International Conference on Science,
Infrastructure Technology and Regional Development
(ICoSITeR 2021)

INTERNATIONAL COMPETITION GUIDE BOOK

Theme:
The Role of Smart City in Realizing Sustainable Development

SUMATERA INSTITUTE OF TECHNOLOGY

FOREWORD

ICoSITeR is an international seminar held regularly by Sumatera Institute of Technology (ITERA). In 2021, this is the sixth time this seminar has been held, where the first one was held starting in 2016. The main purpose of holding ICoSITeR is to introduce ITERA to the international world in order to establish cooperation in the fields of research and education, this is done by inviting several invited speakers who are researchers or scientists from developed countries such as Japan, France, Germany, America and several others. Besides that, apart from being a means of sharing research experiences among researchers in Indonesia and abroad, this seminar also aims to facilitate ITERA lecturers in particular and lecturers outside ITERA in general to increase the number of international scientific publications indexed by Scopus, because Papers registered and presented will be published in the form of International proceedings and selected papers will be published in reputable journals.

In addition to the conference, ICoSITeR also organizes several student competitions, both national and international, such as scientific writing, poster and prototype competitions. The holding of the 2021 ICoSITeR competition will be expected to attract national and international participants to reach the largest conference on the island of Sumatra. ICoSITeR is expected to be a forum that brings together various companies, organizations, stakeholders of sustainable infrastructure, and the earth. In addition, the maintenance of ICoSITeR 2021 is also expected to be an important

moment for the exchange of knowledge, breakthroughs, ideas, encouraging collaboration between study programs so as to create an increase in the quality of research and community service by lecturers and students, and ideas related to the development of various scientific fields as an effort to increase the nation's competitiveness at the national and international level.

This handbook is prepared to make it easier for competition participants to see the flow from registration to the selection process, in addition to knowing both the guidelines in terms of writing or templates that must be followed by each participant as well as the assessment criteria. Hopefully, this handbook can be useful for the participants and also the organizing committee to make the 2021 ICoSITeR a success.

South Lampung, August 8th, 2021

Chairman of the Committee
Dr. Abdul Rajak, M.Si.
NIP. 198902052015041003

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Background

ICoSITeR (International Conference on Science, Infrastructure Technology and Regional Development) is an annual international conference held by the Sumatran Institute of Technology (ITERA) in South Lampung Regency, Lampung Province. In addition to international conferences, this event is expected to be a means for the community, especially young people, to be able to train their creativity and critical thinking power. Therefore, a series of competitions was made as a series of events. One of the focuses of the development of creative and critical thinking is the activity of making a presentation of people's ideas through pictures and writings that they can present in front of other people. For this reason, a competition entitled International Poster Design was held. This activity considers the theme surrounding national development in Indonesia at this time, so a theme related to smart cities is made as the future of national development with sub-themes related to smart city aspects. This activity is expected to make students able to work together to build the country.

In addition, a series of events were also held as a means to realize innovation and creativity through a competition titled ICoSITeR 2021 Prototype Design which was held at national and international levels. This activity carries the main theme, namely Smart City, which will be reduced to 5 sub-themes according to the topic of the seminar discussion. This activity is expected to be able to provide output for students to be able to work together and play an active role in building the future of national development.

ICoSITeR Sumatra Institute of Technology (ITERA) also held a competition, namely Written Ideas. Written Idea is a futuristic concept of change or development, realistic, and long-term written works designed to be published in journals or book collections of articles,

written in a scientific manner in accordance with applicable scientific conventions. By considering the theme "Building a Sustainable Country with the Role of Science and Technology in the Smart City Concept" as well as 5 continuous sub-themes with that theme.

Aim

The objectives of the 2021 ICoSITeR activities are as follows:

1. Improve ITERA's good name and expand the network of cooperation with national and international universities.
2. Making ICoSITeR a synergistic educational forum, accommodating ideas/innovations for academics, researchers, and related parties to exchange information so that they can add insight in the fields of informatics, renewable energy, sustainable infrastructure, and earth.
3. Provide an overview to participants about the concept of the role of the Smart City in realizing sustainable development as a solution to the problems of city development in Indonesia, especially the island of Sumatra.

General Description

The poster Design Competition is an international competition that presents creative and innovative ideas with the theme "The Role of Smart City in Realizing Sustainable Development". It consists of five sub-themes, namely Smart Infrastructure, Smart Living, Smart Farming, Smart Energy and Smart Manufacturing. Where the competition consists of 3 participants from national and international students. The prototype competition with the name "ICoSITeR 2021 Prototype Design" is a competition that realizes the innovation and creativity of participants in discussing and resolving issues related to Smart City. The competition carries the theme "Innovation and Creativity of the Young Generation in Realizing a Smart City". It consists of five sub-themes, namely Smart Infrastructure, Smart Living, Smart Farming, Smart Energy and Smart Manufacturing. It consists of 3-5 national and international students. The written idea

competition is a futuristic, realistic, and long-term concept of change or development of written work designed to be published in a journal or book collection of articles, written in a scientific manner in accordance with applicable scientific conventions. The competition carries the theme "Building a Sustainable Country with the Smart City Concept".

It consists of five sub-themes, namely Smart Infrastructure, Smart Living, Smart Farming, Smart Energy and Smart Manufacturing. It consists of 3-5 national and international students. Written in a scientific manner in accordance with applicable scientific conventions. The competition carries the theme "Building a Sustainable Country with the Smart City Concept". It consists of five sub-themes, namely Smart Infrastructure, Smart Living, Smart Farming, Smart Energy and Smart Manufacturing. It consists of 3-5 national and international students. Written in a scientific manner in accordance with applicable scientific conventions. The competition carries the theme "Building a Sustainable Country with the Smart City Concept". It consists of five sub-themes, namely Smart Infrastructure, Smart Living, Smart Farming, Smart Energy and Smart Manufacturing. It consists of 3-5 national and international students.

Sub-theme All competitions

- *Smart infrastructure* is the integration of technology for the development of transportation facilities/infrastructure, development of river flows, improvement of the quality and quantity of clean water, development of telecommunication systems, development of environmentally friendly, economical, and multifunctional public facilities, development of settlements, and improvement of the efficiency of infrastructure development. Smart infrastructure is expected to increase community productivity due to fast mobility, environmentally friendly, safe and comfortable so as to increase economic growth and community welfare.

Examples of smart infrastructure:

1. *Smart Traffic Light*, solutions for emergency crossings and people with disabilities.
2. *Telemanaging irrigation*, optimizing the use of clean water to be efficient and economical.

- *Smart living* is the integration of technology to improve the comfort, convenience, feasibility, and safety of living quarters. To achieve this, the smart living concept can harmonize spatial planning, improve furniture functionality, develop security systems, and increase the efficiency and effectiveness of health services at home.

  Examples of smart living:

  1. Desktop socket systems or floor socket systems to reduce space consumption on plug usage.
  2. "Telecare" service to make it easier for the elderly and people with disabilities to get doctor or ambulance services from home.
  3. *Lighting control system* to reduce the consumption of electrical energy in lamps.
  4. *Wireless Home Security* by utilizing motion sensors to prevent theft.

- *Smart farming* is the integration of technology to improve agricultural efficiency, collect data on crop and land conditions, optimize agricultural processes, and improve crop adaptation in conditions of limited agricultural land, weather uncertain, and limited water resources. Smart farming is expected to produce optimal agricultural production by integrating technology.

  Examples of smart farming:

  1. *Smart farming* Precision Agriculture combines an IoT (Internet of Things) based platform with agricultural tools and machines

so that agricultural production tools are no longer operated conventionally.

2. *Agri Drone Sprayer* (Drone spraying pesticides and liquid fertilizer).
3. *Drone Surveillance* (Drones for land mapping).
4. *Soil and Weather Sensor* (Soil and weather sensors).

- *Smart Energy* is a renewable energy system that optimizes all components in the energy production system to realize efficient, economical, environmentally friendly and safe energy use in every sector of human activity such as homes, schools, offices, industry, public places, places of business, and others.

  Example of Smart Energy:

  1. *Smart grid* to produce optimal, economical, and efficient operation of the electric power system.
  2. Smart Meter Design To Monitor And Identify Electrical Energy Use In The Household Sector Using Backpropagation Neural Network.
  3. Electric-fueled transportation to create environmentally friendly vehicles.
  4. Solar panel utilization system at the bus stop.

- *Smart manufacturing* is a combination of various technologies to optimize manufacturing processes, monitor manufacturing performance and conditions, improve manufacturing efficiency, and reduce environmental pollution impacts from industrial solid and liquid waste. Smart manufacturing is expected to be able to realize environmentally friendly, quantity, and quality production results to increase industrial profits.

Example of Smart Manufacturing:

1. Utilization digital technology and the Internet of Things (IoT) in processing energy data and industrial waste to create an energy-efficient and environmentally friendly industry.
2. *Mind Sphere* is integrated with the internet and the cloud to monitor the performance and condition of machines, heavy equipment, and robots so that they can know the quality and quantity of production efficiently and accurately.
3. Utilization of cloud system technology, and machine learning to prevent down time on industrial machines.

INTERNATIONAL POSTER DESIGN COMPETITION

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ICoSITeR SCIENTIFIC POSTER DESIGN COMPETITION 2021

Background

ICoSITeR (International Conference on Science, Infrastructure Technology and Regional Development) is an annual international conference held by the Sumatran Institute of Technology (ITERA) in South Lampung Regency, Lampung Province. In addition to international conferences, this event is expected to be a means for the community, especially young people, to be able to train their creativity and critical thinking power. Therefore, a series of competitions was made as a series of events. One of the focuses of the development of creative and critical thinking is the activity of making a presentation of people's ideas through pictures and writings that they can present in front of other people. For this reason, a competition entitled International Poster Design was held. This activity considers the theme surrounding national development in Indonesia at this time, so a theme related to smart cities is made as the future of national development with sub-themes related to smart city aspects. This activity is expected to make students able to work together to build the country.

Aim

The purpose of the ICoSITeR 2021 Poster Contest is to serve as a forum to facilitate students in expressing creative ideas, increasing creative, innovative and solutive power in discussing/solving issues related to the 2021 ICoSITeR theme.

Name of activity

ICoSITeR 2021 Scientific Poster Design Competition

Theme

"The Role of Smart Cities in Realizing Sustainable Development"

Sub Theme

1. **Smart Infrastructure**

Smart Infrastructure is the integration of technology to develop facilities/infrastructure, transportation, river flow development, improvement of the quality and quantity of clean water, development of telecommunications systems, development of environmentally friendly, economical, and multifunctional public facilities, development of settlements, and improvement of infrastructure development efficiency. Smart Infrastructure is expected to increase people's productivity due to fast, environmentally friendly, safe and comfortable mobility so that it can increase economic growth and people's welfare.

Example:

- Smart Traffic Light, solutions for emergency crossings and people with disabilities.
- Telemanaging irrigation, optimizing the use of clean water to be efficient and economical.

2. **Smart living**

Smart Living is the integration of technology to improve the comfort, convenience, feasibility, and safety of living quarters. To achieve this, the smart living concept can harmonize spatial planning, improve furniture functionality, develop security systems, and increase the efficiency and effectiveness of health services at home.

Example:

- desktop socket systems or floor socket systems to reduce space consumption on plug usage.
- "Telecare" service to make it easier for the elderly and people with disabilities to get doctor or ambulance services from home.

3. **Smart farming**

Smart Farming is the integration of technology to improve agricultural efficiency, collect data on crop and land conditions, optimize agricultural processes, and improve crop adaptation in conditions of limited agricultural land, uncertain weather, and limited

water resources. Smart farming is expected to produce optimal agricultural production by integrating technology.

Example:

- Smart farming Precision Agriculture combines an IoT (Internet of Things) based platform with agricultural tools and machines so that agricultural production tools are no longer operated conventionally.
- Agri Drone Sprayer (Drone spraying pesticides and liquid fertilizers).

4. **Smart Energy**

Smart Energy is a renewable energy system that optimizes all components in the energy production system to realize more efficient, economical, environmentally friendly and safe energy use in every sector of human activity such as homes, schools, offices, industries, public places, places of business, and others. .

Example:

- Smart grid to produce optimal, economical, and efficient operation of the electric power system.
- Smart Meter Design To Monitor and Identify Electrical Energy Use In The Household Sector Using Backpropagation Neural Network.

5. **Smart Manufacturing**

Smart Manufacturing is a combination of various technologies to optimize manufacturing processes, monitor manufacturing performance and conditions, improve manufacturing efficiency, and reduce the environmental impact of industrial solid and liquid waste. Smart manufacturing is expected to be able to realize environmentally friendly, quantity, and quality production results to increase industrial profits.

Example:

- Utilization of Digital Technology and the Internet of Things (IoT) in processing energy data and industrial waste to create an energy-efficient and environmentally friendly industry.
- Mind Sphere which is integrated with the internet and the cloud to monitor the performance and condition of machines, heavy

equipment, and robots so that they can know the quality and quantity of production efficiently and accurately.

Conditions for Contest Participants

1. The contestants are active undergraduate students from universities around the world.
2. Participants are groups consisting of 3 members who are exempt from different or the same study programs.
3. Participants must read the competition guide carefully and choose the sub-themes that have been provided.
4. Each group is only allowed to submit a maximum of 1 work.
5. All competition activities must be in English.
6. The committee reserves the right to disqualify participants if there is an act of cheating that violates the rules.
7. No registration fee (FREE).
8. The decision of the jury is irrevocable.
9. The committee has the right to publish the participant's work by including the name of the participant.

Terms of Creation

a. Nature of Creation (Abstract and Poster)

The nature of the submitted work must meet the following requirements.

1. Creative and Innovative
   - The work contains creative and innovative ideas according to the theme and raises issues in accordance with the sub-themes.
2. Originality of Work
   - The poster is an original work that has never been published and is proven by filling out a letter of originality for the poster.

b. Poster Making Terms

1. The abstract is made in English with a maximum file size of 10 Mb (abstract format attached).
2. The poster is made in English.
3. Posters are titled according to the selected sub-themes.

4. The poster is made in A3 size (29.7 cm x 42 cm).
5. Poster resolution of at least 300 ppi in PDF format and a maximum file size of 50 Mb.
6. Contestants must include the ITERA logo, ICoSITeR and the 7th ITERA anniversary in the upper left corner and the team name at the bottom of the poster as well as poster reference sources.
7. The posters must not contain elements of SARA, pornography and HOAX.
8. The posters that have been sent will be the property of the committee.

Registration Flow

1. Participants must follow @icositeritera Instagram account.
2. Participants upload twibbon on their personal Instagram account and tag the ICoSITeR Instagram account (www.instagram.com/icositeritera) which can be accessed at the following link: (https://icositer2021.com/competition) Participants can register at the link : (https://icositer2021.com/competition) and fill in the biodata listed, including
   a) *Scan* Student Identity Card.
   b) *Screen* capture evidence of following the Instagram account @icositeritera.
   c) *Screen* capture evidence of uploading twibon in their respective accounts.
   Sent in pdf format.
3. Participants submit abstracts along with registration at the link: (https://icositer2021.com/competition)

Submitting Works

1. Abstracts are submitted in PDF format via the following google form link http://bit.ly/DaftarPosterICoSITeR21 with the file name format "Abstrak_ICoSITeR_Subtema_Team Name_Institution Name".
2. The deadline for abstract submission is September 3rd, 2021.

3. After being declared to have passed the first stage, participants must submit a poster design that matches the abstract that has been made in PDF form.
4. The file name is written in the format "DP_ICoSITeR_Subtema_Team Name_Institution Name" and the e-mail subject is written in the same format as the file name.
5. The submitted files include (1) Poster Design (2) Originality Sheet (3) Curriculum Vitae. These files can be sent in RAR or ZIP form to the following google form link: (https://icositer2021.com/competition)
6. Poster submission deadline is September 29th, 2021.

Presentation Terms

1. Participants who qualify as finalists will be notified via participants' e-mail.
2. Participants will present their work through the Zoom application provided by the committee.
3. Participants must wear formal attire during the presentation.
4. Presentations are made by 1 team representative with other team members required to attend a series of presentation events.
5. Participants are expected to be present in the zoom room on time before the presentation starts to avoid things that are not wanted.
6. The team will be notified 3 times, and if they are not present, the participant will be disqualified.
7. The presentation of each team was carried out with a duration of 20 minutes with an allocation of 10 minutes for poster presentation preparation and a 10-minute question and answer session with the judges.
8. Team members of other finalists are not allowed to ask questions to the finalists who are performing.
9. If one member of the team is unable to take part in the series of events, they must first coordinate with the relevant committee.

10. Participants who do not attend the final presentation will be automatically disqualified.
11. Participants are required to have adequate internet quality during the activity.
12. Participants are not allowed to leave the presentation room until the activity is over, except with the permission of the committee and while resting.
13. The jury's decision is final and cannot be contested.

Competition Timeline

No	Agenda of activities	Activity time
1	Abstract Registration and Submission	August 11th – September 3rd, 2021
2	Finalist Selection Stage	September 4th–7th, 2021
3	Announcement of Top 10 Finalists	September 8th, 2021
4	Poster Design Collection	September 9th–29th, 2021
5	Exhibition and Judging (Presentation)	October 1st–2nd, 2021
6	Winner Announcement	October 6th, 2021

Assessment Criteria

1. The work is judged by a team of judges who have been determined by the committee.
2. The jury's decision is absolute and cannot be contested.
3. The committee reserves the right to disqualify participants if there is an indication of plagiarism in making posters.

Aspects of Assessment of Abstract Stage

No.	Assessment Aspect	Description	Maximum Score
1.	Writing system	- Compliance with the written format that has been determined; - Determination of document format;	20%

		- Use of correct language and words.	
2.	Idea	- Originality, Innovation, and Creativity. - The idea is supported by scientific literature; - Fill in the idea according to the proposed title.	30%
3.	Benefits of Ideas	- The benefits of ideas for the environment and the surrounding community.	50%

Poster Rating Aspect

No	Assessment Aspect	Description	Maximum Score
1	Originality	- Ideas are original; - Never been published - No plagiarism.	25%
2	Theme Match	- Smart City Scope; - Exploration depth; - Factual Issues.	10%
3	Visualization	- Content and image composition; - Attractiveness; - Aesthetics	25%
4	Arguments and Ideas	- Educative; - Provide value / value. - Ideas and innovation	40%

Aspects of Presentation Assessment

No	Assessment Aspect	Description	Maximum Score
1.	Presentation	- Successful delivery of content; - Ease of understanding; - Punctuality; - Attitude, gesture, and articulation and intonation.	40%

2.	Visualization	- The overall view of the presentation material; - Creativity of ideas;	30%
3.	Discussion	- The level of understanding of the ideas related to the jury's questions; - Contribution of group members to answer the jury's questions.	30%

Note: The total value of the finalist assessment will later be accumulated from two equal weights, namely 50% for the value of the poster work and 50% for the presentation value.

Present

Champion number 1 : Coaching Money + Certificate + Plaque

Runner up : Coaching Money + Certificate + Plaque

3rd place : Coaching Money + Certificate + Plaque

Favorite winner : Certificate + Plaque

Each participant will get an e-Certificate

Contact Person

WhatsApp: 0822-6920-2623 p.p. Gery

0858-3977-9892 p.p. Nadila

Closing

Thus, this ToR was made as information to all contest participants and all existing activities. Thank you for the contributions and attention of all those who have helped.

Appendix 1

WORK TITLE

Name of Team Leader, Name of Member 1, Name of Member 2, Name of College Counselor
Origin of Institution
Team Leader's E-mail

ABSTRACT

Abstracts are the background why participants take themes and su bthemes in the 2021 ICoSITeR Poster Design Competition and are expected to contain factual and interesting elements and display creative and innovative ideas. The abstract is written in a maximum of 1 page in A4 paper format consisting of approximately 200-350 words. The type of font used is Times New Roman, size 12 pt, spaced 1, margin justify (align right-left) with left margin format 4 cm, top 3 cm, right 3 cm, and bottom 3 cm, without before-after (before-after). 0). At the bottom, 3-5 keywords are written in *italic* and **bold.**

Keywords: ……., ……., ……..., ……..., ….……,

Appendix 2

ORIGINAL STATEMENT SHEET
ICoSITeR SCIENTIFIC POSTER DESIGN COMPETITION 2021

I, the undersigned below

1. Team Leader's Name :
2. NIM/NPM :
3. Origin of Institution :
4. Study program :
5. Telephone/Phone Number :
6. Home address :
7. Name of Supervisor :

Hereby, I declare that the work with the title "……..." is truly an original work made by me/the team and has never been contested in any competition or published before, except in the ICoSITeR Scientific Poster Design Competition 2021. If later it is proven otherwise, then I am willing to be sanctioned and disqualified from the competition. Thus, this statement is made consciously and without any element of coercion from any party.

City, day month year
Who makes a statement
Team Leader

(……..)

Appendix 3

CURRICULUM VITAE

A. Identity of Team Leader

1	Full name	
2	Gender	
3	Study Program/Department	
4	NIM/NPM	
5	Place and date of birth	
6	Email address	
7	Phone Number	

B. Educational background

	Senior High School	College
Institution Name		
Study Program/Department		
Entry-Graduating Year		

All data that I have filled in and listed in this bio data is true and can be legally accounted for. If in the future it turns out that there is a discrepancy with reality, I am able to accept sanctions. Thus, I actually made this bio data to fulfill one of the requirements in participating in the ICoSITeR Scientific Poster Competition 2021.

City, Date Month Year

Team Leader

(Name of Team Leader)

CURRICULUM VITAE

A. Identity of First Member

1	Full name	
2	Gender	
3	Study Program/Department	
4	NIM/NPM	
5	Place and date of birth	
6	Email address	
7	Phone Number	

B. Educational background

	Senior High School	College
Institution Name		
Study Program/Departement		
Entry-Graduating Year		

All data that I have filled in and listed in this bio data is true and can be legally accounted for. If in the future it turns out that there is a discrepancy with reality, I am able to accept sanctions. Thus, I actually made this bio data to fulfill one of the requirements in participating in the ICoSITeR Scientific Poster Competition 2021.

City, Date Month Year

Member 1

(Member Name 1)

CURRICULUM VITAE

A. Identity of Second Member

1	Full name	
2	Gender	
3	Study Program/Department	
4	NIM/NPM	
5	Place and date of birth	
6	Email address	
7	Phone Number	

B. Educational background

	Senior High School	College
Institution Name		
Study Program/Department		
Entry-Graduating Year		

All data that I have filled in and listed in this bio data is true and can be legally accounted for. If in the future it turns out that there is a discrepancy with reality, I am able to accept sanctions. Thus, I actually made this bio data to fulfill one of the requirements in participating in ICoSITeR Scientific Poster Competition 2021.

City, Date Month Year

Member 2

(Member Name 2)

CURRICULUM VITAE

A. Identity of College Counselor

1	Full name	
2	Gender	
3	Study Program/Department	
4	NIP/NIDN	
5	Place and date of birth	
6	Email address	
7	Phone Number	

B. Educational background

Academic Degree	S1/Bachelor	S2/Master	S3/Doctor
Institution Name			
Study Program/Department			
Entry-Graduating Year			

All data that I have filled in and listed in this biodata is true and can be legally accounted for. If in the future it turns out that there is a discrepancy with reality, I am able to accept sanctions. Thus, I actually made this biodata to fulfill one of the requirements in participating in the ICoSITeR Scientific Poster Competition 2021.

City, Date Month Year

(Name of Supervisor)

NIP/NIDN

Appendix 4. Scientific Poster Design Abstract Assessment Form

Activity Title :
Team Name :
NIM/Chairman's Name :
Faculty/Study Program :
NIM/ Member Name 1 :
Faculty/Study Program :
NIM/ Member Name 2 :
Faculty/Study Program :
Assistant Lecturer :
College :

Abstract Assessment Aspect

No.	Assessment Aspect	Description	Weight	Score	Mark
1.	Writing system	- Compliance with the written format that has been determined; - Determination of document format; - Use of correct language and words.	20		
2.	Idea	- Originality, innovation and creativity - The idea is supported by scientific literature; - Fill in the idea according to the proposed title.	30		
3.	Benefits of Ideas	- The benefits of ideas for the environment and the surrounding community.	50		
Total			100		

Information:
Score = weight x score, Score (1=Very Poor, 2=Poor, 3=Enough, 4=Good, 5=Very Good)
Comment: .....

City, Date Month Year

Evaluator

Appendix 5. ICoSITeR 2021 Scientific Poster Design Assessment Form

Activity Title :
Team Name :
NIM/Chairman's Name :
Faculty/Study Program :
NIM/ Member Name 1 :
Faculty/Study Program :
NIM/ Member Name 2 :
Faculty/Study Program :
Assistant Lecturer :
College :

Poster Rating Aspek

No	Assessment Aspect	Description	Weight	Score	Mark
1	Originality	- Ideas are original; - Never been published - No plagiarism.	25		
2	Theme Match	- Smart City Scope; - exploration depth; - factual issues.	10		
3	Visualization	- Content and image composition; - Attractiveness; - Aesthetics	25		
4	Arguments and Ideas	- Educative; - Provide value / value. - Ideas and innovation	40		
Total			100		
Poster Value Weight			50%		

Information:
Score = weight x score, Score (1=Very Poor, 2=Poor, 3=Enough, 4=Good, 5=Very Good)

Comment: .....

City, Date Month Year

Evaluator

(.....)

Appendix 6. Scientific Poster Design Assessment Form (Presentation)

Activity Title :
Team Name :
NIM/Chairman's Name :
Faculty/Study Program :
NIM/Member Name 1:
Faculty/Study Program :
NIM/Member Name 2:
Faculty/Study Program :
Assistant Lecturer :
College :
Faculty/Study Program :

Aspects of Presentation Assessment

No.	Assessment Aspect	Description	Weight	Score	Mark
1.	Presentation	- Successful delivery of content; - Ease of understanding; - Punctuality; - Attitude, gesture, and articulation and intonation.	40		
2.	Visualization	- The overall appearance of the presentation material; - Creativity of ideas.	30		
3.	Discussion	- The level of understanding of the ideas related to the jury's questions; - Contribution of group members to answer the jury's questions.	30		
Total			100		
Presentation Rating			50%		

Information:
Score = weight x score, Score (1=Very Poor, 2=Poor, 3=Enough, 4=Good, 5=Very Good)
Comment: .....

City, Date Month Year

Evaluator

(.....**)**

Example of Poster Layout

INTERNATIONAL PROTOTYPE COMPETITION

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ToR (Term of Reference) ICoSITeR 2021

PROTOTYPE DESIGN

Background

ICoSITeR (International Conference on Science, Infrastructure Technology and Regional Development) is an annual international conference held by the Sumatera Institute of Technology (ITERA) in South Lampung Regency, Lampung Province. In addition to international conferences, this event is expected to accommodate the community, especiallythe college students as well as the younger generation, to practice their innovation and creativity. Therefore, a series of events was made as a means to realize the innovation and creativity through a competition titled ICoSITeR 2021 Prototype Design which was held at the national and international levels. This activity carries the main theme, namely Smart City, which will be reduced to 5 sub-themes according to the topic of the seminar discussion.

Aim

The purpose of the ICoSITeR 2021 Prototype Design activity is as a forum to facilitate students in realizing their innovation and creativity in discussing/solving issues related to Smart City.

Name of Activity

ICoSITeR 2021 Prototype Design

Theme

"Innovation and Creativity of the Young Generation in Realizing a Smart City"

Sub Themes

1. **Smart Infrastructure** is the integration of technology for strengthening the urban infrastructure planning system, developing river flows, improving the quality and quantity of clean water, developing transportation systems, developing environmentally friendly public facilities, and improving the consistency of infrastructure development control. With the availability of transportation facilities/infrastructure and infrastructure that is integrated with information technology, it can increase people's productivity because mobility is fast, environmentally friendly, safe, and comfortable so as to increase economic growth and community welfare.

   Examples of Smart Infrastructure:

   - Smart Trafic Light, solutions for emergency crossings and people with disabilities
   - Telemanaging irrigation, optimizing the use of clean water to be efficient and economical

2. **Smart Living** is the integration of technology to increase the comfort, convenience, feasibility, and safety of the residence, by harmonizing the spatial arrangement, increasing the functionality of the furniture, and increasing the efficiency and effectiveness of health services at home.

   Examples of Smart Living :

   - Desktop Socket Systems or Floor Socket Systems to reduce space consumption on plug usage
   - "Telecare" service to make it easier for the elderly and people with disabilities to get doctor or ambulance services from home

3. **Smart Farming** is the integration of technology to improve the efficiency of agricultural activities, collect data on crop and land conditions, and improve crop adaptation in conditions of limited agricultural land, uncertain weather, and limited water resources so as to realize optimal production results.

Examples of Smart Farming :

- *Smart Farming Precision Agriculture* combining an Internet of Things (IoT) based platform with agricultural tools and machines so that agricultural production tools are no longer operated conventionally.
- Agri Drone Sprayer (Drone spraying pesticides and liquid fertilizers)

4. **Smart Energy** is a renewable energy system that optimizes the utilization of all components in the energy production system and energy use to maximize efficiency, reduce costs, be environmentally friendly, and safe in every sector of human activity such as homes, schools, offices, public places, places of business, and others.

   Examples of Smart Energy :

   - Smart Grid to produce optimal, economical, and efficient operation of the electric power system
   - Smart Meter Design to monitor and identify electrical energy use in the household sector using backpropagation neural network

5. **Smart Manufacturing** is a combination of various technologies to optimize manufacturing processes, improve manufacturing efficiency, and reduce the environmental pollution impact of industrial activities so as to increase overall industry profits and realize an environmentally friendly industry.

   Examples of Smart Manufacturing :

   - Utilization digital technology and the Internet of Things (IoT) in processing energy data and industrial waste to create an energy-efficient and environmentally friendly industry
   - Mind Sphere integrated with the internet and the cloud to monitor the performance and condition of machines, heavy equipment, and robots so that they can know the quality and quantity of production efficiently and accurately

Participants Term

1. Participants are active undergraduate students from universities around the world.
2. Participants must read the competition guide carefully and choose the sub-themes that have been provided.
3. Each team consists of 3-5 people with 1 person as the team leader.
4. Each team is allowed from different faculties/departments but still in the same agency.
5. Participants are only allowed to be in a maximum of 1 team.
6. Participants must fill out an online registration form.
7. Participants must upload the twibbon that has been provided to their website Instagram respectively as well as tag the Instagram account @icositeritera.

Terms of Creation

a. Prototype Making Terms
    1. Each team can send a maximum of 1 prototype work to be contested.
    2. The work is sent in the form of a soft copy 2D/3D software (SketchUp or Blender for 3D software; and AutoCAD for 2D software or other 2D software) and sends papers that are the basis for making prototypes.
    3. The work is made as interesting and as innovative as possible.

b. Progress Report Systematic

    The main body of the progress report is written as:

    1. The font is Times New Roman, size 12.
    2. Text uses 1.15 line spacing and text alignment uses left and right alignment.
    3. *Layout* using A-4 paper size, one column, 4 cm left margin, right margin, top, and bottom 3 cm each.

The format for writing the main content of the progress report follows the following systematics:

TABLE OF CONTENTS

CHAPTER 1 INTRODUCTION

CHAPTER 2. OUTCOME TARGET

CHAPTER 3. IMPLEMENTATION METHODS

CHAPTER 4. RESULTS ACHIEVED

(The suitability of the type and number of outputs that have been produced and the percentage of results to the overall activity target)

CHAPTER 5. POTENTIAL RESULTS

(Scientific articles, opportunities to acquire Intellectual Property Rights or the like and/or predicted benefits (socio-economic-educational etc.) for users.

CHAPTER 6. PLAN NEXT STAGE

(Efforts to achieve the target of 100% of activities)

ATTACHMENT

a. Use of funds
b. Evidence supporting activities

c. Final Report Systematic

The Final Report is composed of:

1. Fill in the completeness (cover and endorsement) which is uploaded on the google form provided by the committee, and the validation process is carried out with validation by accompanying lecturers and university leaders in the field of student affairs. The completeness of the cover includes the title of the work, the name and identification number of

the student team, the origin of the proposing university, and the year of implementation.

2. The main content of the final report which is packaged in the form of a Pdf file. The main content of the final report consists of: summary, table of contents, main page, and appendices. Table of contents page given page numbers with letters: i, ii, iii, ..., which are placed in the lower right corner. The core page is the page that contains the Introduction Chapter to the Bibliography. The core page contains a maximum of 10 (ten) pages.The main and appendix pages are numbered with Arabic numerals: 1, 2, 3, ..., which are placed in the upper right corner. Numbering page 1 (one) starts from the Introduction Chapter. The main content file (file) of the final report is uploaded to google form with the file name: **Team Name_Origin of Institution_Sub-Theme_Final Report.pdf** to be validated by the accompanying lecturer and ratified by the head of the university in the field of student affairs.

   The main content of the final report is written as:

   a. The font is Times New Roman, size 12.
   b. Text uses 1.15 line spacing and text alignment uses left and right alignment.
   c. *Layout* using A-4 paper size, one column, 4 cm left margin, right margin, top, and bottom 3 cm each.

      The format for writing the main content of the final report follows the following systematics:

SUMMARY

TABLE OF CONTENTS

CHAPTER 1 INTRODUCTION

(A description of the source of inspiration for intellectual challenges in realizing works either in the form of prototypes or functional products or virtual/digital products) and the uniqueness and technological level of the products made)

CHAPTER 2. LITERATURE REVIEW

(An overview of the theoretical study of intellectual challenges that are directly related to prototypes or functional products or virtual/digital products as well as an overview of similar products that have existed)

CHAPTER 3. IMPLEMENTATION METHODS

(An overview of the construction procedure starting from the emergence of inspiration to the stage of realizing a prototype or functional product or virtual/digital product)

CHAPTER 4. ACHIEVED RESULTS AND SPECIAL POTENTIAL

(A description of the prototype or functional product or virtual product produced, its function and how it works, advantages and predictions of benefit for the user. This section is accompanied by a product visualization image)

CHAPTER 5. CONCLUSION

(Contains conclusions and suggestions that are directly related to the resulting product)

BIBLIOGRAPHY

(List only cited libraries)

ATTACHMENT

1. Use of funds (details and proof of disbursement of funds)

2. Evidence supporting activities (containing documentation of the implementation of activities, documentation of product construction, detailed descriptions of products created, how they work and their benefits.

Special Terms

1. Participants must submit an abstract as the first stage of assessment via link (https://icositer2021.com/competition)
2. Participants who pass the first stage are required to continue making prototype works according to the themes and sub-themes being contested.
3. For participants who pass the abstract selection stage and are continuing to create their work, they are required to submit a preliminary report and a final report regarding the work in the competition at the specified time.
4. The collection of prototype works is collected in the form of softcopy 2D/3D software into a google drive.
5. The file name and subject are written in the format **PD_ICoSITeR_Sub-Theme_Team Name_College Origin.**

Registration Flow

1. Participants must follow the @icositeritera instagram account.
2. Participants upload the twibbon as a condition for registration of the competition and on their personal Instagram accounts and mark the @icositeritera Instagram account.
3. Participants register on the (https://icositer2021.com/competition) provided by the committee and fill in their personal data on the google form and upload the required personal data file, namely:
   a. Scan of Student Identity Card;
   b. Screencapture the proof that you have followed the @icositeritera instagram account; and

c. Screencapture the proof that the twibbon has been uploaded on their respective Instagram accounts.

4. Participants collect abstracts which are the basis for making prototypes at the registration Participants register on the (https://icositer2021.com/competition) provided by the committee and fill in their personal data on the google form and upload the required personal data file, namely:

3. provided by the committee.

Presentation Terms

1. Presentations are made at the time of the exhibition and the jury's assessment.
2. Participants who qualify as finalists will be notified via participants' e-mail.
3. Participants will present their work through the Zoom application provided by the committee and can be watched via Youtube live broadcast.
4. Participants must wear formal attire during the presentation.
5. Presentations are made by 1 team representative with other team members required to attend a series of presentation events.
6. Participants are expected to be present in the zoom room 10 minutes before the presentation starts to avoid unwanted things.
7. The team will be notified 3 times, and if they are not present, the participant will be disqualified.
8. The presentation of each team was carried out with a duration of 30 minutes with an allocation of 5 minutes of presentation preparation, 10 minutes of work presentation sessions, and 15-minutes of question and answer sessions with judges.
9. Team members of other finalists are not allowed to ask questions to the finalists who are performing.

10. If one member of the team is unable to take part in the series of events, he must first coordinate with the relevant committee.
11. Participants who do not attend the final presentation will be automatically disqualified.
12. Participants are required to have adequate internet quality during the activity.
13. Participants are not allowed to leave the presentation room until the activity is over, except with the permission of the committee and while resting.
14. The jury's decision is final and cannot be contested.

Activity Timeline

No.	Agenda of Activities	Activity Time
1.	Abstract Registration and Submission	August 11th – 31st, 2021
2.	Finalist Announcement	September 5th, 2021
3.	Prototype Creation (File 2D/3D Software)	September 6th – 30th , 2021
4.	Collection Reports Submission	September 16th – 18th, 2021
5.	Final Reports Submission	September 28th – 30th, 2021
6.	Exhibition and Judging (Presentation)	October 1st – 2nd, 2021
7.	Winners Announcement	October 6th, 2021

Selection Stage

1. Stage I (Abstract Selection)

   Abstracts submitted by contest participants will be selected first by the committee. At this stage, the top 10 best abstracts will be announced on September 5, 2021. Participants who pass the selection stage are required to continue making prototypes.
2. Stage II
   a. Participants who pass the abstract selection stage will be informed via participant e-mail. All finalist participants are required to continue making prototypes and attend the

presentation stage which will be held online on 1 – 2 October 2021.

b. All finalists must dress neatly and politely.

c. Participants will appear and present their work in front of the jury. The allocation of time for each presentation is 5 minutes for the preparation of the work presentation, 10 minutes for the presentation of the work, and 15 minutes for the question and answer session with the jury.

d. Participants who are not present at the time of presentation are disqualified as finalists and the decision of the jury cannot be contested.

Submitting Works

1. Paper is sent in *.pdf format with the file name (Team Name)_(Origin of Institution)_(Selected Sub-Theme)_(Title of Paper).
2. The submitted files include (1) Paper that is the basis for making the work (2) Prototype work in the form of soft copy 2D/3D software (SketchUp or Blender for 3D software and AutoCAD for 2D software or other 2D software).
3. Final papers and works are collected on September 30, 2021 at 23.59 WIB, final works and papers are collected via google form.

Assessment Criteria

a. Abstract Stage Assessment

No.	Criteria	Weight
1.	Writing Systematics • Conformity with the specified writing formats • Accuracy of document format	20
2.	Idea • Originality • Innovation • Creativity • Ideas supported by scientific literature • Fill the idea according to the proposed title	30

3.	Benefits of Ideas	50
Total		100

b. Initial Report Assessment

No.	Criteria	Weight
1.	Preliminary	10
2.	External Target	15
3.	Method	25
4.	The Results Achieved	30
5.	Yield Potential	15
6.	Next Stage Plan	5
Total		100

c. Final Report Assessment

No.	Criteria	Weight
1.	Introduction (source of intellectual challenges)	15
2.	Library Review (theoretical study of intellectual challenges)	15
3.	Implementation Methods (construction and inspiration)	25
4.	Achieved Results and Specific Potentials	30
5.	Closing (conclusions and suggestions)	10
6.	Bibliography	5
Total		100

d. Presentation Rating

No.	Criteria	Weight
1.	Outcome Targets (external suitability and problems)	10
2.	Methods (method's recency and success)	15
3.	Level of Creativity and Achieved of outcome Targets (problems, accuracy of solutions, suitability of types and amounts of outputs, conformity with daily record)	35
4.	Suitability of Implementation and Plans for Next Stages (implementation time, materials and tools and methods used, personnel, costs)	10
5.	Cohesiveness of the Implementation Team and the Role of Assisting Lecturers (cooperation, division of tasks, correcting proposals, monitoring implementation, serving consultations)	10
6.	Special Potential (scientific articles, patent opportunities, commercial opportunities, program sustainability)	20
Total		100

Registration Fee

Free

Present

Champion : Coaching Money + Plaque + E- Certificate

Runner Up : Coaching Money + Plaque + E- Certificate

3rd Place : Coaching Money + Plaque + E- Certificate

Favorite winner : Plaque + E-Certificate

*All participants who register will get an E-Certificate.

Composition of the Prototype Competition Committee

This prototype contest is held in the framework of the ICoSITeR ITERA 2021 activities by:

Head of Division	: Iqbal Amrulloh	(119140161)
Head of Sub-Division	: Deborah Yohanna Natania	(119220131)
Person Responsible	: Osama Alfatheen	(119210045)
Member	: 1. Meilinda Caesardini	(119220110)
	2. Dharma Afri Sandi	(119230050)
	3. Rara Fitra Oktora	(120280041)

Contact Person

WhatsApp : 0812-1475-7979 p.p. Dharma

0812-7862-3110 p.p. Rara

0895-3737-72817 p.p. Meilinda

Closing

Thus, this ToR was made as information to all contest participants and all existing activities. Thank you for the contributions and attention of all those who have helped.

CURRICULUM VITAE

A. Team Leader Identity

1.	Full name	
2.	Gender	
3.	Study program	
4.	NIM	
5.	Place and date of birth	
6.	E-mail	
7.	Phone Number	

B. Educational background

	senior High School	College
Institution Name		
Major		
Entry Year		

All data that I have filled in and listed in this biodata is true and can be legally accounted for. If in the future it turns out that there is a discrepancy with reality, I am able to accept sanctions.

Thus, this biodata I actually made to fulfill one of the requirements in the ICoSITeR Prototype Design Competition 2021.

Passport photo 3x4

(City, Date Month Year)

(Name of Team Leader)
NIM.

A. Member Identity 1

1.	Full name	
2.	Gender	
3.	Study program	
4.	NIM	
5.	Place and Date of Birth	
6.	E-mail	
7.	Phone Number	

B. Educational background

	senior High School	College
Institution Name		
Major		
Entry Year		

All data that I have filled in and listed in this biodata is true and can be legally accounted for. If in the future it turns out that there is a discrepancy with reality, I am able to accept sanctions.

Thus, this biodata I actually made to fulfill one of the requirements in the ICoSITeR Prototype Design Competition 2021.

Passport photo 3x4

(City, Date Month Year)

(Member Name 1)

NIM.

A. Member Identity 2

1.	Full name	
2.	Gender	
3.	Study program	
4.	NIM	
5.	Place and Date of Birth	
6.	E-mail	
7.	Phone Number	

B. Educational background

	Senior High School	College
Institution Name		
Major/Faculty/Study Program		
Entry Year		

All data that I have filled in and listed in this biodata is true and can be legally accounted for. If in the future it turns out that there is a discrepancy with reality, I am able to accept sanctions.

Thus, this biodata I actually made to fulfill one of the requirements in the ICoSITeR Prototype Design Competition 2021.

Passport photo 3x4

(City, Date Month Year)

(Member Name 2)
NIM.

A. Member Identity 3

1.	Full name	
2.	Gender	
3.	Study program	
4.	NIM	
5.	Place and Date of Birth	
6.	E-mail	
7.	Phone Number	

B. Educational background

	Senior High School	College
Institution Name		
Major/Faculty/Study Program		
Entry Year		

All data that I have filled in and listed in this biodata is true and can be legally accounted for. If in the future it turns out that there is a discrepancy with reality, I am able to accept sanctions.

Thus this biodata I actually made to fulfill one of the requirements in the ICoSITeR Prototype Design Competition 2021.

Passport photo 3x4

(City, Date Month Year)

(Member Name 3)
NIM.

A. Member Identity 4

1.	Full name	
2.	Gender	
3.	Study program	
4.	NIM	
5.	Place and Date of Birth	
6.	E-mail	
7.	Phone Number	

B. Educational background

	Senior High School	College
Institution Name		
Major/Faculty/Study Program		
Entry Year		

All data that I have filled in and listed in this biodata is true and can be legally accounted for. If in the future it turns out that there is a discrepancy with reality, I am able to accept sanctions.

Thus this biodata I actually made to fulfill one of the requirements in the ICoSITeR Prototype Design Competition 2021.

Passport photo 3x4

(City, Date Month Year)

(Member Name 4)
NIM.

Companion Lecturer Biodata

A. Identity of Assistant Lecturer

1.	Full name	
2.	Gender	
3.	Study program	
4.	NIP/NIDN	
5.	Place and Date of Birth	
6.	E-mail	
7.	Phone Number	

B. Educational background

	S1/Bachelor	S2/Master	S3/Doctorate
Institution Name			
Major/Faculty/Study Program			
Entry Year			

All data that I have filled in and listed in this biodata is true and can be legally accounted for. If in the future it turns out that there is a discrepancy with reality, I am able to accept sanctions.

Thus this biodata I actually made to fulfill one of the requirements in the ICoSITeR Prototype Design Ccompetition 2021.

(City, Date Month Year)

(Name of Assistant Lecturer)
NIP.

WORK TITLE

Name of Team Leader, Name of Member 1, Name of Member 2, Name of Member 3,
Member Name 4
Origin of Institution
Chairman's E-mail

ABSTRACT

Maximum 200 words (conjunctions count as 1 word, repeat words count as 2 words, words cannot be abbreviated). Starting at the top of the research title up to the keywords, make a maximum of pages (by shortening the content of the abstract). The paper size is A4, the left margin is 4 cm, the top margin, right margin, bottom margin are 3 cm each. Abstract is written in Times New Roman font with a large font of 11 pt without using paragraphs. The keyword contains a maximum of 5 words/word pairs.

***Keywords:* ……., ……., ……..., ……..., ….……,**

LOGO
YOUR
AGENCY

TITLE OF RESEARCH REPORT

TEAM NAME

Team Members:

Team Leader Name	**-**	**NIM**
Student Name 1	**-**	**NIM**
Student Name 2	**-**	**NIM**
Student Name 3	**-**	**NIM**
Student Name 4	**-**	**NIM**

INSTITUTION NAME

CITY / REGION OF ORIGIN OF THE INSTITUTION

YEAR

STATEMENT OF AUTHENTICITY OF THE WORK

I, the undersigned below

Name :

Department/Study Program :

Agency :

Hereby certify that the prototype work that my team made under the name:

It is original and has never been entered in a competition and has never been published.

Thus, this statement is made truthfully and truthfully.

City, Date Month Year

That states

(Name of Team Leader)

INTERNATIONAL WRITTEN IDEA COMPETITION

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Term of Reference (TOR)

WRITTEN IDEA COMPETITION

Preliminary

The Sumatran Institute of Technology holds an annual conference called ICoSITer. ICoSITeR (International Conference on Science, Infrastructure Technology and Regional Development) is an annual international conference held by the Sumatran Institute of Technology (ITERA) in Lampung Province, South Lampung Regency. Not only seminars, there are activities to support college student education as well as to train collaboration between teams to build Indonesia and in particular, to build a smart city that helps the people who are in it by managing existing resources efficiently and providing appropriate information to the communities/institutions to carry out their activities or anticipate unexpected events in advance.

ICoSITeR Sumatra Institute of Technology (ITERA) also held a competition, namely Written Ideas. A written idea is a concept of change or development that is futuristic, realistic, and long-term written work designed to be published in a journal or book collection of articles, written in a scientific manner adapted to applicable scientific conventions. By considering the theme "Building a Sustainable Country with the Role of Science and Technology in the Smart City Concept" as well as 5 continuous sub-themes with that theme.

Name of Activity

ICoSITeR Written Idea Competition 2021

Objectives

The objectives of organizing this activity are as follows:

1. Improving the intellectual potential ability and critical thinking power of students in expressing ideas on the Role of Science and Technology in the form of Written Ideas.
2. Get ideas and grow and develop the soul and scientific potential of college students.
3. Creating a young generation who excels and is productive in the fields of technology, science, infrastructure and others.

4. Cultivate the habit of student writing based on reasoning and guide it by formulating strategies for change or development of the nation and state in the future.

Scope

The ICoSITeR Written Idea of the Sumatra Institute of Technology covers the entire Smart City concept as shown in the sub-theme chart below.

Theme

Building a Sustainable Country with a Smart City Concept.

Sub Theme

1. **Smart Infrastructure**

Smart infrastructure is the integration of technology for the development of transportation facilities/infrastructure, development of telecommunication facilities/infrastructure, development of environmentally friendly, economical, and multi-functional public facilities, development of settlements, and improvement of infrastructure development efficiency. Smart infrastructure is expected to increase community productivity due to fast, environmentally friendly, safe, and comfortable mobility so that it can increase economic growth and community welfare.

Example:

- Smart Traffic Light, a solution for emergency crossings and people with disabilities

2. **Smart Living**

Smart living is the integration of technology to improve the comfort, convenience, feasibility, and safety of living quarters. To achieve this, the smart living concept can harmonize spatial planning, improve furniture functionality, develop security systems, and increase the efficiency and effectiveness of health services at home.

Example:

- Desktop socket systems or floor socket systems to reduce space consumption on plug usage.

- "Telecare" service to make it easier for the elderly and people with disabilities to get doctor or ambulance services from home.
- Lighting control system to reduce electrical energy consumption in lamps.
- Wireless Home Security by utilizing motion sensors to prevent theft.

3. Smart Manufacturing

Smart manufacturing is a combination of various technologies to optimize manufacturing processes, monitor manufacturing performance and conditions, improve manufacturing efficiency, and reduce environmental pollution impacts from industrial solid waste. Smart manufacturing is expected to be able to realize environmentally friendly, quantity, and quality production results to increase industrial profits.

Example:

- Utilization of digital technology and the Internet of Things (IoT) in processing energy data and industrial waste to create an energy-efficient and environmentally friendly industry
- MindSphere is integrated with the internet and the cloud to monitor the performance and condition of machines, heavy equipment, and robots so that they can know the quality and quantity of production efficiently and accurately.
- Utilization of cloud system technology, and machine learning to prevent down time on industrial machines.

4. Smart Energy

Smart energy is a renewable energy system that optimizes all components in the energy production system to realize efficient, economical, environmentally friendly and safe energy use in every sector of human activity such as homes, schools, offices, industry, public places, places of business, and others.

Example:

- Smart grid to produce optimal, economical, and efficient operation of the electric power system.

- Smart Meter Design To Monitor And Identify Electrical Energy Use In The Household Sector Using Backpropagation Neural Network.
- Electric-fueled transportation to create environmentally friendly vehicles.
- Solar panel utilization system at bus stop.

5. Smart Farming

Smart farming is an integration of technology to improve agricultural efficiency, collect data on crop conditions and land, optimize agricultural processes, and improve crop adaptation in conditions of limited agricultural land, uncertain weather, and limited water resources. Smart farming is expected to produce optimal agricultural production by integrating technology.

Example:

- Smart farming Precision Agriculture combines an IoT (Internet of Things)-based platform with agricultural tools and machines so that agricultural production tools are no longer operated conventionally.
- Agri Drone Sprayer (Drone spraying pesticides and liquid fertilizers).
- Surveillance Drone (Drone for land mapping).
- Soil and Weather Sensor (Soil and weather sensors).

Nature of Writing

1. Ideas can represent comprehensive, creative, solution-based, and implementable ideas for realizing sustainable development and stabilizing national security.
2. The idea is original and has never won in a similar competition.
3. Ideas are objective, do not contain SARA, and are supported by actual facts.
4. Ideas can be in the form of results from literature or research.
5. Writing is done systematically and logically.

General Requirements

1. Participants are teams consisting of 2-3 individuals.

2. All Participants are required to follow ICoSITeR's Instagram @icositeritera and upload the twibbon on personal Instagram accounts and tag ICoSITER @icositeritera Instagram accounts.
3. All participants are active undergraduate college students around the world as evidenced by the College Student Identity Card during registration in (https://icositer2021.com/competition)
4. The names of the applicants (Chairman and Members) are not allowed to be shortened.
5. The proposed college students can come from different or the same study programs and majors, but in the same university.
6. All participants must fill out the registration form for registration (google form link).
7. All group leaders send the written ideas in the same google form as representatives (https://icositer2021.com/competition)
8. Manuscripts that have been entered will receive a reply via the participant's email that has been entered in the registration form link, a maximum of 2x24 hours.
9. The manuscript is an original idea created by the participants, and has never been entered in a similar competition and has never been published.
10. Manuscript ideas are submitted before September 15th, 2021 at 23:59.
11. Manuscripts sent to the committee have become the property and authority of the committee and have the right to be published by the committee by including the author's name.
12. No registration fee (FREE).
13. It is not allowed for one team who wants to submit more than one work.

Rules of Competition

1. The competition is in full English.
2. The results of the work are sent in a soft copy with the following conditions:

- Written ideas submitted in PDF form with a maximum file size of 5mb. With the format: Name of Group Leader_Instance Name_Written Ideas.
- To complete the registration of participants, the written ideas sent also include the following documents:
  a) Scan Student Card/Student Identity Card (KTM) in jpg or jpeg format.
  b) Statement of originality.

  All files that will be sent are made into one file in the form of .Rar and sent to the email address icositeritera@gmail.com with the subject format and filename "LG_ICOSITER_(instance name)_(participant name)".

3. Any form of cheating (plagiarism) will be disqualified.
4. The selected winners are the participants who have the highest cumulative scores from all aspects of the assessment categorized in the overall assessment of the 2021 ICoSITeR Written Idea Competition.

Contest Activity Agenda

No	Agenda Activity Agenda	Time of Activity
1	Registration	August 11th,2021 – September 15th, 2021
2	Manuscrit Delivery	August 9th, 2021 – September 15th, 2021
3	Stage one judging	September 20th–25th, 2021
4	Stage two judging	September 27th, 2021 – October 3rd, 2021
5	Winner announcement	October 6th, 2021

Prizes and Award

Champion : Coaching Money + Certificate + Plaque
Runner up : Coaching Money + Certificate + Plaque
3rd Place : Coaching Money + Certificate + Plaque
Favorite winner : Certificate + Plaque

*Each participant will get an e-Certificate.

Composition of the Committee for Written Idea Competition

This Written Idea Competition is held within the framework of the ICoSITeR ITERA 2021 activities with

Head of Division	: Iqbal Amrullah	(119140161)
Head of Sub-Division	: Deborah Yohanna Natania	(119220131)
Person responsible	: Lidya Santi Margaretha	(119180010)
Member	: 1. Karina Firgynia Geraldine	(119180063)
	2. Ayunda Nuranisa	(119280100)
	3. Adelia Mutiara Zulna	(120450104)
	4. Grace Natalia Elfira Purba	(119350011)

Guidelines and Systematics for Writing Written Ideas

1. The main contents of the Written Idea consist of: table of contents, summary, introduction, ideas, conclusion/conclusion and attachments.
2. On the cover of the written idea paper, in the logo section there are 3 sequences. In the right box, use your agency logo. The logo on the left and center follows from the template and can be downloaded on the website.
3. The main and appendix pages are numbered with Arabic numerals: 1, 2, 3, ..., which are placed in the upper right corner. Numbering page 1 (one) starts from the Introduction Chapter.
4. Manuscripts must not contain plagiarism, if it is proven that there is an element of plagiarism in the manuscript, the committee has the right to disqualify.
5. Manuscripts are typed using good and correct English.
6. The entire manuscript is typed with a maximum number of 10 pages (the number of pages does not include cover, biodata sheet, originality sheet, abstract, and attachments).

7. All writings use Times New Roman style with font size 12, with 1.5 spacing on A4 paper size, with 4 cm left margin and top, bottom, and right (all sides 3cm).
8. Article section written
   - Title page or cover
   - In the name section on the cover of the paper, accompanied by the Student Identification Number or the like and the Year of the Class.
   - originality page
   - The biodata of the chairperson, members and supervisors are at the bottom of the guide.
   - TABLE OF CONTENTS

     Table of contents page given
     page numbers with letters: i, ii, iii, ..., which are placed in the lower right corner.
   - SUMMARY

     The contents are left and right and the text is written in Italic font. And keywords are allowed only 5 words.
   - PRELIMINARY

     The Introduction section outlines the revealing background about
     the situation and condition of the nation, the state which is the reason for raising the idea. (completed with supporting data or information).
     This section also reveals the objectives and the magnitude of the benefits to be achieved.
   - IDEA

     The ideas section contains descriptions of:
     a. The current condition of the originator of the idea (obtained from reading materials, interviews/discussions, observations, relevant imaginations)
     b. Solutions that have been implemented to improve the condition of the originator of the idea

c. How far can the condition of the originator of the idea be updated or developed if the idea is implemented?
d. The parties considered can help implement the ideas and their respective roles or contributions
e. Strategic steps that must be taken to implement the idea so that the expected goals or updates can be achieved

- CONCLUSION
  a. State the ideas proposed,
  b. How to make it happen and how long does it take
  c. Predict the impact of ideas on society or the nation
- BIBLIOGRAPHY

  Writing bibliography using the Harvard system (author-date style). The Harvard system uses the author's name and year of publication in alphabetical order of appearance by author's name and writing references from the internet must state the page address and singular.
- ATTACHMENT

  Appendix 1. Each group leader, member and coach fill out the Biodata listed in the attachment below, and sign it.
  Appendix 2. Each group leader and member fills out the Statement of Originality of Work listed below.
- It is allowed to attach pictures in the idea chart.

Assessment Criteria

There is an attachment for this Written Idea Assessment in the appendix section, and this assessment is carried out online and has the following parameters:

No.	Criteria	Score
1	Paper Format:	10

	a. Layout: paper size, typography, neatness of type, layout, number of pages b. Good and correct use of English c. Conformity with the writing format listed in the Guidelines d. Relation to Summary, Introduction, Ideas, and Conclusions	
2	Titles: a. Suitability b. Attractiveness c. Relationships between charts (summary - closing or conclusion) d. thorough	10
3	Summary: a. Conformity with the provisions of the guidelines b. Number of keywords c. thorough d. Clear	10
4	Preliminary: a. Creative b. Compliance with the theme and sub-theme of the race c. covers the whole	10
5	Idea: a. Logical b. Critical c. Objective d. Systematic e. Showing strategic steps f. Analyze data and can implement ideas	40
6	Conclusion: a. Short	10

	b. Obviously, according to the contents of the guidelines c. Can answer the purpose and apply	
7	References: A. Relevant B. Neat and alphabetical C. Conformity with the rules	10
Total		100

More info

WhatsApp:

1. 089523084648 p.p. Lydia (WhatsApp)
2. 081380627734 p.p. Karina (WhatsApp)
3. 081281151858 p.p. Ayunda (WhatsApp)
4. 08127359883 p.p. Adelia Zulna (WhatsApp)
5. 081317266239 p.p. Grace (WhatsApp)

Closing

Thus, this ToR was made as information to all contest participants and all existing activities. Thank you for the contributions and attention of all those who have helped.

Cover

(TITLE OF WRITTEN IDEAS)

ASSEMBLY ACTIVITIES:
ICOSITER WRITTEN IDEAS IN INTERNATIONAL LEVEL

Arranged by:
..... (Name of Group Leader)
…….. (Member's Name 1)
…….. (Member's Name 2)

NAME OF INSTITUTION (COLLEGE)
INSTITUTION CITY
YEAR

Appendix 1

Chairman and Members's Biography

A. Personal identity

1	Full name	
2	Gender	
3	Study program	
4	NIM/NPM	
5	Place and Date of Birth	
6	E-mail	
7	Phone number	

B. Educational background

	Senior High School	agency
Institution Name		
Major/Study Program		
Entry-Graduating Year		

All data that I have filled out and listed in this biodata is true and can be legally accounted for. If in the future there is a data discrepancy, I can accept sanctions. Thus, I made this biodata actually to fulfill one of the requirements in the submission of the Written Idea Competition.

Place, Time Author

(Full name)

Appendix 2

STATEMENT OF AUTHENTICITY OF THE WORK

The undersigned below:
Name :
Department/Study Program :
Institution :

I hereby declare that my writing is entitled:
The proposal submitted is an original and has never been entered in the competition and has not been published.
Thus, this statement is made truthfully.

City, day-month-year
That states

(Chairman's Name)

Appendix 3

Builder's Biography

A. Personal identity

1	Full Name (with title)	
2	Gender	M/F
3	Study Program	
4	NIM/NPM	
5	Place and Date of Birth	
6	*E-mail*	
7	Phone Number	

B. Educational background

	Elementary School	**Junior High school**	**Senior High School**
Institution Name			
Major/Study Program			
Entry-Graduating Year			

C. Scientific Seminar Presenters (Oral Presentation)

No	Name of Scientific Meeting / Seminar	Title of Written Idea	Time and Place
1			
2			
3			

D. Awards in The Last 10 Years (from government, association or other Institution)

No	Award Type	Awarding Institution	Year
1			
2			
3			

All data that I have filled in and listed in this biodata is true and can be legally accounted for. If in the future it turns out that there is a discrepancy with reality, I am able to accept sanctions.

Thus, I actually made this biodatato fulfill one of the requirements in the submission of the Written Idea Competition.

City, day-month-year

That states

(Full name)

TITLE OF WRITTEN IDEA

Writer's Name
Department, Name of Institution, City of Institution
(e-mail address)

SUMMARY (12pt,Bold)
Compiled a maximum of 1 (one) page that reflects the contents of the whole idea. Typed with A4 paper size, the left margin is 4 cm and the right, top, bottom margins are 3 cm. Written in Times New Roman and font size 12 with 1.5 spacing. Articles begin with an abstract of 150-200 words in Indonesian. Abstracts should clearly contain an overview of the contents of the article.
Keywords: Maximum number of five words and separated by commas.

PRELIMINARY
It contains the background of the problem raised. Contains general things related to the problem that is the topic of discussion and emphasizes the importance of this issue being discussed. Typed with A4 paper size, the left margin is 4 cm and the right, top, bottom margins are 3 cm. Written in Times New Roman and font size 12 with 1.5 spacing. Preliminary writing contains four paragraphs. Each paragraph contains four sentences. The introductory section describes the background that reveals the situation and condition of the nation, the country which is the reason for bringing up the idea (equipped with supporting information data). This section also reveals the objectives and the magnitude of the benefits to be achieved.

IDEA
It contains troubleshooting and explanations that support the expected troubleshooting results. Typed with A4 paper size, the left margin is 4 cm and the right, top and bottom margins are 3 cm. Written in Times New Roman and font size 12 with 1.5 spacing. Writing ideas may include pictures and data as support.

CLOSING
It contains a comprehensive summary of ideas and contains statements of proposed ideas, steps to realize them and predictions of impact. Typed with A4 paper size, 4cm left margin and right, top, bottom margin 3cm. Written in Times New Roman and font size 12 with 1.5 spacing.

BIBLIOGRAPHY
Arranged systematically and sequentially in alphabetical order, writing references from the internet must state the page address and date. By writing the author's name and year in the text (Name, year). Everything listed in the bibliography must be referenced in the text. The following is an example of writing a bibliography.

REFERENCE WRITING FORMAT

Articles in Published Journals
Chen, IJ and Popovich, K., 2003. Understanding customer relationship management

(CRM) People, process and technology. business process management journal,

9(5), pp.672-688.

Book

Brown, SA and Coopers, PW, 1999. Customer relationship management: A strategic

imperative in the world of e-business. John Wiley & Sons, Inc..

Articles from scientific conferences/proceedings

Venkatapathy, R., 1992. Entrepreneurial attitude orientation among first and second

generation entrepreneurs. Paper presented to the national workshop on Management Research Development held under the auspices of the association of Indian management school, Indira Gandhi Institute for development research.

Dissertation/thesis/thesis

Kang, M., 2009. Retail therapy: a qualitative investigation and scale development.

Dissertation, Faculty of The Graduate School of The University of Minnesota

Website / page

National Library of the Republic of Indonesia, 2003. Scientific Management Writing Guide [Online] (updated Jan 16, 2005) Available at: http://www.perpusnas.go.id/we/article [Accessed April 10, 2011]

- **Numbering**

  The numbering of subtitles does not use numbers or numbers, however using different letters as in the example below:
- IDEAS (ALL CAPITAL LETTERS, BOLD, AVERAGE LEFT EDGE)

Appendix 4.

Written Idea Assessment Format

Activity Title : ……

Field of Activity : Written Idea

Sub-theme Field : ……....

Group : (2 Students / 3 Students *)

NIM/Name of Chairperson : ……

Major : ……....

NIM/Name of Member 1 : ……..

Major : ……....

NIM/Name of Member 2: ……

Major : ……....

NIM/Name of Member 3: …….

Major : ……....

Name of Supervisor : …….

College : ……...

No	Criteria	Weight	Score	Mark
1	Paper Format: a. Layout: paper size, typography, neatness of type, layout, number of pages b. Good and correct use of English c. Conformity with the writing format listed in the Guidelines	15		
2	Idea: a. Creativity of ideas b. Realization creativity	40		
3	Resources: a. The suitability of the source of information with the idea offered b. Accuracy and updating of information	25		
4	Conclusion: Predict the impact of the realization of the idea	20		
Total		100		
Icositer's Jury Score			50%	

Information:

Value = Weight x Score; Score(1=Poor; 2= Very poor; 3=Poor; 5=Enough: 6=Good; 7=Very good);

Comment: ……

City, day-month-year

That states

(Full name)