

# MINISTRY OF RESEARCH, TECHNOLOGY AND HIGHER EDUCATION SEBELAS MARET UNIVERSITY FACULTY OF MATHEMATICS AND NATURAL SCIENCES

# Certificate

No. 2791/UN27.09/KP/2019

This is to certify that

# Ade Lisantono

participated the

4" International Conference on Advanced Materials for Better Future

in Surakarta, October 7-8th, 2019

as

# **Oral Presenter**

entitled

High early strength of self compacting high strength concrete using quartz powder and silica fume.

Dean of Mathematics and Natural Sciences
Universitàs Sebelas Maret

Chairman of 4<sup>th</sup> International Conference on Advanced Materials for Better Future

fariana, M.Si., M.Sc.)/h.D. P. 19590725 198601 1001 Prof. Ir, Ari Handono Ramelan, M.Sc. (Hons)., Ph.D. NIP. 19610223 198601 1001



#### Bls: [4th ICAMBF]

#### Ade Lisantono

Dari: icambf fmipa <icambf@mail.uns.ac.id> Dikirim: Kamis, 12 September 2019 21.22

Kepada: Ir.AM.Ade Lisantono M.Eng <adelisantono@mail.uajy.ac.id>

Subjek: [4th ICAMBF]

#### ACCEPTANCE AND INVITATION LETTER

Firstly, thank you for your submission to the 4<sup>th</sup> International Conference on Advanced Material for Better Future (ICAMBF 2019) in Solo-Indonesia, October 7-8, 2019. We would like to inform that your submitted abstract with the details:

ID

018

Authors

A Lisantono and J B Susanto

Title

High early strength of self compacting high strength concrete using quartz

powder and silica fume.

Has been accepted for **Oral Presentation** in our conference program. On behalf of the committees, we are pleased to notify the conditional acceptance of your submission to ICAMBF 2019. Accordingly, we also invite you present the work during ICAMBF 2019.

To proceed, you are kindly asked to submit the full paper through E-mail: <a href="icambf@mail.uns.ac.id">icambf@mail.uns.ac.id</a>. Please refers the full paper template according to the "IOP template". Moreover, please fill register form in the link: <a href="http://bit.ly/registration4thicambf">http://bit.ly/registration4thicambf</a> and proceed fee payment as the amount via UNS Virtual Account Billing <a href="http://bit.ly/paywayicambf">http://bit.ly/paywayicambf</a>. Send receipt for verification by e-mail: <a href="mailto:icambf@mail.uns.ac.id">icambf@mail.uns.ac.id</a>.

Other arrangements regarding the conference will be informed through you or updated through the website. Should you have any inquiry, please contact us through email: <a href="mailto:icambf@mail.uns.ac.id">icambf@mail.uns.ac.id</a>.

Congratulations for the acceptance of your submission and looking forward to see you in Solo, Indonesia during October 7-8, 2019 for ICAMBF 2019.

Sincerely yours,

Surakarta, September 12th 2019

ICAMBF 2019 organizing committee

#### Bls: Revision Needed ID 18 ICAMBF2019

#### Dr. Ir. Ade Lisantono, M.Eng <adelisantono@mail.uajy.ac.id>

Rab 25/12/2019 19.25

Kepada: icambf fmipa <icambf@mail.uns.ac.id>

1 lampiran (179 KB)

ID 018\_Ade Lisantono\_ICAMBF2019.doc;

Dear Organizing committees of ICAMBF 2019

Hereby, we send the revision of our paper with ID Number-18-ICAMBF2019, as the suggestion of the reviewers (see attachment).

Thank you very much for your kind attention and cooperation.

Best regards,

Ade Lisantono

Dari: icambf fmipa <icambf@mail.uns.ac.id> Dikirim: Jumat, 13 Desember 2019 14.51

Kepada: Dr. Ir. Ade Lisantono, M.Eng <adelisantono@mail.uajy.ac.id>

Subjek: Revision Needed ID 18 ICAMBF2019

Dear Authors,

We are pleased to inform you that the result of review is attached with this email. Please correct your paper according to comment of reviewers. We also attached the result Plagiarism Checker using Turnitin. Please make some revisions directly from the paper attached in this email (and not your own final version). And send us back your revised paper in doc (Ms. Word) to <a href="mailto:icambf@mail.uns.ac.id">icambf@mail.uns.ac.id</a> (Reply to this email, don't make new email subject) on the latest December 20, 2019

#### The word file name format:

ID First author's name ICAMBF2019

Example: ID40 Ari Ramelan ICAMBF2019

#### Note:

- 1. Please make sure the originality is more than 75% (similarity less than 25%)
- 2. References are minimum 10 lists (international journal mostly), which should be cited in the manuscript and please to follow the references template.
- 3. Please use IOP Conference Proceedings format as guidelines to write the article.

If you have any questions, please contact us.

Thank you for your cooperation.

Kind regards,

### Revision Needed\_ID\_18\_ICAMBF2019

#### icambf fmipa <icambf@mail.uns.ac.id>

Jum 13/12/2019 14.51

Kepada: Dr. Ir. Ade Lisantono, M.Eng <adelisantono@mail.uajy.ac.id>

15 Jampiran (4 MB)

Review Form ID 18 reviewer 2.pdf; Review Form ID 18 reviewer 1.docx; ID 18.pdf; fulltexttemplate\_IOP.doc; ID 18 turnitin.pdf;

#### Dear Authors,

We are pleased to inform you that the result of review is attached with this email. Please correct your paper according to comment of reviewers. We also attached the result Plagiarism Checker using Turnitin. Please make some revisions directly from the paper attached in this email (and not your own final version). And send us back your revised paper in doc (Ms. Word) to <a href="mailto:icambf@mail.uns.ac.id">icambf@mail.uns.ac.id</a> (Reply to this email, don't make new email subject) on the latest December 20, 2019

#### The word file name format:

ID First author's name ICAMBF2019

Example: ID40 Ari Ramelan ICAMBF2019

#### Note:

- 1. Please make sure the originality is more than 75% (similarity less than 25%)
- 2. References are minimum 10 lists (international journal mostly), which should be cited in the manuscript and please to follow the references template.
- 3. Please use IOP Conference Proceedings format as guidelines to write the article.

If you have any questions, please contact us.

Thank you for your cooperation.

Kind regards,







○ Sampah

#### Blokir

## Bls: Announcement to submit Full Paper ICAMBF 2019

ある Terjemahkan pesan ke: Indonesia | Jangan pernah terjemahkan dari: Inggris

Ir.AM.Ade Lisantono M.Eng

Kam 17/10/2019 16.26

4th ICAMBF 2019 <4thicambf2019@easychair.org> imes

Lisantono and Joshua for ICA... 159 KB

Dear Organizing committees of ICAMBF 2019

Here by, I send the manuscript of our paper of ICAMBF-2019 with paper ID: 018 (see attachment).

Thank you very much for your kind attention.

Best regards,

Ade Lisantono

Dari: 4thicambf2019@easychair.org <4thicambf2019@easychair.org> atas nama 4th ICAMBF 2019

<4thicambf2019@easychair.org>

Dikirim: Rabu, 16 Oktober 2019 12.45

Kepada: Ir.AM.Ade Lisantono M.Eng <adelisantono@mail.uajy.ac.id>

Subjek: Announcement to submit Full Paper ICAMBF 2019

Dear Ade Lisantono,

We would like to inform you that final call to submit your manuscript before October, 18 2019, after this due date we can't progress your full paper to IOP Conference Proceeding: Material science and engineering and the payment wouldn't be back to you. Please send your manuscript as soon as possible. Thank you for your cooperation.

Kind regards,



#### Announcement to submit Full Paper ICAMBF 2019

Terjemahkan pesan ke: Indonesia | Jangan pernah terjemahkan dari: Inggris

icambf fmipa <icambf@mail.uns.ac.id> Rab 16/10/2019 12.44

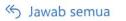
△ 5 % →

Ary Setyawan <cenase@yahoo.com>; Sabdoyono Harimurti <sabdoyono.w@gmail.com> +73 lainnya

Dear Author,

We would like to inform you that final call to submit your manuscript before October,18 2019, after this due date we can't progress your full paper to IOP Conference Proceeding: Material science and engineering and the payment wouldn't be back to you. Please send your manuscript as soon as possible. Thank you for your cooperation.

Kind regards,





III Hapus



( Sampah

Blokir

#### Bls: Tentative Schedule 4th ICAMBF

<zudah\_simaatul@apps.ipb.ac.id>; Kiagus Dahlan <kdahlan@apps.ipb.ac.id>; Dina Yauma Asra <dinayauma108@gmail.com>; Hendri Widiyandari <hendriwidiyandari@staff.uns.ac.id>; Tutik Murniasih < tutikmurniasih 71@gmail.com >; Veinardi Suendo < vsuendo@chem.itb.ac.id >; Fariza Eka Yunita <fariza.ekayunita@yahoo.co.id>; Sentot Budi Rahardjo <sentotbr@yahoo.com>; Budi Hastuti <bhastuti.uns@gmail.com>; Pranoto <pakpranotomipa@staff.uns.ac.id>; Tri Martini <tri martini@mipa.uns.ac.id>; Fitri Astuti <fitriastuti97@student.uns.ac.id>; Winda Maharditya <windamaharditya@student.uns.ac.id>; Nadiyah El-Haq Diyanahesa <nadiyahesa@gmail.com>; Agus Supriyanto <agusf22@staff.uns.ac.id>; Ari Handono Ramelan <aramelan@staff.uns.ac.id>; Mohd Khairul

Bin Ahmad <akhairul@uthm.edu.my>; Nanang Maulana Yoeseph <nanang.my@staff.uns.ac.id>; Arif Rahman <arifrahman@unj.ac.id>; Moersilah <moeng577@yahoo.com>; Viona Wismar <emailbaruyona@yahoo.co.id>; Latifa Hanum Lalasari <latifa.hanum@gmail.com>; Fauzan Ibnu Prihadiyono <fauzanibnup@student.uns.ac.id>; Tri Arini <arinitri82@gmail.com>; Florentinus Firdiyono <ffirdiyono@yahoo.com>; Lia Andriyah <andriyah\_yong@yahoo.com>; Fariza Eka Yunita <fariza.ekayunita@yahoo.com>; Eko Sulistiyono <eko221068@gmail.com>; Nadia Chrisayu Natasha <nadia\_natasha90@yahoo.com>; Ermiziar Tarmizi <uph\_ermi@yahoo.com>; Etik Mardliyati <etik.mardliyati@bppt.go.id>; Sri Hastuti <hastuti.uns@gmail.com>; Ari Handono Ramelan <aramelan@mipa.uns.ac.id>; Muhammad Iqbal Al Fuady <iqbalalfuady@gmail.com>; Khoirina Dwi Nugrahaningtyas <khoirina@mipa.uns.ac.id>; Hiroaki Onoda <h-onoda@kpu.ac.jp>; Wisnu Kundarto <wisnukundarto@staff.uns.ac.id>; Yofentina Iriani <yofent\_iriani@staff.uns.ac.id>; Refinda Rahmadhani <rahmadhanifinda@gmail.com>; Adi Yugatama <adi.yugatama@staff.uns.ac.id>; Yogi Sasongko Setiyobudi <yogisetiyobudi@gmail.com>; Hisreidi Funome <Hisreidifunome@gmail.com>; Soerya Dewi Marliyana <msoerya@staff.uns.ac.id>; Herman Herman <herman@fi.itb.ac.id>; Toma Mandani Mandani <tomamandani85@gmail.com>; Efendi Mabruri <efendi lipi@yahoo.com>; Yulinda Lestari <yulinda.lestari17@gmail.com>; Anne Zulfia <anne@metal.ui.ac.id>; Sri Sumarni <marnis\_ri@yahoo.com>; Liliek Triyono <liliek.triyono@polines.ac.id>; Fendi Aji Purnomo <fendi\_aji@mipa.uns.ac.id>; Dwi Rizaldi Hatmoko <inter.rider.drh@gmail.com>; Pranoto <pak\_pran@yahoo.com>; Ari Handono Ramelan <aramelan\_uns@yahoo.com>; Yuliana Heri Suselo <yulianaheri@staff.uns.ac.id>; Ahmad Marzuki <amarzuki@mipa.uns.ac.id>; Devara Ega Fausta <faustadev@gmail.com>; Ariyanti Ariyanti <riri99.cettaazzahra@gmail.com>; Eni Masruriati <emasruriati@gmail.com>; Sulistiani Mardaning Tyas <mardaningtyas@gmail.com>; Khylia Aulia Nur Khasanah <khylia.ank@gmail.com>; Yc Danarto <yc.danarto@gmail.com>; Diani Galih Saputri <dianigalihs@student.uns.ac.id>; Febrina Ramadhani <ramadhanifebii@gmail.com>; Eni Febriana <enif001@lipi.go.id>; Agus Budi Prasetyo <chencen\_abp@yahoo.com>; Murni Handayani <murnie\_h@yahoo.com>; Alfian Nur Firdaus <al\_firdausfian@student.uns.ac.id>; Rochmad Eko Cahyono <rochmad735@gmail.com>; Edi Pramono <edi.pramono.uns@staff.uns.ac.id>; Windy Ayu Lestari <windyayulestari7@gmail.com>; Candra Purnawan <candra\_pr@staff.uns.ac.id>; Sarah Rafidah <sarahrafidah@gmail.com>; Elli Elmatiana <elmatianaelli@gmail.com> Subjek: Tentative Schedule 4th ICAMBF

Dear All Participants,

Here we attach the Tentative Schedule of 4th International Conference Advanced Materials for Better Future (ICAMBF 2019) which will be held on October 7-8th, 2019 in Surakarta Indonocia



## Re: Submit full paper ID: 018

Terjemahkan pesan ke: Indonesia | Jangan pernah terjemahkan dari: Inggris

icambf fmipa <icambf@mail.uns.ac.id> Sel 01/10/2019 18.25 Ir.AM.Ade Lisantono M.Eng ∀

 $\triangle$  5 %  $\rightarrow$  ...

Dear Ade Lisantono

Thank you for submitting the Full Paper.

Regards,
4th ICAMBF Organizing committee

On Tue, Oct 1, 2019 at 4:12 PM Ir.AM.Ade Lisantono M.Eng < adelisantono@mail.uajy.ac.id> wrote:

Dear Organizing Committee of ICAMBF-2019

Here by, I send the full paper with Paper ID: 018 for ICAMBF-2019 (see attachment). Thank you very much for your kind attention.

Best regards, Ade Lisantono



#### 4th ICAMBF 2019 submission 18 update

- 1 Terlalu banyak email yang masuk? Berhenti Berlangganan
- Terjemahkan pesan ke: Indonesia | Jangan pernah terjemahkan dari: Inggris
- 4th ICAMBF 2019 <4thicambf2019@easychair.org>
  Sel 01/10/2019 16.19
  Ir.AM.Ade Lisantono M.Eng ≽



Dear authors,

we acknowledge that we received new files for your 4th ICAMBF 2019 submission. The information about this update is shown below.

Number: 18

Authors: Ade Lisantono

Title: High early strength of self compacting high strength concrete using quartz powder and silica fume.

Uploaded by: Ade Lisantono <adelisantono@mail.uajy.ac.id>

Updates:

paper, version 2 (132621 bytes)

To access the new version of your submission you should log in to the 4th ICAMBF 2019 EasyChair page.







○ Sampah

Blokir

# Re: Invoice and Transfer Receipt for Registration of ICAMBF 2019

is a Terjemahkan pesan ke: Indonesia | Jangan pernah terjemahkan dari: Inggris

icambf fmipa <icambf@mail.uns.ac.id> Sen 30/09/2019 12.18

Ir.AM.Ade Lisantono M.Eng ⊗

Received, and thank you for your cooperation

On Fri, Sep 27, 2019 at 4:14 PM Ir.AM.Ade Lisantono M.Eng <a href="mailto:adelisantono@mail.uajy.ac.id">adelisantono@mail.uajy.ac.id</a> wrote:

Dear Organizing Committee of ICAMBF 2019.

Here by, I sent invoice of registration and the transfer receipt for registration (IDR 3,500,000) of ICAMBF 2019. For the paper ID 018.

With the author Ade Lisantono.

Best regards, Ade Lisantono







Blokir

# Registration and Payment Reminder\_ICAMBF2019

Terjemahkan pesan ke: Indonesia | Jangan pernah terjemahkan dari: Inggris E S

icambf fmipa <icambf@mail.uns.ac.id>

Kam 19/09/2019 11.04

usman@che.ui.ac.id; pratik000.marathe@gmail.com; Ary Setyawan <cenase@yahoo.com> +43 lainny.

Dear Authors.

Warm greeting from Solo

We want to reminder about the registration and payment of ICAMBF 2019. Please fill register form in the link: http://bit.ly/registration4thicambf and proceed fee payment as the amount via UNS Virtual Account Billing http://bit.ly/paywayicambf. And send your proof payment in this email by mention the name and tittle of paper (icambf@mail.uns.ac.id).

Thank you and see you in ICAMBF 2019

Sincerely yours,

ICAMBF 2019 organizing committee

III Hapus



Sampah Blokir

# 4th ICAMBF 2019 submission 18 update

(i) Terlalu banyak email yang masuk? Berhenti Berlangganan

is a Terjemahkan pesan ke: Indonesia | Jangan pernah terjemahkan dari: Inggris

4th ICAMBF 2019 <4thicambf2019@easychair.org> Min 08/09/2019 15.57





Dear authors,

we acknowledge that we received new files for your 4th ICAMBF 2019 submission. The information about this update is shown below.

Number: 18

Authors: Ade Lisantono

Title: High early strength of self compacting high strength concrete using quartz powder and

silica fume.

Uploaded by: Ade Lisantono <adelisantono@mail.uajy.ac.id>

Updates:

paper, version 1 (14683 bytes)

To access the new version of your submission you should log in to the 4th ICAMBF 2019 EasyChair page.





III Hapus



Sampah

Blokir

#### Bls: Request for upload abstract file\_4th ICAMBF

#### a a Terjemahkan pesan ke: Indonesia | Jangan pernah terjemahkan dari: Inggris

Ir.AM.Ade Lisantono M.Eng

Min 08/09/2019 15.59

icambf fmipa <icambf@mail.uns.ac.id> ⊗



Thank you very much for the information. The abstract file has already submitted or uploaded through via easy chair.

Best regards, Ade Lisantono

Dari: icambf fmipa <icambf@mail.uns.ac.id> Dikirim: Sabtu, 07 September 2019 12.24

Kepada: syifa athirah <syariffahnurathirah1593@gmail.com>; alvinmhabieb@nano.or.id <alvinmhabieb@nano.or.id>; Ir.AM.Ade Lisantono M.Eng <adelisantono@mail.uajy.ac.id>; erhar.augusto@gmail.com <erhar.augusto@gmail.com>; salsabila.tsalatsa@gmail.com <salsabila.tsalatsa@gmail.com>; John Trihatmoko, Ir., MSc. <john.trihatmoko@uajy.ac.id>; ristisuryantari@unpar.ac.id <ristisuryantari@unpar.ac.id>; dikyanggoro@yahoo.co.id <dikyanggoro@yahoo.co.id>; iim.fatimah.its@gmail.com <iim.fatimah.its@gmail.com>; nurmasari01@ulm.ac.id <nurmasari01@ulm.ac.id>

Subjek: Request for upload abstract file\_4th ICAMBF

Dear authors,

We would like to say thank for your registration in 4th ICAMBF 2019. Please upload your abstract file (PDF format) via easy chair soon till Monday, September 10th 2019 for further process. The abstract template attached.

If you have any probelm, dont hesitate to contact us via this email. Thank you for your cooperation. Have nice day.

Best regards, 4th ICAMBF committee



#### 4th ICAMBF 2019 submission 18

Terlalu banyak email yang masuk? Berhenti Berlangganan

Terjemahkan pesan ke: Indonesia | Jangan pernah terjemahkan dari: Inggris

4th ICAMBF 2019 <4thicambf2019@easychair.org>
Jum 30/08/2019 11.49

3





Ir.AM.Ade Lisantono M.Eng  $\otimes$ 

Dear authors,

We received your paper:

Authors: Ade Lisantono

Title: High early strength of self compacting high strength concrete using quartz powder and

silica fume. Number: 18

The paper was submitted by Ade Lisantono <adelisantono@mail.uajy.ac.id>.

Thank you for submitting to 4th ICAMBF 2019.

Best regards, EasyChair for 4th ICAMBF 2019.

# 4TH INTERNATIONAL

# CONFERENCE ON ADVANC

# MATERIAL FOR BETTER

# FUTURE

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2019)

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ANNOUNCEMENTS Home > International Conference on Advanced Material for Better Future > 4th INTERNATIONAL

CONFERENCE ON ADVANCED MATERIAL FOR BETTER FUTURE 2019 (4th ICAMBF 2019) 4TH INTERNATIONAL CONFERENCE ON ADVANCED MATERIAL FOR

BETTER FUTURE 2019 (4TH ICAMBF

Presentation

SOLO PARAGON HOTEL

Speakers

OCTOBER 7, 2019 - OCTOBER 8, 2019

Organizing Team

Venue

Contact Us

Information For Authors

**Submiss** 

Author Guidelines The 4th INTERNATIONAL CONFERENCE ON ADVANCED MATERIAL FOR BETTER FUTURE

2019 (4th ICAMBF 2019), is going to be held on October 7-8, 2019 in Surakarta, Central Java, Indonesia which aims to bring a scientific forum covers all frontier topic in advanced materials and technology, related scientists, researchers and research scholars to communicate their research outcomes, sharing ideas and knowledge about all aspects of advanced materials and nanotechnology, and also to provides the premier interdisciplinary and multidisciplinary forum for researchers, practitioners and educators to present and discuss the most recent

# Online Submission

innovations, trends, and concerns, practical challenges encountered and the solutions adopted in advanced materials and their technology,

r me

The 4<sup>th</sup> ICAMBF 2019 revolves around the theme "Insight Toward Novel Research in Field of Materials for a Better Life".

Material Science is an interdisciplinary field that it is important to know about materials, their properties, influence of properties on their structures and the processes to make things stronger, cheaper, lighter, more functional and more beneficial in the current world. Some of the most commonly used materials are glass, rubber, wood, alloys, etc.

The conference will include plenary speeches, invited presentations, and contributed presentations (oral and poster). Also, we bring the ability to interact and advance their work through various speakers and workshop-exhibition sessions.

Selected papers will be published in "IOP Proceedings" (Open Acces) which is indexed by SCOPUS. All papers can be published after passing through the reviewing system.



# **ANNOUNCEMENTS**

#### INFORMATION FOR AUTHOR

**General Information** 

Posted: 2019-10-01

More...

REGISTRATION FEE

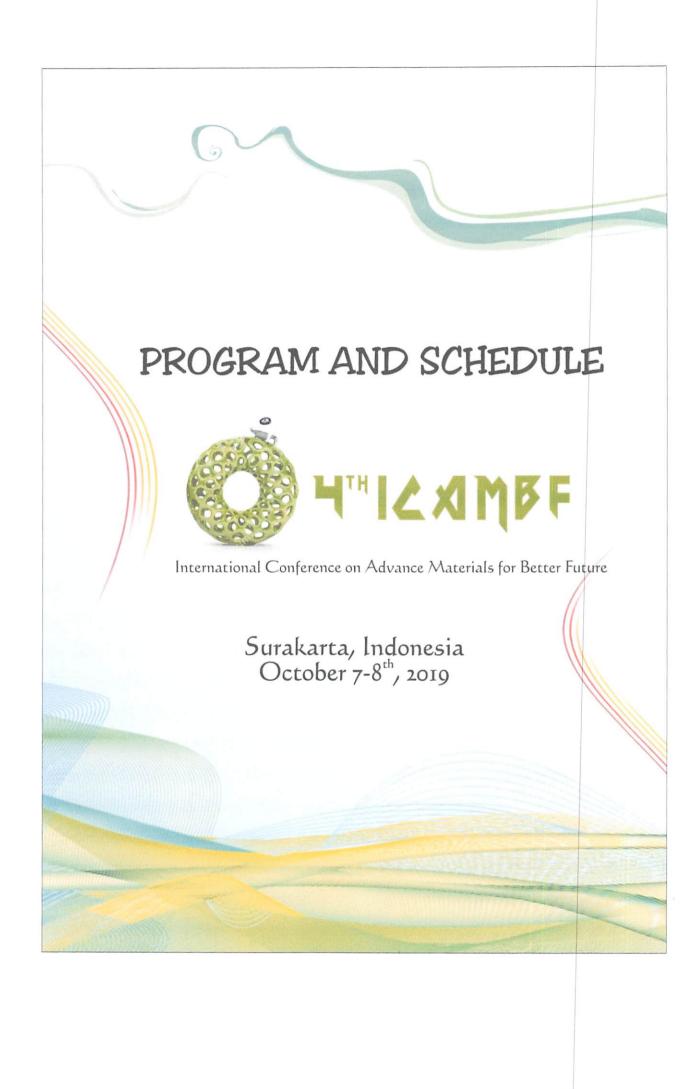
Posted: 2019-04-17

More...

More Announcements...

# **CONFERENCE INFORMATION**

- » Overview » Track Policies
- » Presentations
- » Conference Schedule
- » Registration
- » Accommodation
- » Organizers and Partners » Timeline



# **General Informations**

#### Date:

October 7-8<sup>th</sup>, 2019

#### Venue

Solo Paragon Hotel & Residences Jalan Dr. Sutomo, Banjarsari, Solo (Surakarta), Indonesia, 57125

# Official Language

English

# On-Site Registration

Emerald Grand Ballroom, Solo Paragon Hotel & Residences

# Paper Submission for Publication

Selected papers will be published in "IOP Proceedings" (Open Access) which is indexed by SCOPUS. All paper can be published after passing through the reviewing process.

# Information for Oral Presentation

- Presenters are requested to come to this event on time on October 7 -8<sup>th</sup>, 2019 at 07.30 am.
- ❖ Presenters are requested to submit their file presentation (file type: power point) by e-mail: icambf@mail.uns.ac.id before October 5<sup>th</sup>, 2019.
- All presentation of oral presenter will be delivered in parallel session.
- All presenter will be present their work for 10 minutes and 5 minutes later to Q&A.
- ❖ Parallel session was distributed according to the field that correlate with the topic of each presenter's research.
- All presentation will be presented their work according to schedule below. The existing fields consist of:

The existing fields				
Day 1	Day 2			
Civil & Construction Materials	Polymer & Composite - Functional			
Materials Chemistry and Physics	Materials			
Drug & Biomaterials Technology	Metallurgy & Alloy Materials			
Advanced Nanomaterials - Electrical Optical and Magnetic Materials - Advanced Materials for Energy	Miscellaneous Topics			

#### Information for Poster Presentation

- Poster presenters are requested to come to this event on time on October 7-8<sup>th</sup>, 2019 at 07.30 am.
- The poster presentation will be held in a special session on the Monday and Tuesday, October 7-8<sup>th</sup> 2019.
- During the poster session, all of poster presenters stand by beside of the x-banner poster and promote their research work to the participants that going to the x-banner poster exhibition.
- During the poster session, there will be poster voting session from all of participants to get "Best Poster Participant".
- ❖ Guideline for poster display: the poster is printed in size 160 x 60 cm on x-banner standing. The contents of x-banner poster are logo of ICAMBF and your affiliation, ID number, title, name and affiliation of authors, introduction, methods, results, conclusion, references, acknowledgement.

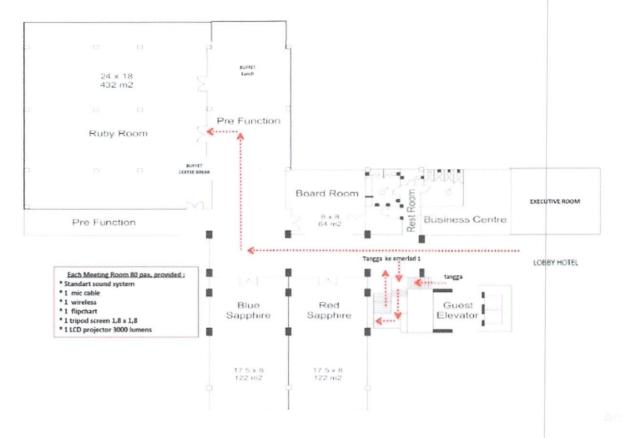
The font size of the title >40 pt

The font size of the name and affiliation of authors is 30 pt

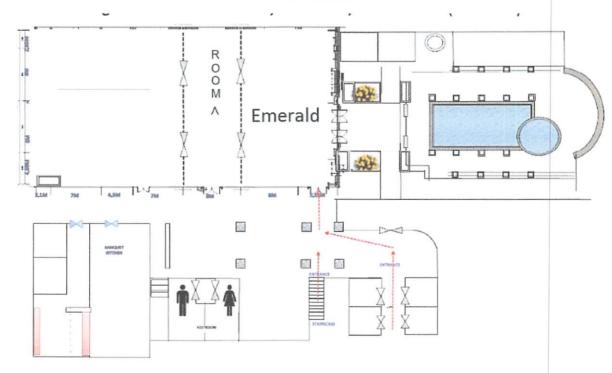
The font size of the text 24 pt

# Solo Paragon Hotel & Residences, Surakarta, Central Java





-2<sup>nd</sup> floor-



# **Schedule of ICAMBF**

# 4<sup>th</sup> International Conference on Advanced Materials for Better Future 2019 (ICAMBF)

# October 7-8<sup>th</sup> 2019

## Solo Indonesia

# DAY 1: October 7th 2019 - Monday

TIME	PROGRAMME	
07.30 - 08.00	Registration	
08.00 - 08.20	Poster Session	
08.20 - 09.00	Opening Ceremony (Emerald Grand Ballroom)	
09.00 – 09.45	PLENARY 1 Speaker: Prof. David Black School of Chemistry, University of New South Wales, Sydney, Australia (Emerald Grand Ballroom) Chairperson: Prof. Venty Suryanti, S.Si., M.Phil., Ph.D.	
09.45 – 10.30	PLENARY 2 Speaker: Prof. Yuichi Sato Akita University, Japan (Emerald Grand Ballroom) Chairperson: Prof. Venty Suryanti, S.Si., M.Phil., Ph.D.	
10.30 – 11.15	PLENARY 3  Speaker: Prof. Dr. Nurul Taufiqu Rochman, B. Eng., M. Eng. Ph. D  Head of Material and Metallurgical Research Center LIPI  (Emerald Grand Ballroom)  Chairperson: Dr. Eng. Risa Suryana, S.Si, M.Si.	

11.15– 12.00	PLENARY 4 Speaker: Prof. Dr. B. Muthuraaman Department of Energy, University of Madras Guindy, India (Emerald Grand Ballroom) Chairperson: Dr. Eng. Risa Suryana, S.Si, M.Si.					
12.00 - 13.00			H BREAK yer UG)			
·····		PARALLEL SESSION				
	Parallel session 1A-CCM (Executive) Chairperson: Ary Setyawan,	Parallel session: 1B-MCP (Board) Chairperson: Teguh Endah S	Parallel session: 1C-DBT (Emerald 1) Chairperson: Artini Pangastuti	Parallel session: 1D- AN/AME/EOM (Emerald 2) Chairperson: Agus Supriyanto		
13.00 – 13.15	Keynote: Ir. Ary Setyawan, M.Sc., Ph.D. (ID Paper 12)	M.Sc., Ph.D. (Tsalatsa Salsabila) S.Si., M.Phil., Ph.D.				
13.15 – 13.30	ID Paper 7 (SJ. Legowo)			ID Paper 3 (Yuliusman)		
13.30 – 13.45	ID Paper 10 (Rengga Aldian Shah Satya Putra)			ID Paper 5 (Yuliusman)		
13.45 – 14.00	ID Paper 18 (Ade Lisantono)	ID Paper 33 (Fitri Nur Aini)	ID Paper 34 (Eko Adi Prasetyanto)	ID Paper 14 (Aulia Rifada)		
14.00 – 14.15	ID Paper 20 (Yohana Baptista Nidia Putri Irwani)	ID Paper 35 (Jessica Evelyn)	ID Paper 31 (Iim Fatimah)			
14.15 – 14.30	ID Paper 21 (Erhar Augusto)	ID Paper 32 (Nurma Sari)				
14.30 – 14.45	(Patiha) (Tutik Murniasin) (Nurma Sari ID Paper 24 ID Paper 42 ID Paper 60 ID Paper 44 (Esti Ira santi) (Zudah Sima'Atul Kubro) (Etik Mardliyati) (Hendri Widiyar					
14.45 – 15.00	ID Paper 25 (Djoko Sarwono)	ID Paper 43 (Kiagus Dahlan)	ID Paper 66 (Wisnu kundarto)	ID Paper 46 (Nurhayati)		

15.00 – 15.15	ID Paper 69 (Refinda Rahmadhani)	ID Paper 50 (Budi Hastuti)	ID Paper 72 (Hisreidi Funome)	ID Paper 62 (Muhammad Iqbal Al Fuady)
15.15 – 15.30	ID Paper 71 (Yogi Sasongko Setiyobudi)	ID Paper 52 (Nadiyah Diyanahesa)	ID Paper 82 (Yuliana Heri Suselo)	ID Paper 68 (Rikha Puspita Rini)
15.30 – 15.45	ID Paper 75 (Toma Mandani)	ID Paper 55 (Arif Rahman)	ID Paper 85 (Ariyanti)	ID Paper 74 (Herman)
15.45 – 16.00	ID Paper 78 (Sri Sumarni)	ID Paper 65 (Hiroaki Onoda)	ID Paper 86 (YC Danarto)	ID Paper 83 (Devara Ega Fausta)
16.00 – 16.15		ID Paper 67 (Fernince Ina Pote)	ID Paper 26 (Shanghnesy Jovita Nirvana)	
16.15 – 16.30		ID Paper 88 (Diani Galih Saputri)		
16.30 – 16.45		ID Paper 89 (Febrina Ramadhani)		
POSTER		ID Paper 29 Muhammad Naufal Ariesta	ID Paper 70 (Adi Yugatama)	ID Paper 64 (Aji Indo Sabiila Gusti)
POSTER		ID Paper 41 (Lina Mahardiani)	ID Paper 87 (Adi Yugatama)	
POSTER		ID Paper 49 (Husna Syaima)		
POSTER		ID Paper 53 (Arina Wahyu H)		
POSTER		ID Paper 73 (Syahrul Fatrozi)		
POSTER		ID Paper 96 (Ozi Adi Saputra)		
POSTER		ID Paper 93 (Windy Ayu Lestari)		
POSTER		ID Paper 91 (Rochmad Eko Cahyono)		

POSTER	ID Paper 95 (Maryam Rahmi Utami)	
POSTER	ID Paper 97 (Sarah Rafidah)	

DAY 2: October 8th 2019 - Tuesday

TIME	PROGRAMME							
07.30- 8.00		Registration &	Tea Break					
8.00 - 09.30		Poster Presentation & Inst (Emerald G	rument Introduction rand Ballroom)					
9.30 – 10.15		PLENARY 5  Speaker: Prof. Dr. Md. Rahim Bin Sahar  Universiti Teknologi Malaysia  (Emerald Grand Ballroom)  Chairperson: Ahmad Marzuki, S.Si., Ph.D.						
10.15 – 11.00	PLENARY 6  Speaker: Prof. Ari Handono Ramelan, M.Sc (Hons), Ph.D  Sebelas Maret University  (Emerald Grand Ballroom)  Chairperson: Ahmad Marzuki, S.Si., Ph.D							
11.00 – 11.30		Technical Talk Sponsorship  Bobby F. Assidiq, Ph.D  (Emerald Grand Ballroom)						
11.30 – 12.30		<b>Lunch br</b> (Foyer U						
TIME		PROGRAMME						
12.30 – 12.45	Parallel session 2A-PCM-FM (Emerald 1) Chairperson: Witri Wahyu Lestari	Workshop of Herbal Medicine Safety: Preparation, Identification						
12.45 – 13.00	ID Paper 19 (Dian W. Kurniawidi)	and Analysis Technique  (Ruby)						
13.00 – 13.15	ID Paper 39 (Endang Susilowati)	ID Paper 47 (Fariza Eka Yunita)	ID Paper 28 (Risti Suryantari)	(08.00 – 14.30)				

13.15 – 13.30	ID Paper 51 (Fitri Astuti)	ID Paper 76 (Efendi Mabruri)	ID Paper 37 (Sabdoyono Wiyasa Harimurti)
13.30 – 13.45	ID Paper 56 (Arif Rahman)	ID Paper 77 (Yulinda Lestari)	ID Paper 54 (Nanang Maulana Yoeseph)
13.30 – 13.45	ID Paper 57 (Arif Rahman)	ID Paper 84 (Ahmad Marzuki)	ID Paper 79 (Liliek Triyono)
13.45 – 14.00	ID Paper 81 (Dwi Rizaldi Hatmoko)	ID Paper 90 (Eni Febriana)	ID Paper 80 (Fendi Aji Purnomo)
14.00 – 14.15		ID Paper 92 (Eko Sulistiyono)	
POSTER	ID Paper 38 (Endang Susilowati)	ID Paper 58 (Latifa Hanum Lalasari)	
POSTER	ID Paper 61 (Fatimah Riska Prasetyaningrum)		
14.45 – 15.15		Closing Statement an (Emerald Grand	nd Certificate Remark l Ballroom)

# Utility of local quartz powder and silica fume to produce high early strength of self compacting high strength concrete.

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**Abstract.** Generally concrete needs 7 to 14 days to reach minimum adequate compressive strength. Sometimes it is needed to get high early compressive strength of concrete for some reason. This research conduct an experimental program to make high early strength of self compacting concrete which is using local quartz powder and silica fume. Twenty one cylinder specimens were made and tested to get the compressive strength at age of 1 day, 3 days, 7 days, 14 days, 21 days, and 28 days. While the modulus elasticity of concrete were tested only at the age of 28 days. The cylinder specimen was using standard size of (150 × 300) mm<sup>2</sup>. The experimental program shows that the average compressive strength of concrete in 1 day, 3 days, 7 days, 14 days, 21 days, and 28 days were 10.00 MPa, 27.16 MPa, 36.41 MPa, 40.93 MPa, 50.36 MPa, and 48.66 MPa, respectively. While the average modulus elasticity of the concrete at the age of 28 days was 18,703.45 MPa.

#### 1. Introduction

Concrete becomes famous materials for building construction in the past decades up to now. If the cast in situ concrete is using for material of building construction, the age of the concrete to reach the maximum compressive strength is very important. Generally, the concrete needs 28 days to reach the maximum compressive strength. Normally, concrete needs 7 to 14 days to achieve minimum compressive strength of 0.7 to 0.85 fc' as a minimum strength. If the minimum strength can be achieve, the scaffolding and formwork can be removed and the work can be proceed to the next step. It can be said that the project of building construction needs high early strength of concrete to make a faster project construction.

Experimental study to produce high early strength of concrete were conducted by Soni et al. [1]. This study is using plasticizer to achieve high early strength and the results showed that the concrete could get 40% high early strenth using the plasticizer. Yasin, et al. [2] used local materials of calcite stone from Tuban East-Java and sand from Bengawan Solo River, Bojonegoro East-Java to produce high early strength of concrete. The results showed that the high early strength of concrete can be achieved using the local materials. However, both studies were not intended for high early strength of self compacting concrete.

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In several decades ago up to now, self compacting compacting concrete was developed to solve the problem for complex form work of concrete structure such as thin element of structure or curved element of structure, especially in the element of structures which has congested reinforcement [3, 4]. So that, to get a high early strength of self compacting concrete using local quartz powder and silica fume, this research was conducted.

#### 2. Experimental Program

#### 2.1 Materials

Portland Pozzolana Cement (PPC) used in this project. Portland Pozzolana Cement is a hydraulic cement consisting of a homogeneous mixture between portland cement with fine pozzolan, which is produced by grinding portland cement and clinker pozzolan together, or mix evenly with portland cement powder with pozzolan powder, or a combination of grinding and mixing, where the levels of pozolan are 6% to 40% of the mass of Portland cement. Crushed stone with size of 0.5 – 1 cm used as coarse aggregates. The crushed stone is taken from local material in Yogyakarta Province. Quartz sand is taken from Bangka Belitung. In addition, nano quartz which has the finer mesh was also used as filler. The quartz sand with size 0.3–0.8 mm used as fine aggregates and additional quartz powder which has 200 meshes is also used as additional filler in the concrete. Silica Fume used in this project to encourage the pozzolana activity to begin earlier and continuing the hydration process of concrete so the concrete keep gaining its strength as conducted by Laura et.al. [5]. HRWR (High Range Water Reducer) is used in this research to improve the workability of the concrete in low water to cement ratio.

#### 2.2 Mix Design and Specimens

Several trial and errors of mix design were conducted to carry out the optimum mix design. The mixing was done by several steps. Before getting the optimum design, the initial mix design followed the mix design proposed by Ma and Dietz [6], where the concrete uses the full quartz sand and quartz powder. However, the workability of concrete was not good due to the low water cement ratio. Therefore, the mix design was changed and increased the water to cement ratio by 0.01 and balanced with proper the use of SPC until it forms a homogenous mixture. After the last trial, the optimum mix design of self compacting high strength concrete was gotten.

All the dry materials were mixed for around 2 minutes, and then added by water and HRWR slowly by periods until it forms a homogenous mixture of concrete. After that, the setting time and behavior of the mixtures were studied within one day. The cylinder specimens were cured into the water to keep the moistures of the specimens. The mix design of the self compacting high strength concrete is shown in Table 1.

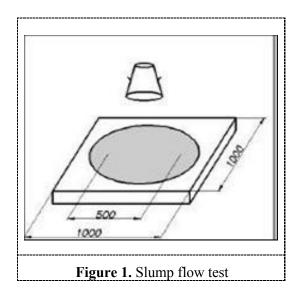
**Table 1.** The mix design of high strength concrete per m<sup>3</sup>.

No	Properties	Amount (kg)
1	Cement	510
2	Silica Fume	76.5
3	Water (WCR 0.35)	178.5
4	Total Aggregates	1443.3
5	Fine Aggregates (Quartz Sand)	485.52
6	Quartz Powder	208.08
7	Coarse Aggregates	749.7

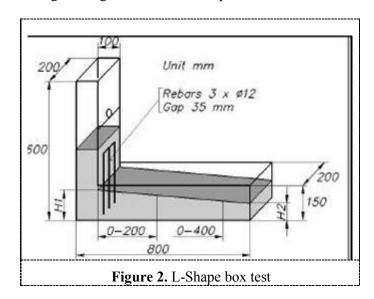
Twenty one cylinder specimens with the size of (150×300) mm<sup>2</sup> were made and tested in this study. The testing's of concrete were conducted at 1 day, 3 days, 7 days, 14 days, 21 days, and 28 days. In addition, the specimen at age of 28 days was also tested to investigate the modulus of elasticity of the concrete.

#### 2.3 Testing Specimen

The requirement test for self compacting concrete (SCC) were slump flow test and L-Shape box test. These testing were conducted in this study to carry out the filling ability and passing ability of the fresh concrete mixture EFNARC [7]. The slump flow test was depicted in Figure 1.



The L-shape box testing is using the standard L-shape box size as shown in Figure 2.



Universal Testing Machine (UTM) with the capacity of 30,000 kgf as shown in the figure 3 was used to conduct the compressive strength and modulus of elasticity testing of concrete.



Figure 3. Universal Testing Machine

#### 3. Results and Discussions

#### 3.1 Slump flow and L-shape box test

Slump flow test result of the concrete can be seen in Table 2. The slump flow results of the self compacting concrete were in the range of EFNARC requirement. The requirement for the slump flow is 600 to 800 mm, the result of slump flow of this research were in the range of EFNARC requirement.

Table 2.	Slump f	low test	result
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	Mixing for	Mixing	Mixing	Mixing for	Mixing for	Mixing for	EFNARC
	testing of 1	for testing	for testing	testing of	testing of	testing of 28	
	Day	of 3 Day	of 7 Day	14 Day	21 Day	Day	
Flow 1	680 mm	670 mm	680 mm	690 mm	700 mm	680 mm	
Flow 2	680 mm	680 mm	680 mm	680 mm	750 mm	680 mm	600 up
Flow 3	690 mm	650 mm	650 mm	700 mm	720 mm	650 mm	to 800 mm
Flow 4	700 mm	680 mm	630 mm	700 mm	720 mm	630 mm	******
Average	688 mm	670 mm	660 mm	693 mm	723 mm	660 mm	
T50	4 sec.	4 sec.	5 sec.	3 sec.	3 sec.	5 sec.	2-5 sec

Another testing of fresh concrete in this study was L-shape box test. The result of L-shape box test was shown in Table 3. It can be seen that the result of L-shape box test of the concrete follows the requirement of EFNARC. The requirement of L-shape box test for self compacting concrete according to EFNARC was in the range of 0.8 to 1.0. The result of L-shape box test of this research was in the range of 0.8 to 1.0. So, it can be said that the concrete of this study can be classified as self compacting concrete.

Table 3. L-shape box test result

Mixing	Mixing	Mixing	Mixing	Mixing for Mixing	EFNARC
WIIAIIIg	wiiking	wiining	WIIAIIIg	Withing for Withing	LITTING

	for testing of 1 Day	8	for testing of 7 Day	for testing of 14 Day	testing of 21 Day	for testing of 28 Day	
Blocking							
Ratio	0.83	0.86	0.842	0.87	0.82	0.86	0.8 < H < 1

The testing of the concrete was conducted at the age of concrete of 1 day, 3 days, and 7 days to investigate the early strength of the concrete and also for the concrete at the 14 days, 21 days, and 28 days to investigate the development strength of the concrete. The compressive strength result of the concrete can be seen in Table 4, while the development of the compressive strength can be seen in Figure 4. It can be seen from Table 4 and Figure 4 that the average compressive strength at the early strength at 1 day; 3 days; and 7 days were 10.00 MPa; 27.16 MPa; and 36.41 MPa, respectively. The compressive strength at 1 day was not so satisfied due to the quality of quartz sand which was taken from local material. The quartz sand from local material was not as good as the super fine grains size.

While the compressive strength at 14 days; 21 days; and 28 days were 40.93 MPa; 50.36 MPa; and 48.66 MPa, respectively. The concrete which has a compressive strength more than 41.4 MPa can be categorized as high strength concrete [8]. So, it can be said that the self-compacting concrete in this research can be classified as high strength concrete, because the compressive strength of the concrete at 21 days and 28 days had the value more than 41.4 MPa.

**Table 4.** The compressive strength test result

Age	Specimen	Load (kN)	Strength (MPa)	Average (MPa)
1 Day	1	120	6.79	
	2	200	11.32	10.00
	3	210	11.88	
3 Days	1	450	25.46	
	2	510	28.86	27.16
	3	480	27.16	
7 Days	1	650	36.78	
	2	590	33.39	36.41
	3	690	39.05	
14 Days	1	680	38.48	
	2	700	39.61	40.93
	3	790	44.7	
21 Days	1	870	49.23	
	2	920	52.06	50.36
	3	880	49.8	
	1	790	44.71	
28 Days	2	880	49.8	48.66
	3	910	51.49	

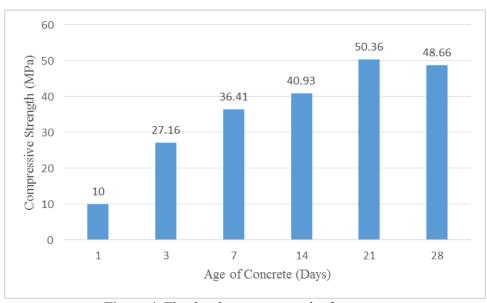


Figure 4. The development strength of concrete

The modulus of elasticity of the concrete was conducted when the concrete has reached 28 days. The modulus of elasticity of the concrete was depicted in Table 5. It can be seen from Table 5 that the average of modulus of elasticity was 18,703.45 MPa. The modulus of elasticity of self-compacting concrete in this research has the value less than the normal concrete which usually has the modulus elasticity more than 20,000 MPa. This indicated that the self-compacting concrete in this study was not as stiff as the normal concrete.

**Table 5.** The modulus of elasticity.

Cylinder	Modulus of elasticity	Average
	(MPa)	(MPa)
1	17,512.87	
2	19,525.82	18,703.45
3	19,071.68	

#### 4. Conclusion

Based on the result of experiments program, several conclusions can be drawn as follow:

1. The fresh properties testing of self compacting high early strength of concrete fulfils the requirements of Self Compacting Concrete. It is indicated by the average of slump flow and L-Shape Box testing in 1 day; 3 days; 7 days; 14 days; 21 days; and 28 days.

- 2. The early strength of self compacting high strength concrete in one day, three days, and seven days were 10 MPa; 27.16 MPa; and 36.41 MPa, respectively. This indicated that the early high strength of self compacting concrete which is more than 20 MPa can be achieved at three days.
- 3. The compressive strength of self compacting concrete in 14 days; 21 days; and 28 days were 40.93MPa; 50.36 MPa; and 48.66 MPa, respectively. The compressive strength of the self-compacting concrete at 21 days and 28 days had the value more than 41.4 MPa. It means that the self compacting concrete in this research can be classified as high strength concrete.

#### Acknowledgments

The Authors are wishing to acknowledge to the head and staff of the Laboratory of Structures and Materials, Department of Civil Engineering, Faculty of Engineering, Universitas Atma jaya Yogyakarta for the facilities, so the research can be conducted.

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