



ASEAN-FEN

9th International Fisheries Symposium 2019

IFS 2019: A NEW HORIZON IN FISHERIES & AQUACULTURE THROUGH EDUCATION, TECHNOLOGY & INNOVATION

PROGRAM BOOK

18 - 21 NOVEMBER 2019

SERI PACIFIC HOTEL, KUALA LUMPUR, MALAYSIA

Organizers :



Co-organizers :





ASEAN-FEN INSTITUTIONAL MEMBERS

Core Members



Associate Members



BOGOR AGRICULTURAL
UNIVERSITY
Understanding and Shaping Our World



+Members



2011-2018 ASEAN-FEN IFS ORGANIZERS

2011



2012



2013



2014



ASEAN-FEN IFS
2011-2018
Organizers

2015



2016



2017



2018



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ASEAN-FEN Chairman's Message



Prof. Dr. Happy Nursyam

Welcome to IFS2019 to first-timers and returners to this annual symposium. I am so humbled to see that we have managed to organize the IFS event for nine years. As it is going to turn its first decade anniversary next year, I believe we have achieved more than the milestones that ASEAN-FEN has set since its inception. The theme for this year's IFS suits the journey that ASEAN-FEN has taken its members on. I can't thank enough ASEAN-FEN board members and Universiti Putra Malaysia for working hard to ensure we would be able to meet again through this avenue this year. My sincere gratitude also goes to co-organizers of the event namely Universiti Malaysia Terengganu, Universiti Sains Malaysia, Universiti Malaysia Sabah and International University Islam Malaysia. May you all have a great week in Kuala Lumpur!

Dean of Faculty of Agriculture UPM's Message



Prof. Dr. Abdul Shukor Juraimi

Dear colleagues and friends of IFS2019. It is an honor for Universiti Putra Malaysia to host the annual IFS event. We would like to specially thank ASEAN-FEN for the trust and Department of Aquaculture (JAQ) of our faculty for their excellent work to ensure the success of IFS2019. The fisheries and aquaculture industries like any other bio-based industries are facing challenges year by year. Bio-safety and bio-security are among them. These issues require multi-disciplinary approaches and tools to understand and then solve them. Through an avenue such as this, we believe exchange of ideas and knowledge would initiate productive and continued work in light of our effort to overcome the overarching challenges. I wish you a productive symposium and have a pleasant stay in Kuala Lumpur.

IFS2019 Organizing Committee Chairman's Message



Prof. Dr. Aziz Arshad

Welcome to IFS2019 and Malaysia. First and foremost, on behalf of the organizing committee, I would like to thank the ASEAN-FEN members for the trust they have in us in organizing IFS for this year. Thanks are also due to our corporate sponsors that have helped us to make this event a successful one. The past IFS events have set a high standard for this year's organizing committee to follow suit. Hence the IFS2019 theme *"A New Horizon in fisheries and aquaculture through education, technology and innovation"*. For this year's IFS, we have ten parallel sessions including two that are generously sponsored by Global Antimicrobial Resistance Innovation Fund (GAMRIF), United Kingdom and International Development Research Centre (IDRC), Canada on antimicrobial resistance, and by Ocean University of China on seaweed. Interestingly, we have received more than 500 participations who are not only of ASEAN-FEN institution members. With more than 200 oral presentations and 150 poster presentations, I believe we are going to have a tremendous stream of knowledge-sharing sessions ahead of us. We're set to sail. Have a productive symposium and a pleasant stay in Kuala Lumpur!

IFS2019 STEERING ORGANIZING COMMITTEE

ASEAN-FEN BOARD MEMBERS

Assoc. Prof. Dr. Sukree Haisamae (*Advisor*)
Prof. Dr. Mazlan b. Abd. Ghaffar (*Advisor*)
Prof. Dr. Happy Nussyam (*Chairman*)
Assoc. Prof. Dr. Truong Quoc Phu (*Co-Chairman*)
Prof. Dr. Yeong Yik Sung (*Secretary*)
Dr. Tan Min Pau (*Assistant Secretary*)
Prof. Dr. Siti Azizah Mohd. Nor (*Treasurer*)
Prof. Dr. Najiah Binti Musa (*Treasurer*)
Zul-Atfi Hashim (*Webmaster*)

ASEAN-FEN LOCAL INSTITUTIONAL MEMBERS

Prof. Dr. Aziz Arshad (*UPM*)
Prof. Dr. Mohd Effendy Abd Wahid (*UMT*)
Prof. Dr. Amirul Al-Ashraf Abdullah (*USM*)
Assoc. Prof. Dr. Sitti Raehanah Muhamad Shaleh (*UMS*)
Prof. Dr. Shahbudin Saad (*IIUM*)

IFS2019 LOCAL ORGANIZING COMMITTEE

CHAIRPERSON

ASSOC. PROF. DR. YUZINE ESA

VICE CHAIRPERSON

ASSOC. PROF. DR. INA SALWANY MD YASIN

SECRETARIAT

DR. MOHD ZAFRI HASSAN

DR. ZARIRAH ZULPERI

NUR SHAFIKA MAULAD ABD JALIL

NORAZNITA SHARIFUDDIN

FINANCE

DR. NUR LEENA WONG WAI SIN

FADZILLAH ABD RAZAK

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ASSOC. PROF. DR. NATRAH FATIN MOHD IKHSAN

DR. ANNIE CHRISTIANUS

PROF. DR. MOHD SALLEH KAMARUDIN

PROF. DR. MUTA HARAH ZAKARIA@YA

ASSOC. PROF. DR. S.M. NURUL AMIN

EMLIA TAMBER

FARIDAH MUDA

PROTOCOL

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DR. MOHAMMAD FADHIL SYUKRI ISMAIL

PROF. DR. FATIMAH MD YUSOFF

NORHAFIZAH ROSLAN

NUR BAHIAH MOHAMED HARIS

DR. CLEMENT ROY DE CRUZ

PUBLICITY AND MULTIMEDIA

DR. ROZIHAN MOHAMED

DR. CHONG CHOU MIN

ROSZAINAL YUSOP

ASSOC. PROF. DR. MOHAMMAD NOOR AMAL BIN AZMAI

LOGISTIC

DR. IZHARUDDIN SHAH KAMARUDDIN

MOHAMAD ZAWAWI IDRIS

MUHAMAD RIZUAN MOHD HUSIN

NOOR AZMAN MD ALI

AHMAD AFEEQ ROSLAN

ROSLAN HANIFF MALIM@HALIM

EXCURSION

ABDULLAH ABD RAHIM

MOHD SALLEH OSMAN

PHOTOGRAPHY

SHAHUDIN SULAIMAN

VOLUNTEERS

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Nor Syuhaida Isa
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Nur Jasmin Mohd Yaminudin
Nurul Syafiqah Mohd Yaminudin
Puvaneswari Puvanasundram
Nur Amalina Samat
Olivia Lee Wye Sze
Chean Mei Yun Beryl
Muhammad Azfar Ismail
Siti Nur Ain Mohamed Azahar
Khairun Waheeda Ahmad Ismail
Nawwar Zawani Mamat
Muhamad Sofie Mohd Hafiz Ngoo
Lee Jing Yie
Mohamad Azzam Mohd Sayuti
Lukman Basri
Nurliyana Mohamad
Jumria Sutra
Mohd. Adib Ismail
Hani Syahirah Burhanuddin
Muhammad Nasri Bin Ishak
Muhd Aliff Aiman Asrap
Mohd Ihsanuddin Bin Ahmad @ Abdullah
Wan Muhamad Amiruddin Bin W. Jusoh
Wan Siti Nadiyah Binti Ibrahim
Azrinsuhaila Binti Amram
Nur Haziqah Salleh Huddin
Muhammad Azzat Md Hanafi

PROGRAM RUNDOWN
ASEAN-FEN 9th INTERNATIONAL FISHERIES SYMPOSIUM 2019 (IFS2019)
18 – 21 NOVEMBER 2019
SERI PACIFIC HOTEL, KUALA LUMPUR

Date	Time (hrs.)	Activity	Venue
18 November 2019 (Monday)	0900 - 1700	EU H2020 EURASTiP Education Workshop	Bunga Rooms
	1400 - 1700	ASEAN-FEN Education Workshop	Bunga Raya Room
	1500 - 2000	IFS2019 registration at Seri Pacific Hotel (<i>optional early registration</i>)	Hotel Lobby
19 November 2019 (Tuesday)	0800 - 1200	IFS2019 registration at Seri Pacific Hotel Excursion registration	Foyer
	0800 - 0900	Refreshment	Foyer
	0900 - 1030	IFS2019 Officiating Ceremony in Grand Ballroom, Seri Pacific Hotel <ul style="list-style-type: none"> Welcoming Remarks by IFS2019 Chairman, <i>Prof. Dr. Aziz Arshad</i> Welcoming Speech by Deputy Dean for Academic, Students and Alumni, Faculty of Agriculture UPM, <i>Assoc. Prof. Dr. Nur Azura Adam</i> Opening Address by ASEAN-FEN Chairman, <i>YBhg. Prof. Dr. Happy Nussyam</i> IFS2019 Montage Video Presentation ASEAN-FEN Outstanding Young Scientist Award 2019 Presentation Sponsorship Appreciation Group Photography 	Grand Ballroom
	1000 - 1030	Keynote 1 <i>YBhg. Dato' Dr. Bah Piyon Tan</i> <i>Deputy Director General (Administration)</i> <i>Department of Fisheries Malaysia</i>	Grand Ballroom
	1030 - 1100	Keynote 2 <i>Dr. Sigi Gruber</i> <i>Head of Unit (Oceans and Seas)</i> <i>European Commission</i>	Grand Ballroom
	1130 - 1300	Parallel Oral & Poster Presentation Sessions	<i>Refer to Page 11-13</i>
	1300 - 1400	Lunch	Coffee House TBA
	1400 - 1530	Parallel Oral & Poster Presentation Sessions	<i>Refer to Page 11-13</i>
	1530 - 1600	Refreshment	Foyer
	1400 - 1730	Parallel Oral & Poster Presentation Sessions	<i>Refer to Page 11-13</i>
	1930 - 2200	ASEAN-FEN Institutional Members Meeting (<i>by invitation</i>)	Bunga Raya Room

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Date	Time (hrs.)	Activity	Location
20 November 2019 (Wednesday)	0900 - 0930	Keynote 3 YBhg. Dato' Dr. Mohamed Shariff Mohamed Din <i>Professor in Fish Health, Universiti Putra Malaysia</i>	Grand Ballroom
	0930 - 1000	Keynote 4 Mr. Ng Yih Chen <i>Malaysia Aquaculture Development Association</i>	Grand Ballroom
	1000 - 1030	Refreshment	Foyer
	1030 - 1230	Parallel Oral & Poster Presentation Sessions	<i>Refer to Page 11-13</i>
	1300 - 1400	Lunch	Coffee House
	1400 - 1630	Parallel Oral & Poster Presentation Sessions	<i>Refer to Page 11-13</i>
	1630 - 1700	Refreshment	
	1700 - 1800	Parallel Oral & Poster Presentation Sessions	<i>Refer to Page 11-13</i>
21 November 2019 (Thursday)	1900 - 2100	IFS2019 Closing Dinner <ul style="list-style-type: none"> • Welcoming Speech by Assoc. Prof. Dr. Yuzine Esa (IFS2019 Chairman – Local) • ASEAN-FEN New Membership Recognition Ceremony • Cultural Show • Young Scientist Award Winner's Address • Best Oral and Poster Awards Presentation • Next-IFS Host Handover Ceremony 	Grand Ballroom
	0830 - 1500	Excursion	

Keynote Speakers

19 November 2019 | 1000 – 1100 hrs.

Grand Ballroom



YBhg. Dato' Dr. Bah Piyan Tan is Deputy Director General of Department of Fisheries Malaysia (DoF). He has 34 long years of experience and strong leadership in various areas throughout the service; from fisheries resource management to aquaculture to extension services to post-harvest and biosecurity, especially in fish disease monitoring and control. He contributed to the implementation of Malaysia Good Aquaculture Practices (MyGAP) Certification Scheme. He received his bachelor's degree in fisheries and marine science from UPM, before obtaining a Ph.D in Food Science and Technology from Universiti Kebangsaan Malaysia.



Dr. Sigi Gruber is Head of Marine Resources Unit, in Directorate General for Research and Innovation of the European Commission. The Unit defines, implements and monitors research and innovation objectives and priorities to support European Union's marine and maritime related policies, thereby contributing to the sustainable and responsible management of marine resources, both in Europe and globally.

Keynote Speakers

20 November 2019 | 900 – 1000 hrs.

Grand Ballroom



YBhg. Dato' Dr. Mohamed Shariff

Mohamed Din is a world renowned fish pathologist. He is the first Malaysian to have been elected into the World Organization for Animal Health's (OIE) Aquatic Animal Health Standards Commission. He is also one of the key founding figures of the Malaysia Fisheries Society, an organization that plays a vital role in promoting and adding values to fisheries and aquaculture activities in Malaysia.



Mr. Ng Yih Chen is the current President of Malaysia Aquaculture Development Association (MADA). He has been in the industry for nearly 10 years, managing his company that is now growing to be an expert in the nursery, hatchery and grow-out giant and tiger groupers, the hybrid between the two and also barramundi. He is an Iowa State University USA alumnus, graduated in Bachelor of Business Administration (majoring in Marketing). He then went to obtain MBA Finance from the University of Hull, UK.

Oral Presentation Schedule* **19 November 2019, Tuesday**

*Please refer to IFS2019 Abstract Book for full schedule

Time (hrs.)	Session	Room**
1130 - 1230	EURASTIP (Special Session)	Anggerik A
1130 - 1250	Anti-microbial Resistance (Special Session)	Ballroom A
1130 - 1500	China-ASEAN Seaweed (Special Session)	Anggerik B
1130 - 1800	Fisheries Biology and Resource Management 2	Kenanga
1130 - 1630	Nutrition and Feed	Ballroom C
1130 - 1800	Aquatic Animal Health	Ballroom A
1130 - 1630	Broodstock Culture, Larviculture and Hatchery Management	Melur
1130 - 1630	Genetic and Biotechnology	Tanjung
1130 - 1630	Aquaculture System and Management	Lili
1400 - 1630	Fisheries Biology and Resource Management 1	Bunga Raya
1400 - 1800	Fisheries Socioeconomies, Gender, Education and Extension	Anggerik A
1500 - 1630	Algae and Aquatic Plants	Anggerik B

**Please refer to page 16 for floor plan

Oral Presentation Schedule*

20 November 2019, Wednesday

*Please refer to IFS2019 Abstract Book for full schedule

Time (hrs.)	Session	Room**
1030 - 1630	Fisheries Biology and Resource Management 1	Bunga Raya
1030 - 1630	Fisheries Biology and Resource Management 2	Kenanga
1030 - 1545	Nutrition and Feed	Ballroom C
1030 - 1800	Aquatic Animal Health	Ballroom A
1030 - 1630	Postharvest, Fish Product and Food Safety	Anggerik A
1030 - 1600	Algae and Aquatic Plants	Anggerik B
1030 - 1530	Broodstock Culture, Larviculture and Hatchery Management	Melur
1030 - 1530	Genetic and Biotechnology	Tanjung
1030 - 1230	Aquaculture System and Management	Lili
1700 - 1800	Information Technology and Engineering	Anggerik A

**Please refer to page 16 for floor plan

Poster Presentation Schedule*

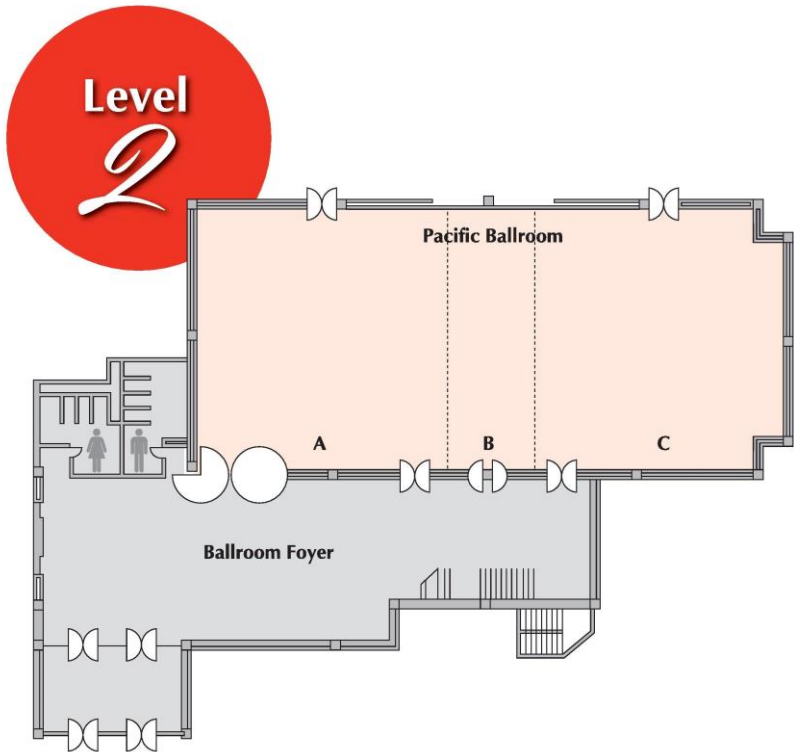
*Please refer to IFS2019 Abstract Book for full schedule

Date	Session
19 November 2019	Fisheries Biology and Resource Management
	Fisheries Socioeconomies, Gender, Education and Extension
	Genetic and Biotechnology
	Algae and Aquatic Plants
20 November 2019	Aquatic Animal Health
	Nutrition and Feed
	Aquaculture System and Management
	Post-harvest, Fish product and Food Safety
	Broodstock Culture, Larviculture and Hatchery Management

**Please refer to page 16 for floor plan

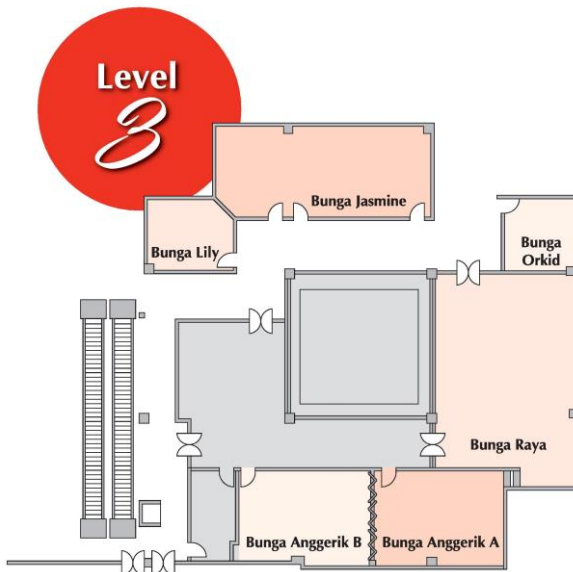
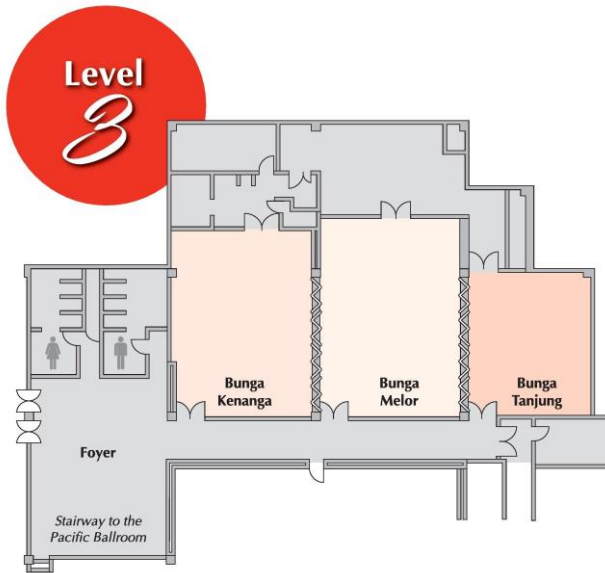
FLOOR PLAN

IFS2019 ROOMS @ SERI PACIFIC HOTEL



FLOOR PLAN

IFS2019 ROOMS @ SERI PACIFIC HOTEL



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