

## CFP

## ICoSiET 2020: 2020 International Conference on Science in Engineering and Technology (ICoSiET)

Hotel Santika Palu

Palu, Indonesia, October 21-22, 2020

Conference website	<a href="http://icosiet.org/2020/">http://icosiet.org/2020/</a>
Submission link	<a href="https://easychair.org/conferences/?conf=icosiet2020">https://easychair.org/conferences/?conf=icosiet2020</a>
Submission deadline	August 15, 2020

Topics: [science in engineering and technology](#)

**The 2020 International Conference on Science in Engineering and Technology (ICoSiET)** is an international conferences which covers Science and applied Engineering and Technology. **ICoSiET 2020** will be held on **October 21-22, 2020** in **Palu, Indonesia**. This conference hosted by **Universias Tadulako** and is jointly organized with Association for Scientific Computing Electronics and Engineering (ASCEE), Universitas Islam Alauddin Makassar, Universitas Negeri Malang, Universitas Mulawarman, and Universitas Muslim Indonesia.

**PUBLICATION and INDEX**Publication: **IOP Conference Series: Materials Science and Engineering (MSE)**doi:10.1088/issn.1757-899X | ISSN: 1757-899X (online) 1757-8981 (print)ICoSiET has been listed on IOP MSE Forthcoming issue : <https://iopscience.iop.org/journal/1742-6596/page/Forthcoming%20volumes#tab2>Indexed by: [Other Indexing serivces...](#)

## SELECTED PAPERS

Selected paper at this conference will be published in the following Scopus indexed journals :

- [International Journal of Advances in Intelligent Informatics](#) (ISSN:2442-6571, Q4 **SCOPUS indexed**)
- [International Review for Spatial Planning and Sustainable Development](#) (ISSN: 2187-3666, Q2 **SCOPUS Indexed**)

## KEYNOTE SPEAKERS (Come from:

**Prof. Dr. Zhen-jiang Shen** (Faculty of Geosciences and civil Engineering, Institute of Science and Engineering) Kanazawa University, **Japan**

**Prof. Yandi Andri Yatmo., Ph.D** (Department of Architecture Faculty of Engineering) Universitas Indonesia, **Indonesia**

**Prof. Dr. Richard Sliuzas** (Department of Urban and Regional Planning and Geo-Information Management) Twente University, **Netherland**

**Prof. Amar Akbar Ali** (Department of Architecture) Universitas Tadulako, **Indonesia**

**Prof. Dr. Johannes Widodo** (Department of Architecture, School of Design and Environment) National University of Singapore, **Singapore**

**Dr. Diana Contrias Mojica**, New Castle University, **UK**

**SUBMIT YOUR ARTICLE**<https://easychair.org/conferences/?conf=icosiet2020>

## SCOPE

The conference tracks include, but are not limited to :

1. Disaster Prevention and Mitigation Architectural and Engineering
2. Architecture and Building Materials
3. Urban Planning
4. Civil Engineering
5. Construction Technology

6. Computational Mechanics
7. Engineering Management
8. Electronics, Electrical, Informatics, Computer Engineering
9. Mechanical Engineering
10. Chemical Engineering
11. Material Engineering
12. Artificial Intelligence
13. Applied Science

### **EDITORS (come from 5 Countries)**

1. Anita Ahmad Kasim (Tadulako University, Indonesia)
2. Diana Contrias Mojica (New Castle University, UK)
3. Roman Voliansky (Dniprovsky State Technical University, Ukraine)
4. Leonel Hernandez (ITSA University, Colombia)
5. Rafal Drezewski (AGH University of Science and Technology, Poland)
6. Andri Pranolo (Universitas Ahmad Dahlan, Indonesia)
7. Joni Adiansyah (Universitas Muhammadiyah Mataram, Indonesia)
8. Yun Arifatul Fatimah (Universitas Muhammadiyah Mageleng, Indonesia)
9. Aji Prasetya Wibawa (Universitas Negeri Malang, Indonesia)
10. Havaluddin (Universitas Mulawarman, Indonesia)

### **IMPORTANT DATES**

#### **Phase II**

- Full paper submission deadline: **August 1st, 2020**
- Full paper acceptance notification: **Two weeks to One Month after submission or before August 31, 2020**

- Camera ready-paper deadline: **Septemeber 15, 2020**
- Final Registration deadline : **September 15, 2020**

### **Phase I**

- Full paper submission deadline: **June 30, 2020**
- Full paper acceptance notification: **Two weeks to One Month after submission or before July 31, 2020**
- Camera ready-paper deadline: **August 15, 2020**
- Final Registration deadline : **August 15, 2020**

Conference Due : **October 21-22, 2020**

### **SUBMISSION**

Authors with papers accepted for presentation at **ICoSiET 2020** will be published in the open access IOP Conference Series published by IOP Publishing (Indexed by Scopus). Authors may be interested to know that IOP Conference Series now receives in excess of 2.3 million article downloads per year, and is abstracted and indexed in Scopus, Compendex and Inspec, among others. Citations are tracked online using IOP Publishing's citing articles facility in addition to the full citation tracking facilities provided by Scopus.:

- The paper should be written in English.
- The paper format is as follows:
  1. Ensuring the paper conform to standard of IOP manuscript template for conference proceedings. Download Template [IOP Manuscript Template for Conference Proceedings.](#)
  2. Paper size is European A4.
  3. Margins are 4cm (top), 2.5cm (left and right) and 2.7cm (bottom).
  4. The paper includes the author name and affiliation (full address including country).
  5. There are no page numbers, or headers and footers, within the paper.

6. The PDF is free of formatting errors (e.g. corrupt equations, missing or low-resolution figures), since conversion from Word to PDF can introduce formatting errors.
7. Text is single spaced, *not* double spaced.
8. The PDF file is editable and *not* password protected.
9. All pages are portrait (landscape pages should be rotated).
10. Reference lists are checked for accuracy. **References can only be linked via Crossref if they are correct and complete.**
11. Figures are placed within the text, *not* collected at the end of the document.
12. A thorough proofread is conducted to check the standard of English and ensure wording is clear and concise.

- All review processes are blind peer-reviews
- Full paper must be submitted through [EasyChair Submission System](#)
- Please contact [info@icosiet.org](mailto:info@icosiet.org) if you have any queries

## REGISTRATION FEES

Category	Early Bird	Regular
	<b>Due: will be notified when accepted</b>	<b>Due: will be notified when accepted</b>
Presenter	INTERNATIONALUSD 200  DOMESTICIDR 2.000.000	INTERNATIONALUSD 250  <b>DOMESTICIDR 2.500.000</b>
Participants Non-Presenter	<b>Due: August 15, 2020</b> INTERNATIONALUSD 50DOMESTICIDR 250.000	<b>Due: August 15, 2020</b> INTERNATIONALUSD 75DOMESTICIDR 500.000

### Registration Note

- **Registration fee** included:
  - **Publication Fee,**

- **Access to all sessions in ICoSiET'20** including: Plenary Sessions, Conference Track Presentations, Conference Dinner: Awards and Information Exchange.

- **The Payment is non-refundable.**
- Payment must be made in **Full Amount (PayPal, or Bank Transfer should add 6% transfer fee )**.
- **Additional papers are allowed with 80% charge** of the registration fee **under the same 1st author and Presenter.**

## VENUE

### ONLINE PRESENTATION

---

**The Conference ONLINE:** We are delighted to inform you that we will use **Zoom** to deliver our online conference if the participant doesn't possible to attend the conference due to COVID-19 Outbreak.

### Hotel Santika Palu

---

Address : JJI. Moh. Hatta No.18, Lolu Utara, Kec. Palu Tim., Kota Palu, Sulawesi Tengah 94114 Phone : +62 21 2700027 Website : <http://www.santika.com>

The history of Santika Indonesia Hotels & Resorts can be traced back when Kompas-Gramedia Group, the largest media company in Indonesia, diversified its business portfolio holding in 1981 embarking into the Hospitality sector..

## KONTAK

**ICoSiET 2020 Secretariat** Department of Architecture, Faculty of Engineering, Universitas Tadulako Jl. Soekarno Hatta KM 9, Palu, Sulawesi Tengah, Indonesia Email: [info@icosiet.org](mailto:info@icosiet.org), [nita.kasim@gmail.com](mailto:nita.kasim@gmail.com) CP. Dr. Anita Ahmad Kasim; Dr. Eng Rifai Mardin- Phone Number : +62451 422611- Mobile : +62 812 4123 2008; +62 813 4128 8168



Copyright © 2002 – 2020 EasyChair



### [Announcement](#)

[9/26/2020:5.46PM] Notification of acceptance will be announced **BEFORE** ~~on SEPTEMBER 25, 2020~~ **SEPTEMBER 28, 2020** for submitted papers before 25 September 2020.

[8/3/2020:9.42PM] **Submission 3rd Phase (FINAL PHASE) is Open . The Deadline is** ~~September 1st, 2020~~ **September 30th, 2020. Submit your excellent work at** <https://easychair.org/conferences/?conf=icosiet2020>

[7/1/2020:7.30PM] **Submission 2nd Phase is Open. The Deadline is August 1st 2020. Submit your excellent work at** <https://easychair.org/conferences/?conf=icosiet2020>

### SUBMISSION

Deadline: September 10th  
2020

September 30th 2020

Notification: October 5th  
2020

Paper Submission



Online Submission System

*[4/27/2020:18.30PM] The Conference ONLINE: We are delighted to inform you that we will use Zoom to deliver our online conference if the participant doesn't possible to attend the conference due to COVID-19 Outbreak.*

The 2020 International Conference on Science in Engineering and Technology (ICoSiET) is an international conference which covers Science and applied engineering and technology. ICoSiET 2020 will be held on **October 21-22, 2020** in **Palu, Indonesia**. This conference hosted by **Universias Tadulako** and is jointly organized with Association for Scientific Computing Electronics and Engineering (ASCEE), Universitas Islam Alauddin Makassar, Universitas Negeri Malang, Universitas Mulawarman, Universitas Muslim Indonesia, and Universitas Lambung Mangkurat.

#### PUBLICATION and INDEX

##### Publication:

IOP Conference Series: Materials Science and Engineering (MSE)

doi:10.1088/issn.1757-899X | ISSN: 1757-899X (online) 1757-8981 (print)

**ICoSiET has been listed on IOP MSE Forthcoming issue :** <https://iopscience.iop.org/journal/1742-6596/page/Forthcoming%20volumes#tab2>

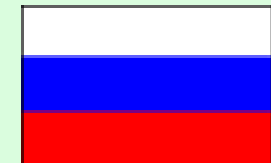
##### Indexed by:



Submission Guidelines

Paper Template

Accepted  
Papers/Authors/Presenters  
come from 15 Countries  
(updated 8/29/2020)





Other Indexing services...

## SELECTED PAPERS

Selected paper at this conference will be published in the following Scopus indexed journals :

- International Journal of Advances in Intelligent Informatics (ISSN:2442-6571, Q4 SCOPUS indexed)
- International Review for Spatial Planning and Sustainable Development (ISSN: 2187-3666, Q2 SCOPUS Indexed)

KEYNOTE SPEAKERS (Come from:



 Prof. Dr. Zhen-jiang Shen

(Faculty of Geosciences and civil Engineering, Institute of Science and



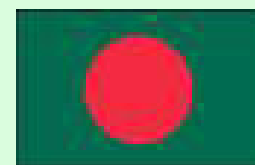
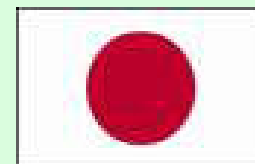
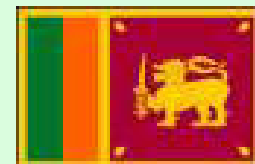
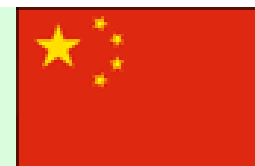
 Prof. Dr. Richard Sliuzas

(Department of Urban and Regional Planning and Geo-Information



 Prof. Dr. Johannes Widodo

(Department of Architecture, School of Design and Environment) National



Engineering) Kanazawa University,  
Japan



Prof. Yandi Andri Yatmo., Ph.D

(Department of Architecture Faculty of  
Engineering) Universitas Indonesia,  
Indonesia

Management) Twente University,  
Netherland



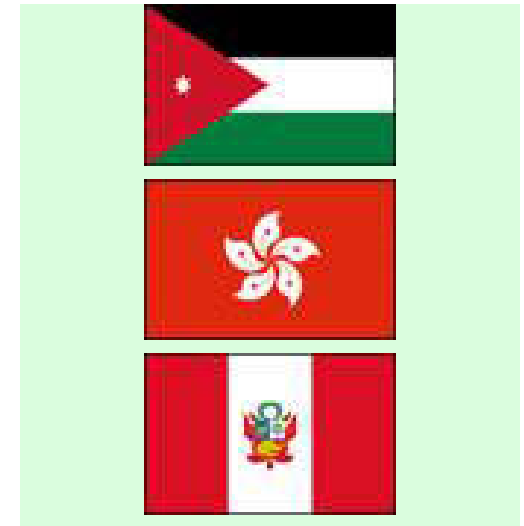
Prof. Amar Akbar Ali

(Department of Architecture)  
Universitas Tadulako, Indonesia

University of Singapore, Singapore



Dr. Diana Contrias Mojica, New  
Castle University, UK



#### PUBLICATION



IOP Conference Series: Materials

#### SUBMIT YOUR ARTICLE

<https://easychair.org/conferences/?conf=icosiet2020>

#### SCOPE

The conference tracks include, but are not limited to :

1. Disaster Prevention and Mitigation Architectural and Engineering
2. Architecture and Building Materials
3. Urban Planning
4. Civil Engineering

5. Construction Technology
6. Computational Mechanics
7. Engineering Management
8. Electronics, Electrical, Informatics, Computer Engineering
9. Mechanical Engineering
10. Chemical Engineering
11. Material Engineering
12. Artificial Intelligence
13. Applied Science

#### **EDITORS (come from 5 Countries)**

1. Anita Ahmad Kasim (Tadulako University, Indonesia)
2. Diana Contrias Mojica (New Castle University, UK)
3. Roman Voliansky (Dniprovsky State Technical University, Ukraine)
4. Leonel Hernandez (ITSA University, Colombia)
5. Rafal Drezewski (AGH University of Science and Technology, Poland)
6. Andri Pranolo (Universitas Ahmad Dahlan, Indonesia)
7. Joni Adiansyah (Universitas Muhammadiyah Mataram, Indonesia)
8. Yun Arifatul Fatimah (Universitas Muhammadiyah Mageleng, Indonesia)
9. Aji Prasetya Wibawa (Universitas Negeri Malang, Indonesia)
10. Havaluddin (Universitas Mulawarman, Indonesia)

#### **IMPORTANT DATES**

*Phase III (Final Phase)*

Science and Engineering  
doi:10.1088/issn.1757-899X  
Online ISSN: 1757-899X  
Print ISSN: 1757-8981

**CONFERENCE PRESENTATION AND  
NETWORKING OPPORTUNITY**

- Presentation slot of around 15-20  
minutes - Certification for Presentation

**INDEXED IN**

**Scopus**<sup>®</sup>

**Ei** **Compendex**

- Full paper submission deadline: ~~September 1st, 2020~~ ~~September 10th, 2020~~ **BEFORE September 20th, 2020**
- Full paper acceptance notification: ~~Two weeks to One Month after submission or before September 25, 2020~~ **SEPTEMBER 28, 2020** for submitted papers before **25 September 2020**. **5 October 2020** for submitted paper after **25 September 2020**.
- Camera ready-paper deadline: **October 5, 2020**
- Final Registration deadline : **October 10, 2020**

### *Phase II*

- ~~Full paper submission deadline: August 1st, 2020~~
- Full paper acceptance notification: **Two weeks to One Month after submission or before August 31, 2020**
- Camera ready-paper deadline: ~~September 15, 2020~~ ~~September 30, 2020~~
- Final Registration deadline : ~~September 15, 2020~~ **October 5, 2020**

### *Phase I*

- ~~Full paper submission deadline: June 30, 2020~~
- ~~Full paper acceptance notification: Two weeks to One Month after submission or before July 31, 2020~~
- Camera ready-paper deadline: ~~August 15, 2020~~ ~~September 30, 2020~~
- Final Registration deadline : ~~August 15, 2020~~ **October 5, 2020**

Conference Due : **October 21-22, 2020**



WEB OF SCIENCE™



Other Indexing services...

ORGANIZERS

Hosted by:



Jointly organized by:

## SUBMISSION

Authors with papers accepted for presentation at **ICoSiET 2020** will be published in the open access IOP Conference Series published by IOP Publishing (Indexed by Scopus). Authors may be interested to know that IOP Conference Series now receives in excess of 2.3 million article downloads per year, and is abstracted and indexed in Scopus, Compendex and Inspec, among others. Citations are tracked online using IOP Publishing's citing articles facility in addition to the full citation tracking facilities provided by Scopus.:

- The paper should be written in English.
- The paper format is as follows:
  1. Ensuring the paper conform to standard of IOP manuscript template for conference proceedings. Download Template IOP Manuscript Template for Conference Proceedings..
  2. Paper size is European A4.
  3. The length of paper should be 5 to 8 pages. However, if you have less or more of the mentioned pages could consult with the committee by email [info@icosiet.org](mailto:info@icosiet.org).
  4. Margins are 4cm (top), 2.5cm (left and right) and 2.7cm (bottom).
  5. The paper includes the author name and affiliation (full address including country).
  6. There are no page numbers, or headers and footers, within the paper.
  7. The PDF is free of formatting errors (e.g. corrupt equations, missing or low-resolution figures), since conversion from Word to PDF can introduce formatting errors.
  8. Text is single spaced, *not* double spaced.
  9. The PDF file is editable and *not* password protected.
  10. All pages are portrait (landscape pages should be rotated).
  11. Reference lists are checked for accuracy. **References can only be linked via Crossref if they are correct and complete.**
  12. Figures are placed within the text, *not* collected at the end of the document.
  13. A thorough proofread is conducted to check the standard of English and ensure wording is clear and concise.



- All review processes are blind peer-reviews
- Full paper must be submitted through **EasyChair Submission System**
- Please contact [info@icosiet.org](mailto:info@icosiet.org) if you have any queries

## REGISTRATION FEES

Category	Early Bird	Regular
Presenter	<p><u>Due: will be notified when accepted</u></p> <p><u>INTERNATIONAL</u> USD 200</p> <p><u>DOMESTIC</u> IDR 2.000.000</p>	<p><u>Due: will be notified when accepted</u></p> <p><u>INTERNATIONAL</u> USD 250</p> <p><u>DOMESTIC</u> IDR 2.500.000</p>
Participants Non-Presenter	<p><u>Due: <del>August 15, 2020</del> September 30, 2020</u></p> <p><u>INTERNATIONAL</u> USD 50</p> <p><u>DOMESTIC</u> IDR 250.000</p>	<p><u>Due: <del>August 15, 2020</del> October 15, 2020</u></p> <p><u>INTERNATIONAL</u> USD 75</p> <p><u>DOMESTIC</u> IDR 500.000</p>

## Registration Note

- Registration fee included:
  - **Publication Fee,**
  - **Online Presentation fee,**





- **Access to all sessions in ICoSiET'20** including: Plenary Sessions, Conference Track Presentations, Conference Dinner: Awards and Information Exchange.
- **The Payment is non-refundable.**
- Payment must be made in **Full Amount (PayPal, or Bank Transfer should add 6% transfer fee )**.
- **Additional papers are allowed with 80% charge of the registration fee under the same 1st author and Presenter.**

## VENUE

## ONLINE PRESENTATION

**The Conference ONLINE:** We are delighted to inform you that we will use **Zoom** to deliver our online conference if the participant doesn't possible to attend the conference due to COVID-19 Outbreak.

## Hotel Santika Palu

Address : Jjl. Moh. Hatta No.18, Lolu Utara, Kec. Palu Tim., Kota Palu, Sulawesi Tengah 94114

Phone :+62 21 2700027

Website : <http://www.santika.com>

The history of Santika Indonesia Hotels & Resorts can be traced back when Kompas-Gramedia Group, the largest media company in Indonesia, diversified its business portfolio holding in 1981 embarking into the Hospitality sector..

## KONTAK

## ICoSiET 2020 Secretariat

Department of Architecture,

Faculty of Engineering, Universitas Tadulako

Jl. Soekarno Hatta KM 9, Palu, Sulawesi Tengah, Indonesia

Email: [info@icosiet.org](mailto:info@icosiet.org), [nita.kasim@gmail.com](mailto:nita.kasim@gmail.com)

CP. Dr. Anita Ahmad Kasim; Dr. Eng Rifai Mardin

- Phone Number : +62451 422611

- Mobile : +62 812 4123 2008; +62 813 4128 8168

2015 - 2019 © Powered by Theme-Vision.







### [Announcement](#)

[9/26/2020:5.46PM] Notification of acceptance will be announced **BEFORE** ~~on SEPTEMBER 25, 2020~~ **SEPTEMBER 28, 2020** for submitted papers before 25 September 2020.

[8/3/2020:9.42PM] **Submission 3rd Phase (FINAL PHASE) is Open . The Deadline is** ~~September 1st, 2020~~ **September 30th, 2020. Submit your excellent work at** <https://easychair.org/conferences/?conf=icosiet2020>

[7/1/2020:7.30PM] **Submission 2nd Phase is Open. The Deadline is August 1st 2020. Submit your excellent work at** <https://easychair.org/conferences/?conf=icosiet2020>

### SUBMISSION

Deadline: September 10th  
2020

September 30th 2020

Notification: October 5th  
2020

Paper Submission



Online Submission System

*[4/27/2020:18.30PM] The Conference ONLINE: We are delighted to inform you that we will use Zoom to deliver our online conference if the participant doesn't possible to attend the conference due to COVID-19 Outbreak.*

The 2020 International Conference on Science in Engineering and Technology (ICoSiET) is an international conference which covers Science and applied engineering and technology. ICoSiET 2020 will be held on **October 21-22, 2020** in **Palu, Indonesia**. This conference hosted by **Universitas Tadulako** and is jointly organized with Association for Scientific Computing Electronics and Engineering (ASCEE), Universitas Islam Alauddin Makassar, Universitas Negeri Malang, Universitas Mulawarman, Universitas Muslim Indonesia, and Universitas Lambung Mangkurat.

#### PUBLICATION and INDEX

##### Publication:

IOP Conference Series: Materials Science and Engineering (MSE)

doi:10.1088/issn.1757-899X | ISSN: 1757-899X (online) 1757-8981 (print)

**ICoSiET has been listed on IOP MSE Forthcoming issue :** <https://iopscience.iop.org/journal/1742-6596/page/Forthcoming%20volumes#tab2>

##### Indexed by:



Submission Guidelines

Paper Template

Accepted  
Papers/Authors/Presenters  
come from 15 Countries  
(updated 8/29/2020)



Other Indexing services...

## SELECTED PAPERS

Selected paper at this conference will be published in the following Scopus indexed journals :

- International Journal of Advances in Intelligent Informatics (ISSN:2442-6571, Q4 SCOPUS indexed)
- International Review for Spatial Planning and Sustainable Development (ISSN: 2187-3666, Q2 SCOPUS Indexed)

KEYNOTE SPEAKERS (Come from:



Prof. Dr. Zhen-jiang Shen

(Faculty of Geosciences and civil Engineering, Institute of Science and



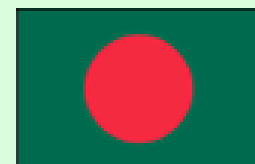
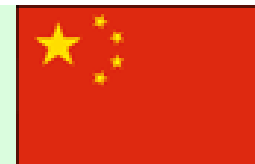
Prof. Dr. Richard Sliuzas

(Department of Urban and Regional Planning and Geo-Information



Prof. Dr. Johannes Widodo

(Department of Architecture, School of Design and Environment) National



Engineering) Kanazawa University,  
Japan



Prof. Yandi Andri Yatmo., Ph.D

(Department of Architecture Faculty of  
Engineering) Universitas Indonesia,  
Indonesia

Management) Twente University,  
Netherland



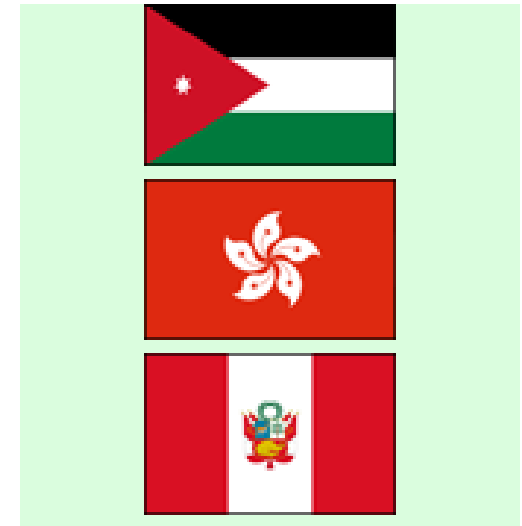
Prof. Amar Akbar Ali

(Department of Architecture)  
Universitas Tadulako, **Indonesia**

University of Singapore, **Singapore**



Dr. Diana Contrias Mojica, New  
Castle University, UK



PUBLICATION



IOP Conference Series: Materials

## SUBMIT YOUR ARTICLE

<https://easychair.org/conferences/?conf=icosiet2020>

## SCOPE

The conference tracks include, but are not limited to :

1. Disaster Prevention and Mitigation Architectural and Engineering
2. Architecture and Building Materials
3. Urban Planning
4. Civil Engineering

5. Construction Technology
6. Computational Mechanics
7. Engineering Management
8. Electronics, Electrical, Informatics, Computer Engineering
9. Mechanical Engineering
10. Chemical Engineering
11. Material Engineering
12. Artificial Intelligence
13. Applied Science

#### EDITORS (come from 5 Countries)

1. Anita Ahmad Kasim (Tadulako University, Indonesia)
2. Diana Contrias Mojica (New Castle University, UK)
3. Roman Voliansky (Dniprovsky State Technical University, Ukraine)
4. Leonel Hernandez (ITSA University, Colombia)
5. Rafal Drezewski (AGH University of Science and Technology, Poland)
6. Andri Pranolo (Universitas Ahmad Dahlan, Indonesia)
7. Joni Adiansyah (Universitas Muhammadiyah Mataram, Indonesia)
8. Yun Arifatul Fatimah (Universitas Muhammadiyah Mageleng, Indonesia)
9. Aji Prasetya Wibawa (Universitas Negeri Malang, Indonesia)
10. Havaluddin (Universitas Mulawarman, Indonesia)

#### IMPORTANT DATES

*Phase III (Final Phase)*

Science and Engineering  
doi:10.1088/issn.1757-899X  
Online ISSN: 1757-899X  
Print ISSN: 1757-8981

CONFERENCE PRESENTATION AND  
NETWORKING OPPORTUNITY

- Presentation slot of around 15-20  
minutes - Certification for Presentation

INDEXED IN

Scopus®

Ei Compendex

- Full paper submission deadline: ~~September 1st, 2020~~ ~~September 10th, 2020~~ **BEFORE September 20th, 2020**
- Full paper acceptance notification: ~~Two weeks to One Month after submission or before September 25, 2020~~ **SEPTEMBER 28, 2020 for submitted papers before 25 September 2020. 5 October 2020 for submmitted paper after 25 September 2020.**
- Camera ready-paper deadline: **October 5, 2020**
- Final Registration deadline : **October 10, 2020**

### *Phase II*

- ~~Full paper submission deadline: August 1st, 2020~~
- Full paper acceptance notification: **Two weeks to One Month after submission or before August 31, 2020**
- Camera ready-paper deadline: ~~September 15, 2020~~ ~~Septemeber 30, 2020~~
- Final Registration deadline : ~~September 15, 2020~~ **October 5, 2020**

### *Phase I*

- ~~Full paper submission deadline: June 30, 2020~~
- ~~Full paper acceptance notification: Two weeks to One Month after submission or before July 31, 2020~~
- Camera ready-paper deadline: ~~August 15, 2020~~ ~~Septemeber 30, 2020~~
- Final Registration deadline : ~~August 15, 2020~~ **October 5, 2020**

Conference Due : **October 21-22, 2020**



WEB OF SCIENCE™



Other Indexing serivces...

ORGANIZERS

Hosted by:



Jointly organized by:



## SUBMISSION

Authors with papers accepted for presentation at **ICoSiET 2020** will be published in the open access IOP Conference Series published by IOP Publishing (Indexed by Scopus). Authors may be interested to know that IOP Conference Series now receives in excess of 2.3 million article downloads per year, and is abstracted and indexed in Scopus, Compendex and Inspec, among others. Citations are tracked online using IOP Publishing's citing articles facility in addition to the full citation tracking facilities provided by Scopus.:

- The paper should be written in English.
- The paper format is as follows:
  1. Ensuring the paper conform to standard of IOP manuscript template for conference proceedings. Download Template IOP Manuscript Template for Conference Proceedings..
  2. Paper size is European A4.
  3. The length of paper should be 5 to 8 pages. However, if you have less or more of the mentioned pages could consult with the committee by email [info@icosiet.org](mailto:info@icosiet.org).
  4. Margins are 4cm (top), 2.5cm (left and right) and 2.7cm (bottom).
  5. The paper includes the author name and affiliation (full address including country).
  6. There are no page numbers, or headers and footers, within the paper.
  7. The PDF is free of formatting errors (e.g. corrupt equations, missing or low-resolution figures), since conversion from Word to PDF can introduce formatting errors.
  8. Text is single spaced, *not* double spaced.
  9. The PDF file is editable and *not* password protected.
  10. All pages are portrait (landscape pages should be rotated).
  11. Reference lists are checked for accuracy. **References can only be linked via Crossref if they are correct and complete.**
  12. Figures are placed within the text, *not* collected at the end of the document.
  13. A thorough proofread is conducted to check the standard of English and ensure wording is clear and concise.



- All review processes are blind peer-reviews
- Full paper must be submitted through **EasyChair Submission System**
- Please contact [info@icosiet.org](mailto:info@icosiet.org) if you have any queries

## REGISTRATION FEES

Category	Early Bird	Regular
Presenter	<u>Due: will be notified when accepted</u>	<u>Due: will be notified when accepted</u>
	<u><a href="#">INTERNATIONAL</a></u> USD 200	<u><a href="#">INTERNATIONAL</a></u> USD 250
	<u><a href="#">DOMESTIC</a></u> IDR 2.000.000	<u><a href="#">DOMESTIC</a></u> IDR 2.500.000
Participants Non-Presenter	<u>Due: <del>August 15, 2020</del> September 30, 2020</u>	<u>Due: <del>August 15, 2020</del> October 15, 2020</u>
	<u><a href="#">INTERNATIONAL</a></u> USD 50	<u><a href="#">INTERNATIONAL</a></u> USD 75
	<u><a href="#">DOMESTIC</a></u> IDR 250.000	<u><a href="#">DOMESTIC</a></u> IDR 500.000

## Registration Note

- Registration fee included:
  - **Publication Fee,**
  - **Online Presentation fee,**





- **Access to all sessions in ICoSiET'20** including: Plenary Sessions, Conference Track Presentations, Conference Dinner: Awards and Information Exchange.
- **The Payment is non-refundable.**
- Payment must be made in **Full Amount (PayPal, or Bank Transfer should add 6% transfer fee )**.
- **Additional papers are allowed with 80% charge of the registration fee under the same 1st author and Presenter.**

## VENUE

## ONLINE PRESENTATION

**The Conference ONLINE:** We are delighted to inform you that we will use **Zoom** to deliver our online conference if the participant doesn't possible to attend the conference due to COVID-19 Outbreak.

## Hotel Santika Palu

Address : Jjl. Moh. Hatta No.18, Lolu Utara, Kec. Palu Tim., Kota Palu, Sulawesi Tengah 94114

Phone :+62 21 2700027

Website : <http://www.santika.com>

The history of Santika Indonesia Hotels & Resorts can be traced back when Kompas-Gramedia Group, the largest media company in Indonesia, diversified its business portfolio holding in 1981 embarking into the Hospitality sector..

## KONTAK

## ICoSiET 2020 Secretariat

Department of Architecture,

Faculty of Engineering, Universitas Tadulako

Jl. Soekarno Hatta KM 9, Palu, Sulawesi Tengah, Indonesia

Email: [info@icosiet.org](mailto:info@icosiet.org), [nita.kasim@gmail.com](mailto:nita.kasim@gmail.com)

CP. Dr. Anita Ahmad Kasim; Dr. Eng Rifai Mardin

- Phone Number : +62451 422611

- Mobile : +62 812 4123 2008; +62 813 4128 8168

2015 - 2019 © Powered by Theme-Vision.



## 2020 ICoSIET Schedule of Program Day 1 (Palu Indonesia Time; WITA)

Your current time refer to:

<https://www.timeanddate.com/worldclock/fixedtime.html?msg=ICoSIET+2020&iso=20201021T08&p1=2647&ah=9>

FROM	TO	1st Day (October 21, 2020)				
ROOM 1 : Zoom ID: 202 010 2101 PassCode: Tadulako						
8:00	8:30	Registration				
8:30	10:00	Opening Ceremony				
10:00	10:15	Session Break				
10:15	10:45	Invited Speech Minister of Communication and Informatics: Johnny Gerard Plate				
ROOM 3 : Zoom ID: 202 010 2105 PassCode: Tadulako						
10:45	12:00	Keynote Speech Session 1 : Prof. Dr. Ir Amar Ali (Tadulako University, Indonesia) Moderator: Dr. Samsul Arifin				
12:00	13:00	Lunch Break				
ROOM 3 : Zoom ID: 202 010 2105 PassCode: Tadulako						
13:00	14:00	Keynote Speech Session 2 : Dr. Diana Contreras Mojica (New Castle University, UK) Moderator Dr. Adnan Fadjar				
FROM	TO	Architecture Engineering Track	Chemical Engineering Track	Civil Engineering Track	Informatics and Electronics Track	Industrial and Mechanical Track
		ROOM 3: Zoom ID: 202 010 2105 PassCode: Tadulako Moderator: Dr. Fuad Zubaidi	ROOM 4: Zoom ID: 202 010 2106 PassCode: Tadulako Moderator:	ROOM 5: Zoom ID: 202 010 2107 PassCode: Tadulako Moderator: Dr. Arthur Siregar	ROOM 6: Zoom ID: 202 010 2108 PassCode: Tadulako Moderator: Dr. Yazdi Pusadan	ROOM 7: Zoom ID: 501 501 2001 PassCode: Tadulako Moderator: Dr. Hayati Mukti Ashih
14:20	14:40	#12: An opportunity for using constructed wetland technology in hospital wastewater treatment: a preliminary study	#61 Extraction of Zn(II) ions in an polypropylene glycol 425 – sodium chloride - water aqueous two-phase system	#16 Analysis of rock mass behavior with Empirical and Numerical method for the construction of diversion tunnel, Laos	#99 Development and Testing of a Light Dimming Control using Arduino Uno	#37 Developing an integrated business model in the manufacturing industry – An AHP approach
14:40	15:00	#78: Tsunami Evacuation Building Model (TEBM) in Teluk Palu (Palu Bay) Area	#62 Liquid-liquid extraction of Pt(IV) from hydrochloric acid solutions using PPG 425 – NaCl – H <sub>2</sub> O system	#17 The Application of Vapour Equilibrium Technique to study the Shrinkage and Water Retention of Compacted Claystone-Bentonite Mixtures	#31 Implementation of Simplify Goal-Oriented Requirements Language Method to Elicit E-Commerce System Requirements for Small and Medium Enterprises	#33 Measurement Analysis Of Overall Equipment Effectivity (OEE) Value On Kiln
15:00	15:20	#91: Inclusion spaces as resilience to disasters in earthquake and liquefaction	#63 Extraction of Eu(III), Gd(III), and Tb(III) in aqueous two-phase systems based on polyethylene glycol 1500- NaNO <sub>3</sub> -H <sub>2</sub> O with the addition of extractants (D2EHPA, TBP, TOMAN)	#22 Development of Concrete Damage Classification in Beam-Column Joint based on Ultrasonic Pulse Velocity	#44 Prevalence of Bad Posture and Musculoskeletal Symptoms for Civitas Academics UI when Using Gadget and Laptop as Impact of Work From Home	#71 Designing Simulation Model for Minimizing Coal Train Unloading Time: A Case Study of Kereta Api Logistik Company
15:20	15:40	#1: Life Cycle Costing in Public Building Projects in Vietnam	#64 Vanadium(IV) ions extraction in the aqueous two-phase system based on poly(ethylene glycol)	#23 Climate Change Impact to Dam Operation, Case study of Darma Dam, West Java	#52 Evaluation The Influence Of Distance Based K-Means Method for Detecting Moving Vehicles	#84 Green Warehouse Performance Monitoring System Design using Analytical Hierarchy Process and Supply Chain Operation Reference
15:40	16:00	#2: Life Cycle Energy Analysis of a Green Building in Vietnam	#69 Implementation of the extraction method for the separation of Fe <sup>3+</sup> and Ni <sup>2+</sup> ions on cascade of mixing-settling extractors	#35 The use of olive waste for development sustainable rigid pavement concrete material	#57 Classifying the characteristics of insurance shares: a k-means clustering approach	#28 A Review of Oil Palm Fruit Fiber Reinforced Composites
16:00	16:20	Break				
16:20	16:40	#14: Regional Network (Centrality) and Covid-19 Spread in West Kalimantan	#59 Extraction of pyridine using systems based on water-soluble polymers.	#43 A new slip surface in noncohesive slopes	#79 Information Technology Performance Measurement and Improvement Recommendation in Indonesian Retail Company	#96 Application of Jacket Cooling Water System Recovery for Fuel Heating on Diesel Engine to Reduce Emissions
16:40	17:00	#15: The possible application of intelligent systems in traditional courtyard houses in Iraq	#45 Synthesis of Composite nanostructure natural ZrO <sub>2</sub> and magnetite particles (Fe <sub>3</sub> O <sub>4</sub> @ZrO <sub>2</sub> ) and study of its lead ion adsorption efficiency	#48 The Flexural Strength of Glue Laminated Timber Beams Based on Deflection and Strain Rate with Four Point Bending Loading System	#102 Chatbot Helpdesk Design for Digital Customer Service	#97 Failure Analysis of Excavator Hydraulic Pump
		Architecture Engineering Track	Chemical Engineering Track	Civil Engineering Track	Informatics and Electronics Track	Electrical and Electronics Track
17:00	17:20	#26: Using Virtual Reality (VR) Simulation to Help Developing a Smart Meeting Space with AI Product to Support Moderator	#47 The Effect of Plastic Type on The Yield and Quality of Lignite and Plastic Waste Pyrolysis Products	#49 Shear Strength Behaviour of Liquefiable Sand of Petobo on Treated by Agarose Under Direct Shear Test	#103 Design of Prototype Information System for Tracking & Tracing Fish Distribution Based on Mobile Agent	#36 Centralised and Decentralised Data Communication Scheme for Voltage Regulation in DC Microgrids
17:20	17:40	#27: Bioclimatic and Sustainable features on vernacular architecture in Ternate	#50 A modified shrinking core model for microwave-assisted leaching of aluminum from peat clay	#65 Developing a Delay Risk Model for Toll Road Construction Project: A Conceptual Framework	#105 Classification System Model for Project Sustainability	#68 Module trainer of Photovoltaic integrated low voltage grid (PV-LV grid) with variety load
17:40	18:00	#34: Contemplating the Traditional Rural Architecture of Nalanda: A Case Study	#60 Determination of Rice Husk Activated Carbon Capacity in Adsorption of Cu Metal from Sasirangan Liquid Waste Based on Isotherm Model	#74 Challenges and opportunities in development sustainable transportation system in Saudi Arabia	#98 Artificial intelligence in mobile communication: A Survey	#72 Smart Water Meter for Automatic Meter Reading

### NOTE

#### BASIC SESSION STRUCTURE:

**10 minutes before the Session:** The host will start the designated Zoom meeting

**2 minutes before the Session:** The host will start the recording.

**1 minute before the Session:** The Session Chair introduces the session.

**Beginning of the Session:** The Session Chair will introduce the presenter, and then the talk will be given by the presenter (**Presentation 10-15 minutes duration; Q&A 5 to 10 minutes**).

#### DETAILED ZOOM GUIDE FOR PARTICIPANTS

**INITIAL ZOOM SETUP:** Please install Zoom in advance at <https://zoom.us/>

#### HOW TO JOIN THE SESSION:

1. View the Program page and find the session you are interested in. Each Session will have a **ZOOM ID and PassCode** available at the Schedule of Program.

2. Join the meeting

3. If you are joining the Session before the host has started the meeting, please wait in the lobby until the host starts the Session.

## 2020 ICoSIET Schedule of Program

### Day 2 (Palu Indonesia Time; WITA)

Your current time refer to:

<https://www.timeanddate.com/worldclock/fixedtime.html?msg=ICoSIET+2020&iso=20201022T08&p1=2647&ah=9>

FROM	TO	2nd Day (October 22, 2020)			
		ROOM 3 : Zoom ID: 202 010 2105 PassCode: Tadulako			
8:00	8:30	Registration			
		ROOM 3 : Zoom ID: 202 010 2105 PassCode: Tadulako			
8:30	9:15	Keynote Speech Session 3 : Prof. Dr. Zhen-jiang Shen (Environmental Design) Kanazawa University, Japan Moderator: Dr. Eng. Putery Fitriaty			
9:15	10:00	Keynote Speech Session 4 : Prof. Dr. Richard Sliuzas (Department of Urban and Regional Planning and Geo-Information Management) Twente University, Netherland Moderator Dr. Bakri, M. Phil.			
10:00	10:45	Keynote Speech Session 5 : Prof. Yandi Andri Yatmo., Ph.D (Department of Architecture Faculty of Engineering) Universitas Indonesia, Indonesia Moderator: Dr. Andi Arham Adam			
10:45	11:00	Break			
FROM	TO	Architecture Engineering Track	Chemical Engineering Track	Civil Engineering Track	Informatics and Electronics Track
		ROOM 3: Zoom ID: 202 010 2105 PassCode: Tadulako Moderator: Dr. Supriadi Takwin	ROOM 4: Zoom ID: 202 010 2106 PassCode: Tadulako Moderator: Dr. Ida Sinaga	ROOM 5: Zoom ID: 202 010 2107 PassCode: Tadulako Moderator: Dr. Hendra Setiawan	ROOM 6: Zoom ID: 202 010 2108 PassCode: Tadulako Moderator: Dr. Yuli Asmi Rahman
11:00	11:20	#39 The Process of Adaptability and Flexibility of Floating House (Rumah Lanting) in West Kalimantan, Indonesia	#3 Study of caffeine and coumarin extraction kinetics in an aqueous two-phase system based on polyethylene glycol 1500	#76 The properties of preplaced aggregate concrete technology contain the industrial waste-material and the various shapes and sizes of coarse aggregate	#106 Rule Based Model For Pneumonia (COVID-19) Nursing Care
11:20	11:40	#42 The Role of Time and Cost Control in CPM, PERT, and EVA Methods in Construction Projects: A Meta-Analysis study on evaluating project performance	#4 Application of ionic liquid based on Aliquat 336 and D2EHPA in the extraction of transition metals	#80 Determination of Earthquake Prone Zones at University of Tadulako Based on Dominant Periods and Peak Ground Acceleration (PGA)	#107 IoT-based Temperature and Humidity Monitoring System for Smart Garden
11:40	12:00	#56 Simulation of Thermal Comfort on Public Space and Buildings around River in Banjarmasin-Indonesia	#5 Interphase distribution of a number of polybasic carboxylic acids in aqueous two-phase systems based on polyethylene glycol-1500	#93 Potential of Tidal Power Plants with Least Square Method on Toaya Beach	#109 Spatial and Topology Feature Extraction On Batik Pattern Recognition
12:00	13:00	Lunch Break			
13:00	13:20	#66 The determination of green open space (GOS) in Palu based on Total population and area	#6 The light rare earth elements Ce(III) and La(III) extraction in system based on polyethylene glycol 1500 with the quaternary ammonium base salt addition	#94 Potential of Tidal Power Plants on Tibo Beach with Spektrum Method	#110 Implementation Of Simple Additive Weighting (SAW) In Determining Nutrition In Toddlers
13:20	13:40	#70 Revealing Circular Material Flow in Terrazzo Making Process	#7 The possibility of using DES based on polypropylene glycol 425 and tetramethylammonium bromide in the extraction processes of transition metals	#101 Understanding Motorcycle Riders' Perceptions on Traffic Risk	#111 K-means Segmentation Based-on Lab Color Space for Embryo Egg Detection
13:40	14:00	#85 The Authenticity Aspect in Architecture Revitalization of The Pasar Ikan Fish Auction as a Case Study	#8 Thiophene extraction in PEG - hexan - water based systems	#38 Development of Residential Space for the ToKaali Community with a Phenomenological Approach in Central Sulawesi, Indonesia	#112 Semantic Web Of Online Catalog Management Based On Knowledge Searching By Using Dublin Core Metadata Initiative (DCMI) Terminology
14:00	14:20	#86 Intangible Aspect of Revitalization in Vernacular Heritage Architecture in Case Study of Wae Rebo NTT Village	#77 The Functionalization of Membranes Absorber Derived from Physical Activation of Palm Empty Fruit Bunches (PEFB)	#53 Threshold and Its Performance in Urban Settlement	#113 Random Forest Algorithm for Prediction of High School Science Students in SNMPTN based on Students Assessment Report
14:20	14:40	#87 The Role of Regionalism in the Architecture of Santa Maria Assumpta Church by Y. B. Mangunwijaya	#82 Membranes Absorber from Oil Palm Empty Fruit Branches (OPEFB): Preparation and Fabrication	#117 Ground Subsidence Induced Coastal Flooding in Tompe and Lompio Village After Palu Earthquake September 28, 2018	#114 Forecasting Chicken Meat and Egg in Indonesia using ARIMA and SARIMA
14:40	15:00	#88 Study Of Permanent Residential Management In Tondo Village, Palu City	#9 The influence of roasting on the physicochemical properties of powder and chocolate drinks sensory from fermented and unfermented cocoa beans	#73 The Influence of Urban Street-Side Greenery on People's Visual Preference	#115 Prediction of Stock Purchase Decisions per Day by Artificial Network Method
15:00	15:20	Break			

15:20	15:40	#92 Society Residential Pattern Of Kaili Da'a In Dombu Village		#104 Temporal Analysis of Total Suspended Solids (TSS) at Ujung Pangkah Beach, Gresik, from 2016 - 2020 Using Aqua MODIS Image Data	#116 Image Processing For Student Emotion Monitoring Using Fisherface and Restful Web Service Methods
15:40	16:00	#108 Lexical and Synthesis of Architectural Vernacularism of Lanting House in Banjarmasin			
ROOM 1 : Zoom ID: 202 010 2101 PassCode: Tadulako					
16:00	17:00	Closing Ceremony			

**NOTE**

**BASIC SESSION STRUCTURE:**

**10 minutes before the Session:** The host will start the designated Zoom meeting

**2 minutes before the Session:** The host will start the recording.

**1 minute before the Session:** The Session Chair introduces the session.

**Beginning of the Session:** The Session Chair will introduce the presenter, and then the talk will be given by the presenter (**Presentation 10-15 minutes duration; Q&A 5 to 10 minutes**).

**DETAILED ZOOM GUIDE FOR PARTICIPANTS**

**INITIAL ZOOM SETUP:** Please install Zoom in advance at <https://zoom.us/>

**HOW TO JOIN THE SESSION:**

1. View the Program page and find the session you are interested in. Each Session will have a **ZOOM ID and PassCode** available at the Schedule of Program.

2. Join the meeting

3. If you are joining the Session before the host has started the meeting, please wait in the lobby until the host starts the Session.

## CFP

## ICoSiET 2020: 2020 International Conference on Science in Engineering and Technology (ICoSiET)

Hotel Santika Palu

Palu, Indonesia, October 21-22, 2020

Conference website	<a href="http://icosiet.org/2020/">http://icosiet.org/2020/</a>
Submission link	<a href="https://easychair.org/conferences/?conf=icosiet2020">https://easychair.org/conferences/?conf=icosiet2020</a>
Submission deadline	August 15, 2020

Topics: [science in engineering and technology](#)

**The 2020 International Conference on Science in Engineering and Technology (ICoSiET)** is an international conferences which covers Science and applied Engineering and Technology. **ICoSiET 2020** will be held on **October 21-22, 2020** in **Palu, Indonesia**. This conference hosted by **Universias Tadulako** and is jointly organized with Association for Scientific Computing Electronics and Engineering (ASCEE), Universitas Islam Alauddin Makassar, Universitas Negeri Malang, Universitas Mulawarman, and Universitas Muslim Indonesia.

**PUBLICATION and INDEX**Publication: **IOP Conference Series: Materials Science and Engineering (MSE)**doi:10.1088/issn.1757-899X | ISSN: 1757-899X (online) 1757-8981 (print)ICoSiET has been listed on IOP MSE Forthcoming issue : <https://iopscience.iop.org/journal/1742-6596/page/Forthcoming%20volumes#tab2>Indexed by: [Other Indexing serivces...](#)

## SELECTED PAPERS

Selected paper at this conference will be published in the following Scopus indexed journals :

- [International Journal of Advances in Intelligent Informatics](#) (ISSN:2442-6571, Q4 **SCOPUS indexed**)
- [International Review for Spatial Planning and Sustainable Development](#) (ISSN: 2187-3666, Q2 **SCOPUS Indexed**)

## KEYNOTE SPEAKERS (Come from:

**Prof. Dr. Zhen-jiang Shen** (Faculty of Geosciences and civil Engineering, Institute of Science and Engineering) Kanazawa University, **Japan**

**Prof. Yandi Andri Yatmo., Ph.D** (Department of Architecture Faculty of Engineering) Universitas Indonesia, **Indonesia**

**Prof. Dr. Richard Sliuzas** (Department of Urban and Regional Planning and Geo-Information Management) Twente University, **Netherland**

**Prof. Amar Akbar Ali** (Department of Architecture) Universitas Tadulako, **Indonesia**

**Prof. Dr. Johannes Widodo** (Department of Architecture, School of Design and Environment) National University of Singapore, **Singapore**

**Dr. Diana Contrias Mojica**, New Castle University, **UK**

**SUBMIT YOUR ARTICLE**<https://easychair.org/conferences/?conf=icosiet2020>

## SCOPE

The conference tracks include, but are not limited to :

1. Disaster Prevention and Mitigation Architectural and Engineering
2. Architecture and Building Materials
3. Urban Planning
4. Civil Engineering
5. Construction Technology

6. Computational Mechanics
7. Engineering Management
8. Electronics, Electrical, Informatics, Computer Engineering
9. Mechanical Engineering
10. Chemical Engineering
11. Material Engineering
12. Artificial Intelligence
13. Applied Science

### **EDITORS (come from 5 Countries)**

1. Anita Ahmad Kasim (Tadulako University, Indonesia)
2. Diana Contrias Mojica (New Castle University, UK)
3. Roman Voliansky (Dniprovsky State Technical University, Ukraine)
4. Leonel Hernandez (ITSA University, Colombia)
5. Rafal Drezewski (AGH University of Science and Technology, Poland)
6. Andri Pranolo (Universitas Ahmad Dahlan, Indonesia)
7. Joni Adiansyah (Universitas Muhammadiyah Mataram, Indonesia)
8. Yun Arifatul Fatimah (Universitas Muhammadiyah Mageleng, Indonesia)
9. Aji Prasetya Wibawa (Universitas Negeri Malang, Indonesia)
10. Havaluddin (Universitas Mulawarman, Indonesia)

### **IMPORTANT DATES**

#### **Phase II**

- Full paper submission deadline: **August 1st, 2020**
- Full paper acceptance notification: **Two weeks to One Month after submission or before August 31, 2020**



- Camera ready-paper deadline: **Septemeber 15, 2020**
- Final Registration deadline : **September 15, 2020**

## **Phase I**

- Full paper submission deadline: **June 30, 2020**
- Full paper acceptance notification: **Two weeks to One Month after submission or before July 31, 2020**
- Camera ready-paper deadline: **August 15, 2020**
- Final Registration deadline : **August 15, 2020**

Conference Due : **October 21-22, 2020**

## **SUBMISSION**

Authors with papers accepted for presentation at **ICoSiET 2020** will be published in the open access IOP Conference Series published by IOP Publishing (Indexed by Scopus). Authors may be interested to know that IOP Conference Series now receives in excess of 2.3 million article downloads per year, and is abstracted and indexed in Scopus, Compendex and Inspec, among others. Citations are tracked online using IOP Publishing's citing articles facility in addition to the full citation tracking facilities provided by Scopus.:

- The paper should be written in English.
- The paper format is as follows:
  1. Ensuring the paper conform to standard of IOP manuscript template for conference proceedings. Download Template [IOP Manuscript Template for Conference Proceedings.](#)
  2. Paper size is European A4.
  3. Margins are 4cm (top), 2.5cm (left and right) and 2.7cm (bottom).
  4. The paper includes the author name and affiliation (full address including country).
  5. There are no page numbers, or headers and footers, within the paper.

6. The PDF is free of formatting errors (e.g. corrupt equations, missing or low-resolution figures), since conversion from Word to PDF can introduce formatting errors.
7. Text is single spaced, *not* double spaced.
8. The PDF file is editable and *not* password protected.
9. All pages are portrait (landscape pages should be rotated).
10. Reference lists are checked for accuracy. **References can only be linked via Crossref if they are correct and complete.**
11. Figures are placed within the text, *not* collected at the end of the document.
12. A thorough proofread is conducted to check the standard of English and ensure wording is clear and concise.

- All review processes are blind peer-reviews
- Full paper must be submitted through [EasyChair Submission System](#)
- Please contact [info@icosiet.org](mailto:info@icosiet.org) if you have any queries

## REGISTRATION FEES

Category	Early Bird	Regular
	<b>Due: will be notified when accepted</b>	<b>Due: will be notified when accepted</b>
Presenter	INTERNATIONALUSD 200  DOMESTICIDR 2.000.000	INTERNATIONALUSD 250  <b>DOMESTICIDR 2.500.000</b>
Participants Non-Presenter	<b>Due: August 15, 2020</b> INTERNATIONALUSD 50 <b>DOMESTICIDR 250.000</b>	<b>Due: August 15, 2020</b> INTERNATIONALUSD 75 <b>DOMESTICIDR 500.000</b>

### Registration Note

- **Registration fee** included:
  - **Publication Fee,**

- **Access to all sessions in ICoSiET'20** including: Plenary Sessions, Conference Track Presentations, Conference Dinner: Awards and Information Exchange.

- **The Payment is non-refundable.**
- Payment must be made in **Full Amount (PayPal, or Bank Transfer should add 6% transfer fee )**.
- **Additional papers are allowed with 80% charge** of the registration fee **under the same 1st author and Presenter.**

## VENUE

### ONLINE PRESENTATION

---

**The Conference ONLINE:** We are delighted to inform you that we will use **Zoom** to deliver our online conference if the participant doesn't possible to attend the conference due to COVID-19 Outbreak.

### Hotel Santika Palu

---

Address : JJI. Moh. Hatta No.18, Lolu Utara, Kec. Palu Tim., Kota Palu, Sulawesi Tengah 94114 Phone : +62 21 2700027 Website : <http://www.santika.com>

The history of Santika Indonesia Hotels & Resorts can be traced back when Kompas-Gramedia Group, the largest media company in Indonesia, diversified its business portfolio holding in 1981 embarking into the Hospitality sector..

## KONTAK

**ICoSiET 2020 Secretariat** Department of Architecture, Faculty of Engineering, Universitas Tadulako Jl. Soekarno Hatta KM 9, Palu, Sulawesi Tengah, Indonesia Email: [info@icosiet.org](mailto:info@icosiet.org), [nita.kasim@gmail.com](mailto:nita.kasim@gmail.com) CP. Dr. Anita Ahmad Kasim; Dr. Eng Rifai Mardin- Phone Number : +62451 422611- Mobile : +62 812 4123 2008; +62 813 4128 8168



Copyright © 2002 – 2020 EasyChair



### [Announcement](#)

[9/26/2020:5.46PM] Notification of acceptance will be announced **BEFORE** ~~on SEPTEMBER 25, 2020~~ **SEPTEMBER 28, 2020** for submitted papers before 25 September 2020.

[8/3/2020:9.42PM] **Submission 3rd Phase (FINAL PHASE) is Open . The Deadline is** ~~September 1st, 2020~~ **September 30th, 2020. Submit your excellent work at** <https://easychair.org/conferences/?conf=icosiet2020>

[7/1/2020:7.30PM] **Submission 2nd Phase is Open. The Deadline is August 1st 2020. Submit your excellent work at** <https://easychair.org/conferences/?conf=icosiet2020>

### SUBMISSION

Deadline: September 10th  
2020

September 30th 2020

Notification: October 5th  
2020

Paper Submission



Online Submission System

*[4/27/2020:18.30PM] The Conference ONLINE: We are delighted to inform you that we will use Zoom to deliver our online conference if the participant doesn't possible to attend the conference due to COVID-19 Outbreak.*

The 2020 International Conference on Science in Engineering and Technology (ICoSiET) is an international conference which covers Science and applied engineering and technology. ICoSiET 2020 will be held on **October 21-22, 2020** in **Palu, Indonesia**. This conference hosted by **Universitas Tadulako** and is jointly organized with Association for Scientific Computing Electronics and Engineering (ASCEE), Universitas Islam Alauddin Makassar, Universitas Negeri Malang, Universitas Mulawarman, Universitas Muslim Indonesia, and Universitas Lambung Mangkurat.

#### PUBLICATION and INDEX

##### Publication:

IOP Conference Series: Materials Science and Engineering (MSE)

doi:10.1088/issn.1757-899X | ISSN: 1757-899X (online) 1757-8981 (print)

**ICoSiET has been listed on IOP MSE Forthcoming issue :** <https://iopscience.iop.org/journal/1742-6596/page/Forthcoming%20volumes#tab2>

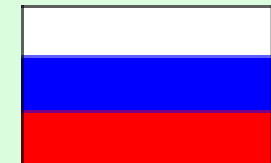
##### Indexed by:



Submission Guidelines

Paper Template

Accepted  
Papers/Authors/Presenters  
come from 15 Countries  
(updated 8/29/2020)



Other Indexing services...

## SELECTED PAPERS

Selected paper at this conference will be published in the following Scopus indexed journals :

- International Journal of Advances in Intelligent Informatics (ISSN:2442-6571, Q4 SCOPUS indexed)
- International Review for Spatial Planning and Sustainable Development (ISSN: 2187-3666, Q2 SCOPUS Indexed)

KEYNOTE SPEAKERS (Come from:



 Prof. Dr. Zhen-jiang Shen

(Faculty of Geosciences and civil Engineering, Institute of Science and



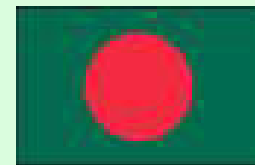
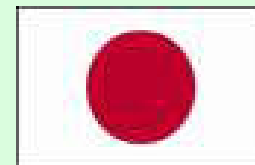
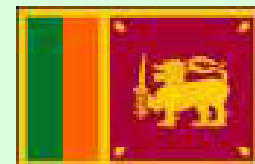
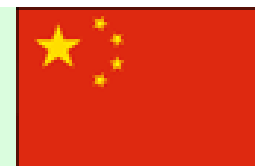
 Prof. Dr. Richard Sliuzas

(Department of Urban and Regional Planning and Geo-Information



 Prof. Dr. Johannes Widodo

(Department of Architecture, School of Design and Environment) National



Engineering) Kanazawa University,  
Japan



Prof. Yandi Andri Yatmo., Ph.D

(Department of Architecture Faculty of  
Engineering) Universitas Indonesia,  
Indonesia

Management) Twente University,  
Netherland



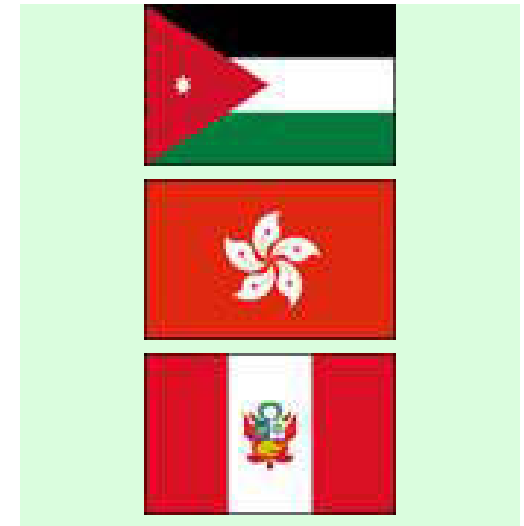
Prof. Amar Akbar Ali

(Department of Architecture)  
Universitas Tadulako, **Indonesia**

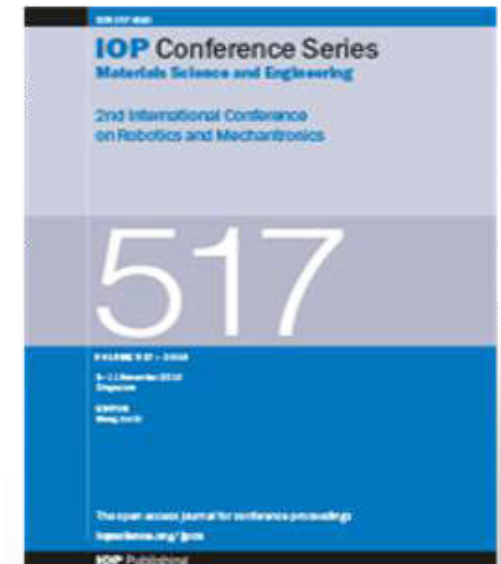
University of Singapore, **Singapore**



Dr. Diana Contrias Mojica, New  
Castle University, **UK**



#### PUBLICATION



IOP Conference Series: Materials

#### SUBMIT YOUR ARTICLE

<https://easychair.org/conferences/?conf=icosiet2020>

#### SCOPE

The conference tracks include, but are not limited to :

1. Disaster Prevention and Mitigation Architectural and Engineering
2. Architecture and Building Materials
3. Urban Planning
4. Civil Engineering

5. Construction Technology
6. Computational Mechanics
7. Engineering Management
8. Electronics, Electrical, Informatics, Computer Engineering
9. Mechanical Engineering
10. Chemical Engineering
11. Material Engineering
12. Artificial Intelligence
13. Applied Science

#### **EDITORS (come from 5 Countries)**

1. Anita Ahmad Kasim (Tadulako University, Indonesia)
2. Diana Contrias Mojica (New Castle University, UK)
3. Roman Voliansky (Dniprovsky State Technical University, Ukraine)
4. Leonel Hernandez (ITSA University, Colombia)
5. Rafal Drezewski (AGH University of Science and Technology, Poland)
6. Andri Pranolo (Universitas Ahmad Dahlan, Indonesia)
7. Joni Adiansyah (Universitas Muhammadiyah Mataram, Indonesia)
8. Yun Arifatul Fatimah (Universitas Muhammadiyah Mageleng, Indonesia)
9. Aji Prasetya Wibawa (Universitas Negeri Malang, Indonesia)
10. Haviluddin (Universitas Mulawarman, Indonesia)

#### **IMPORTANT DATES**

*Phase III (Final Phase)*

Science and Engineering  
doi:10.1088/issn.1757-899X  
Online ISSN: 1757-899X  
Print ISSN: 1757-8981

**CONFERENCE PRESENTATION AND  
NETWORKING OPPORTUNITY**

- Presentation slot of around 15-20  
minutes - Certification for Presentation

**INDEXED IN**

**Scopus**<sup>®</sup>

**Ei** **Compendex**



- Full paper submission deadline: ~~September 1st, 2020~~ ~~September 10th, 2020~~ **BEFORE September 20th, 2020**
- Full paper acceptance notification: ~~Two weeks to One Month after submission or before September 25, 2020~~ **SEPTEMBER 28, 2020** for submitted papers before 25 September 2020. **5 October 2020** for submitted paper after 25 September 2020.
- Camera ready-paper deadline: October 5, 2020
- Final Registration deadline : October 10, 2020

### *Phase II*

- ~~Full paper submission deadline: August 1st, 2020~~
- Full paper acceptance notification: ~~Two weeks to One Month after submission or before August 31, 2020~~
- Camera ready-paper deadline: ~~September 15, 2020~~ ~~September 30, 2020~~
- Final Registration deadline : ~~September 15, 2020~~ October 5, 2020

### *Phase I*

- ~~Full paper submission deadline: June 30, 2020~~
- ~~Full paper acceptance notification: Two weeks to One Month after submission or before July 31, 2020~~
- Camera ready-paper deadline: ~~August 15, 2020~~ ~~September 30, 2020~~
- Final Registration deadline : ~~August 15, 2020~~ October 5, 2020

Conference Due : October 21-22, 2020



WEB OF SCIENCE™



Other Indexing services...

ORGANIZERS

Hosted by:



Jointly organized by:

## SUBMISSION

Authors with papers accepted for presentation at **ICoSiET 2020** will be published in the open access IOP Conference Series published by IOP Publishing (Indexed by Scopus). Authors may be interested to know that IOP Conference Series now receives in excess of 2.3 million article downloads per year, and is abstracted and indexed in Scopus, Compendex and Inspec, among others. Citations are tracked online using IOP Publishing's citing articles facility in addition to the full citation tracking facilities provided by Scopus.:

- The paper should be written in English.
- The paper format is as follows:
  1. Ensuring the paper conform to standard of IOP manuscript template for conference proceedings. Download Template IOP Manuscript Template for Conference Proceedings..
  2. Paper size is European A4.
  3. The length of paper should be 5 to 8 pages. However, if you have less or more of the mentioned pages could consult with the committee by email [info@icosiet.org](mailto:info@icosiet.org).
  4. Margins are 4cm (top), 2.5cm (left and right) and 2.7cm (bottom).
  5. The paper includes the author name and affiliation (full address including country).
  6. There are no page numbers, or headers and footers, within the paper.
  7. The PDF is free of formatting errors (e.g. corrupt equations, missing or low-resolution figures), since conversion from Word to PDF can introduce formatting errors.
  8. Text is single spaced, *not* double spaced.
  9. The PDF file is editable and *not* password protected.
  10. All pages are portrait (landscape pages should be rotated).
  11. Reference lists are checked for accuracy. **References can only be linked via Crossref if they are correct and complete.**
  12. Figures are placed within the text, *not* collected at the end of the document.
  13. A thorough proofread is conducted to check the standard of English and ensure wording is clear and concise.



- All review processes are blind peer-reviews
- Full paper must be submitted through **EasyChair Submission System**
- Please contact [info@icosiet.org](mailto:info@icosiet.org) if you have any queries

## REGISTRATION FEES

Category	Early Bird	Regular
Presenter	<p><u>Due: will be notified when accepted</u></p> <p><u>INTERNATIONAL</u> USD 200</p> <p><u>DOMESTIC</u> IDR 2.000.000</p>	<p><u>Due: will be notified when accepted</u></p> <p><u>INTERNATIONAL</u> USD 250</p> <p><u>DOMESTIC</u> IDR 2.500.000</p>
Participants Non-Presenter	<p><u>Due: <del>August 15, 2020</del> September 30, 2020</u></p> <p><u>INTERNATIONAL</u> USD 50</p> <p><u>DOMESTIC</u> IDR 250.000</p>	<p><u>Due: <del>August 15, 2020</del> October 15, 2020</u></p> <p><u>INTERNATIONAL</u> USD 75</p> <p><u>DOMESTIC</u> IDR 500.000</p>

## Registration Note

- Registration fee included:
  - **Publication Fee,**
  - **Online Presentation fee,**



- **Access to all sessions in ICoSiET'20** including: Plenary Sessions, Conference Track Presentations, Conference Dinner: Awards and Information Exchange.
- **The Payment is non-refundable.**
- Payment must be made in **Full Amount (PayPal, or Bank Transfer should add 6% transfer fee )**.
- **Additional papers are allowed with 80% charge of the registration fee under the same 1st author and Presenter.**

## VENUE

## ONLINE PRESENTATION

**The Conference ONLINE:** We are delighted to inform you that we will use **Zoom** to deliver our online conference if the participant doesn't possible to attend the conference due to COVID-19 Outbreak.

## Hotel Santika Palu

Address : Jjl. Moh. Hatta No.18, Lolu Utara, Kec. Palu Tim., Kota Palu, Sulawesi Tengah 94114

Phone :+62 21 2700027

Website : <http://www.santika.com>

The history of Santika Indonesia Hotels & Resorts can be traced back when Kompas-Gramedia Group, the largest media company in Indonesia, diversified its business portfolio holding in 1981 embarking into the Hospitality sector..

## KONTAK

## ICoSiET 2020 Secretariat

Department of Architecture,

Faculty of Engineering, Universitas Tadulako

Jl. Soekarno Hatta KM 9, Palu, Sulawesi Tengah, Indonesia

Email: [info@icosiet.org](mailto:info@icosiet.org), [nita.kasim@gmail.com](mailto:nita.kasim@gmail.com)

CP. Dr. Anita Ahmad Kasim; Dr. Eng Rifai Mardin

- Phone Number : +62451 422611

- Mobile : +62 812 4123 2008; +62 813 4128 8168

2015 - 2019 © Powered by Theme-Vision.





### [Announcement](#)

[9/26/2020:5.46PM] Notification of acceptance will be announced **BEFORE** ~~on SEPTEMBER 25, 2020~~ **SEPTEMBER 28, 2020** for submitted papers before 25 September 2020.

[8/3/2020:9.42PM] **Submission 3rd Phase (FINAL PHASE) is Open . The Deadline is** ~~September 1st, 2020~~ **September 30th, 2020. Submit your excellent work at** <https://easychair.org/conferences/?conf=icosiet2020>

[7/1/2020:7.30PM] **Submission 2nd Phase is Open. The Deadline is August 1st 2020. Submit your excellent work at** <https://easychair.org/conferences/?conf=icosiet2020>

### SUBMISSION

Deadline: September 10th  
2020

September 30th 2020

Notification: October 5th  
2020

Paper Submission



Online Submission System

*[4/27/2020:18.30PM] The Conference ONLINE: We are delighted to inform you that we will use Zoom to deliver our online conference if the participant doesn't possible to attend the conference due to COVID-19 Outbreak.*

The 2020 International Conference on Science in Engineering and Technology (ICoSiET) is an international conference which covers Science and applied engineering and technology. ICoSiET 2020 will be held on **October 21-22, 2020** in **Palu, Indonesia**. This conference hosted by **Universias Tadulako** and is jointly organized with Association for Scientific Computing Electronics and Engineering (ASCEE), Universitas Islam Alauddin Makassar, Universitas Negeri Malang, Universitas Mulawarman, Universitas Muslim Indonesia, and Universitas Lambung Mangkurat.

#### PUBLICATION and INDEX

##### Publication:

IOP Conference Series: Materials Science and Engineering (MSE)

doi:10.1088/issn.1757-899X | ISSN: 1757-899X (online) 1757-8981 (print)

**ICoSiET has been listed on IOP MSE Forthcoming issue :** <https://iopscience.iop.org/journal/1742-6596/page/Forthcoming%20volumes#tab2>

##### Indexed by:



Submission Guidelines

Paper Template

Accepted  
Papers/Authors/Presenters  
come from 15 Countries  
(updated 8/29/2020)



Other Indexing services...

## SELECTED PAPERS

Selected paper at this conference will be published in the following Scopus indexed journals :

- International Journal of Advances in Intelligent Informatics (ISSN:2442-6571, Q4 SCOPUS indexed)
- International Review for Spatial Planning and Sustainable Development (ISSN: 2187-3666, Q2 SCOPUS Indexed)

KEYNOTE SPEAKERS (Come from:



 Prof. Dr. Zhen-jiang Shen

(Faculty of Geosciences and civil Engineering, Institute of Science and



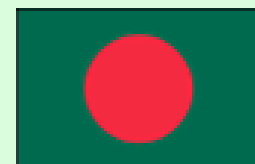
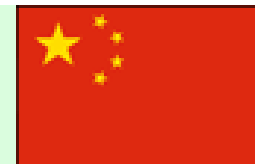
 Prof. Dr. Richard Sliuzas

(Department of Urban and Regional Planning and Geo-Information



 Prof. Dr. Johannes Widodo

(Department of Architecture, School of Design and Environment) National





Engineering) Kanazawa University,  
Japan



Prof. Yandi Andri Yatmo., Ph.D

(Department of Architecture Faculty of  
Engineering) Universitas Indonesia,  
Indonesia

Management) Twente University,  
Netherland



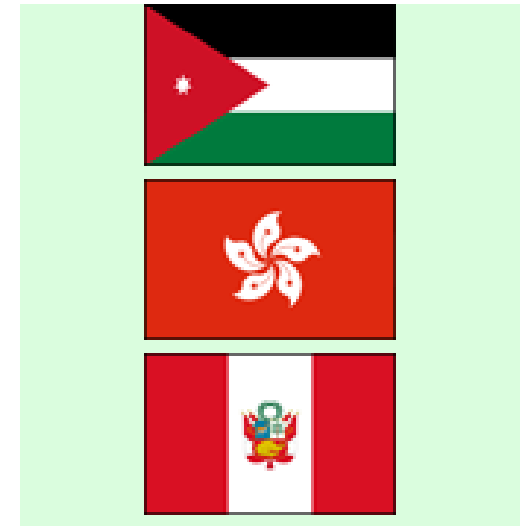
Prof. Amar Akbar Ali

(Department of Architecture)  
Universitas Tadulako, **Indonesia**

University of Singapore, **Singapore**



Dr. Diana Contrias Mojica, New  
Castle University, UK



PUBLICATION



IOP Conference Series: Materials

## SUBMIT YOUR ARTICLE

<https://easychair.org/conferences/?conf=icosiet2020>

## SCOPE

The conference tracks include, but are not limited to :

1. Disaster Prevention and Mitigation Architectural and Engineering
2. Architecture and Building Materials
3. Urban Planning
4. Civil Engineering

5. Construction Technology
6. Computational Mechanics
7. Engineering Management
8. Electronics, Electrical, Informatics, Computer Engineering
9. Mechanical Engineering
10. Chemical Engineering
11. Material Engineering
12. Artificial Intelligence
13. Applied Science

#### EDITORS (come from 5 Countries)

1. Anita Ahmad Kasim (Tadulako University, Indonesia)
2. Diana Contrias Mojica (New Castle University, UK)
3. Roman Voliansky (Dniprovsky State Technical University, Ukraine)
4. Leonel Hernandez (ITSA University, Colombia)
5. Rafal Drezewski (AGH University of Science and Technology, Poland)
6. Andri Pranolo (Universitas Ahmad Dahlan, Indonesia)
7. Joni Adiansyah (Universitas Muhammadiyah Mataram, Indonesia)
8. Yun Arifatul Fatimah (Universitas Muhammadiyah Mageleng, Indonesia)
9. Aji Prasetya Wibawa (Universitas Negeri Malang, Indonesia)
10. Havaluddin (Universitas Mulawarman, Indonesia)

#### IMPORTANT DATES

*Phase III (Final Phase)*

Science and Engineering  
doi:10.1088/issn.1757-899X  
Online ISSN: 1757-899X  
Print ISSN: 1757-8981

CONFERENCE PRESENTATION AND  
NETWORKING OPPORTUNITY

- Presentation slot of around 15-20  
minutes - Certification for Presentation

INDEXED IN

Scopus®

Ei Compendex

- Full paper submission deadline: ~~September 1st, 2020~~ ~~September 10th, 2020~~ **BEFORE September 20th, 2020**
- Full paper acceptance notification: ~~Two weeks to One Month after submission or before September 25, 2020~~ **SEPTEMBER 28, 2020** for submitted papers before **25 September 2020**. **5 October 2020** for submitted paper after **25 September 2020**.
- Camera ready-paper deadline: **October 5, 2020**
- Final Registration deadline : **October 10, 2020**

### *Phase II*

- ~~Full paper submission deadline: August 1st, 2020~~
- Full paper acceptance notification: **Two weeks to One Month after submission or before August 31, 2020**
- Camera ready-paper deadline: ~~September 15, 2020~~ ~~September 30, 2020~~
- Final Registration deadline : ~~September 15, 2020~~ **October 5, 2020**

### *Phase I*

- ~~Full paper submission deadline: June 30, 2020~~
- ~~Full paper acceptance notification: Two weeks to One Month after submission or before July 31, 2020~~
- Camera ready-paper deadline: ~~August 15, 2020~~ ~~September 30, 2020~~
- Final Registration deadline : ~~August 15, 2020~~ **October 5, 2020**

Conference Due : **October 21-22, 2020**



WEB OF SCIENCE™



Other Indexing services...

ORGANIZERS

Hosted by:



Jointly organized by:

## SUBMISSION

Authors with papers accepted for presentation at **ICoSiET 2020** will be published in the open access IOP Conference Series published by IOP Publishing (Indexed by Scopus). Authors may be interested to know that IOP Conference Series now receives in excess of 2.3 million article downloads per year, and is abstracted and indexed in Scopus, Compendex and Inspec, among others. Citations are tracked online using IOP Publishing's citing articles facility in addition to the full citation tracking facilities provided by Scopus.:

- The paper should be written in English.
- The paper format is as follows:
  1. Ensuring the paper conform to standard of IOP manuscript template for conference proceedings. Download Template IOP Manuscript Template for Conference Proceedings..
  2. Paper size is European A4.
  3. The length of paper should be 5 to 8 pages. However, if you have less or more of the mentioned pages could consult with the committee by email [info@icosiet.org](mailto:info@icosiet.org).
  4. Margins are 4cm (top), 2.5cm (left and right) and 2.7cm (bottom).
  5. The paper includes the author name and affiliation (full address including country).
  6. There are no page numbers, or headers and footers, within the paper.
  7. The PDF is free of formatting errors (e.g. corrupt equations, missing or low-resolution figures), since conversion from Word to PDF can introduce formatting errors.
  8. Text is single spaced, *not* double spaced.
  9. The PDF file is editable and *not* password protected.
  10. All pages are portrait (landscape pages should be rotated).
  11. Reference lists are checked for accuracy. **References can only be linked via Crossref if they are correct and complete.**
  12. Figures are placed within the text, *not* collected at the end of the document.
  13. A thorough proofread is conducted to check the standard of English and ensure wording is clear and concise.



- All review processes are blind peer-reviews
- Full paper must be submitted through **EasyChair Submission System**
- Please contact [info@icosiet.org](mailto:info@icosiet.org) if you have any queries

## REGISTRATION FEES

Category	Early Bird	Regular
Presenter	<u>Due: will be notified when accepted</u>	<u>Due: will be notified when accepted</u>
	<u><a href="#">INTERNATIONAL</a></u> USD 200	<u><a href="#">INTERNATIONAL</a></u> USD 250
	<u><a href="#">DOMESTIC</a></u> IDR 2.000.000	<u><a href="#">DOMESTIC</a></u> IDR 2.500.000
Participants Non-Presenter	<u>Due: <del>August 15, 2020</del> September 30, 2020</u>	<u>Due: <del>August 15, 2020</del> October 15, 2020</u>
	<u><a href="#">INTERNATIONAL</a></u> USD 50	<u><a href="#">INTERNATIONAL</a></u> USD 75
	<u><a href="#">DOMESTIC</a></u> IDR 250.000	<u><a href="#">DOMESTIC</a></u> IDR 500.000

## Registration Note

- Registration fee included:
  - **Publication Fee,**
  - **Online Presentation fee,**



- **Access to all sessions in ICoSiET'20** including: Plenary Sessions, Conference Track Presentations, Conference Dinner: Awards and Information Exchange.
- **The Payment is non-refundable.**
- Payment must be made in **Full Amount (PayPal, or Bank Transfer should add 6% transfer fee )**.
- **Additional papers are allowed with 80% charge of the registration fee under the same 1st author and Presenter.**

## VENUE

## ONLINE PRESENTATION

**The Conference ONLINE:** We are delighted to inform you that we will use **Zoom** to deliver our online conference if the participant doesn't possible to attend the conference due to COVID-19 Outbreak.

## Hotel Santika Palu

Address : Jjl. Moh. Hatta No.18, Lolu Utara, Kec. Palu Tim., Kota Palu, Sulawesi Tengah 94114

Phone :+62 21 2700027

Website : <http://www.santika.com>

The history of Santika Indonesia Hotels & Resorts can be traced back when Kompas-Gramedia Group, the largest media company in Indonesia, diversified its business portfolio holding in 1981 embarking into the Hospitality sector..

## KONTAK

## ICoSiET 2020 Secretariat

Department of Architecture,

Faculty of Engineering, Universitas Tadulako

Jl. Soekarno Hatta KM 9, Palu, Sulawesi Tengah, Indonesia

Email: [info@icosiet.org](mailto:info@icosiet.org), [nita.kasim@gmail.com](mailto:nita.kasim@gmail.com)

CP. Dr. Anita Ahmad Kasim; Dr. Eng Rifai Mardin

- Phone Number : +62451 422611

- Mobile : +62 812 4123 2008; +62 813 4128 8168

2015 - 2019 © Powered by Theme-Vision.



This site uses cookies. By continuing to use this site you agree to our use of cookies. To find out more, see our [Privacy and Cookies](#) policy.

Close this notification

[IOP Science home](#)

- [Skip to content](#)
- [Accessibility Help](#)

[Journals](#)

[Books](#)

[Publishing Support](#)

[Login](#)

## [IOP Conference Series: Materials Science and Engineering](#)



With the ability to publish proceedings from events of any size, *IOP Conference Series: Materials Science and Engineering* provides a comprehensive solution for materials science and engineering conferences

[RSS](#)

[Sign up for new issue notifications](#)

Latest published conferences

Conference archive

[View forthcoming volumes](#) accepted for publication.

If you would like more information regarding *IOP Conference Series: Materials Science and Engineering* please visit [conferenceseries.iop.org](http://conferenceseries.iop.org), and if you are interested in publishing a proceedings with IOP Conference Series please visit our page for [conference organizers](#).

**Conference organizers** can use our [online form](#) and we will get in touch with a quote and further details.

### Journal links

- [Journal home](#)
- [Journal scope](#)
- [Information for organizers](#)
- [Information for authors](#)
- [Contact us](#)
- [Reprint services from Curran Associates](#)



# Journal information

- 2009-present  
IOP Conference Series: Materials Science and Engineering  
doi: 10.1088/issn.1757-899X  
Online ISSN: 1757-899X  
Print ISSN: 1757-8981

## [IOP Science home](#)

- [Journals](#)
- [Books](#)
- [About IOPscience](#)
- [Contact us](#)
- [Developing countries access](#)
- [IOP Publishing open access policy](#)

## [IOP Publishing home](#)

- [© Copyright 2023 IOP Publishing](#)
- [Terms & conditions](#)
- [Disclaimer](#)
- [Privacy & cookie policy This link opens in a new tab.](#)
- This site uses cookies. By continuing to use this site you agree to our use of cookies.

This site uses cookies. By continuing to use this site you agree to our use of cookies. To find out more, see our [Privacy and Cookies](#) policy.

Close this notification

## [IOP Science home](#)

- [Skip to content](#)
- [Accessibility Help](#)

[Journals](#)

[Books](#)

[Publishing Support](#)

[Login](#)

[IOP Conference Series: Materials Science and Engineering](#)

# Table of contents

## [Volume 1212](#)

2022

[Previous issue](#)[Next issue](#)

*International Conference on Science in Engineering and Technology (ICoSiET 2020) 21<sup>st</sup>-22<sup>nd</sup> October, 2020, Palu, Indonesia*

Accepted papers received: 06 December 2021

Published online: 10 January 2022

[Open all abstracts, in this issue](#)

## **Preface**

011001

The following article is Open access

[Preface](#)

[Open abstract, Preface](#) [View article, Preface](#) [PDF, Preface](#)

011002

The following article is Open access

[Peer review declaration](#)

[Open abstract, Peer review declaration](#) [View article, Peer review declaration](#) [PDF, Peer review declaration](#)

## **Architecture and Building Materials**

012001

The following article is Open access

[An opportunity for using constructed wetland technology in hospital wastewater treatment: a preliminary study](#)

A G Akhmad, S Darman, Aiyen, W Pingkan S. Hamsens and S. Hamsens

[Open abstract, An opportunity for using constructed wetland technology in hospital wastewater treatment: a preliminary study](#) [View article, An opportunity for using constructed wetland technology in hospital wastewater treatment: a preliminary study](#) [PDF, An opportunity for using constructed wetland technology in hospital wastewater treatment: a preliminary study](#)

012002

The following article is Open access

[Tsunami evacuation building model \(TEBM\) in Teluk Palu \(Palu Bay\) area](#)

M Bakri, R Awalia, S Mulyati, F Zubaidi, M Rusydi, A A Kasim and R Prawita

[Open abstract, Tsunami evacuation building model \(TEBM\) in Teluk Palu \(Palu Bay\) area](#) [View article, Tsunami evacuation building model \(TEBM\) in Teluk Palu \(Palu Bay\) area](#) [PDF, Tsunami evacuation building model \(TEBM\) in Teluk Palu \(Palu Bay\) area](#)

012003

The following article is Open access

[Collective space on residential as a resilience measure to disaster mitigation earthquakes and liquefaction](#)

A Mulyati, M Najib and A M Y Astha

[Open abstract, Collective space on residential as a resilience measure to disaster mitigation earthquakes and liquefaction](#) [View article, Collective space on residential as a resilience measure to disaster mitigation earthquakes and liquefaction](#) [PDF, Collective space on residential as a resilience measure to disaster mitigation earthquakes and liquefaction](#)

012004

The following article is Open access

[Life cycle energy analysis of a green building in Vietnam](#)

D L Le, T Q Nguyen and H C Pham

[Open abstract, Life cycle energy analysis of a green building in Vietnam](#) [View article, Life cycle energy analysis of a green building in Vietnam](#) [PDF, Life cycle energy analysis of a green building in Vietnam](#)

012005

The following article is Open access

[Using virtual reality \(VR\) simulation to help developing a smart meeting space with AI Product to support moderator](#)

X Guo, Z Shen, X Teng and Z Zhao

[Open abstract, Using virtual reality \(VR\) simulation to help developing a smart meeting space with AI Product to support moderator](#) [View article, Using virtual reality \(VR\) simulation to help developing a smart meeting space with AI Product to support moderator](#) [PDF, Using virtual reality \(VR\) simulation to help developing a smart meeting space with AI Product to support moderator](#)

012006

The following article is Open access

[Bioclimatic and sustainable features on vernacular architecture in Ternate](#)

M Rahim

[Open abstract, Bioclimatic and sustainable features on vernacular architecture in Ternate](#) [View article, Bioclimatic and sustainable features on vernacular architecture in Ternate](#) [PDF, Bioclimatic and sustainable features on vernacular architecture in Ternate](#)

012007

The following article is Open access

[Contemplating the traditional rural architecture of Nalanda: A case study](#)

R Kumari

[Open abstract, Contemplating the traditional rural architecture of Nalanda: A case study](#) [View article, Contemplating the traditional rural architecture of Nalanda: A case study PDF, Contemplating the traditional rural architecture of Nalanda: A case study](#)

012008

The following article is Open access

[Simulation of thermal comfort on public space and buildings around river in Banjarmasin-Indonesia](#)

A Rahman

[Open abstract, Simulation of thermal comfort on public space and buildings around river in Banjarmasin-Indonesia](#) [View article, Simulation of thermal comfort on public space and buildings around river in Banjarmasin-Indonesia PDF, Simulation of thermal comfort on public space and buildings around river in Banjarmasin-Indonesia](#)

012009

The following article is Open access

[Revealing circular material flow in Terrazzo making process](#)

V A Ujung, A R Wahid and P Atmodiwirjo

[Open abstract, Revealing circular material flow in Terrazzo making process](#) [View article, Revealing circular material flow in Terrazzo making process PDF, Revealing circular material flow in Terrazzo making process](#)

### **'Chemical Engineering**

012010

The following article is Open access

[Extraction of Zn \(II\) ions in an polypropylene glycol 425 - sodium chloride - water aqueous two-phase system](#)

M I Fedorova and I V Zinov'eva

[Open abstract, Extraction of Zn \(II\) ions in an polypropylene glycol 425 - sodium chloride - water aqueous two-phase system](#) [View article, Extraction of Zn \(II\) ions in an polypropylene glycol 425 - sodium chloride - water aqueous two-phase system PDF, Extraction of Zn \(II\) ions in an polypropylene glycol 425 - sodium chloride - water aqueous two-phase system](#)

012011

The following article is Open access

[Liquid-liquid extraction of Pt\(IV\) from hydrochloric acid solutions using PPG 425 – NaCl – H<sub>2</sub>O system](#)

I V Zinov'eva

[Open abstract, Liquid-liquid extraction of Pt\(IV\) from hydrochloric acid solutions using PPG 425 – NaCl – H<sub>2</sub>O system](#) [View article, Liquid-liquid extraction of Pt\(IV\) from hydrochloric acid solutions using PPG 425 – NaCl – H<sub>2</sub>O system](#) [PDF, Liquid-liquid extraction of Pt\(IV\) from hydrochloric acid solutions using PPG 425 – NaCl – H<sub>2</sub>O system](#)

012012

The following article is Open access

[Extraction of Eu\(III\), Gd\(III\), and Tb\(III\) in aqueous two-phase systems based on polyethylene glycol 1500-NaNO<sub>3</sub>-H<sub>2</sub>O with the addition of extractants \(D2EHPA, TBP, TOMAN\)](#)

A Ya Fedorov, A V Levina and M I Fedorova

[Open abstract, Extraction of Eu\(III\), Gd\(III\), and Tb\(III\) in aqueous two-phase systems based on polyethylene glycol 1500-NaNO<sub>3</sub>-H<sub>2</sub>O with the addition of extractants \(D2EHPA, TBP, TOMAN\)](#) [View article, Extraction of Eu\(III\), Gd\(III\), and Tb\(III\) in aqueous two-phase systems based on polyethylene glycol 1500-NaNO<sub>3</sub>-H<sub>2</sub>O with the addition of extractants \(D2EHPA, TBP, TOMAN\)](#) [PDF, Extraction of Eu\(III\), Gd\(III\), and Tb\(III\) in aqueous two-phase systems based on polyethylene glycol 1500-NaNO<sub>3</sub>-H<sub>2</sub>O with the addition of extractants \(D2EHPA, TBP, TOMAN\)](#)

012013

The following article is Open access

[Vanadium\(IV\) ions extraction in the aqueous two-phase system based on poly\(ethylene glycol\)](#)

A V Levina and M I Fedorova

[Open abstract, Vanadium\(IV\) ions extraction in the aqueous two-phase system based on poly\(ethylene glycol\)](#) [View article, Vanadium\(IV\) ions extraction in the aqueous two-phase system based on poly\(ethylene glycol\)](#) [PDF, Vanadium\(IV\) ions extraction in the aqueous two-phase system based on poly\(ethylene glycol\)](#)

012014

The following article is Open access

[Implementation of the extraction method for the separation of Fe<sup>3+</sup> and Ni<sup>2+</sup> ions on cascade of mixing-settling extractors](#)

N.A. Milevskii, Y.A. Klychevskikh, V.O. Solov'ev, I.V. Zinov'eva and M.I. Fedorova

[Open abstract, Implementation of the extraction method for the separation of Fe<sup>3+</sup> and Ni<sup>2+</sup> ions on cascade of mixing-settling extractors](#) [View article, Implementation of the extraction method for the separation of Fe<sup>3+</sup> and Ni<sup>2+</sup> ions on cascade of mixing-settling extractors](#) [PDF, Implementation of the extraction method for the separation of Fe<sup>3+</sup> and Ni<sup>2+</sup> ions on cascade of mixing-settling extractors](#)

012015

The following article is Open access

[Extraction of pyridine using systems based on water-soluble polymers](#)

V O Solovev, S V Soloveva and N A Milevsky

[Open abstract, Extraction of pyridine using systems based on water-soluble polymers](#) [View article, Extraction of pyridine using systems based on water-soluble polymers](#) [PDF, Extraction of pyridine using systems based on water-soluble polymers](#)

012016

The following article is Open access

[Synthesis of composite nanostructure natural  \$ZrO\_2\$  and magnetite particles \( \$Fe\_3O\_4@ZrO\_2\$ \) and study of its lead ion adsorption efficiency](#)

C Irawan, M D Putra, I F Nata, M F Refki, R Hidayat, A Triantoro and Abbas

[Open abstract, Synthesis of composite nanostructure natural  \$ZrO\_2\$  and magnetite particles \( \$Fe\_3O\_4@ZrO\_2\$ \) and study of its lead ion adsorption efficiency](#) [View article, Synthesis of composite nanostructure natural  \$ZrO\_2\$  and magnetite particles \( \$Fe\_3O\_4@ZrO\_2\$ \) and study of its lead ion adsorption efficiency](#) [PDF, Synthesis of composite nanostructure natural  \$ZrO\_2\$  and magnetite particles \( \$Fe\_3O\_4@ZrO\_2\$ \) and study of its lead ion adsorption efficiency](#)

012017

The following article is Open access

[The effect of plastic type on the yield and quality of lignite and plastic waste pyrolysis products](#)

H Wijayanti, A Tuhuloula, L Subekti, M Aisyah, I D Pitaloka and Siti Nurmajidah

[Open abstract, The effect of plastic type on the yield and quality of lignite and plastic waste pyrolysis products](#) [View article, The effect of plastic type on the yield and quality of lignite and plastic waste pyrolysis products](#) [PDF, The effect of plastic type on the yield and quality of lignite and plastic waste pyrolysis products](#)

012018

The following article is Open access

[A modified shrinking core model for microwave-assisted leaching of aluminum from peat clay](#)

Hairullah, A Mirwan, M D Putra, B H Ilmanto, H S H Putri, M B Ulum and M R Haka

[Open abstract, A modified shrinking core model for microwave-assisted leaching of aluminum from peat clay](#) [View article, A modified shrinking core model for microwave-assisted leaching of aluminum from peat clay](#) [PDF, A modified shrinking core model for microwave-assisted leaching of aluminum from peat clay](#)

012019

The following article is Open access

[Determination of rice husk activated Carbon capacity in adsorption of Cu Metal from Sasirangan liquid waste based on isotherm model](#)

I Syauqiah, D Nurandini, N P Prihatini and Jamiyaterrasidah

[Open abstract, Determination of rice husk activated Carbon capacity in adsorption of Cu Metal from Sasirangan liquid waste based on isotherm model](#) [View article, Determination of rice husk activated Carbon capacity in](#)

[adsorption of Cu Metal from Sasirangan liquid waste based on isotherm model PDF](#), [Determination of rice husk activated Carbon capacity in adsorption of Cu Metal from Sasirangan liquid waste based on isotherm model](#)

012020

The following article is Open access

[Study of caffeine and coumarin extraction kinetics in an aqueous two-phase system based on polyethylene glycol 1500](#)

I V Zinov'eva

[Open abstract, Study of caffeine and coumarin extraction kinetics in an aqueous two-phase system based on polyethylene glycol 1500](#) [View article, Study of caffeine and coumarin extraction kinetics in an aqueous two-phase system based on polyethylene glycol 1500 PDF](#), [Study of caffeine and coumarin extraction kinetics in an aqueous two-phase system based on polyethylene glycol 1500](#)

012021

The following article is Open access

[Application of ionic liquid based on Aliquat 336 and D2EHPA in the extraction of transition metals](#)

M I Fedorova and A V Levina

[Open abstract, Application of ionic liquid based on Aliquat 336 and D2EHPA in the extraction of transition metals](#) [View article, Application of ionic liquid based on Aliquat 336 and D2EHPA in the extraction of transition metals PDF](#), [Application of ionic liquid based on Aliquat 336 and D2EHPA in the extraction of transition metals](#)

012022

The following article is Open access

[Interphase distribution of a number of polybasic carboxylic acids in aqueous two-phase systems based on polyethylene glycol-1500](#)

S V Solov'eva, V O Solov'ev and I V Zinov'eva

[Open abstract, Interphase distribution of a number of polybasic carboxylic acids in aqueous two-phase systems based on polyethylene glycol-1500](#) [View article, Interphase distribution of a number of polybasic carboxylic acids in aqueous two-phase systems based on polyethylene glycol-1500 PDF](#), [Interphase distribution of a number of polybasic carboxylic acids in aqueous two-phase systems based on polyethylene glycol-1500](#)

012023

The following article is Open access

[The interphase distribution of light REE Ce\(III\) and La\(III\) in system based on PEG-1500 – NaNO<sub>3</sub> – H<sub>2</sub>O with the quaternary ammonium base addition](#)

A V Levina, A Ya Fedorov and M I Fedorova

[Open abstract, The interphase distribution of light REE Ce\(III\) and La\(III\) in system based on PEG-1500 – NaNO<sub>3</sub> – H<sub>2</sub>O with the quaternary ammonium base addition](#) [View article, The interphase distribution of light REE Ce\(III\)](#)

[and La\(III\) in system based on PEG-1500 – NaNO<sub>3</sub> – H<sub>2</sub>O with the quaternary ammonium base addition PDF, The interphase distribution of light REE Ce\(III\) and La\(III\) in system based on PEG-1500 – NaNO<sub>3</sub> – H<sub>2</sub>O with the quaternary ammonium base addition](#)

012024

The following article is Open access

[The possibility of using DES based on polypropylene glycol 425 and tetrabutylammonium bromide in the extraction processes of transition metals](#)

A Y Fedorov and A V Levina

[Open abstract, The possibility of using DES based on polypropylene glycol 425 and tetrabutylammonium bromide in the extraction processes of transition metals View article, The possibility of using DES based on polypropylene glycol 425 and tetrabutylammonium bromide in the extraction processes of transition metals PDF, The possibility of using DES based on polypropylene glycol 425 and tetrabutylammonium bromide in the extraction processes of transition metals](#)

012025

The following article is Open access

[Thiophene extraction in PEG - hexan - water based systems](#)

V O Solov'ev', S V Solov'eva and N A Milevsky

[Open abstract, Thiophene extraction in PEG - hexan - water based systems View article, Thiophene extraction in PEG - hexan - water based systems PDF, Thiophene extraction in PEG - hexan - water based systems](#)

012026

The following article is Open access

[The functionalization of pyrolyzed palm empty fruit bunches-based membranes adsorbent by fourier-transform infrared spectroscopy](#)

N Hidayah, V D Putri, M Elma, Mahmud, I Syauqiah, A Amenia, D G L Putra, H R Akbar and A Rahma

[Open abstract, The functionalization of pyrolyzed palm empty fruit bunches-based membranes adsorbent by fourier-transform infrared spectroscopy View article, The functionalization of pyrolyzed palm empty fruit bunches-based membranes adsorbent by fourier-transform infrared spectroscopy PDF, The functionalization of pyrolyzed palm empty fruit bunches-based membranes adsorbent by fourier-transform infrared spectroscopy](#)

012027

The following article is Open access

[Membranes adsorber from oil palm empty fruit branches \(OPEFB\): preparation and fabrication](#)

N Hidayah, P D Darsono, M Elma', Mahmud, I Syauqiah, H R Akbar, A Amenia, D G L Putra, N Huda and A Rahma



[Open abstract, Membranes adsorber from oil palm empty fruit branches \(OPEFB\): preparation and fabrication](#)  
[View article, Membranes adsorber from oil palm empty fruit branches \(OPEFB\): preparation and fabrication](#)  
[PDF, Membranes adsorber from oil palm empty fruit branches \(OPEFB\): preparation and fabrication](#)

## Civil Engineering

012028

The following article is Open access

[Analysis of rock mass behavior with Empirical and Numerical method for the construction of diversion tunnel, Laos](#)

D J W Mboussa and S Sun

[Open abstract, Analysis of rock mass behavior with Empirical and Numerical method for the construction of diversion tunnel, Laos](#) [View article, Analysis of rock mass behavior with Empirical and Numerical method for the construction of diversion tunnel, Laos](#) [PDF, Analysis of rock mass behavior with Empirical and Numerical method for the construction of diversion tunnel, Laos](#)

012029

The following article is Open access

[The application of vapour equilibrium technique to control suction to study the shrinkage and water retention of compacted Claystone-Bentonite mixtures](#)

Y F Arifin, M Arsyad, M Afdi and H Muslim

[Open abstract, The application of vapour equilibrium technique to control suction to study the shrinkage and water retention of compacted Claystone-Bentonite mixtures](#) [View article, The application of vapour equilibrium technique to control suction to study the shrinkage and water retention of compacted Claystone-Bentonite mixtures](#) [PDF, The application of vapour equilibrium technique to control suction to study the shrinkage and water retention of compacted Claystone-Bentonite mixtures](#)

012030

The following article is Open access

[Development of Concrete Damage Classification in Beam-Column Joint based on Ultrasonic Pulse Velocity](#)

A S Dermawan, S M Dewi, Wisnumurti and A Wibowo

[Open abstract, Development of Concrete Damage Classification in Beam-Column Joint based on Ultrasonic Pulse Velocity](#) [View article, Development of Concrete Damage Classification in Beam-Column Joint based on Ultrasonic Pulse Velocity](#) [PDF, Development of Concrete Damage Classification in Beam-Column Joint based on Ultrasonic Pulse Velocity](#)

012031

The following article is Open access

[Climate change impact to dam Operation, case study of Darma Dam, West Java](#)

A A Kuntoro, D T Ramadhani, A M S Idris, M Farid, M B Adityawan, Widyaningtias and G O N Annisa

[Open abstract, Climate change impact to dam Operation, case study of Darma Dam, West Java](#) [View article, Climate change impact to dam Operation, case study of Darma Dam, West Java](#) [PDF, Climate change impact to dam Operation, case study of Darma Dam, West Java](#)

012032

The following article is Open access

[The use of olive waste for development sustainable rigid pavement concrete material](#)

M A Dahim, M Abuaddous, H Al-Mattarneh, A E Alluqmani and R Ismail

[Open abstract, The use of olive waste for development sustainable rigid pavement concrete material](#) [View article, The use of olive waste for development sustainable rigid pavement concrete material](#) [PDF, The use of olive waste for development sustainable rigid pavement concrete material](#)

012033

The following article is Open access

[A new slip surface in noncohesive slopes](#)

J A Repadi, F Bari, F A Ismail, A Andriani and A Hakam

[Open abstract, A new slip surface in noncohesive slopes](#) [View article, A new slip surface in noncohesive slopes](#) [PDF, A new slip surface in noncohesive slopes](#)

012034

The following article is Open access

[The flexural strength of glue laminated timber beams based on deflection and strain rate with four point bending loading system](#)

S Maricar, K Sulendra, H Listiawaty and H O Baide

[Open abstract, The flexural strength of glue laminated timber beams based on deflection and strain rate with four point bending loading system](#) [View article, The flexural strength of glue laminated timber beams based on deflection and strain rate with four point bending loading system](#) [PDF, The flexural strength of glue laminated timber beams based on deflection and strain rate with four point bending loading system](#)

012035

The following article is Open access

[Shear strength behaviour of liquefiable sand of petobo on treated by agarose under direct shear test](#)

A Beddu, H Setiawan, Nuraida and M R Anugrah

[Open abstract, Shear strength behaviour of liquefiable sand of petobo on treated by agarose under direct shear test](#) [View article, Shear strength behaviour of liquefiable sand of petobo on treated by agarose under direct shear test](#) [PDF, Shear strength behaviour of liquefiable sand of petobo on treated by agarose under direct shear test](#)

012036

The following article is Open access

[The properties of preplaced aggregate concrete technology contain the industrial waste-material and the various shapes and sizes of coarse aggregate](#)

N Chairunnisa, H Ruzhanah, Hairida and L.S Daniel

[Open abstract, The properties of preplaced aggregate concrete technology contain the industrial waste-material and the various shapes and sizes of coarse aggregate](#) [View article, The properties of preplaced aggregate concrete technology contain the industrial waste-material and the various shapes and sizes of coarse aggregate](#) [PDF, The properties of preplaced aggregate concrete technology contain the industrial waste-material and the various shapes and sizes of coarse aggregate](#)

012037

The following article is Open access

[Determination of earthquake prone zones at university of tadulako based on dominant periods and peak ground acceleration \(PGA\)](#)

I U Meidji, S Mulyati, N R Janat, H Jayadi and Asrafil

[Open abstract, Determination of earthquake prone zones at university of tadulako based on dominant periods and peak ground acceleration \(PGA\)](#) [View article, Determination of earthquake prone zones at university of tadulako based on dominant periods and peak ground acceleration \(PGA\)](#) [PDF, Determination of earthquake prone zones at university of tadulako based on dominant periods and peak ground acceleration \(PGA\)](#)

012038

The following article is Open access

[Potential of tidal power plants with least square method on Toaya Beach](#)

H Azikin, Nurhidayat, E Affandy and S S Syahrudin

[Open abstract, Potential of tidal power plants with least square method on Toaya Beach](#) [View article, Potential of tidal power plants with least square method on Toaya Beach](#) [PDF, Potential of tidal power plants with least square method on Toaya Beach](#)

012039

The following article is Open access

[Potential of tidal power plants on Tibo Beach with spektrum method](#)

Setiyawan, A Rusdin, T Amaliah and Olphino

[Open abstract, Potential of tidal power plants on Tibo Beach with spektrum method](#) [View article, Potential of tidal power plants on Tibo Beach with spektrum method](#) [PDF, Potential of tidal power plants on Tibo Beach with spektrum method](#)

**'Electronics & Electrical Engineering**

012040

The following article is Open access

[Centralised and decentralised data communication scheme for voltage regulation in DC Microgrids](#)

M A Setiawan and E Sulistyono

[Open abstract, Centralised and decentralised data communication scheme for voltage regulation in DC Microgrids](#)  
[View article, Centralised and decentralised data communication scheme for voltage regulation in DC Microgrids](#)  
[PDF, Centralised and decentralised data communication scheme for voltage regulation in DC Microgrids](#)

012041

The following article is Open access

[Module trainer of photovoltaic integrated low voltage grid \(PV-LV grid\) with a variety load](#)

Y A Rahman, R Fauzi, M Sarjan and Sukri

[Open abstract, Module trainer of photovoltaic integrated low voltage grid \(PV-LV grid\) with a variety load](#) [View article, Module trainer of photovoltaic integrated low voltage grid \(PV-LV grid\) with a variety load](#) [PDF, Module trainer of photovoltaic integrated low voltage grid \(PV-LV grid\) with a variety load](#)

012042

The following article is Open access

[Smart water meter for automatic meter reading](#)

A Amir, R Fauzi and Y Arifin

[Open abstract, Smart water meter for automatic meter reading](#) [View article, Smart water meter for automatic meter reading](#) [PDF, Smart water meter for automatic meter reading](#)

012043

The following article is Open access

[Development and testing of a light dimming control using arduino uno](#)

Waluyo, F Hadiatna, A Widura and P Setiana

[Open abstract, Development and testing of a light dimming control using arduino uno](#) [View article, Development and testing of a light dimming control using arduino uno](#) [PDF, Development and testing of a light dimming control using arduino uno](#)

### **Informatics & Computer Engineering**

012044

The following article is Open access

[Evaluation the influence of distance-based K-means method for detecting moving vehicles](#)

Y Sari, P B Prakoso and A R Baskara

[Open abstract, Evaluation the influence of distance-based K-means method for detecting moving vehicles](#) [View article, Evaluation the influence of distance-based K-means method for detecting moving vehicles](#) [PDF, Evaluation the influence of distance-based K-means method for detecting moving vehicles](#)

012045

The following article is Open access

[Design of Prototype Information System for Tracking & Tracing Fish Distribution Based on Mobile Agent](#)

Rizka Ardiansyah, Yazdi Pusadan, Elimawaty Rombe, Rahmat Mubaraq, Suryadi Hadi, Aristo Indrajaya and Iskandar

[Open abstract, Design of Prototype Information System for Tracking & Tracing Fish Distribution Based on Mobile Agent](#) [View article, Design of Prototype Information System for Tracking & Tracing Fish Distribution Based on Mobile Agent](#) [PDF, Design of Prototype Information System for Tracking & Tracing Fish Distribution Based on Mobile Agent](#)

012046

The following article is Open access

[Artificial intelligence in mobile communication: A Survey](#)

Yingchi Mao, Andri Pranolo, Leonel Hernandez, Aji Prasetya Wibawa and Zalik Nuryana

[Open abstract, Artificial intelligence in mobile communication: A Survey](#) [View article, Artificial intelligence in mobile communication: A Survey](#) [PDF, Artificial intelligence in mobile communication: A Survey](#)

012047

The following article is Open access

[IoT-based temperature and humidity monitoring system for smart garden](#)

Yanshori, D W Nugraha and D Santi

[Open abstract, IoT-based temperature and humidity monitoring system for smart garden](#) [View article, IoT-based temperature and humidity monitoring system for smart garden](#) [PDF, IoT-based temperature and humidity monitoring system for smart garden](#)

## **Industrial Engineering**

012048

The following article is Open access

[Evaluation of overall equipment effectivity in the cement manufacturing industry: a case study](#)

F Mustakim and H M Asih

[Open abstract, Evaluation of overall equipment effectivity in the cement manufacturing industry: a case study](#) [View article, Evaluation of overall equipment effectivity in the cement manufacturing industry: a case study](#) [PDF, Evaluation of overall equipment effectivity in the cement manufacturing industry: a case study](#)

012049

The following article is Open access

[Designing simulation model for minimizing coal train unloading time: A case study of Kereta Api Logistik Company](#)

H Wijaya, A Y Ridwan and E B Setyawan

[Open abstract, Designing simulation model for minimizing coal train unloading time: A case study of Kereta Api Logistik Company](#) [View article, Designing simulation model for minimizing coal train unloading time: A case study of Kereta Api Logistik Company](#) [PDF, Designing simulation model for minimizing coal train unloading time: A case study of Kereta Api Logistik Company](#)

### **Material Engineering**

012050

The following article is Open access

[A review of oil palm fruit fiber reinforced composites](#)

B Bakri, Naharuddin, Mustafa, A Medi and L Padang

[Open abstract, A review of oil palm fruit fiber reinforced composites](#) [View article, A review of oil palm fruit fiber reinforced composites](#) [PDF, A review of oil palm fruit fiber reinforced composites](#)

### **Mechanical Engineering**

012051

The following article is Open access

[Application of jacket cooling water system recovery for fuel heating on diesel engine to reduce emissions](#)

Barokah, Semin, B Cahyono, Bambang Sampurno, M Tappy, J Huwae, J Ratela and Y Wibisono

[Open abstract, Application of jacket cooling water system recovery for fuel heating on diesel engine to reduce emissions](#) [View article, Application of jacket cooling water system recovery for fuel heating on diesel engine to reduce emissions](#) [PDF, Application of jacket cooling water system recovery for fuel heating on diesel engine to reduce emissions](#)

012052

The following article is Open access

[Failure analysis of excavator hydraulic pump](#)

H Hidayat, D Aviva, A Muis, A Halik, S Sudarsono, S Pranoto and D Cahyadi

[Open abstract, Failure analysis of excavator hydraulic pump](#) [View article, Failure analysis of excavator hydraulic pump](#) [PDF, Failure analysis of excavator hydraulic pump](#)

## **Journal links**

- [Journal home](#)
- [Journal scope](#)

- [Information for organizers](#)
- [Information for authors](#)
- [Contact us](#)
- [Reprint services from Curran Associates](#)

#### [IOP Science home](#)

- [Journals](#)
- [Books](#)
- [About IOPscience](#)
- [Contact us](#)
- [Developing countries access](#)
- [IOP Publishing open access policy](#)

#### [IOP Publishing home](#)

- [© Copyright 2023 IOP Publishing](#)
- [Terms & conditions](#)
- [Disclaimer](#)
- [Privacy & cookie policy](#) [This link opens in a new tab.](#)
- This site uses cookies. By continuing to use this site you agree to our use of cookies.

PAPER • OPEN ACCESS

## Development and testing of a light dimming control using arduino uno

To cite this article: Waluyo *et al* 2022 *IOP Conf. Ser.: Mater. Sci. Eng.* **1212** 012043

View the [article online](#) for updates and enhancements.

You may also like

- [Outdoor experiments with a luxmeter](#)  
Ana Gostinar Blagotinšek
- [Robot goniophotometry at PTB](#)  
M Lindemann, R Maass and G Sauter
- [Broadband White Light Emission from Doped and Undoped Insulators](#)  
S. Tabanlı, H. Cinkaya Yilmaz, G. Bilir et al.



### 244<sup>th</sup> Electrochemical Society Meeting

October 8 – 12, 2023 • Gothenburg, Sweden

50 symposia in electrochemistry & solid state science

Abstract submission deadline:  
**April 7, 2023**

Read the call for papers &  
**submit your abstract!**



# Development and testing of a light dimming control using arduino uno

**Waluyo, F Hadiatna, A Widura, P Setiana**

Department of Electrical Engineering, Institut Teknologi Nasional Bandung (Itenas), Bandung, Indonesia.

E-mail: waluyo@itenas.ac.id

**Abstract.** Increasing population and human needs have an impact on increasing the need for electrical energy. One of them is for lighting needs. Therefore, it is necessary to save the lighting system so that energy consumption is minimum and the need for lighting is optimal, by controlling light dimming. This paper presents an implementation and testing of a dimming light control using an Arduino Uno microcontroller. The circuit used a 12-volt power supply, as a voltage source, to increase to 42 volts, to meet a lamp voltage, through a dc-dc converter. After obtaining the maximum voltage, a MOSFET cut off the voltage according to the desired light or performance level. The duty cycle was directly proportional to the output voltage, using a PWM coding to get the necessary light intensity. Some testing was conducted, including the measurement point shifting to the side. The testing results show that PMW and LDR decreased as the duty cycle increased. Nevertheless, both decreasing are different, the PWM decreased linearly with a gradient of -2.55 and the LDR decreased hyperbolically. While, the illuminance, current, and power rose as the duty cycle increased. The illuminance increased, tent to be saturated, as the power increased. However, the illuminance was reduced as the PWM and LDR increased. The illuminance decreased slightly as the measurement points shifted to the side.

## 1. Introduction

The need for humans and the population that is always increasing will have an impact on increasing the need for electrical energy. One of them is the electricity need for lighting. On other hand, the availability of electrical energy is limited. Based on this, the lighting system should be saved, where the provision of lighting is as optimal as possible, but the energy consumed is minimal. Electrical energy conservation, including lighting systems, is indispensable. Therefore, it is necessary for an efficient lighting system, and vital in homes, offices, industries, urban and rural areas [1].

Based on the procedure for design in buildings regulated in SNI 63-6575-2001, the lighting system can be differentiated into uniform, local, and combined lighting system. In the uniform or even lighting system, this system functions to provide an even and fairly constant level of light throughout the room. The even lighting can be accomplished by installing the armature simultaneously on the ceiling bar either directly or not. For a safe local lighting system, it is necessary to require a high level of light to provide more light than the ambient one. While the combined lighting systems are used for



those who need high levels of light. By this, it can show the shapes and textures that require the light to come from a certain direction [2].

It can be carried out by measuring it directly using a lux meter measurement tool so that it can be known what the magnitude of the exposure level is in a given work. What is meant by the worksheet is an imaginary horizontal plane located 0.75 meters above the floor in the entire room [2].

There are two main light sources, natural and man-made. The latter has conventionally only two modes, on and off switches. There is not any intermediate-range, whether manually or automatically according to the surrounding condition. This case leads to electrical energy wastage and not effective and not efficient anymore [3-5] and may potentially dangerous [6].

In commercial and office sectors, major electrical energy consumption is caused by lighting [7]. The lighting control can be implemented in homes, smart cities, airports, agriculture, parking, malls, universities, industries, and so on [4]. Besides light, color has attracted mankind, especially white color [8]. The lighting is necessary also in a vehicle, including an automobile, and plays an important role to avoid accidents [9-10]. Street lights consume large electrical energy [11]. Therefore, a smart street light reduces energy consumption and maintains costs [12]. The lighting has an important role in outdoor and indoor environments [13], and huge energy is wasted due to lighting in rural and urban areas [14]. It creates also a comfortable atmosphere, such as warm and bright [15].

Based on these various reasons, it is important to conduct an automation system in lighting, for saving, comfort as well as for safety. The light automation system is a cost-effective and safe way to reduce power consumption [16-17], reducing unused electricity and lengthening light lifetime [16]. A dimming light is reducing wasting energy, overcome manual switching, primary cost, and maintenance decrease [17]. There are intermediate levels [3, 6, 18]. The system can be implemented in workstations, park street lighting, lights, agriculture field monitoring, home automation, etc [3-4,16].

A main controlling device for lamp dimming use a microcontroller [16, 19], and some other devices, such as light sensor, LDR (light dependent resistor) as an instant LED driver, DC source [3, 9, 16, 19,], and an infrared sensor [4]. Arduino microcontroller is very widely used in light dimming due to easily available in markets and relatively cheap. It was for the automation of the speed and light on automobiles [10], smart lighting [1, 3, 13-14], for touch dimming circuit [6], bright controlling [5], street lighting [4, 11, 12], temperature and color tuning [8], vehicle headlight automation [9], and light dimming [15, 20].

An Android-based spatial lighting arrangement system discussed efficient, practical, and appropriate lighting settings and it is complemented by lighting setting optimizations based on the standard SNI 03-6197-2000. It was also designed practically to be remotely controlled by using a smartphone [21].

For a recent lighting system, it is also necessary to light-emitting diode (LED) lamps. The LEDs consume low energy [6, 17], due to cool conditions, long lifetime, and energy-saving due to high illuminance [16, 18]. Some researches used LEDs, for smart light [3], touch dimming [6], brightness [5], and luminaire controlling [7], street, color, vehicle head, and rural lighting [1, 4, 8-9, 11-14, 22]. A High Power LED (HPL) is an LED that works several hundred mA to A. HPL is usually used for outdoor lighting or industrial lighting. The use of HPL aims to save costs, because HPL requires a relatively small current, but still has a larger lumen [23].

The light dimming controls usually use LDR, such as for smart light [3], brightness control [5], smart street light control [4, 12], and headlight of vehicles [9].

Pulse Width Modulation (PWM) is generally a means of reproducing the signal width expressed by a pulse in a period, to obtain a different average voltage. PWM can be applied to adjust the power or voltage to turn on the light. In the digital method, each PWM change is influenced by the resolution of the PWM itself. Suppose that the 8-bit digital PWM means that the PWM has a resolution of  $2^8 = 256$ , that is, this PWM output has 256 variations, the variation ranging from 0 - 255 which represents a duty cycle of 0-100% of the PWM output [24].

The addition of light dimming is usually a boost converter circuit. It increases DC voltage to a higher level. This circuit is required when the required voltage of electronic components is higher than the available power supply voltage [25].

There have been some researches regarding light dimming in various applications. Generally, they used Arduino Uno microcontroller, LDRs, and LEDs. Nevertheless, they are limited in testing. Based on the previous researches, it is necessary to conduct further research on light dimming design, implementation, and testing. This research involved an HPL, Arduino Uno microcontroller, MOSFET, DC-DC converter, and an LDR. Besides the design and implementation, the research also conducted testing on some parameters, such as PWM, duty cycle, LDR, illuminance, current, power, voltage, and side shifting.

## 2. Research Method

The light dimmer circuit uses a 12-volt power supply as a voltage source which then passes through the dc-dc converter to increase the voltage from 12 volts to 42 volts to meet the needs of the used lamps. After obtaining the maximum voltage at the maximum capacity at 100%, the IRF 540N MOSFET functions as a voltage cut off according to the desired light needs or performance level. In this process, the duty cycle will be directly proportional to the output voltage, in the process of setting this duty cycle, it is carried out in the basic software using coding to get the light intensity setting according to the need, as an example of a lamp can be turned on when it is a bright condition, a bit bright, dim, slightly dim and off. Figure 1 shows the block diagram of the research of the light dimming system. The main subsystems are DC supply, DC-DC converter, a lamp, a controller, and a MOSFET. Furthermore, the wiring circuit diagram is shown in Figure 2. In this case, the lamp is HPL 32 watts and an Arduino Uno microcontroller as the controller.

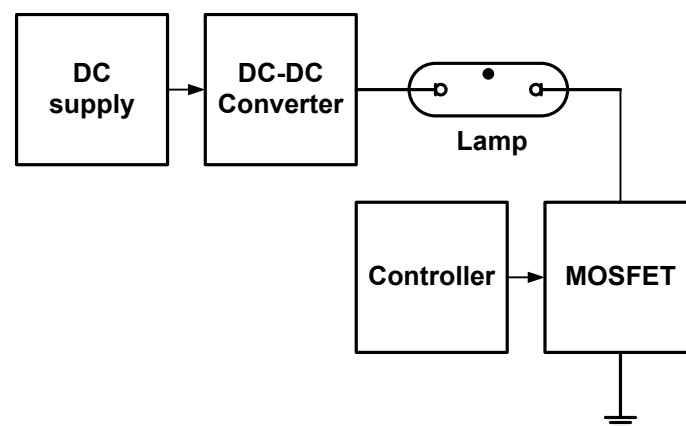


Figure 1. Block diagram of the light dimming system

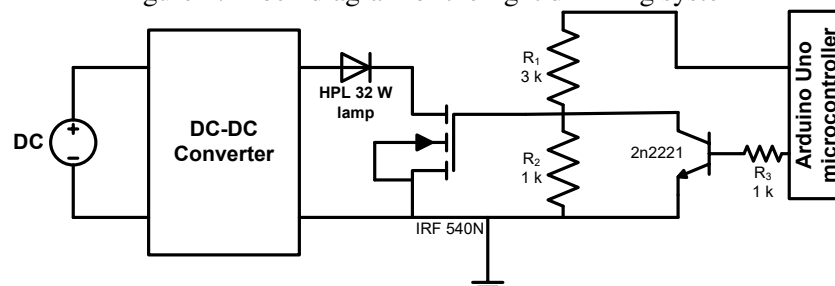


Figure 2. Light dimmer circuit

Figure 3 shows the lighting intensity measurement with a distance of 2.5 m, between the High-Performance Lamp (HPL), as the light source, and the light receiver wall. Moreover, on the wall, the

measuring point for light acceptance was shifted up to 50 cm to the side. So that the variation of light received was obtained over that distance.

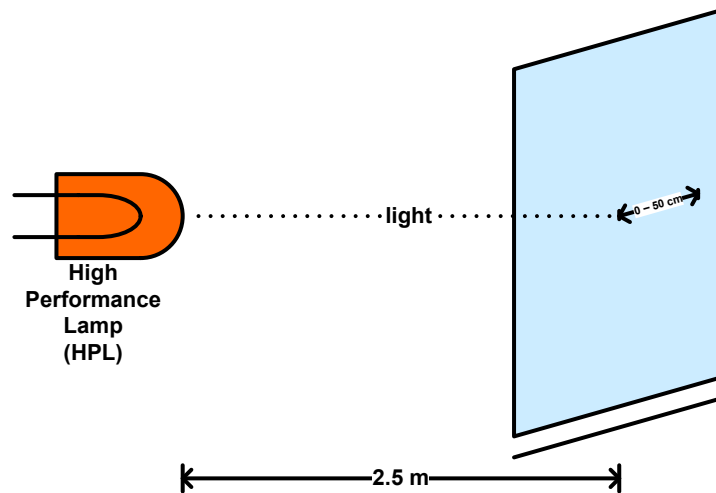


Figure 3. Lighting intensity measurement

A Light Dependent Resistor (LDR) and Lux meter or light meter were used to measure the lighting intensity or illuminance. The LDR value was measured by using a multimeter. Both LDR's and lux meter's values were noted while the lighting intensity was being reduced between 100% and 0% in a 10% step.

### 3. Research Results and Discussion

Figure 4 shows the dimming system circuit. The system consists of a power supply, for DC supply of power, DC-DC converter for the DC voltage regulation, MOSFET and voltage divider circuits for the light dimming for lowering the voltage to insert the microcontroller, an Arduino Uno for the main controller, a computer/laptop for coding of the microcontroller, and a High-Performance Lamp (HPL) for the lighting source.

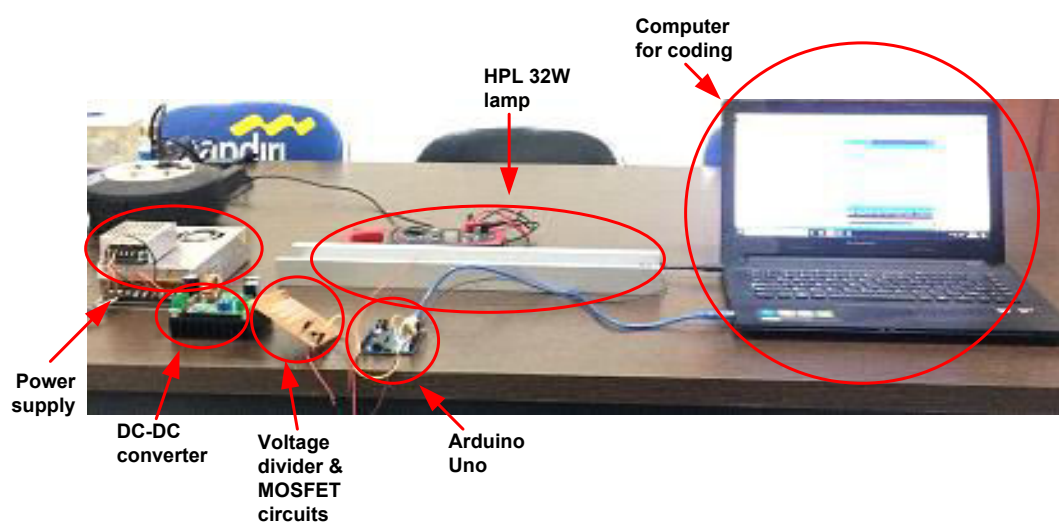


Figure 4. Picture light dimming system

Figure 5 shows the dimming system circuit when the dimming lighting of 80% (a) and 40% (b), which show a bit bright and a bit dim respectively. The system gives the lighting intensity was enough for the lighting. Thus, based on this testing, the system dimming process ran smoothly.

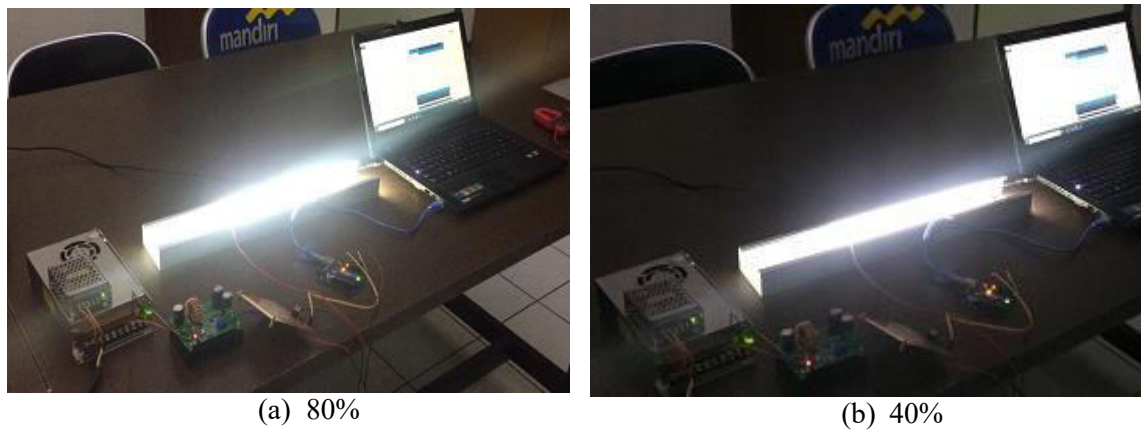


Figure 5. Picture light dimming system in 80% and 40% conditions

Figure 6 shows the PWM and LDR (Light Dependent Resistor) as the duty cycle function. Both parameters decreased as the duty cycle increased. Nevertheless, the PWM decreased linearly, while LDR decreased drastically, hyperbolically.

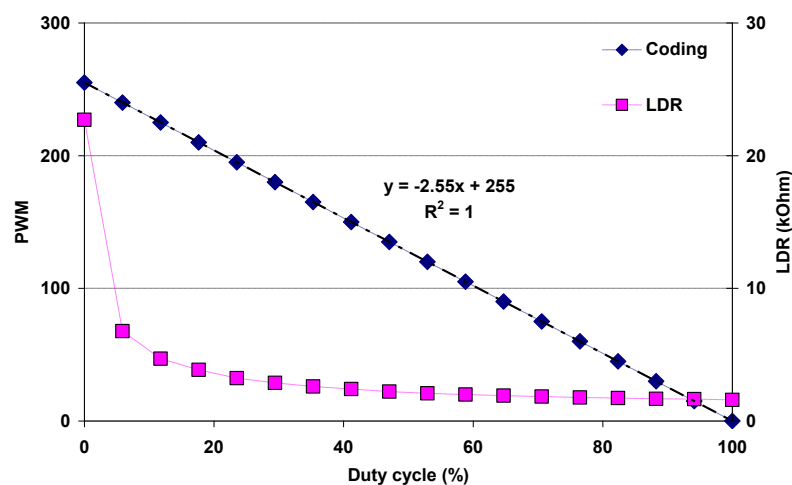
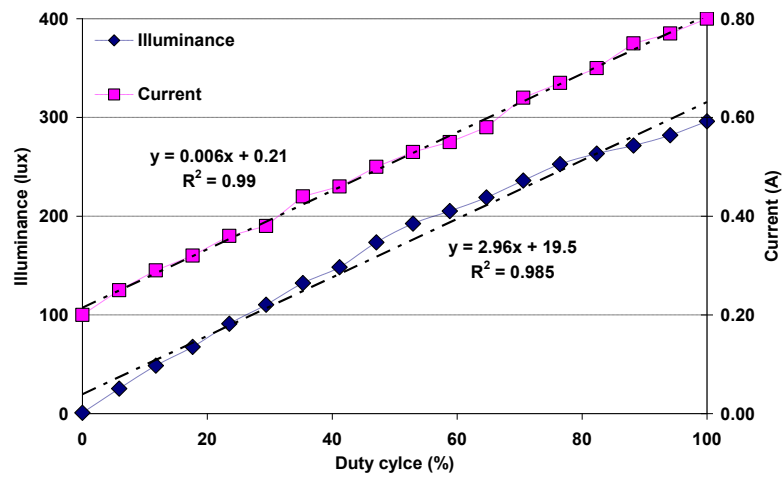
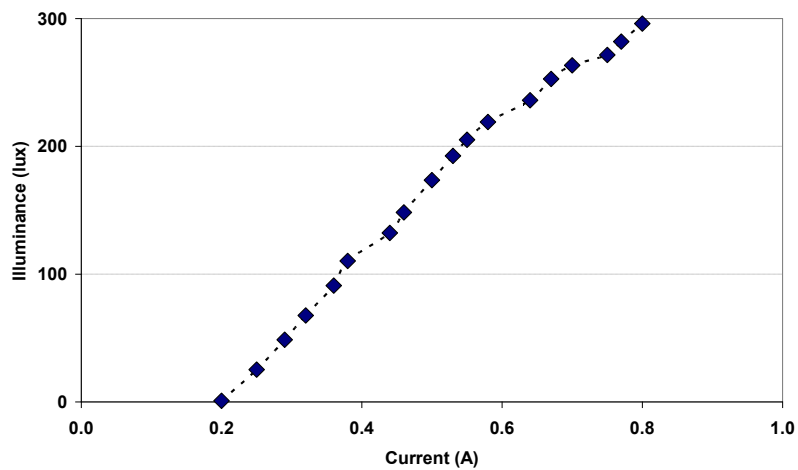


Figure 6. PWM and LDR function of duty cycle

Figure 7 (a) shows the illuminance and current as of the duty cycle function. Both illuminance and current parameters increased linearly, as the duty cycle increased. While 7(b) shows the illuminance as a function of current, as linear too. These characteristics are in line with that are revealed in [8].



(a)



(b)

Figure 7. (a) Illuminance & current vs duty cycle, and (b) Illuminance vs current

Figure 8 shows the power and current as of the duty cycle function. Both power and current increased linearly as the duty cycle increased.

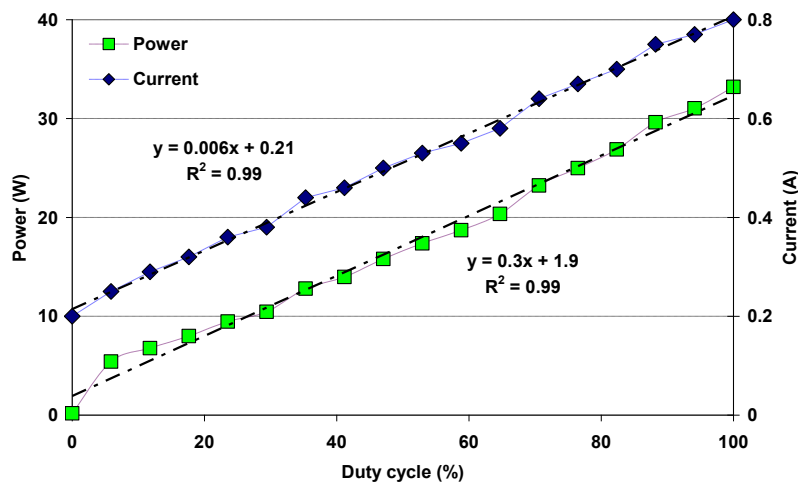


Figure 8. Power and current as duty cycle function

Figure 9 shows the illuminance as the function of power. The illuminance increased linearly, and to be saturated, as the power increased. Thus, the illuminance will tend to be constant as the power of the lamp continuously.

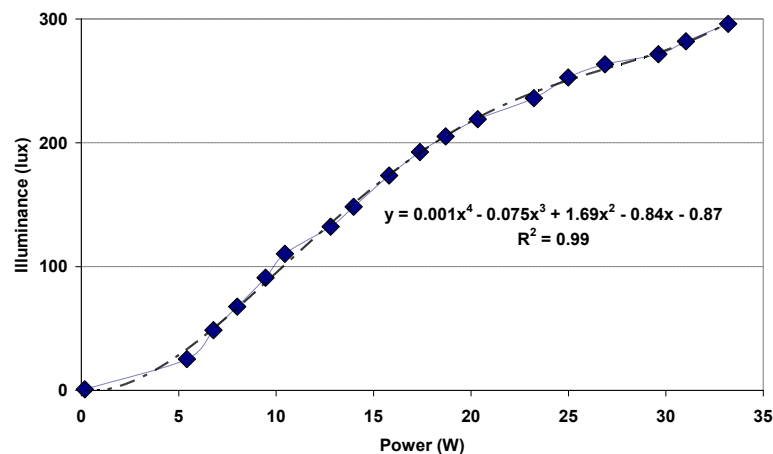


Figure 9. Illuminance function of power

Figure 10 shows the voltage and power as the current function. Both voltage and power increased linearly as the current increased. Nevertheless, both increasing parameters are different. For the voltage, it is necessary a threshold value of the current, for this case 0.25 ampere to get 21.7 volts of minimum voltage. This phenomenon, especially the voltage against the current, due to knee point existence, is similar to the chart that is revealed in [8]. Nevertheless, the direction of the knee pint is the opposite.

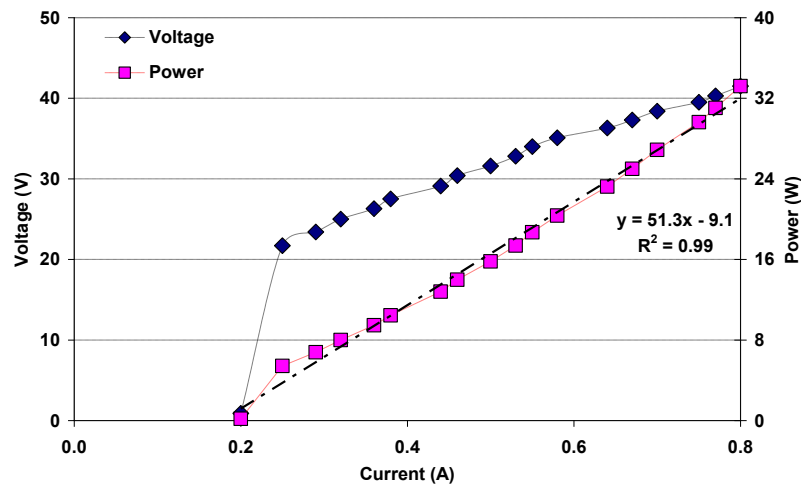


Figure 10. Voltage and power function of current

Figure 11 shows the illuminance as a function of the PWM coding. The illuminance decreases linearly as the PWM coding increases. The illuminance varies depending also on the distance to the perpendicular point of the board exposed to the light, as shown in Figure 13.

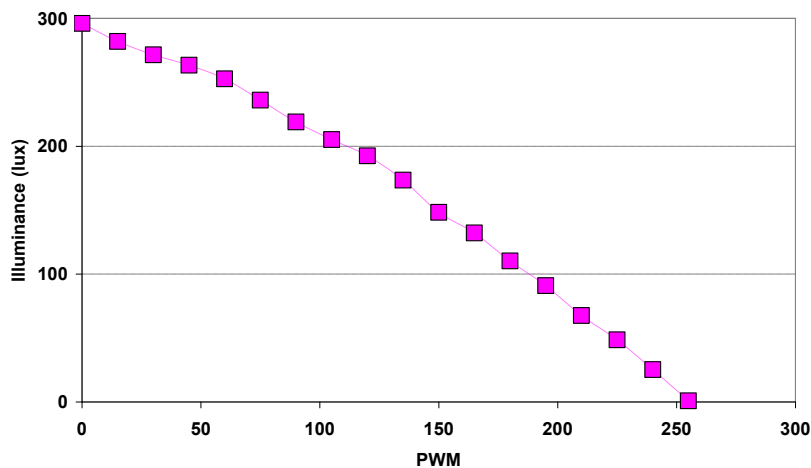


Figure 11. Illuminance function of coding

Figure 12 shows the LDR as the illuminance function. The LDR reduced drastically as the illuminance increased, followed by hyperbolic patterns on various distances from the center. This curve or chart is an improvement and more real than the previous concept, because this chart is obtained from the test results with the resistance measurements on the LDR on the wall illuminated by an HPL lamp [9, 26].



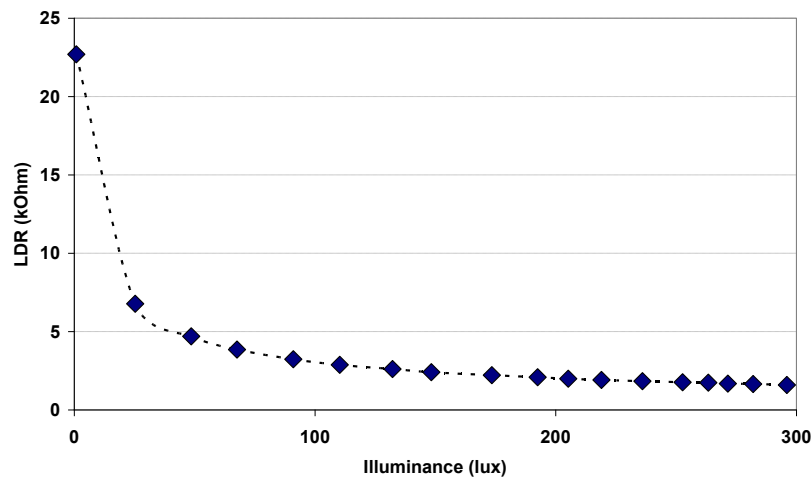


Figure 12. Illuminance function of LDR

Figure 13 shows the illuminances as a function of the distances from the center on various coding. The illuminance reduced slightly as the distance from the center increased.

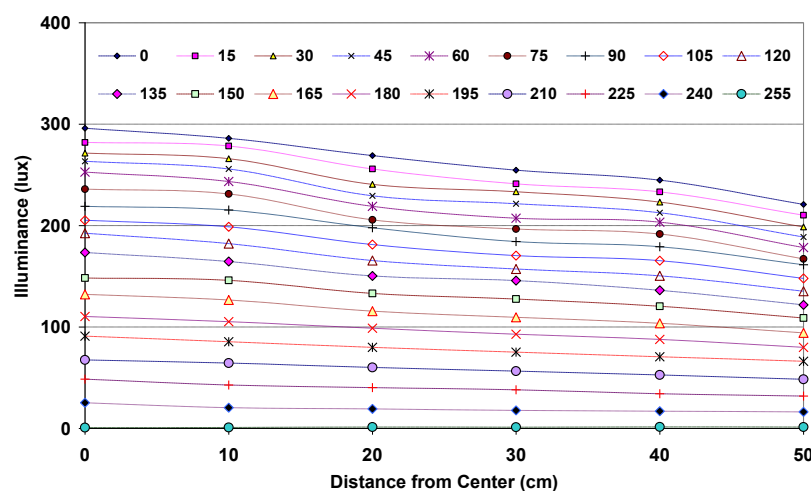


Figure 13. Illuminance function of distances from the center on various PWM

#### 4. Conclusion

The microcontroller-based dimming circuit has been successfully implemented. The duty cycle increases, make the PWM coding and LDR decrease linearly and hyperbolically respectively. However, the duty cycle increases, so that the illuminance, current, and power increase too. The power and current increase linearly as the duty cycle increases. The illuminance increases as the power increase linearly. Nevertheless, increasing illuminance tends to be saturated. The voltage and power increase linearly as the current rises. Even though, the voltage chart has a knee point. The illuminance reduces fairly linearly, as then PWM coding increases. The LDR reduces drastically as illuminance increases. Finally, the illuminance decreases slightly as the distance of the measurement point from the center point to the side increases.

#### References

- [1] N.S. Yoganathan, G. Lakshmi Priya, R. Monisha, A. Lavanya, S. Kowsalya, Density-Based Smart Lighting System Using IoT, *International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering*, Vol. 7(2), Feb. 2018, 504-513.
- [2] BSN, *Tata cara perancangan sistem pencahayaan buatan pada bangunan gedung* (The procedure for designing artificial lighting systems in buildings), BSN, 2001.
- [3] D.K. Rath, Arduino Based: Smart Light Control System, *International Journal of Engineering Research and General Science*, Vol. 4(2), March-April, 2016, 784-790.
- [4] Z. Mumtaz, S. Ullah, Z. Ilyas, N. Aslam, S. Iqbal, S. Liu, J.A. Meo, H.A. Madni, An Automation System for Controlling Streetlights and Monitoring Objects Using Arduino, *Sensors* 2018, 18, 1-14.
- [5] S. Jeyavinotha, B.P. Deepika, R. Remya, N.V. Ajin, Design of Automation System to Control the Brightness of LED Using Arduino Uno and IoT, *International Journal of Recent Trends in Engineering & Research (IJRTER)*, Conference on Recent Trends in Electrical and Electronics Engineering (RTEEE '19), Special Issue; March- 2019, 247-250.
- [6] B.V. Kumar, G.M. Rao, J.Y. Kumar, S.H. Krishna, Touch Dimmer Switch Circuit, *International Research Journal of Engineering and Technology (IRJET)*, Vol. 6(4), Apr 2019, 1971-1973.
- [7] B.M.R. Rocha, Enhanced Networked Luminaire Controller for Sustainable Ambient Illumination, Thesis to obtain the Master of Science Degree, Electrical and Computer Engineering, Técnico Lisboa, Nov. 2015.
- [8] S. Prathap, S. Sunny, A.S. Nair, Colour temperature tuning to improve efficacy of white light, *International Conference on Emerging Trends in Engineering, Science and Technology (ICETEST-2015)*, *Procedia Technology* 24 ( 2016 ) 1186-1193.
- [9] Lakshmi, K., Nevetha, R., Ilakkiya, S.N., Ganesan, R., Automatic Vehicle Headlight Management System to Prevent Accidents Due To Headlight Glare, *International Journal of Innovative Technology and Exploring Engineering (IJITEE)*, Vol. 8(9), July 2019, 757-760.
- [10] A.M. Jose, M. Philip, N. Ramakrishnan, V.R. Shalu Raj, B. Mathew, Implementation of Automatic Light and Speed Controllers for Automobiles, *International Journal of Innovative Research in Computer and Communication Engineering*, Vol. 5(3), March 2017, pp. 5773-5777.
- [11] A. D'souza, O. Bhosale, M. Bhilare, S. Sawant, Arduino Based Solar Street Lighting, *International Journal of Scientific & Engineering Research*, Vol. 9(2), pp. 36-38.
- [12] A.M. Sindhu, J. George, S. Roy, J. Chandra, Smart Streetlight Using IR Sensors, *IOSR Journal of Mobile Computing & Application (IOSR-JMCA)*, Vol. 3(2), Mar.-Apr.2016, pp. 39-44.
- [13] P.S. Raju, M. Mahalingam, R.A. Rajendran, Design, Implementation, and Power Analysis of Pervasive Adaptive Resourceful Smart Lighting and Alerting Devices in Developing Countries Supporting Incandescent and LED Light Bulbs, *Sensors* 2019, 19(9), 2032; pp.1-20.
- [14] A. Vinutharani, C.K. Vanamala, Hybrid, Low Cost, Sensor-Based Smart Lighting for Rural Areas, *International Journal of Advanced Research in Computer and Communication Engineering* Vol. 5 (5), May 2016, pp. 260-263.
- [15] S. Sakpal, P. Kulkarni, V. Chitre, S. Gharat, Review of LED DIMMER, 4th International Conference On Engineering Confluence & Inauguration of Lotfi Zadeh Center Excellence in Health Science And Technology (LZCODE) – EQUINOX 2018, *IOSR Journal of Engineering (IOSRJEN)*, pp. 16-19.
- [16] Z. Mumtaz, S. Ullah, Z. Ilyas, S. Liu, N. Aslam, J.A. Meo, H.A. Madni, Automatic Streetlights that Glow on Detecting Night and Object using Arduino, *Computer Science, Other Computer Science*, 28 Jun 2018.
- [17] P.R. Prasad, V. Nani, M. Srinivas, M. Karthik, Automatic Street Light Dimmer Circuit Using Arduino, *Pramana Research Journal*, Vol. 9(4), 2019, 490-497.
- [18] H.S. Walunj, R. Kawitkar, Km. A. Singh, Dimming Functionality of LED Bulb: A Working Model, *International Research Journal of Engineering and Technology (IRJET)*, Vol. 5(5), May 2018, 3370-3371.
- [19] Taufik, W. Xiong, J. Sato, Saidah, Ambient Light Adaptive LED Light Dimmer, *Telkomika*,

Vol.13 (2), June 2015, 281-290.

- [20] A. Kumar, Fajr, T.N. Khajwal, N. Khera, Microcontroller Based Digital AC Dimming Techniques for Light Intensity Control, 2019 6th International Conference on Signal Processing and Integrated Networks (SPIN), 2019 6th International Conference on Signal Processing and Integrated Networks (SPIN), 7-8 March 2019, IEEE, Noida, India, pp. 452-455.
- [21] M.D. Putro, F.D. Kambey, *Sistem Pengaturan Pencahayaan Ruang Berbasis Android pada Rumah Pintar* (Smart Home Based Lighting Arrangement System), Jurnal Nasional Teknik Elektro, Vol. 5(3), Nov. 2016, 297-307.
- [22] N. Yoshiura, Y. Fujii, N. Ohta, Smart street light system looking like usual street lights based on sensor networks, 2013 13th International Symposium on Communications and Information Technologies (ISCIT), 4-6 Sept. 2013, IEEE, Surat Thani, Thailand.
- [23] M. Walidain, I.D. Sara, M. Syukri, *Perancangan Sistem Penerangan LED Sebagai Sumber Cahaya Pada Pengujian Modul Surya* (Designing LED Lighting Systems as Light Sources in Solar Module Testing), KitEktro: Jurnal Online Teknik Elektro e-ISSN: 2252-7036, Vol.3(2), 2018: 46-52.
- [24] G. Turesna, Zulkarnain, Hermawan, *Pengendali Intensitas Lampu Ruang Berbasis Arduino Uno Menggunakan Metode Fuzzy Logic* (Room Light Intensity Controller Based on Arduino Uno Using Fuzzy Logic Method), Jurnal Otomasi Kontrol dan Instrumentasi, ITB, Vol 7 (2), 2015, 73-88.
- [25] A. Mujadin, S. Rahmatia, *Joule Thief Sebagai Boost Converter Daya LED Menggunakan Sel Volta Berbasis Air Laut* (Joule Thief As Boost Converter Power LED Using Seawater Based Volta Cell), Jurnal Al-Azhar Indonesia Seri Sains dan Teknologi, Vol. 4(2), Sept. 2017, 52-57.
- [26] A.S. Jalan, A Survey on Automatic Street Lighting System on Indian Streets Using Arduino, International Journal of Innovative Research in Science, Engineering and Technology, Vol. 6(3), March 2017, pp. 4139-4144.

### Acknowledgment

The authors are grateful to The Grant of the Higher Education Superior Applied Research, No. 387/B.05/LPPM-Itenas/IV/2020, for a part of the financially supporting research.

# *Certificate*

This is to certify that :

**DR. WALUYO, ST., MT.**

---

**Institut Teknologi Nasional Bandung**

has participated as  
**Presenter of Paper #99**

**“Development and Testing of a Light Dimming Control using Arduino Uno”**

**2020 International Conference on Science in Engineering and Technology  
(ICOSIET)**

**Palu, Indonesia, October 21<sup>st</sup> -22<sup>nd</sup> , 2020**

General Chair



The 2020  
**CoSiET**  
International Conference on Science in Engineering and Technology

**Dr. Eng. Rifai Mardin**



# INVOICE – PAID



## The 2020 International Conference on Science in Engineering and Technology (ICoSiET)

Palu-Indonesia, October 21<sup>st</sup> – 22<sup>nd</sup> 2020

### Secretariat:

ICoSiET 2020 Secretariat  
Department of Architecture,  
Faculty of Engineering, Universitas Tadulako  
Jl. Soekarno Hatta KM 9, Palu, Sulawesi Tengah,  
Indonesia

<http://icosiet.org>

Email: [info@icosiet.org](mailto:info@icosiet.org)

Invoice #: ICoSiET-20-60

Invoice date: 10/9/2020 11:19:06 AM

Amount :

**IDR 2500000**

Bill To:

DR. WALUYO, ST., MT.

Address:

Institut Teknologi Nasional Bandung  
Jl. PHH. Mustafa No. 23 Bandung 40124

Email: [waluyo@itenas.ac.id](mailto:waluyo@itenas.ac.id)

Phone: 81322261313

Description	Quantity	Price	Amount
Registration Fee of ICoSiET 2020 Paper # 99, entitled "Development and Testing of a Light Dimming Control using Arduino Uno"	1	IDR 2500000	IDR 2500000
Sub Total			IDR 2500000
Total			<b>IDR 2500000</b>

### Notes:

- Information details on Author Fees can be found at <http://icosiet.org/2020/registration/>
- If you have any questions concerning this invoice, use the following contact information:  
[info@icosiet.org](mailto:info@icosiet.org).



Dr. Eng Rifai Mardin

General Chair of ICoSiET 2020