

PEMAKALAH SEMINAR

SEMINAR INTERNASIONAL  
INTERNATIONAL CONFERENCE OF AQUACULTURE INDONESIA  
(ICAI)

Bali, 27-29 Oktober 2016

Dr. SUPONO, S.Pi., M.Si.

**HALAMAN PENGESAHAN  
PEMAKALAH**

1. Judul : **Performances of white shrimp (*Litopenaeus vannamei*)  
cultured in low salinities combined with indigenous bacteria**
2. Identitas Pemakalah
- a. Nama Lengkap dan Gelar : Dr. Supono, S.Pi. M.Si.
  - b. Jenis Kelamin : Laki-Laki
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  - d. Jabatan Fungsional : Lektor
  - e. Fakultas/PS : Pertanian/Budidaya Perairan
3. Kegiatan : International Conference of Aquaculture Indonesia  
(ICAI) 2016
4. Bentuk Publikasi : Pemakalah
5. Tempat : Bali, Indonesia
6. Tanggal : 27-29 Oktober 2016
7. Penyelenggara : Masyarakat Akuakultur Indonesia (MAI)

Bandar Lampung, 22 November 2017  
Pemakalah,

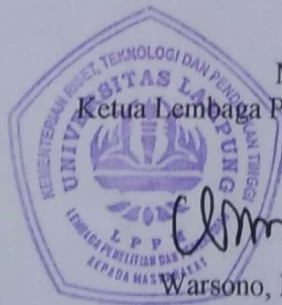
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Fakultas Pertanian

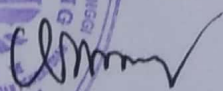
  
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# INDONESIAN AQUACULTURE 2016

International Conference of Aquaculture Indonesia  
October 28-29, 2016 Bali, Indonesia



## Certificate of Participation

**Supono**

**Agus Setyawan, Esti Harpeni**

For Oral Presentation of

PERFORMANCES OF WHITE SHRIMP (*Litopenaeus vannamei*) CULTURED IN LOW SALINITIES  
COMBINED WITH INDIGENOUS BACTERIA

Prof. Rokhmin Dahuri  
Steering Committee Chair

International Conference of Aquaculture Indonesia  
2016

**Performances of white shrimp (*Litopenaeus vannamei*) cultured in low salinities combined with indigenous bacteria**

SUPONO  
AGUS SETYAWAN  
ESTI HARPENI

LAMPUNG UNIVERSITY

## INTRODUCTION

- White shrimp (*Litopenaeus vannamei*) farming in Indonesia has developed and reached good result
- White shrimp has been capable to increase pond productivity from 5-6 tons/ha/cycle to 10-20 tons/ha/cycle.
- Due to high density (up to 100 pcs/m<sup>3</sup>) and survival rate (up to 90%)



- In some areas in Indonesia (ex. : Lampung Province) recently farmers are facing some problems in growing up vannamei due to disease attack, mostly viral disease
- Shrimp culture activity cause environmental problems (organic waste, mangrove destruction)

- Solutions
  - Inland water shrimp farming
    - Vannamei : euryhaline
    - Suppress pathogen : virus, bacteria
  - Indigeneous microorganism
    - More tolerant
    - Two indigeneous bacteria have been isolated from the shrimp pond in East Lampung Distric
      - *Bacillus polymyxa*
      - *Bacillus coagulan*

## The aims of the research

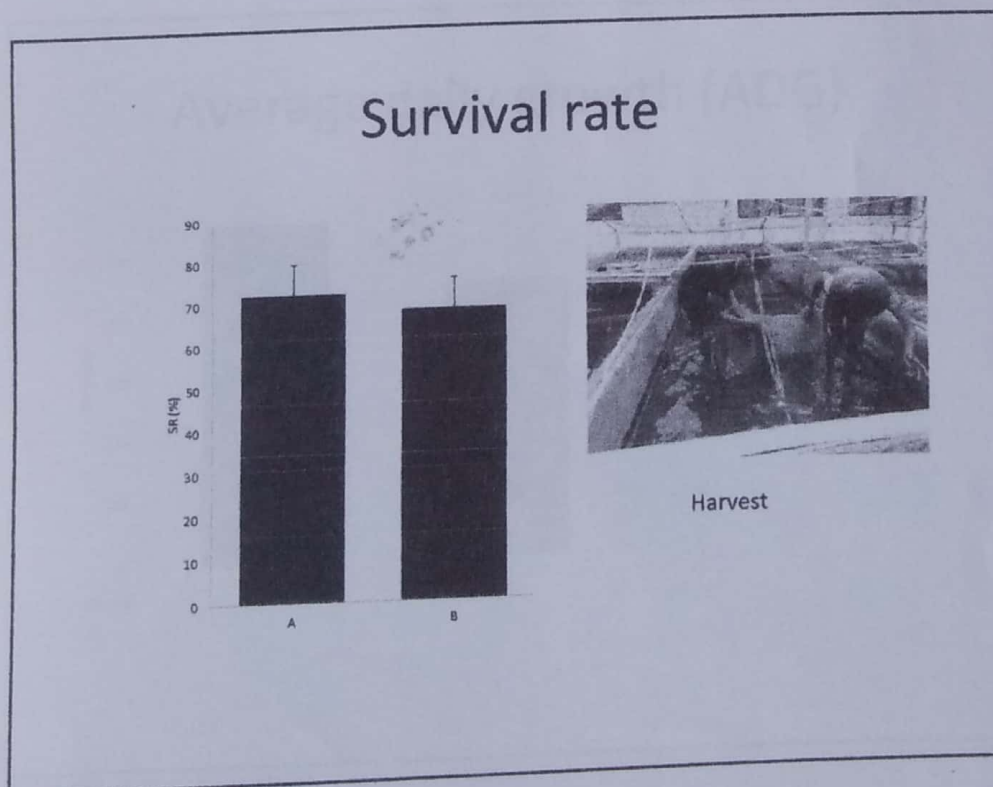
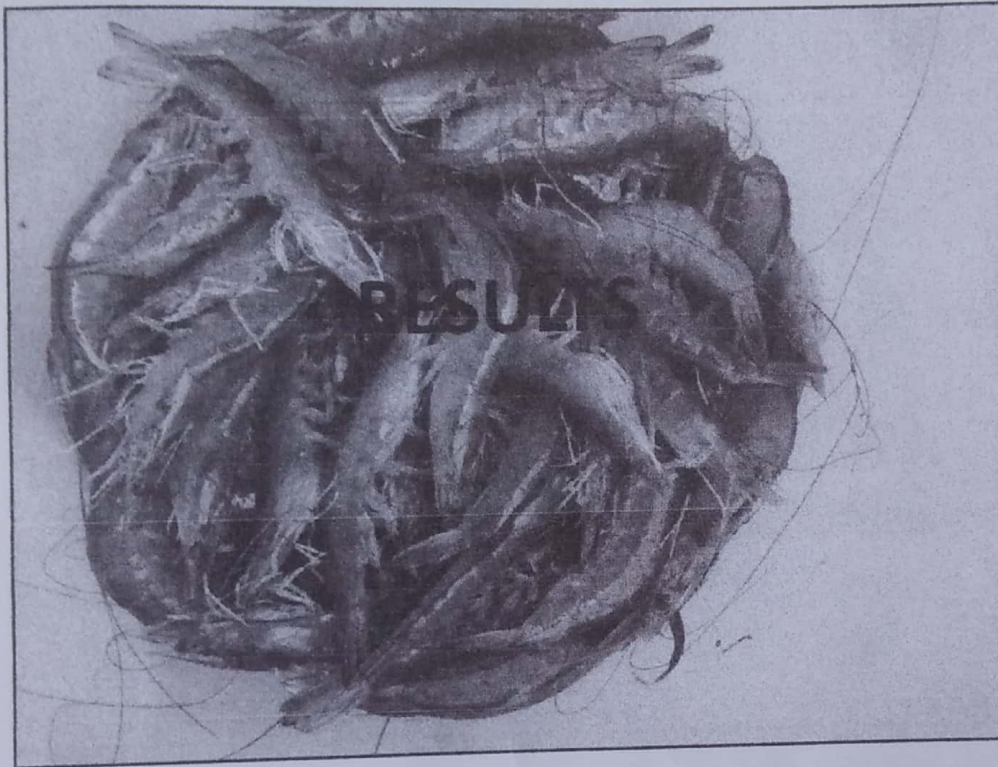
- To study performance of white shrimp (*L. Vannamei*) cultured at low salinity
- To study performance of white shrimp (*L. Vannamei*) cultured at small scale container
- To study the effect of the use of indigenous bacteria on performance of *L. vannamei*

## Methods

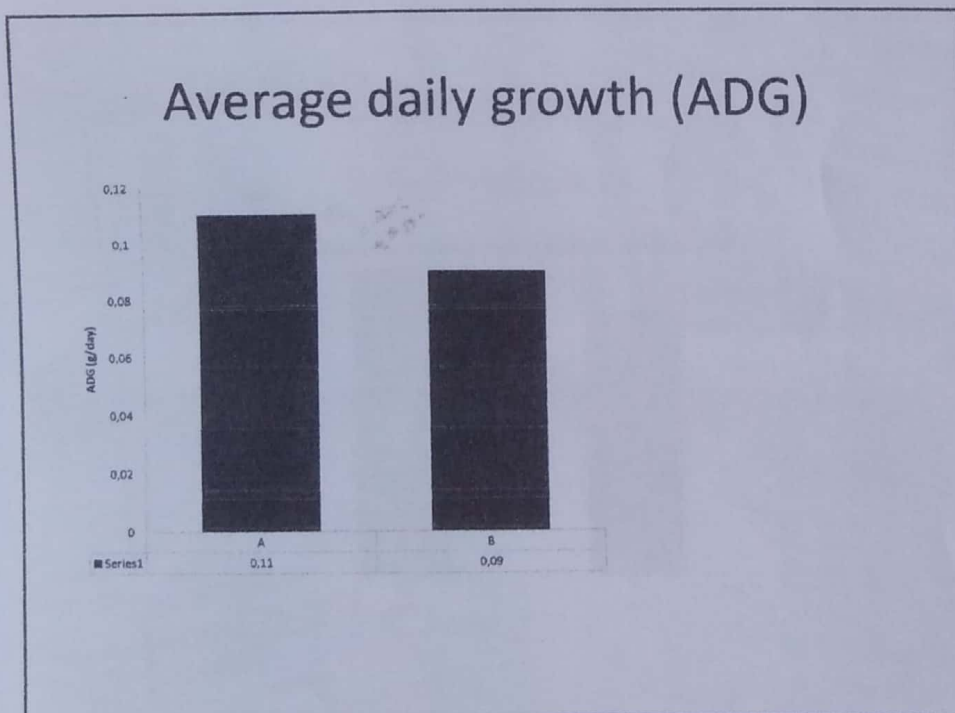
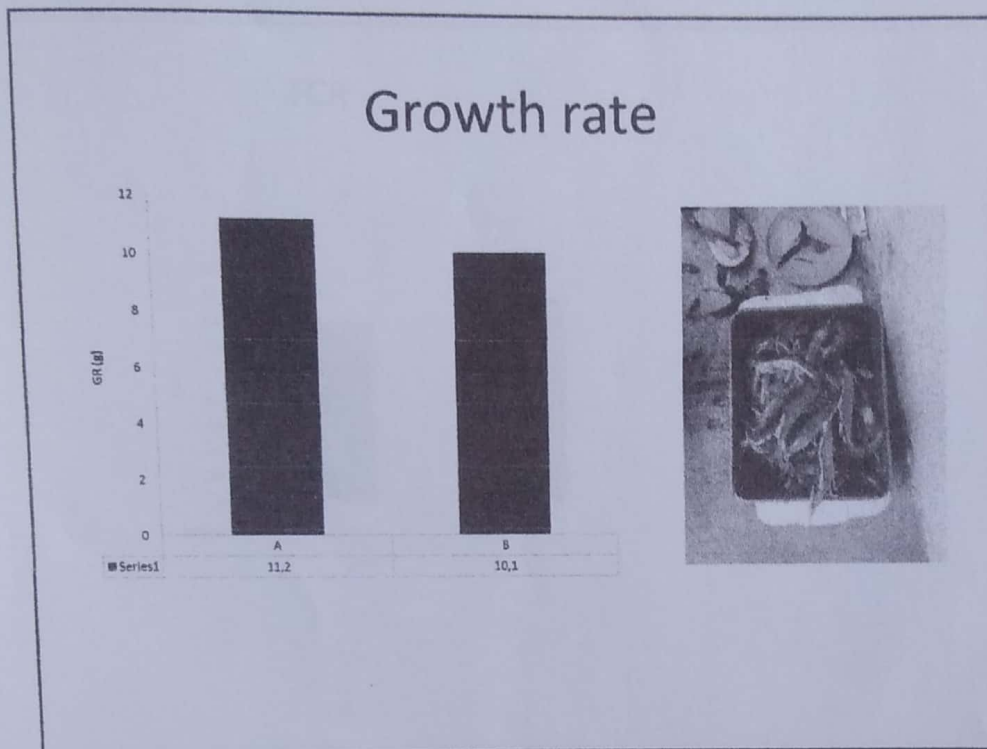
- Research design
  - Consist of two treatments
    - Treatment A : Using bacteria (*B. Polymyxa*, *B. Coagulan*)
    - Treatment B : Without bacteria
  - 3 replicates

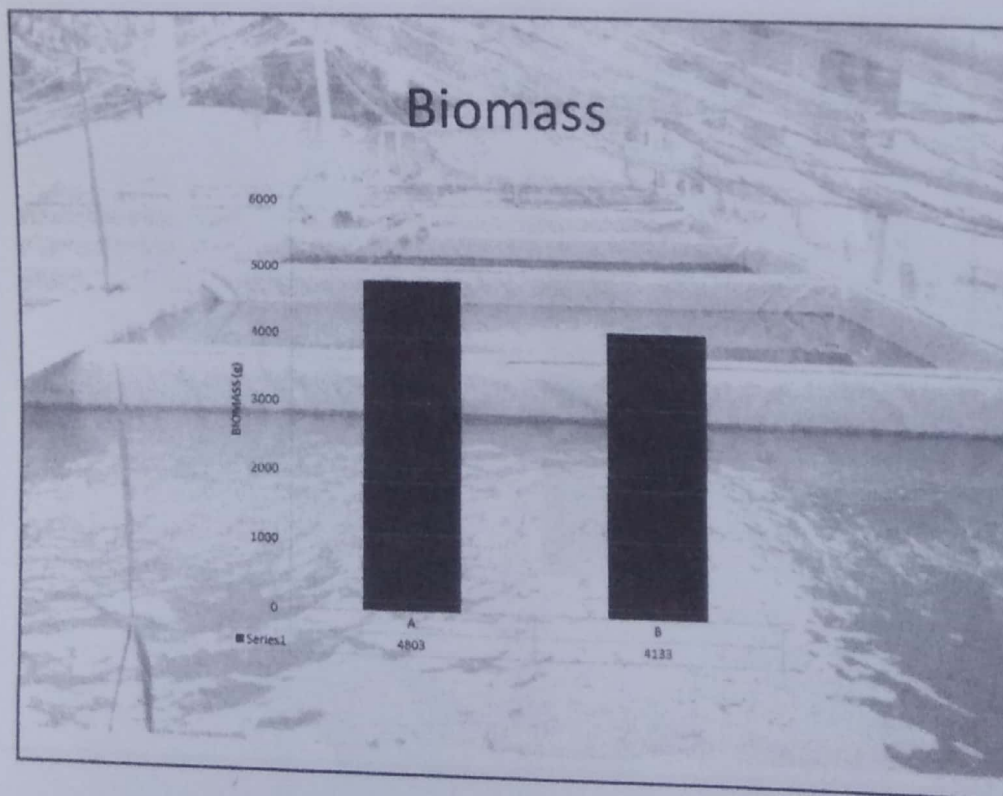
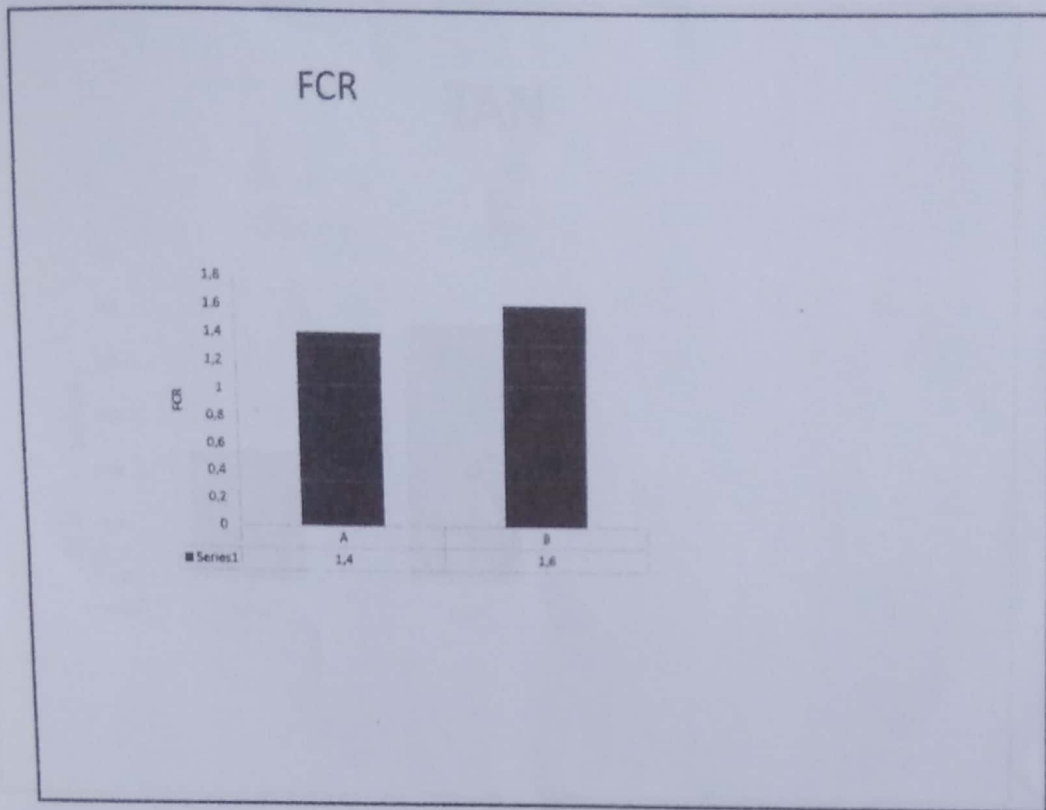
- Dimension of pond : 4m x 2m x 0,7m
- Water volume : 4 m<sup>3</sup>
- Water height : 0.5 m
- Density : 600 Pls/pond (150 Pls/m<sup>3</sup>)
- PL age : 10

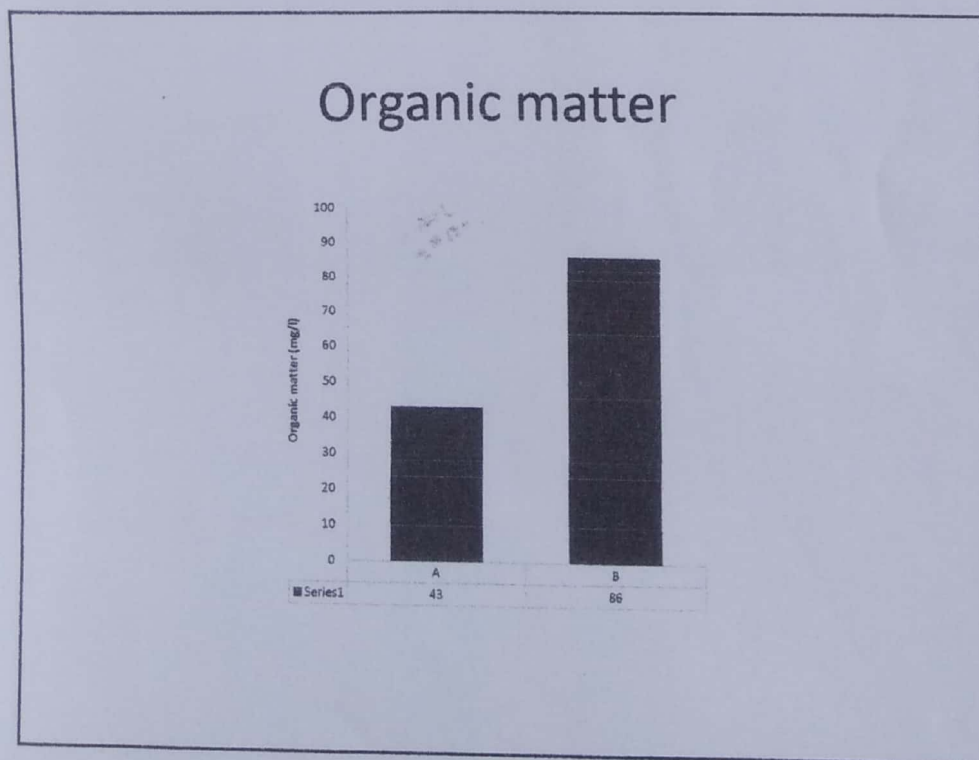
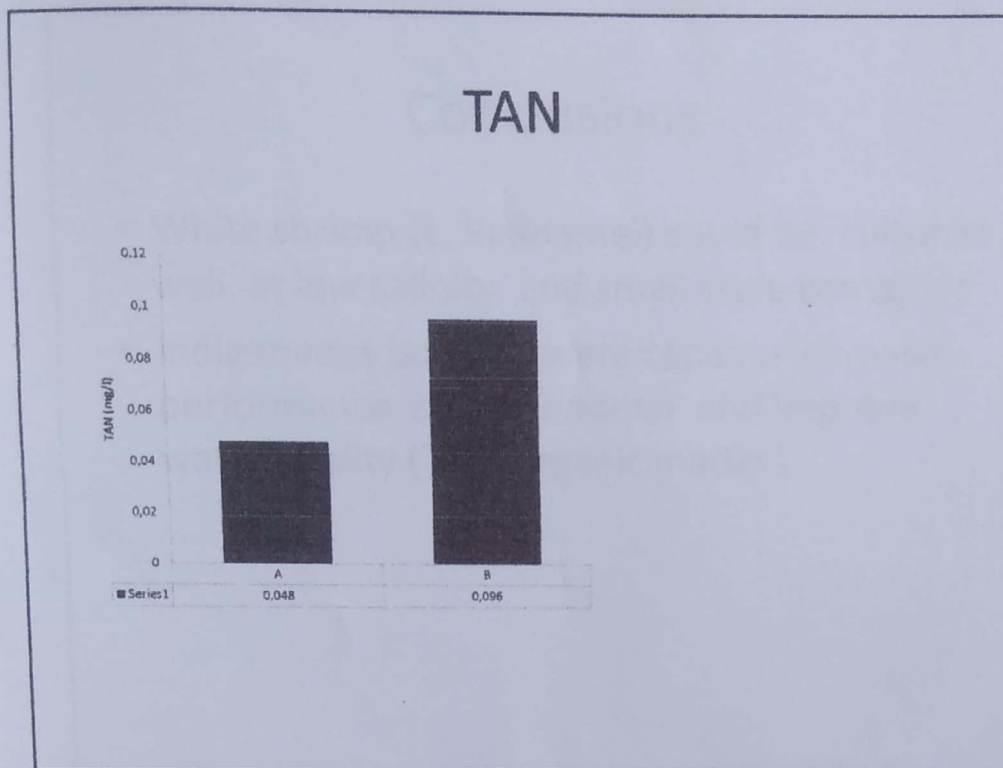
- Water salinity : 5 ppt
- Shrimp was cultured in lined pond for 60 days
- Treatment A : adding bacteria 10<sup>6</sup> CFU/unit weekly











## Conclusions

- White shrimp (*L. Vannamei*) could be cultured well at low salinity and small scale container
- Indigeneous bacteria were capable increase performance of *L. Vannamei* and improve water quality (TAN, organic matter)



## ICAI 2016 ABSTRACT ACCEPTANCE (Fix)

People

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To

[supono\\_unila@yahoo.com](mailto:supono_unila@yahoo.com)

Aug 24 at 1:30 PM

Dear Mr. Supono

Lampung University

We are writing here to inform you that your abstract "**PERFORMANCES OF WHITE SHRIMP (*Litopenaeus vannamei*) CULTURED IN LOW SALINITIES COMBINED WITH INDIGENOUS BACTERIA**" We would also appreciate if you could arrange to send the fullpaper of your presentation to be made at ICAI 2016 before September 10, to complete the registration, please make the payment and then send proof of payment to us through this email or website. Format abstract should be added images or tables, Is there any images or tables or graphs that can be inserted your abstract? (whole abstract follow our template). please revise your abstract if possible

please can transmit personal data as first author such attached example. name written according to the birth certificate as the education certificate, plus education degree, please also included a photo size 3x4 or 4x6.(doc format)

This personal data is used for the manufacture of a certificate (the author's name) and also to appear in the ICAI 2016 guidebook.

We are offering a special price if you register and pay before September 1, 2016

How to do the payment?

**By Bank Transfer** (Indonesian participants). Transfer your registration payment + transfer fee to Account: **DEWI SUNARNINGSIH** Bank BCA, KCP Siliwangi-Semarang, Indonesia, **Acc/no. 246-532-973 2** Swift Code: **CENAIJJA**. Your payment proof can be sent to the Conference Manager's office by **fax (+62 24-8318908)** or by email to: ([icaei.aquaculture@gmail.com](mailto:icaei.aquaculture@gmail.com)) or ([aquacultureindonesia@gmail.com](mailto:aquacultureindonesia@gmail.com))

We hope to meet you in Bali. Thank you.

With best regards

Mufid

ICAI 2016 Committee

## PROGRAM OF ICAI 2016

### THURSDAY, OCTOBER 27

- 13:00 – 20:00 **Registration Open** & Exhibit Set-up  
Submission of files for oral presentations, Poster Set-up, Check In Hotel
- 18:00 – 21:00 Annual Meeting of Indonesian Aquaculture Society Board & Member

### FRIDAY, OCTOBER 28

#### 07:00 – 12:00 Registration Open

#### 08:00 – 09:00 Lecture :

**Prof. Sharr Azni Harmin, Ph.D** (University of Selangor, MALAYSIA)  
REPRODUCTIVE DEVELOPMENT IN FINFISH  
AQUACULTURE: CURRENT STATE AND RECENT  
PROSPECTIVES

#### 09:00 – 09:10 Nation Song: *Indonesia Raya*

#### 09:10 – 09:30 Opening Ceremony & Keynote Speech :

**Mrs. Susi Pujiastuti** (Minister for Marine and Fisheries Affairs of Indonesia)  
“INDONESIA AS ONE OF THE WORLD AQUACULTURE  
BUSINESS AND INDUSTRY CENTRE”

#### 09:30 – 09:45 Welcome Balines Dance

#### 09:45 – 10:00 Morning Coffee Break Plenary Session 1

10:00 – 10:40 **Prof. S. Budi Prayitno, Ph.D** (Diponegoro University, INDONESIA)  
PROBLEM SOLVING DEVELOPMENT IN FINFISH  
AQUACULTURE DISEASE: CURRENT STATE AND  
RECENT PROSPECTIVES

08:30 –  
17:30  
Exhibition  
Open

10:40 – 11:20 **Prof. Ravi Fotedar, Ph.D** (Curtin Univ. of Tech., Western AUSTRALIA)  
AQUACULTURE INDUSTRY DEVELOPMENT IN  
AUSTRALIA : CURRENT STATUS AND RECENT  
PROSPECTIVES

11:20 – 11:40 **Discussion** (Moderator: **Agung Sudaryono, Ph.D**)

11:30 – 13:00 **Friday Prayer & Lunch** (Provided) (**Poster Presenter Session**)

#### 13:00 – 15:30 Parallel Class Session I

- Aquaculture Management and Technology
- Aquaculture Disease and Environment
- Genetic and Breeding
- Aquaculture Feed and Nutrition
- Social, Economy & Business (Marineculture Group)

15:30 – 15:45 **Coffee Break II** (Provided) (**Poster Presenter Session**)

#### 15:45 – 17:15 Parallel Class Session II

- Aquaculture Management and Technology
- Aquaculture Disease and Environment
- Genetic and Breeding
- Aquaculture Feed and Nutrition
- Social, Economy & Business (Marineculture Group)

08:30 –  
17:30  
Exhibition  
Open

19:00 – 21:00 **President's Reception/Gala Dinner**

## **SATURDAY, OCTOBER 29**

**07:00 – 10:00 Registration Open**

**08:00 – 10:00 Parallel Class Session III**

- Aquaculture Management and Technology
- Aquaculture Disease and Environment
- Aquaculture Feed and Nutrition
- Social, Economy & Business (Marineculture Group)

**10:00 – 10:15 Morning Coffee Break**

**10:15 – 12:15 Parallel Class Session IV**

- Aquaculture Management and Technology
- Aquaculture Disease and Environment
- Aquaculture Feed and Nutrition
- Social, Economy & Business (Marineculture Group)

**12:15 – 13:15 Lunch II (Provided) (Poster Presenter Session)  
Plenary Session 2**

08:30 –  
17:30  
Exhibition  
Open

**13:15 – 14:00 Prof. Rokhmin Dahuri** (President Indonesian Aquaculture Society)  
**AQUACULTURE INDUSTRY DEVELOPMENT IN INDONESIA: CURRENT STATUS AND RECENT PROSPECTIVES**

**14:00 – 14:45 Prof. Shunsuke Koshio** (Kagoshima University, JAPAN)  
**FEED AND NUTRITION INNOVATION DEVELOPMENT IN FINFISH AQUACULTURE: CURRENT STATES AND RECENT PROSPECTIVES**

**14:45 – 15:30 Dr. Nyan Taw** (FAO Projects Consultant in Vietnam & Saudi, MYANMAR)  
**BIOFLOC TECHNOLOGY APPLICATION FOR PROFITABLE AND SUSTAINABLE SHRIMP FARMING: *WITH RECENT INFORMATION***

**15:30 – 16:15 Plenary Discussion** (Moderator: **Prof. Muchlisin**)

**16:15 – 16:30 Closing Remark:** President MAI (**Prof. Rokhmin Dahuri**)

**16:30 – 17:00 Refreshment (Coffee Break)**

## **SUNDAY, OCTOBER 30**

**08:00 – 16:00 Two Days Aquaculture & Nature Tour in Singaraja Bali** (Optional Program)



- 15:50 **Murwantoko**, Alim Isnansetyo, Desy Putri Handayani, Kazuya Nagasawa  
*Temnosewellia* sp. CAUSED MORTALITY ON GIANT FRESHWATER PRAWN *Macrobrachium rosenbergii* DE MAN CULTURED ON RICE-SHRIMP CULTURE SYSTEM (30 mins)
- 16:20 **Muhamad Amin**, C. Bolch, M. Adams, C. Burke  
 ISOLATION AND SCREENING OF ENZYME-PRODUCING BACTERIA FROM GASTROINTESTINAL TRACT OF HYBRID ABALONE (*Haliotis laevis* x *H. rubra*) AS PROBIOTIC CANDIDATES (30 mins)
- 16:50 **Supono**, Agus Setyawan, Esti Harpeni  
 PERFORMANCES OF WHITE SHRIMP (*Litopenaeus vannamei*) CULTURED IN LOW SALINITIES COMBINED WITH INDIGENOUS BACTERIA (30 mins)

## AQUACULTURE MANAGEMENT & TECHNOLOGY

Friday, October 28 13:00-15:00 Ballroom 2 Room

### Session Chair

Suadi

- 13:00 **Novi Arisman**, T. Yoshimatsu  
 TEMPORAL CHANGE OF SALINITY STRESS IN MANILA CLAM *Ruditapes philippinarum*: IMPLICATION FOR BIODEFENSE MECHANISM IN RESPONSE TO CLIMATE CHANGE (20 mins)
- 13:20 **Ma'ruf Kasim**, Ahmad Mustafa, Muzuni, Wardha Jalil  
 GROWTH OF *Kappaphycus alvarezii* AND *Eucheuma denticulatum* CULTIVATED IN FLOATING CAGES (20 mins)
- 13:40 **Djumanto**, Ustadi, Rustadi and Bambang Triyatmo  
 FEASIBILITY STUDY OF THE SUSTAINABLE AQUACULTURE OF VANAMEI SHRIMP IN KEBURUHAN COAST PURWOREJO SUB-DISTRICT (20 mins)
- 14:00 **Mirna Fitrani**, Marsi, Robiyanto H Susanto and Santa Dewi  
 THE EFFECT OF LIQUID ORGANIC FERTILIZER APPLICATION ON WATER QUALITY OF RECLAIMED TIDAL LOWLAND FISH PONDS (20 mins)
- 14:20 **Ratih Ida Adharini**, J. Kim, H.G. Kim  
 SEEDLING TECHNIQUE BY CRUSTS FROM SPORES AND FILAMENTS ON *Grateloupia asiatica* (RHODOPHYCEAE) (20 mins)
- 14:40 **Jacqueline M.F Sahetapy**, Daniel G. Louhenapessy and Elna C. Riry  
 THE IMPACT OF COMPONENTS MODIFICATION RECIRCULATION SYSTEM "DOUBLE BOTTOM FILTER" TO AMMONIA IN CULTURE