



[AUDITORIUM DTI ITS, 31 AGUSTUS 2019]

“FROM ZERO TO HERO” PERJALANAN MENJADI MAHASISWA BERPRESTASI

Oleh:

Rafif Nova Riantama

Reza Aulia Akbar

Muhammad Afif Purwandi

Mahasiswa Teknik Industri

Institut Teknologi Sepuluh Nopember



PRESTASI MAHASISWA TI ITS

CONGRATULATION AND GOOD LUCK



TOP 5 MAWAPRES ITS

PROFIL

CONGRATULATION AND GOOD LUCK





MAWAPRES TEKNIK INDUSTRI ITS 2019

PROFIL



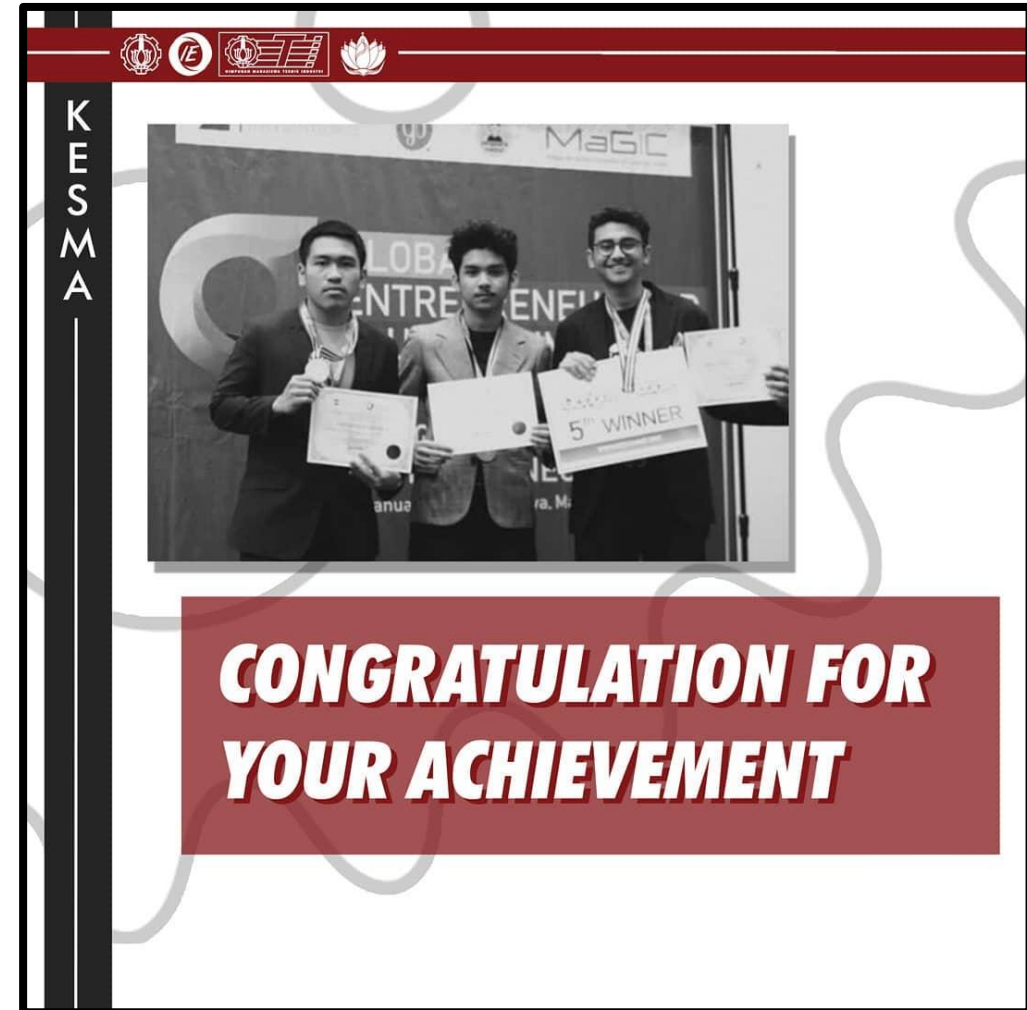
PRESTASI MAHASISWA TI ITS



PRESTASI MAHASISWA TI ITS



PRESTASI MAHASISWA TI ITS







OUR ACHIEVEMENTS

15 PRESTASI & PENGHARGAAN
KOMPETISI ILMIAH

09 KARYA PENELITIAN
(Bidang : Ergonomi, Teknologi, Lingkungan,
Perairan, TTG, Sosial, Energi, *Engineering*
Construction, Peternakan, Fisika, Desain
Produk, *Aviation*)

10 PENGALAMAN
INTERNASIONAL
(China, Korea Selatan, Malaysia, Indonesia,
Singapura, Thailand, Hong Kong, Japan,
Australia, United States of America)

PRESTASI AKADEMIK



Rafif Nova Riantama

IPK : 3,59

Beasiswa Kemendikbud RI



Muhammad Afif P

IPK : 3,63

Beasiswa Bank Indonesia



Reza Aulia Akbar

IPK : 3,65

Beasiswa Kemendikbud RI



10-12 August 2018

Seoul, Korea

Deadline: 31 May 2018

The intention of this competition is:

- 1) To foster global leaders through creativity, Moral courage and team work.**
- 2) To foster talents that will lead the creative economy era by developing leadership based on personal strengths and talents.**
- 3) To broaden horizon as a global citizen through the exchange with students from all over the world.**
- 4) To seek out young talents who will lead the future intellectual property society.**

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Asosiasi Inovator Ilmuan Muda



JOIN US AND BE THE REAL INNOVATORS!



KIYO 2018

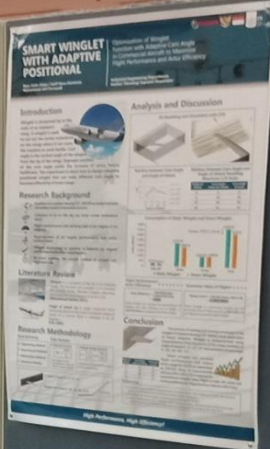


세종대학교
세종대학교
SEJONG UNIVERSITY

38-05

38-05

38-04



KIYO 2018



KIYO 2018

CONCLUSION

- Mattec can be applied at locomotive dashboard optimally at the angle of 0 degree, distance 50 cm between webcam and eye, and 16.6 lux minimum of light intensity.
- Mattec simulation result isn't different with KSS result, Mattec valid as fatigue-drowsiness detector.
- *Mattec (integrated system) helps train drivers' sleep and loss of alertness.*

MAFTEC

REZA AULIA AKBAR · RAFIF NOVA RIANTANA · MUHAMMAD AFIQ PURWANDI

INTEGRATED FATIGUE-DROWSINESS DETECTOR TO PREVENT TRAIN ACCIDENT

RESEARCH BACKGROUND

- Transportation accident is top 10 human fatality (WHO,2016)
- 35 Train accidents between 2010-2016 with 295 casualties
- 33% train accident caused by human error influenced by fatigue and drowsiness (Database of KEMT, 13 October 2016)

LITERATURE REVIEW

Drowsiness Parameter

LEVEL	EYE CLOSED DURATION	COLOR INDICATOR
Normal	75 ms - 400 ms	Green
Light	400 ms - 800 ms	Yellow
Heavy	>800 ms	Red

RESULT & ANALYSIS

Working Method

MINI PC → WEB CAM → VIBRATING ARMBAND → Eye detection → Drowsiness detected → Alert in control center interface → Databases of train driver's drowsiness

CONCLUSION

- MAFTEC can be applied at human resources safety in the railway industry as the fatigue, drowsiness, and distraction detection system.
- MAFTEC can be used with 130-miles-per-hour train speed in the railway industry.
- MAFTEC integrated with the railway industry can be used to prevent train accidents.

EVERYDAY IS SAFETY AS SAFETY HAS



KIYO 2018

2018

KIYO 4i

Korea International Youth Olympiad

8.10 Fri ~ 12 Sun

이종대학교 광개토관 컨벤션센터



(재)세계여성발명기업인협회

후원



POSTECH

한양대학교

경희대학교

한글대학교

한글대학교

CROWN

한글대학교



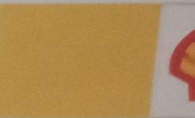
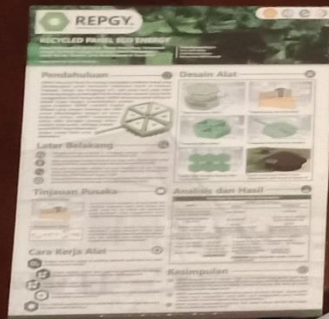
THINK EFFICIENCY 2018



THINK EFFICIENCY 2018



REPGY



SHELL LUBRICANTS
TOGETHER ANYTHING IS POSSIBLE

THINK EFFICIENCY 2018

THINK EFFICIENCY 2018

SHELL & ENERGY ACADEMY INDONESIA

THINK EFFICIENCY

2018



THINK EFFICIENCY 2018



SHANGHAI, CHINA



TRIP TO SHELL TECHNOLOGY CENTER IN SHANGHAI
THINK EFFICIENCY 2018 WINNERS

BIDANG YANG DILOMBAKAN

1. Teknologi Transportasi
2. Sarana dan Prasarana Transportasi
3. Sistem Transportasi
4. Aspek Sosial-Transportasi



ADI CIPTA
TATA WAHANA NUSANTARA
AWARD

LPT 2018
(PROPOSAL)

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SELAMAT DATANG
PESERTA TERBAIK
LOMBA 2017
Penelitian Transportasi
REGIONAL SURABAYA

LOMBA 2017
Penelitian Transportasi
JUARA I
REGIONAL SURABAYA
Rp 5.000.000,-

KEMENTERIAN PERHUBUNGAN REPUBLIK INDONESIA
BADAN PENELITIAN DAN PENGEMBANGAN PERHUBUNGAN
KATEGORI ULTRA ST
Tingkat Internasional

KEMENTERIAN PERHUBUNGAN REPUBLIK INDONESIA
BADAN PENELITIAN DAN PENGEMBANGAN PERHUBUNGAN
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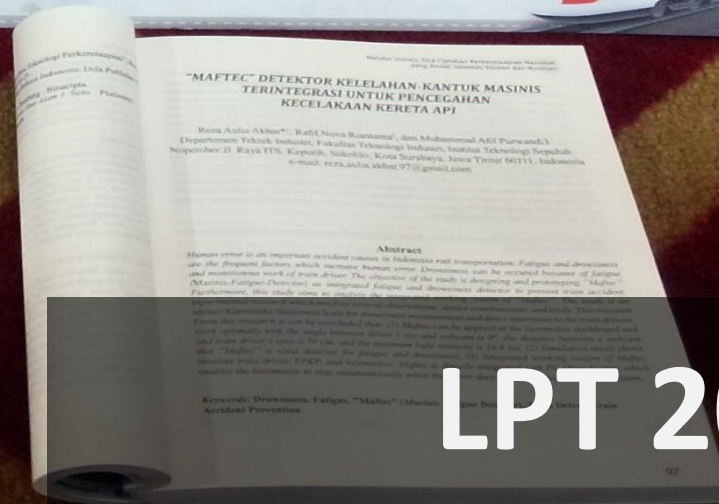
LPT 2017



LPT 2017



LPT 2017



LPT 2017





Penelitian Transportasi

REGIONAL JAYAPURA

Lomba Penelitian Transpor

@lomba...sport

official...anspor

Rp 5.000.000.-

Rp 4.000.000.-

Rp 4.000.000.-



LPT 2017



詹天佑教育館

詹天佑

1861-1919

LPT 2017

A man with glasses, wearing a black puffer jacket, tan trousers, and brown shoes, is walking on a wide, paved sidewalk in an urban setting. To his left is a landscaped area with green bushes and a tree. In the background, there are modern buildings, a pedestrian bridge, and a bus stop. A red diagonal banner is overlaid on the left side of the image.

SHARING SESSION I MUHAMMAD AFIF P.

Muhammad Afif Purwandi

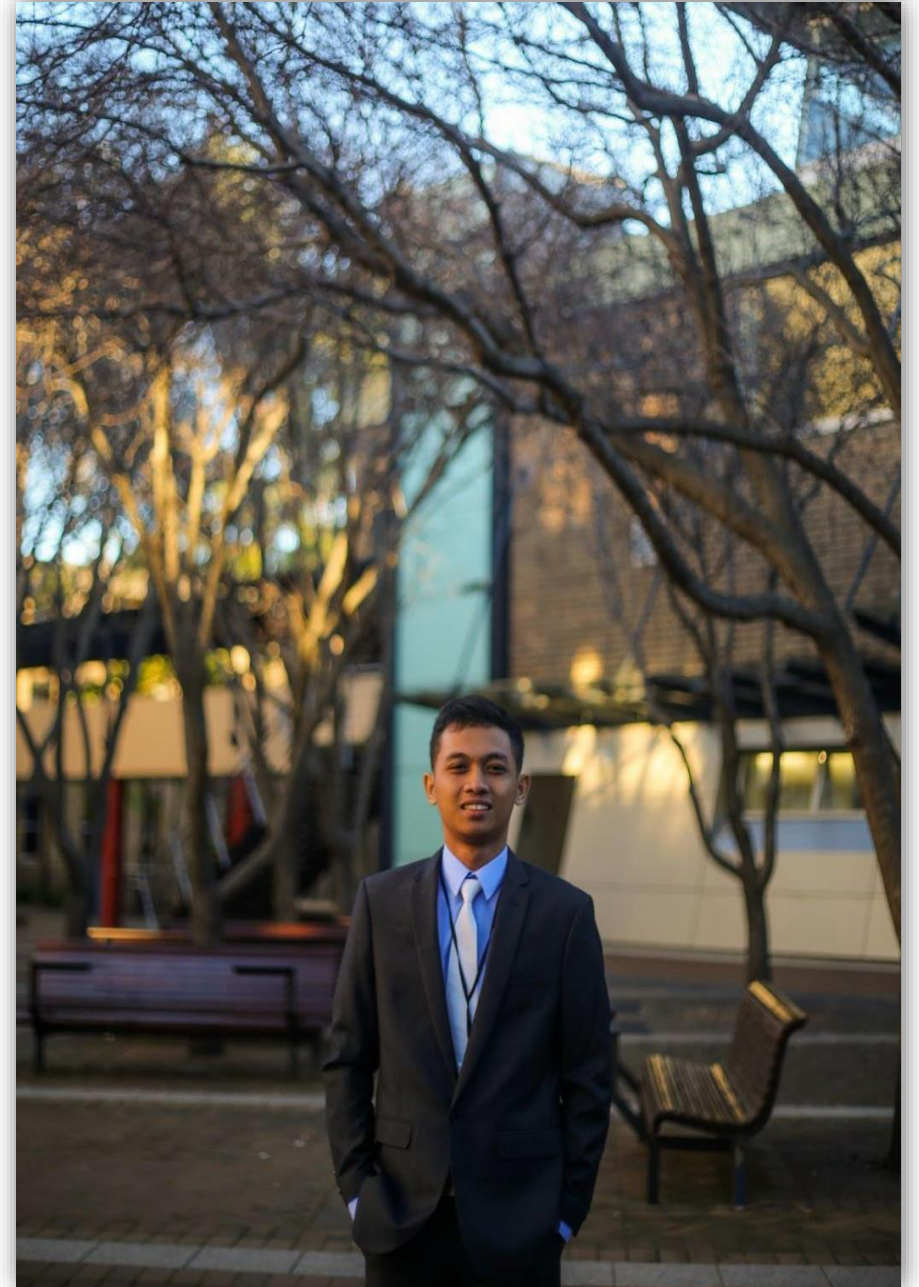
[linkedin.com/in/afifpurwandi](https://www.linkedin.com/in/afifpurwandi)

Education : Industrial Engineering ITS '16

Age : 21

Origin City : Sidoarjo, East Java

 afifpurwandi



College Achievements

2019

- The 3rd Most Outstanding Student of Indonesia 2019
- Young Leaders for Indonesia (YLI) by McKinsey & Company Wave 11
- Most Outstanding Student of ITS 2019

2018

- 1 Silver and 2 Bronze Medals at Korea International Youth Olympiad (KIYO) 2018. Seoul, South Korea
- 1st Winner of Shell ft. Energy Academy Indonesia THINK EFFICIENCY 2018.
- Honorable Mention at Asia Pacific Model United Nations Conference (AMUNC) 2018. Sydney, Australia
- Best Position Paper at International Student-Energy MUN 2018, Universitas Indonesia
- 1st Winner of Petra Business Management Competition (BMC) 2018)
- Awardee of Beasiswa Unggulan Bank Indonesia 2018

2017

- 1st Winner of Lomba Penelitian Transportasi Nasional by Badan Penelitian dan Pengembangan Kementerian Perhubungan Republik Indonesia.
- Adi Cipta Tata Wahana Award Recipient by Budi Karya Sumadi, Kementerian Perhubungan Republik Indonesia.
- 2nd Winner of Soedirman Science Competition, National Scientific Paper Competition by Universitas Jendral Soedirman.
- Delegate of Indonesia at Kumamoto University Summer Program 2017 Kumamoto, Japan.
- 3rd Winner of DESCOMFIRST "*Innovation of Industrial Equipment*" 2017, *Product Design Competition for University Student Across Southeast Asia.*



High School Achievements

- 1st Winner of Hi-Fest English Debate Competition 2016, Surabaya, Jawa Timur.
- Best Speaker of Hi-Fest English Debate Competition 2016, Surabaya, Jawa Timur.
- 1st Winner of E-Week British Parliamentary Debate Competition 2016 by Universitas Negeri Surabaya.
- 3rd Winner of East Java National School Debating Championship 2015 by Indonesia's Ministry of Education.
- Best Speaker of East Java National School Debating Championship 2015 by Indonesia's Ministry of Education.
- Selected Delegate of East Java at National School Debating Championship 2015, by Indonesia's Ministry of Education.
- 1st Winner of Hi-Fest English Debate Competition 2015, Surabaya.
- 3rd Winner of E-Week Asia Parliamentary Debate Competition 2015 by Universitas Negeri Surabaya.
- 1st Winner of CHELATION English Debate Competition by Teknik Kimia Institut Teknologi Sepuluh Nopember Surabaya.
- Best Speaker of CHELATION English Debate Competition by Teknik Kimia Institut Teknologi Sepuluh Nopember Surabaya.
- 1st Winner of SEDC English Debate Competition by Universitas Widya Kartika Surabaya.
- Best Speaker SEDC English Debate Competition by Universitas Widya Kartika Surabaya.
- 3rd Winner of International Relation English Debate Competition 2014 by Universitas Gadjah Mada.
- 3rd Winner of GRIDATION English Debate Competition 2014, Kediri, Jawa Timur.
- Best Speaker of GRIDATION English Debate Competition 2014, Kediri, Jawa Timur.
- 1st Winner of Kanesha English Fiesta Debate Competition 2014, Malang, Jawa Timur.
- 3rd Best Speaker of Kanesha English Fiesta Debate Competition 2014, Malang, Jawa Timur.
- 2nd Winner of Lomba Debat Anti Korupsi 2014 by Sekolah Tinggi Ilmu Ekonomi (STIE) Perbanas Surabaya.
- Semifinalist of ESC Open Debate Competition 2014 by Universitas Brawijaya.



Organization Experience

- Head Coach of ITS Delegation for Euro Model United Nations 2019 Maastricht, Netherland
- Head Delegate of IE ITSfor Korea International Youth Olympiad 2018 Seoul, Korea
- Head Delegate of ITS for Asia Pacific Model United Nations Conference 2018 Sydney, Australia
- Head of Generasi Baru Indonesia (GenBI) ITS 2018/2019 Surabaya, Indonesia
- Assistant of Logistics and Supply Chain Laboratory Industrial Engineering ITS 2018/2020 Surabaya, Indonesia
- Vice President at English Federation of SMANISDA 2014/2015 Sidoarjo, Indonesia
- Steering Committee of IE Games 2017 Surabaya, Indonesia



2017



**Design Competition for Industrial System and Environment (DESCOMFIRST) 2017.
Solo, Indonesia**

Kumamoto University Summer Program 2017 Kumamoto, Japan

Kumamoto University 2017
Summer Program in English Closing Ceremony
Kumamoto University



2018

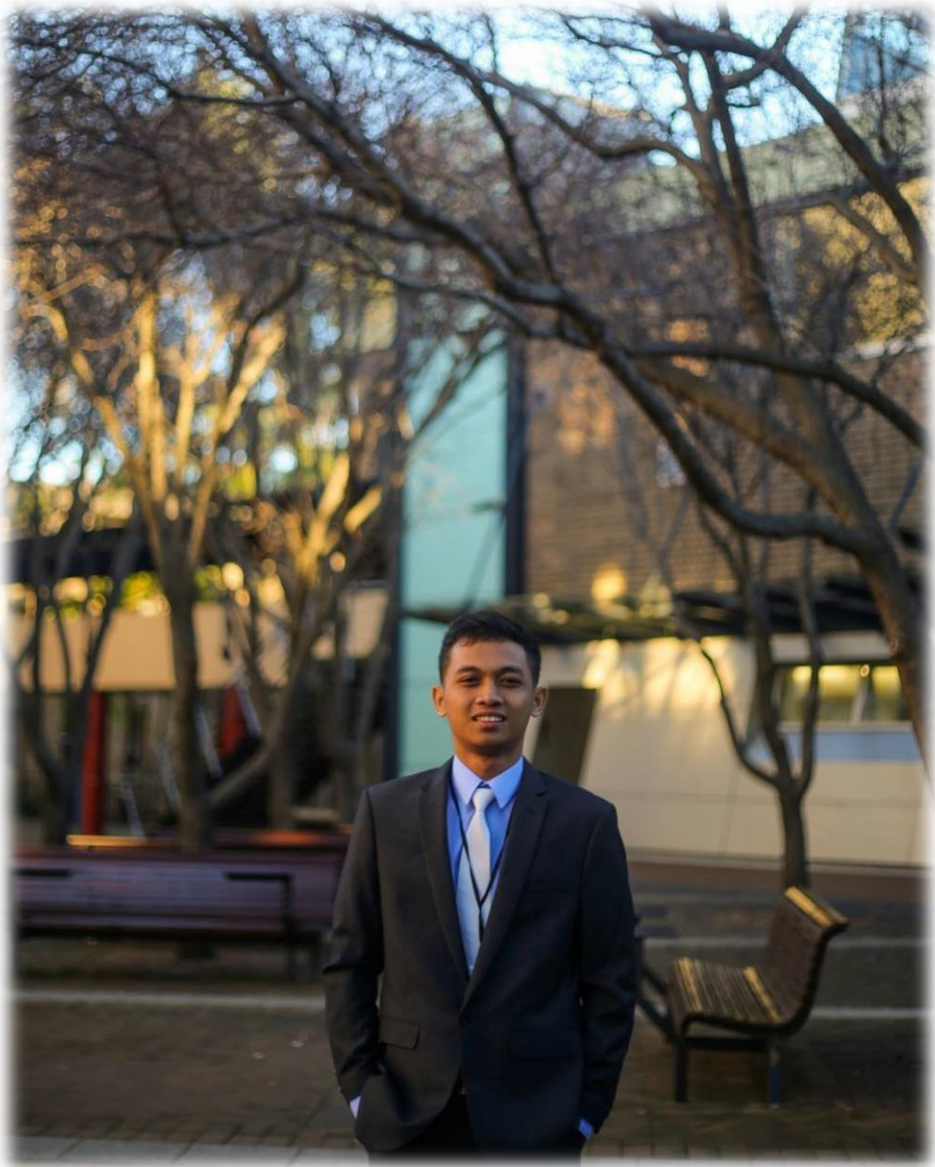


International Student-Energy Model United Nations Conference 2018 Depok, Indonesia

Petra Business Management Competition 2018 Surabaya, Indonesia



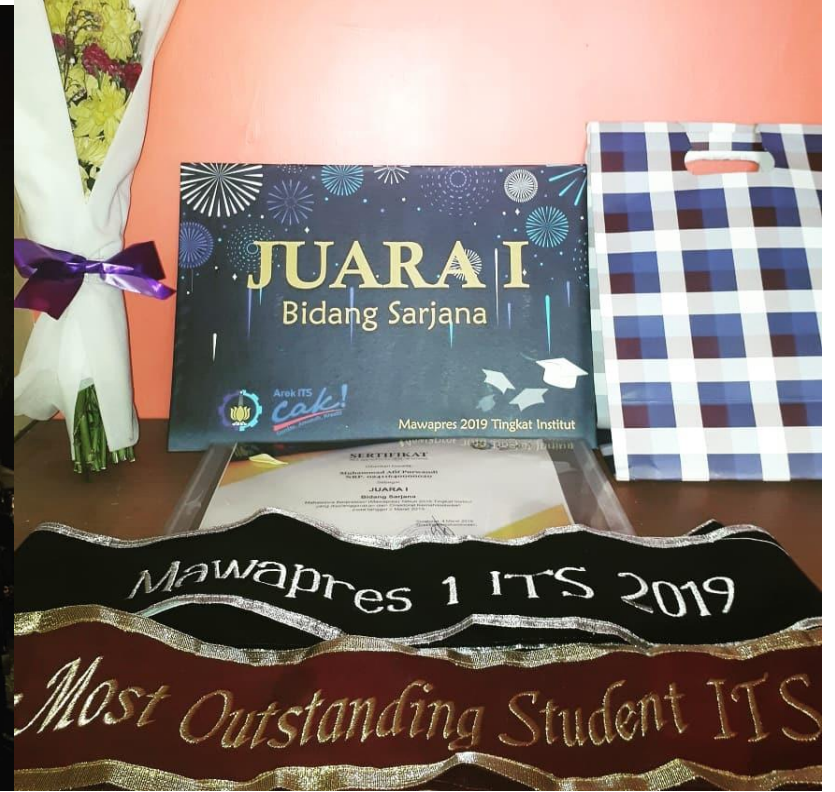
2018



Asia Pacific Model United Nations Conference 2018 Sydney, Australia







Pemilihan Mahasiswa Berprestasi ITS 2019



Young Leaders for Indonesia by McKinsey & Company Wave



Pemilihan Mahasiswa Berprestasi Nasional 2019

SHARING SESSION 2

REZA AULIA AKBAR





Nama :

Reza Aulia Akbar

Tempat/Tanggal Lahir :

Bantul, 28 November 1997

Alamat :

Gandekan, Guwosari, Pajangan

No. Handphone :

085725848191

Hobi :

**Meneliti, Mencoba hal baru,
Travelling, dan Bisnis**

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INSTAGRAM



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E-MAIL



reza.aulia.akbar.97@gmail.com

CURRICULUM VITAE

Indonesia Ambassador - Study of the USA
Periode 2019 - Sekarang

MAWAPRES (Mahasiswa Berprestasi) 2 ITS
Periode 2018 - 2019

Ketua PKM dan Ketua Dept. Profkil HMTI ITS
Periode 2018 - Sekarang

Tim Peneliti dan Surveyor Proyek Dosen TI ITS
Periode 2016 - Sekarang

Trainer Keilmiah “Inspirator” ITS
Periode 2018 - Sekarang

Koordinator Asisten Laboratorium Ergonomi
Periode 2018 - 2020

Penulis Buku Penelitian Ilmiah Remaja
Periode 2016



PRESTASI & PENGHARGAAN

JUARA 1

Kompetisi “DESCOMFIRST – Product Design Competition”. Surakarta University (UNS), Tingkat ASEAN 2019

50 BESAR FINALIS

Kompetisi “Fly Your Ideas – Airbus Competition”. Airbus Company, Tingkat Internasional 2018 – 2019

1 MEDALI PERAK + 2 MEDALI PERunggu

Korea International Youth Olympiad (KIYO)” 4th. World Women Inventors & Entrepreneurs Association (WWIEA). Seoul – Korea Selatan, 2018

JUARA 2

Green Wave Environmental Care Competition. Semborp Marine Ltd. Sembawang – Singapore, 2018

JUARA 1

Lomba Essay Pemuda 2018 “Peranku untuk Indonesia”. Studec Internasional dan Korea Exchange, 2018





PENGALAMAN KERJA

PKM - ABDIMAS

Tim Pengabdian Kepada Masyarakat (Abdimas), Pendanaan Tahun 2018

PKM - IBPE

Tim Program IPTEK bagi Produk Ekspor (IBPE), Pendanaan Tahun 2018

TIM ANALISIS DAN PENGKAJIAN

Perencanaan Ketenagakerjaan (Analisa Strategi Penyiapan Tenaga Kerja di Surabaya Dalam Menghadapi Era Industri 4.0) Tahun 2018

TIM EVALUASI KINERJA

Dinas Pekerjaan Umum Bina Marga dan Pematusan (DPUBMP) Pemerintah Kota Surabaya Tahun 2018

SURVEYOR PENGUKURAN KINERJA

Dinas Kebersihan dan Ruang Terbuka Hijau (DKRTH) Pemerintah Kota Surabaya Tahun 2018

TIM PENYELEKSI KERJA

Dinas Komunikasi dan Informasi (Kominfo) Pemerintah Kota Surabaya Tahun 2017 - Sekarang



BEASISWA PRESTASI

BEASISWA PEMERINTAH DIY

Periode : 2014 - 2015

BEASISWA PRESTASI KEMENDIKBUD (OPSI)

Periode : 2014

BEASISWA DATAPRINT

Periode : 2016

BEASISWA PRESTASI RISTEKDIKTI

Periode : 2017

BEASISWA UNGGULAN KEMENDIKBUD

Periode : 2017 - Lulus S1

JUDUL BUKU

“Penelitian Ilmiah Remaja”

**Jurus Jitu Lolos dan Juara Kompetisi Ilmiah Nasional Bidang
IPA/Sains/Teknik**

PENULIS

Reza Aulia Akbar & Ave Rahman

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Kompetisi Ilmiah Nasional
Bidang IPA/Sains/Teknik**

**Penulis:
Reza Aulia Akbar
Ave Rahman**



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JUARA III

KATEGORI SLTA-S1

LOMBA PENELITIAN TRANSPORTASI TINGKAT NASIONAL TAHUN 2016

Rp. 20.000.000,-
+
EDUCATION TRIP TO AUSTRALIA



LPT 2016



LPT 2016



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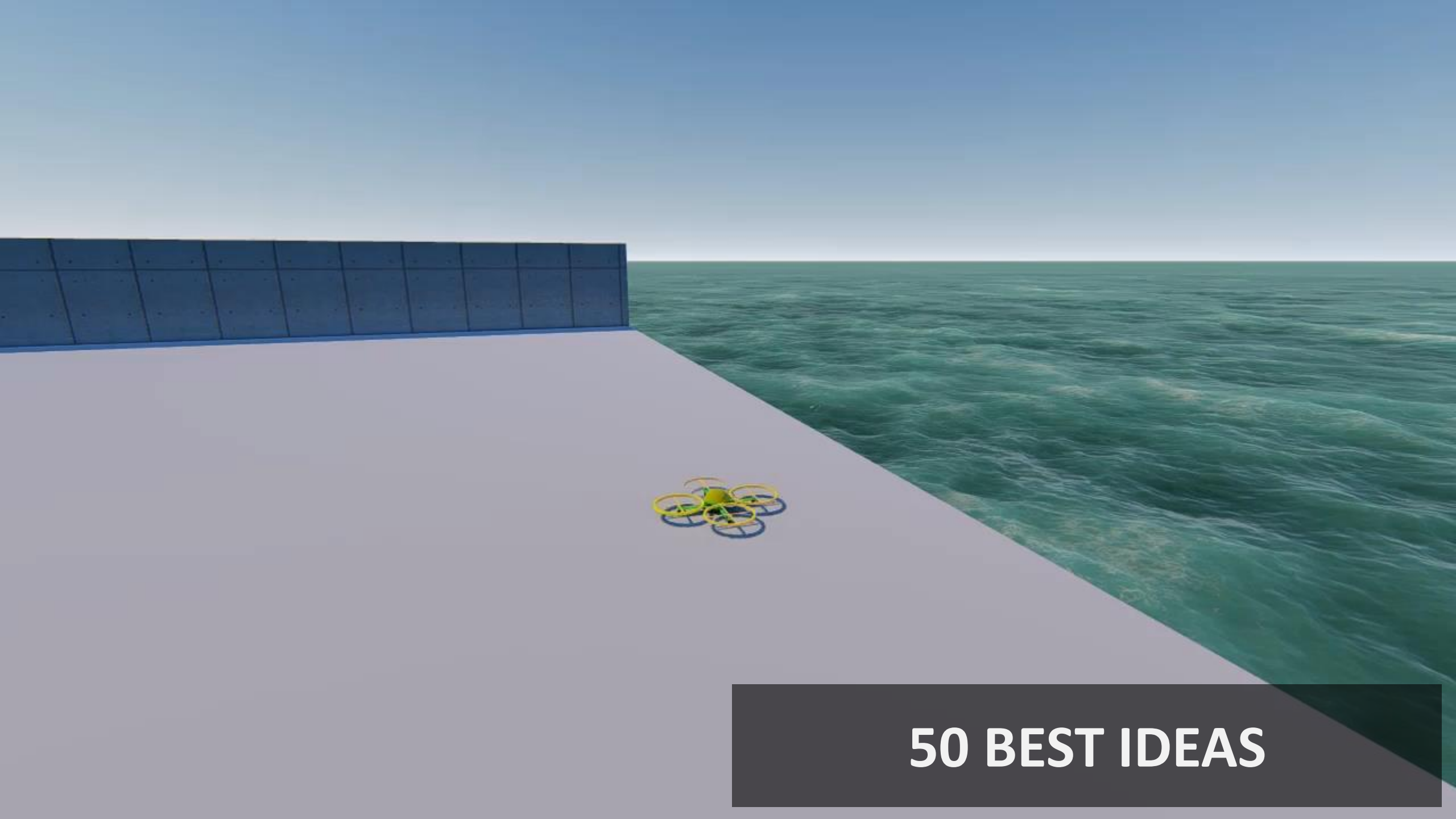
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LPT 2016



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(PROPOSAL)**

(airbus-fyi.com/)



50 BEST IDEAS



DESCOMFIRST
2019



**DESIGN COMPETITION FOR INDUSTRIAL
SYSTEM AND ENVIRONMENT 2019**



**FAVORITE WINNER
IDR 1.000.000**

**DESIGN COMPETITION FOR INDUSTRIAL
SYSTEM AND ENVIRONMENT 2019**

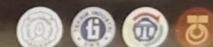


**1st WINNER
IDR 10.000.000**

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SHARING SESSION 3

RAFIF NOVA Riantama

