Yogyakarta. I have nothing but hope for the succession of the event, and everyone’s best performance during the exams that will be specially prepared by experts in physics world.



## Sri Sultan Hamengkubuwono X

Governor of the Special Region of Yogyakarta

“As the host city of IPhO 2017, we feel very excited to welcome you to our local culture and tourism spots that we believe will make all participants feel the coziness and comfortable during their visit. From Keraton, Taman Sari castle, Mount Merapi, to a lot of beaches that has been a paradise for travelers. Yogyakarta is also a wonderful place to stroll on, as we have a lot of pedestrians and cyclists who love the way through their feet around Malioboro. Please do walk around the neighbourhood and you will feel a certain connection already. Last but not least, welcome to the Special Region of Yogyakarta and enjoy your stay! I personally hope for the best of IPhO 2017”



## Hans Jordens

President of IPhO

I involved in the International Physics Olympiad for 35 years until right now. From the start, I am aiming to help the students from all over the world to go together. They are doing a competition, they want to win, of course. Yet, to meet at each other is as important as winning. It is very important to grow this network. At this age, we meet so many youngsters from other countries. This relationship that we made is very important in the future. It is very nice when you get the gold medal, that’s what they work for, but that’s not the only go. The other things are to meet another country and to see about Indonesia because, for some of the students and leaders, this is their first time to come here. Don’t stay in your corner, sitting there, and thinking about the competition only.



## THE STORY BEHIND THE COVER

In our first volume of SPECTRUM, “Sugeng Rewuh” is the Javanese version of “welcome”. This describes how friendly Yogyakarta people are. More than that, this phrase also represents the hospitality to welcome guests.



## Hamid Muhammad

Director General of Primary and Secondary Education, Ministry of Education and Culture of the Republic of Indonesia

"I'm Physics: Physics for Peace, Physics for A Better Future of Life" is the main theme that has been chosen this year. This theme is relevance with the priority of educational building in Indonesia, which is mainly on character building. It concerns us that each student should be given the wider opportunity to study, gain knowledge, and build their own character, so that the student could make the adaptation process easier and take a part on the society. In turns, they could take part and collaborate to answer the challenge through the matter they love and know the most. We hope, this could bring the harmony and the future of the better society with its brilliant young generation.



## Purwadi Sutanto

Director of Senior Secondary School Development, Ministry of Education and Culture of the Republic of Indonesia

"High school is one of the most important times in life because almost all of us will make decisions at that time, such as determining where to go after this or what kind major that I am going to take. We believe that IPhO 2017 is a very important event which can help you explore the potential within yourself. Through this event, we also can give back to our society in scientific terms as well as help prepare young people who are adept at innovating and highly motivated."



## Suharlan

Head of Sub-Directorate of Students, Directorate of Senior Secondary School Development, Ministry of Education and Culture of the Republic of Indonesia

"Wherever the origin of you, you are the chosen students who have the opportunities to learn from the students that come from other parts of this earth. Use that opportunity to build a good community. Maybe in the next few decades, the students sitting around you will become your partners in making some cool science projects. Who knows?"



## Asep Sukmayadi

Head of Talent and Achievement Section, Directorate of Senior Secondary School Development, Directorate General of Primary and Secondary Education

"Welcome to Yogyakarta to all the students, leaders and observers who will participate in this 48th IPhO. This is a tremendous opportunity for me and the whole team to once again be able to welcome young people who have a passion to compete, especially in the field of physics. More than that, we are also committed





### Hastuti Mustikaningsih

Head of Character Education Section, Directorate of Senior Secondary School Development, Director General of Primary and Secondary Education

“When I was a high school student, I also felt how the race like this was so exciting and thrilling at the same time. Therefore, I hope, this Olympiad can be a reminder for you all students to always fight for what you believe and be a light for the people around you.”

I THINK PHYSICISTS ARE THE PETER PANS OF THE HUMAN RACE. THEY NEVER GROW UP AND THEY KEEP THEIR CURIOSITY

ISIDOR ISAAC RABI (1944)



### Kamsul Abraha

Chairman of the 48th IPhO 2017 Organising Committee

“It is our commitment as the organizer of the 48th International Physics Olympiad to ensure that your visit to Yogyakarta in a pleasant, enjoyable, and memorable condition. As the city of culture, Yogyakarta will be a splendid city to stay during IPhO 2017. Finally, I humbly welcome you to Yogyakarta as well as this 48th International Physics Olympiad. I hope all of you will have an unforgettable moment until the end.”



### Bobby E. Gunara

Head of Academic Team of IPhO 2017

“Hopefully, we can work together well in order to succeed IPhO 2017. Congratulations on the competition for students, hopefully you will do your best.”



### Alaa Ibrahim Hussein Ibrahim

Leader, Egypt

“Indonesia had a magnificent airport. Jakarta’s airport is very beautiful. I have been going through all over the United States and European airports, but the design and presentation of the flower in Jakarta’s airport are very beautiful. It’s also a very nice country. I’m liking this country the more I stay and the more things I see. I’m also looking forward to going to the museum. IPhO 2017 having good excursion program, so, I look forward to it as well”



### Jaan Kalda

Leader, Saudi Arabia

“I have been here in Indonesia already. This is my fourth time. I have been also in Yogyakarta. This is a nice place. Well, I think I had go once again to see the old temple here, like Borobudur. This is a very nice country, but a little bit hot. I enjoyed being here.”



### Chu Keng Tou

Student, Macao-China

“I’m looking forward for the competition. I already worked hard for IPhO 2017, by practicing myself and with high spirit of competing with other participants. I hope everyone have a good time and enjoy the competition.”



### Otilia Don

Student, Moldova

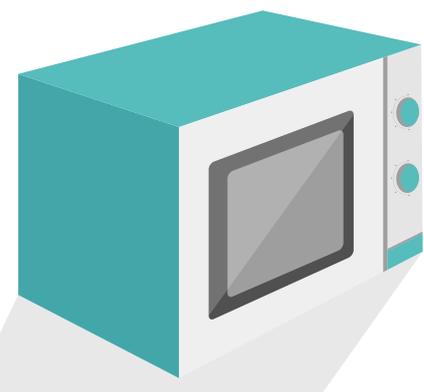
“It feels really great to be here with a lot of countries join the competition. We will try our best to solve the problem, so we don’t have any regret later on. It would be really nice if we get any medals in IPhO 2017”



### Mikhail Torio

Student, Philippines

“IPhO is one of the biggest competition for physic enthusiast from all over the world. I studied a few days a week just for this event. I personally want to get the best experience in such an extravagant event. That’s why, I would do my best for it”



## FUN FACT

### “ Physics Behind Your Microwave

According the latest researches worldwide, water in the liquid state has the characteristic to enable many new molecular interactions to develop. This helps in enhancing absorption of heat by food items. Due to this property, foods items like pizza and lasagna become soft enough to be eaten after coming out of microwave.



# UNSTOPPABLE PASSION FILLED WITH HARDWORKS

After IPhO 2002 held in Bali, Indonesia local organizing committee seems to have preparing solemn arrangement to welcome all participants to Special Region of Yogyakarta, a host city for IPhO 2017. As the preparation of the gala event begins, the host team also comes up with more passion and hard works – in and out.

**“Indonesia team gets a full support behind them, with unstoppable passion in their heart and hard works on their shoulder”**

Not stopping only in words, the experts and leaders train them with extensive study for weeks, for one purpose only, to bring the handful of Indonesian physic talent on the world stage. That may sound a little bit pretentious, but the truth is, they really work hard to overcome the challenge that has been prepared by physicists around the world.

The team consists of Bonifilio Nainggolan, Faizal Husni, Ferris Prima Nugraha, Gerry Windianto Mohammad Dunda, Fikri Makarim Sosrianto with Rinto Anugraha and

Fiki Taufik Akbar as the team leader. After 3 months of intensive training, they're now ready to seize the challenge with high spirit, discipline, and curiosity! “We prepare to face IPhO by doing a lot of exercise and enjoy every moment. So we can do our best without any regret at all”, added Bon, one of Indonesian team member.

Hopefully, the result is paid off for the host team of Indonesia. There's more to be experienced during the event that will take place from 17-23 July. Good luck for the team!

## EVERY NATION GATHERS FOR IPHO 2017!

07/16) The most awaited day is finally coming! Every team and leader from across the world landed in Adisucipto airport of Yogyakarta safely. This means only one thing, the 48<sup>th</sup> International Physics Olympiad is about to begin! 395 students from 86 countries were ready to take the challenge with creativity and honesty, solely for one purpose: to represent their country in IPhO 2017. The government also supported this event that could be shown through the Indonesian police (POLRI) specially escorted the participants to Hotel Sahid Rich, where the IPhO 2017 takes place. Immediately after arriving at the hotel, participants registered and enjoyed Indonesian special cuisine for lunch. The Department of Education and Culture of the

Republic of Indonesia as the organizer of IPhO 2017 deliberately enclosed an exceptional touch of Indonesia in order to deeply impress the participants.

During IPhO 2017, the students would stay at Hotel Sahid Rich while leader would stay at the Alana Hotel. Two of them of course resembled good vibes and surrounding for a nice sleep. As it was only the first day, all participants were given the proper time to rest after long haul of flight. The comfy environment of Yogyakarta is ready to astonish each of them. Therefore, they will be ready for the opening ceremony of IPhO 2017 that will take place on the second day.



# IT'S LOCAL TIME!

Yogyakarta main dialect is Javanese or “**Basa Jawa**”. Do you want to know how to use it? Follow us in this fun learning and practice it yourself!

## GREETINGS

Sugeng enjing	Good morning
Sugeng siang	Good afternoon
Sugeng ndalu	Good evening

## DAILY LIFE

Dahar	Eat
Piye kabare?	How are you?
Apik apik wae	I'm fine
Nuwun sewu	Excuse me
Jenengmu sopo?	What is your name?
Jenengku...	My name is...
Iyo / ora	Yes / no
Maturnuwun	Thank you

## TRADING AND BARGAINING

Iki piro bu/pak?	How much is it?
Entok kurang bu/pak?	Can you lower the price?
Seket	Fifty (thousands)
Slangkung	Twenty five (thousands)
Seket piye?	How about fifty?

Hi! I'm **MASIPO**. I'm the official mascot that will cherish the 48<sup>th</sup> IPhO event.

My name is the abbreviation of “Mari Sukseskan IPhO 2017 (MASIPO)!” in Bahasa Indonesia or “Let's succeed IPhO 2017!” in English.

Do you want to know more about my attire?

This is a Yogyakarta's traditional attire called Surjan with Lurik motif, and the hat is called Blangkon. Both of them are symbols of the modesty and hospitality of Yogyakarta's residents.

