

## Day 1 – Wednesday, December 5<sup>th</sup> 2018

ITS Research Center Building, Surabaya

07:00 – 08:30	On-site registration	11 <sup>th</sup> Floor Registration Desk
08:30 – 08.45	Opening Ceremony	11 <sup>th</sup> Floor Auditorium Hall
08:45 – 09:00	Welcome Speech	11 <sup>th</sup> Floor Auditorium Hall
09:15 – 10:15	Keynote Speaker: Ignasius Jonan [Indonesian Minister for Energy and Mineral Resources]	11 <sup>th</sup> Floor Auditorium Hall
10:15 – 11:15	Keynote Speaker: Susi Pudjiastuti [Indonesian Minister for Maritime Affairs and Fisheries]	11 <sup>th</sup> Floor Auditorium Hall
11:30 – 12:30	Lunch and Maritime Expo	1 <sup>st</sup> Floor Lobby
12:45 – 15:45	Parallel Session 1. Ocean Engineering 2. Aquaculture 3. Naval Architecture 4. Marine Engineering 5. Marine Transportation Eng.	Auditorium Hall, 11 <sup>th</sup> Floor Conference Room A, 11 <sup>th</sup> Floor Conference Room B, 11 <sup>th</sup> Floor Conference Room C, 10 <sup>th</sup> Floor Conference Room D, 10 <sup>th</sup> Floor
19:00 – 21:00	Gala Dinner <i>*transportation are available</i>	Balai Kota Surabaya

## Day 2 – Thursday, December 6<sup>th</sup> 2018

ITS Research Center Building, Surabaya

07:00 – 08:30	On-site registration	11 <sup>th</sup> Floor Registration Desk
08:30 – 08.45	Opening	11 <sup>th</sup> Floor Auditorium Hall
09:00 – 09:15	Coffee Break	11 <sup>th</sup> Floor lobby
09:15 – 10:00	Keynote Speaker: Prof. Kung-Yen Lee [Dept. of Engineering Science and Ocean Engineering]	11 <sup>th</sup> Floor Auditorium Hall
10:00 – 10:45	Keynote Speaker: Prof. Satriyo S. Brodjonegoro [AIPI Chairman]	11 <sup>th</sup> Floor Auditorium Hall
10:45 – 11.30	Keynote Speaker: Prof. Ikegami Yasuyuki [Leader of OTEC Division, Institute of Ocean Energy, Saga University]	11 <sup>th</sup> Floor Auditorium Hall
11:30 – 12:30	Lunch and Maritime Expo	1 <sup>st</sup> Floor Lobby
12:45 – 14:45	Parallel Session 1. Ocean Engineering 2. Aquaculture 3. Naval Architecture 4. Marine Engineering 5. Marine Transportation Eng.	Auditorium Hall, 11 <sup>th</sup> Floor Conference Room A, 11 <sup>th</sup> Floor Conference Room B, 11 <sup>th</sup> Floor Conference Room C, 10 <sup>th</sup> Floor Conference Room D, 10 <sup>th</sup> Floor
15:00 – 15:30	Awarding and Closing Ceremony	11 <sup>th</sup> Floor Auditorium Hall

*NB: Each presenter will be given 15 minutes to present and discuss their paper.*

**PARALLEL SESSION 1**  
**WEDNESDAY 12:45 – 15:45**

**1. NAVAL ARCHITECTURE I**

Conference Room A, 5<sup>th</sup> Floor

**Chair :** Ir. Wasis Dwi Aryawan, M.Sc., Ph.D.

**Invited Speaker :**

Prof. I Ketut Aria Pria Utama, M.Sc., Ph.D. [Dept. of Naval Architecture, ITS Surabaya]

“Reducing Ship Emissions: A Review of Potential Practical Improvements in the Propulsive Efficiency of Future Ships”

Paper Presentation:

1. **Technical and Economic Analysis of Development of Steel Bridge on Ship Industry for Diversified Business**  
Rony Purwono, Heri Supomo and I Ketut Suastika
2. **Application of Wearable Device for Real Time Monitoring System of Shipyard’s Fabrication Workers**  
Triwilaswandio Wuruk Pribadi
3. **Human Resource management application in the Ship Repair Industry Web Based**  
Mohammad Sholikhan Arif, Triwilaswandio Wuruk Pribadi, Salsabella Sam Aldini and Rizky Chandra Ariesta
4. **Preliminary Computational Fluid Dynamic (CFD) Resistance Simulation of Crocodile Ship Prototype**  
Wisnu Wardhana and Agung Purwana
5. **Analysis of Access and Monitoring Systems Implementation on Human Resources to Improve The Performance in Shipbuilding Industry**  
Triwilaswandio Wuruk Pribadi, Ilham Salo and Sufian Imam Wahidi
6. **Comparative Study on Ferry Ro-Ro’s Car Deck Structural Strength by Means of Application of Sandwich Materials**  
Tuswan, Achmad Zubaydi, Agung Budipriyanto and Septia Hardy Sujiatanti
7. **Study of Shear and Pressure Flow on The Variation of Ship Hull Shapes as One of The Biofouling Growth Factors**  
Muhammad Auliya Alamsyah, Muhammad Luqman Hakim and I Ketut Aria Pria Utama
8. **Application of Image Processing Technique on the Simple Open Free Running Test of A Ship Model for Rudder Evaluation**  
Aries Sulisetyono and Andre T.S. Imran

## 2. MARINE ENGINEERING I

Conference Room B, 5<sup>th</sup> Floor

**Chair :** Ir. Agoes Achmad Masroeri, M.Eng., D.Eng

**Invited Speaker :**

Prof. Semin, ST., MT., Ph.D [Dept. of Marine Engineering, ITS Surabaya]

“Title of Lecture”

Paper Presentation:

1. **Design Innovation of Electrical Power Plan on Traditional Fishing Boat in Puger Jember Using Vortex Induced Vibration (VIV)**  
Muammar Kadhafi, Agus Triono and Robertoes Koekoeh K.W
2. **The Effect of Angle of Attack and Chord Length of The Foil on Winged Air Induction Pipe Optimization Toward Drag Reduction by Using Numerical Approach**  
Yanuar, Muhammad Alief, M. Akbar and Fatimatuzzahra
3. **Influence of Hydrofoil Clearance towards Total Drag Reduction on Winged Air Induction Pipe for Air Lubrication using Numerical Study**  
Yanuar, Fatimatuzzahra, Muhammad Alief, M Akbar and Made Susena
4. **Thermodynamic Analysis of Cascade Refrigeration System using CO<sub>2</sub> - NH<sub>3</sub> Refrigerant for Fish Cold Storage Application**  
Nazaruddin Abubakar and Sutopo Purwono Fitri
5. **Numerical Study of The Influence of Stagger Angle on A Savonius Vertical Axis Water Turbine Performance in front of Returning Blade**  
Priyo Agus Setiawan, Triyogi Yuwono and Wawan Aries Widodo
6. **Development of Spare Parts Models in Inventory Systems with The Concept of Vendor Managed Inventory in The Mining Industry**  
Mohammad Cipto Sugiono, Iwan Vanany and Niniet Indah Arvitrida
7. **The Sustainability Naval Base Model using System Dynamic Methods**  
Okol Sri Suharyo, Avando Bastari, Harun Bektı Ariyoko and Indra Agustian
8. **Naval Technology Development Strategy in The Integrated Fleet Weapon System For Supporting The Principal Task of Indonesian Navy**  
Ahmadi Ahmadi, Avando Bastari, Bill Saudiaz and April Kukuh Susilo

### 3. OCEAN ENGINEERING I

Conference Room C, 11<sup>th</sup> Floor

**Chair :** Dr. Ir. Wahyudi, M.Sc.

**Invited Speaker :**

. . . [Dept. of Ocean Engineering, ITS Surabaya]

“Title of Lecture”

Paper Presentation:

1. **Dynamic Response of Circular, Hexagonal and Rectangular Shaped Floating Fish Cage in Waves**  
Yuni Ari Wibowo and M. Romdonul Hakim
2. **Seanerg : Electiric Power Plant Powered by Ocean Stream and Ocean Wind, with The Use of Gorlov Helical Turbine and Savonius Wind Turbine as A Solution of Electricity Crisis in Indonesia**  
Yanuar, Muhammad Alief, M. Akbar and Fatimatuzzahra
3. **Social and Individual Risk Assessment of Gas Pipelines Leakage on Residential Zones**  
Budhi Santoso and Maria Margareta Zau Beu
4. **Aerodynamic Performance Analysis of Vertical Axis Wind Turbine (VAWT) Darrieus Type H-Rotor Using Computational Fluid Dynamics (CFD) Approach**  
Wisnu Wardhana and Elyas Nur Fridayana
5. **A Review of Application and Implementation of Blue Economy on The Maritime Tourism, Case Study: Dullah Island**  
Donny Endra Prastya and Raja Oloan Saut Gurning
6. **Analysis of Impact and Handling of Montara Oil Spills in Timor Sea**  
Salsabilla Gucchaka Prajwalita Hening Putri, Mukhtasor and Daniel M Rosyid
7. **Numerical study of influence of turbulence model to a vertical axis Savonius turbine**  
Priyo Agus Setiawan, Sudiyono Sudiyono, Rini Indarti, Arief Subekti, Nopem Ariwiyono, Anda Iviana Juniani and Adi Wirawan Husodo
8. **THE DESIGN OF PHYSICAL MODEL AND PREPARATION OF EXPERIMENTAL STUDY ON ARTICULATED TOWER – OCEAN WAVE ENERGY CONVERSION (AT-OWEC)**  
Eko Budi Djatmiko, Heri Supomo and Setyo Nugroho

## 4. MARINE TRANSPORTATION ENGINEERING I

Conference Room D, 11<sup>th</sup> Floor

**Chair :** Dr.Eng. I.G.N. Sumanta Buana, S.T., M.Eng.

**Invited Speaker :**

Ir. Tri Achmadi, Ph.D. [Dept. of Marine Transportation Engineering, ITS Surabaya]

“Title of Lecture”

Paper Presentation:

1. **Estimating Capital Cost of Small Scale LNG Carrier**  
Muhammad Habib Chusnul Fikri, Kriyo Sambodho, Jooned Hendrarsakti and Galih Budiarto
2. **Big Data Analysis for Hybrid Straddle Carrier in Container Terminal to Improve Energy Performance**  
Putu Hangga and Takeshi Shinoda
3. **Sea Transportation Moda to Support The Implementation of Short Sea Shipping in The South Coastal Area of Java Island**  
Teguh Budhi Iwan Setiawan and Ariston Yoga Pradhana
4. **Study on Implementation of Risk Based Inspection using FMEA-FTA Method on Ro-Ro Ship Bastiong-Sofifi Trip**  
Bagus Gelis Pratama Putra, Wasis Dwi Aryawan and Yani Nurita Purnawanti
5. **Analysis of Supply and Demand of Coal Terminal in Sumatera**  
Christino Boyke Surya Permana, Hasan Iqbal Nur and Syaughy Alif Fadhila
6. **The Implementation of Traffic Separation Scheme in The Sunda Strait and Its Future Impacts**  
Fadilla Indrayuni Prastyasari, Takeshi Shinoda, Ketut Buda Artana, A.A.B. Dinariyana
7. **Design Evaluation Methodology for Ship's Outfitting Equipment by Applying Multi-criteria Analysis: Proper Choices Analysis on Ballast Water Management Systems**  
I Gusti Ngurah Sumanta Buana, Katsuhisa Yano and Takeshi Shinoda
8. **Concept Design of LNG Mobile Floating Bunkering pontoons in Port of Perak Surabaya**  
Hayy Nur Abdillah, Ketut Buda Artana and I Made Ariana

**5. AQUACULTURE I**  
Auditorium Hall, 11<sup>th</sup> Floor

**Chair :** Haryo Dwito Utomo, S.T., M.Eng., Ph.D.

**Invited Speaker :**

Dr. Eng. Yeyes Mulyadi [Dept. of Ocean Engineering, ITS Surabaya]

“Title of Lecture”

Paper Presentation:

1. **Ecological study of epiphytic diatoms in Eucheuma denticulatum cultivation areas of Indonesia**  
Ma'Ruf Kasim, Ade Winesti and Wa Nurgayah
2. **Effect of paranet shade on the growth and morphological characteristics in six mangrove seedlings**  
Mohammad Basyuni
3. **MANAGING OPERATIONAL RISKS OF INDONESIAN OFFSHORE AQUACULTURE**  
Putu Karningsih, Dewanti Anggrahini, Agni Swastika, Novi Dwipayanti and Nur Syahroni
4. **The Diversity of Echinoderms (Echinoidea and Ophiuroidea) in Sarangan Beach, Gunung Kidul, Yogyakarta**  
Anggun Cinditya Putri, Puti Hana Ramadhani, Alfi Fatona Putri, Gina Salsabiila, Herdin Surya Dwi Putra, Nadya Ulfa N Firdaus and Achmad Mustofa Huda
5. **Seagrass Diversity in Intertidal Zone of Taman Nasional Laut Kepulauan Seribu**  
Shafira Arini Sundari, Afifah Nur Aini Putri, Arisa Ayuda Prasmiasari, Nofita Ratman, Muhammad Miftah Jauhar, Duwi Ayu Sulistiyani, Aditiana Vimala Guna, Abdul Basith Azzam, Epa Yohana Toga Torop, Afni Yuliyanti and Sri Eko Purwanti
6. **Seaweed Abundance and Diversity in Intertidal Zone of Porok Beach Gunungkidul, Yogyakarta**  
Afifah Nur Aini Putri, Shafira Arini Sundari, Abdul Basith Azzam, Aditiana Vimala Guna, Muhammad Miftah Jauhar, Arisa Ayuda Prasmiasari, Sri Eko Purwanti, Nofita Ratman, Duwi Ayu Sulistiyani, Epa Yohana Toga Torop and Afni Yuliyanti
7. **Preparation of Cellulose Biofilms from Coastal Pandanus (Pandanus odorifer) leaves and Its Characterization**  
Salprima Yudha S, Morina Adfa, Irfan Gustian, Aswin Falahudin, Putjha Melati, Herlina and Agus Mailiza
8. **Microencapsulation Methanol Extract Of Solanum Muricatum Aiton By Using Chitosan**  
Devi Ratnawati, Eni Widiyati and Agus Martono Hadi Putranto Martono Hadi Putranto

**PARALLEL SESSION 2**  
**THURSDAY 12:45 – 14:45**

**1. NAVAL ARCHITECTURE II**  
Conference Room A, 5<sup>th</sup> Floor

**Chair :** Aries Sulisetyono, S.T., M.A.Sc., Ph.D.

**Invited Speaker :**

Dr. Heri Supomo [Dept. of Naval Architecture, ITS Surabaya]

“Title of Lecture”

Paper Presentation:

9. **The Strategy of Production Improvement in The Medium-Sized Shipyard to Support the Tol Laut Programme**  
Muhammad Riyadi
10. **Numerical Study of Changing Position LCG Influence to Resistance in Crew Boat 31 Meter**  
Soegeng Riyadi, Ketut Suastika and Ikap Utama
11. **Design Concept of Catamaran Passenger Solar Power Boat for Gili Ketapang Island, Probolinggo – Indonesia**  
Ahmad Nasirudin and Abdul Hamdan
12. **Analysis of The Effect of Flaw Depth and Size in Casting Material using Ultrasonic Testing Straight Beam Probe**  
Wing Hendroprasetyo and David Andreas Kostaman
13. **Damage Identification of the Sandwich Plate Having Core from Rice Husk-Epoxy for Ship Deck Structure**  
Abdi Ismail, Yudiono -, Achmad Zubaydi and Agung Budipriyanto
14. **Mechanical Properties Analysis of Slat Inter-Lay Joint Gap of Bamboo Laminates for fishing Boat Construction**  
Heri Supomo, Eko Budi Djatmiko and Achmad Zubaydi
15. **The Comparison of Characteristics Profile of the Traditional Boats in Lamongan, Probolinggo, and Pasuruan, Indonesia**  
Yugowati Praharsi, Mohammad Abu Jami'In, Gaguk Suhardjito and Hui-Ming Wee
16. **The Using of Simulation on Vibration Analysis and Mode Shape of Orthotropic Material on the Construction of Wooden Ship**  
Debby Raynold Lekatompessy and Achmad Zubaydi

## 2. MARINE ENGINEERING II

Conference Room B, 5<sup>th</sup> Floor

**Chair :** A.A.Bagus Dinariyana Dwi P., ST., MES., Ph.D

**Invited Speaker :**

Dr. I Made Ariana, S.T., M.T. [Dept. of Marine Engineering, ITS Surabaya]

“Title of Lecture”

Paper Presentation:

9. **Crowdfunding as an Alternative Financial Instrument to Develop Infrastructure for Economic Sustainability on Alor Island**  
Desta Rifky Aldara and Raja Oloan Saut Gurning
10. **Experimental Study The Influence of Addition H<sub>2</sub>-(HHO) Generator and Turbo Cyclone on Performance Engine 110 CC**  
Pramoda Agung Sumadhijono, Nizar Arief Ibadurrohman, Mochamad Yusuf, Getar Satria Kartikadaru and Bambang Sudarmanta
11. **NUMERICAL STUDY OF MULTISTAGE MUNICIPAL SOLID WASTE GASIFICATION DOWNDRAFT SYSTEM WITH AIR RATIO PYROLYSIS, OXIDATION, AND REDUCTION 1:8:1**  
Rizqiana Yogi Cahyaningtyas, Bambang Sudarmanta and Arif Rahman Saleh
12. **EXPERIMENTAL STUDY ON THE ANALYSIS OF THE USE OF FORWARD AND REARWARD WINGTIP FENCES 90O CANT ANGLE ON WING AIRFOIL EPPLER 562**  
Bayu Cahyo
13. **Stability Behavior of Water-in-Diesel Fuel Emulsion and Currents Trends Engine Performance and Emission**  
Rosid Rosid, Bambang Sudarmanta and Endah Purwanti
14. **Performance Analysis Of Radial Fluks Interior Permanent Magnet Generator 24Slot 16Pole at 1000 rpm Using Finate Elment Analysis**  
Wahyudin Gorang and Purwadi Agus Darwito
15. **Modeling of Mechanical Energy Harvesting System by Utilizing The Weight of Vehicle as A Source of Electrical Energy for The Portal Gate System**  
Joni Dewanto and Oegik Soegihardjo
16. **Utilization of Arafura’s Ocean Current Potential Using Gorlov Helical Turbine as an Energy Source for Cold Storage Platforms and Fuel Distribution in Overcoming Fisheries Logistics Problems in Eastern Indonesia**  
Muhammad Rizqi Mubarok and Raja Oloan Saut Gurning



### 3. OCEAN ENGINEERING II

Conference Room C, 11<sup>th</sup> Floor

**Chair :** Suntoyo, S.T., M.Eng., Ph.D.

**Invited Speaker :**

Dr. Eng. Rudi Walujo Prastianto, [Dept. of Ocean Engineering, ITS Surabaya]

“Title of Lecture”

Paper Presentation:

9. **Smart Grid Concept as Distribution Power Solution in The Bawean Island to Improve The Marine Tourism**  
Prasetyo Adi Wibowo and Raja Olan Saut Gurning
10. **Development Of Debrice in Coastal Marine Areas Based on Blue Economy of The Marine Environment**  
Dhani Priatmoko and Saut Gurning
11. **Dredging Volume Analysis Using Multi Beam Echo Sounder Data**  
Khomsin Khomsin, Eko Yuli Handoko, Danar Guruh Pratomo and Irfan Maulana Yusuf
12. **Effects of longitudinal shifts of centre of gravity on ship resistance: a case study of a 31 m hard-chine crew boat**  
Soegeng Riyadi, Ketut Suastika, Ikap Utama and Xuefeng Zhang
13. **OTEC Potential Studies for Energy Sustainability in Riau Islands**  
Ibnu Kahfi Bachtiar and Risandi Dwirama Putra
14. **Renewable and Sustainable Energy Development to Improve people's Welfare towards the Availability of energy: A Review**  
Hari Subagyo

## 4. MARINE TRANSPORTATION ENGINEERING II

Conference Room D, 11<sup>th</sup> Floor

**Chair : ...**

**Invited Speaker :**

Dr-Ing. Setyo Nugroho [Dept. of Marine Transportation Engineering, ITS Surabaya]  
“Title of Lecture”

Paper Presentation:

9. **Understanding The Integration of Maritime Policy to Accomodate Marine Environment Sustainability**  
Guntur Rhoma Dony and Raja Oloan Saut Gurning
10. **Indonesia Sea Transportation Network Based on Blue Economy**  
Lutfi Farissandi and R.O Saut Gurning
11. **The Study on the Resistance Test Performance of BPPT Mini-Submarine**  
Erwandi Erwandi, M. Ridwan Utina, Totok Murwatono and Siti Sadiyah
12. **Structural Failure of hull RoRo passenger ferries applied by IACS material regulation under collision incidents**  
Aditya Rio Prabowo, Bangun Ir Harsritanto, Teguh Putranto and Jung Min Sohn
13. **Design Architecture Cargo Acquisition for Traditional Shipping**  
Eka Ardhi
14. **Study of Sloshing LNG Tanks with and without Baffle by Computational Fluid Dynamic (CFD) Method**  
Muhammad Arif Pradana and Aries Sulisetyono

**5. AQUACULTURE II**  
Auditorium Hall, 11<sup>th</sup> Floor

**Chair :** Dr. Eng. M. Zikro, ST., M.Sc.

**Invited Speaker :**

Dr. Dewi Hidayati [Dept. of Biology, ITS Surabaya]

“Title of Lecture”

Paper Presentation:

9. **Capture of Sea Fish Life in Application Maritime Blue Economy in Indonesia**  
Suratno . and Raja Gurning
10. **Coastal Open-Water Modelling Integrated Multi-Trophic Aquaculture (IMTA) Based on Blue Economy**  
Abdul Ghofur Ragil Insani and Raja Oloan Saut Gurning
11. **Connecting SDG (14) with the Blue Economic Concept “Conserve Use the Ocean Seas and Marine Resource for Sustainable Development Life Below Water in Indonesia”**  
Al Taqna Adam Wijaya and Raja Olan Saut Gurning
12. **OPTIMISING OF SMART INTEGRATED NEAR SHORE FISH AGGREGATING DEVICE FOR INDONESIA OCEAN BASE ON BLUE ECONOMY**  
Jangka Rulianto and R. O. Saut Gurning
13. **Mapping Installation Risk of An Offshore Aquaculture**  
Dewanti Anggrahini, Nani Kurniati, Putu Dana Karningsih and Agni Dipta Swastika
14. **The Conceptual Model of National Resilience Based on Indonesia Maritime Culture**  
Avando Bastari and Abdul Hakim
15. **Tourism Development Of Gili Iyang Island Based On Blue Economy**  
Safira Imania and Raja Gurning