

# World Science, Environment and Engineering Competition (WSEEC) 2021

# GUIDE BOOK

Organized By :



**IYSA**  
Indonesian Young  
Scientist Association



Supported By :



**WSEEC**  
World Science, Environment and  
Engineering Competition

# BACKGROUND

Currently we are in the era of the revolution industrial 4.0 (21st century) which of the course really demands a fundamental change in the world of education. The demands of the world require the world of education to make various innovations and breakthroughs in increasing the competence of human resources . 21 Century learning needs to integrate literacy skills, knowledge skills, skills and attitudes, as well as mastery of technology. besides that, we also have to look at the current development and knowledge of children about science, inventions and innovations, especially in the field of science, so it requires us to know the extent of students' insights, knowledge and abilities in applying their knowledge.

The current learning process that is required by using the STEM (Science, Technology, Engineering, and Mathematics) approach. On this basis, the Indonesian Young Scientists Association (IYSA), an organization engaged in research and scientific work in particular, feels obliged to play a role in facilitating the students so that they are able to compete in the world industrial 4.0.

IYSA and Sekolah Ilmu Lingkungan Universitas Indonesia will hold an international-level standard Invention competition entitled "World Science Environment and Engineering Competition (WSEC)" in collaboration with Malaysia Innovation, Invention and Creativity Association, Alpha Science Educational Project Turkey, Milset Asia, Societatea Stiintifica, Cygnus - Centru UNESCO, I-FEST<sup>2</sup>, Daily Center Association "Doza Srekja" - Skopje, RN. Macedonia, Department of Food Science and Technology IPB, Actuatial Science Department ITS, LPPM Universitas Negeri Medan. This event as an appropriate learning platform to foster our young generation.

# OBJECTIVES

1. Provide a platform for invention and innovation event to develop creative mind and spirit for young talented students especially in science, environment and engineering.
2. Developing the skills of scientific research and interest in innovation and invention among young talented students.
3. Exchanging invention and innovation experiences through common interest between students regardless of their nationality.

# TIME SCHEDULE

Registration	March 19 - June 1, 2021
Requirement Deadline	June 7, 2021
Payment Deadline	June 5, 2021
Opening Ceremony	June 17, 2021
Judging Session	June 18-20, 2021
Awarding	June 23, 2021

Registration participant filling to web [www.wsec.or.id](http://www.wsec.or.id)  
<http://bit.ly/WSEC-Registration>

## REGISTRATION FEE

### International participant 35\$ USD/ Team

Payments are made by transfer through the following committee

Bank	: Mandiri
Branch	: ATC Parung, Bogor
Bank Code	: 008
Bank Address	: Jl. Raya Parung No. 6 Bogor, Jawa Barat – 16330
Postal Code	: 13326
No. Account	: 133-001-629-2971
Swift Code	: BMRIIDJAXXX
Account name (Beneficiary)	: Perkumpulan Peneliti Belia Indonesia
Address Beneficiary	: Candraloka Telaga Kahuripan blok AA7/19 RT 003/ RW 011 Kemang Bogor 16311
Transfer News	: WSEEC_2021_Name of Institution_ Leader's Name

### Indonesia participant 750.000 IDR/Team

Payments are made by transfer through the following committee

Bank	: Mandiri
No. Account	: 133-00-1867645-2
Account Name (Beneficiary)	: Perkumpulan Peneliti Belia Indonesia
Transfer News	: WSEEC_2021_Name of Institution_ Leader's Name



# CATEGORIES

Mathematics

Physic

Energy and Engineering

Life Science

Environment

Technology

Social Science

# GENERAL PROVISION

1.

Participant : elementary,secondary,university

2.

Each Team Consist of Maximum 5 Students

3.

3.Evaluation will be done in 15 minutes  
(7 minutes' presentation and 8 minutes'  
question and answer question)

# DOCUMENT REQUIREMENTS

## 1. EXTENDED ABSTRACT

### Extended Abstract Format

- I. Introduction Pages containing background issues, problem detail and motivation
- II. Material and methods Contains material and methods related with the issued.
- III. Discussion Contains a discussion of the issues raised in the paper based on the reference or bibliography from research article, non-research article, book, print media online media, or the media/source of other references related with the issued raised in the paper.
- IV. Closing Contains the conclusion of the discussion that has been describe previously.

**References A list that contains at least 10 of reference used in the paper.**

### Extended Abstract Rules

#### Abstract in English

1. Each scientific paper must not exceed 10 pages excluding cover and references page.
2. Font : Arial (12), line space : 1, margin : 4,3,3,3 (left, right, top, bottom), justify, paper A4
3. Paper is typed by following the correct and proper scientific writing procedures.
4. Extended abstract in PDF and word

## 2. POSTER FORMAT

1. Poster explaining about the method of the project
2. Poster size is A0
3. Free format and design

## 3. PRESENTATION FORMAT

1. Presentation are able to be delivered in English, as well as the presentation material (in power point format)
2. Each team has 7 minutes to Present their work and 8 minutes to feedback by the judges. Each team has 15 minutes in front of the jury.
3. Each team must bring the product while presentation.



# AWARDS



**GOLD**



**SILVER**



**BRONZE**

**IYSA SPECIAL AWARD**

**MIICA SPECIAL AWARD**

**LPPM UNIMED  
SPECIAL AWARD**





**ITS SPECIAL AWARD**

**IPB SPECIAL AWARD**

**MIICA GRAND AWARD**

**IYSA GRAND AWARD**

# POSTER LAYOUT

	<h2>FLAG</h2>	
	<h2>COUNTRY OF ORIGIN</h2> <hr/> <h2>PROJECT TITLE</h2>	
<h2>INTRODUCTION</h2>	<h2>METHODE</h2>	
<h2>DATA AND DISCUSSION</h2>	<h2>CONCLUSION</h2>	
<h2>RECOMMENDATION</h2>		
<h2>REFERENCES</h2>		

# Extended Abstract Example

## Extended Abstract

### Promotional Strategies For Tourism Through "Jejak Nusantara" Game In Efforts To Recognise Local Tourism In The East Java Province During The Covid-19 Pandemic

Adji Yoga Pratama, Selviyana Ayu Wanda, Luisia Amanda Pramesti, Chindy Martha Chairutullah, Fadya Fitri Kirana

Advisor : Elan Frido Rinda, S.pd

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## Abstrack

It is hoped that the development of tourism will benefit communities, since the tourism sector is one of the economic development sectors. Tourism activities are one of the non-gas sectors that are expected to contribute significantly to the country's economy. Indonesia tourism development is based on the principles of sustainable tourism primarily for its greatest potential in marine and cultural tourism. Local wisdom is the soul of Indonesia's diverse cultural identity and can be used as an innovation in sustainable tourism development combined with the potential for Marine tourism. But since the corona virus outbreak in Indonesia in mid-march 2020, governments have shut down access to access and out of lockdown to prevent further outbreaks. This has certainly impair the economic performance of a region especially in the field of tourism industry. Given the process of propagating the corona virus so rapidly, governments have developed a normal new policy to restore languished economies in a period of lockdown. Despite the upswing of new normal, most of the local tourist sector remained weakened. Looking at some of these problems researchers want to create an innovation to help boost the economy especially in the field of tourism in the form of promotions for tourism through interactive games. It uses quantitative research methods, the data in the study is taken using distribution of questionnaire and interviews to specialized experts. The study is hoped to provide an opportunity to boost local tourism sectors in the eastern province of Java.

**Keyword:** *local tourism, jejak nusantara, covid-19*

## Introduction

Indonesia as a country with thousands of islands, various natural beauties and a population consisting of hundreds of ethnic groups, actually has great potential for natural, social and cultural tourism. The potential and existing natural resources can be developed into attractive tourist

objects. Most of these natural resources have been utilized and developed into several tourist objects. Tourism is an activity to take a trip that aims to get pleasure, seek satisfaction, know something, improve health, enjoy sports or rest, fulfill duties, make pilgrimages and other purposes (James J. Spillane, 1982). In



this case, development in the tourism sector is expected to provide benefits to the community, because the tourism sector is one of the development sectors in the economic sector. Tourism activity is one of the non-oil and gas sectors which is expected to contribute significantly to the country's economy. But in the current era of globalization, local culture and local tourism are threatened with the degradation of cultural values.

And again in early 2020, the world was shocked by the outbreak of a new pneumonia that started in Wuhan, Hubei Province which then spread rapidly to more than 190 countries. This outbreak is named coronavirus disease 2019 (COVID-19) which is caused by Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2). To reduce the spread of COVID-19, several countries issued a series of policies such as lockdowns. The spread of this disease has had broad economic and social impacts. This certainly has a huge impact on the economic performance of a region, especially in the tourism industry. In fact, currently several businesses engaged in the tourism sector must be willing to close down in order to reduce the spread of Covid-19.

From these two things, it is necessary to revitalize the values of local culture and local tourism so that tourism and culture do not increasingly experience degradation of cultural values. The revitalization of cultural values itself is a realignment of local cultural values that may have many deviations among cultural adherents from the perspective of religion,

social, education, economy, and society. One of the efforts that can be made to revitalize culture is by using a game method which is considered effective for media promotion or means of information. Therefore, the researcher made a game entitled "Jejak Nusantara" which in the game contained elements of local tourism and local culture of the people of East Java.

### **Objective**

The purpose of this research is to promote and to increase public knowledge regarding local tourism in East Java amid the Covid-19 pandemic.

### **Research Methods and Approaches**

The research method used by researchers is a qualitative study method. Qualitative research methods are research methods that focus on understanding social phenomena occurring in society. In addition, according to experts, qualitative research methods are defined as a method used in research in describing data verbally (Arikunto, 2006).

In this regard, researchers are observing the effects of the covid-19 pandemic in several tourist attractions and statecraft. The researchers, in turn, describe the principal concept of "Jejak Nusantara" game, and thus explain the benefits of nursing's progress in the promotional strategy of local tourism at the covid-19 pandemic.

The research approach used by researchers is the phenomenon approach. According to (Sudarmanti,

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