



Newsletter - The 4th Quarter, 2016

NHA TRANG UNIVERSITY

No.19 - ISSUE 4

The 25th IT Olympic Contest for Vietnamese Students & The 42nd ACM/ICPC International Collegiate Programming Contest 2016 Asia Regional Contest



NEWSLETTER

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December 5, 2016, Nha Trang University (NTU) signed a MoU with Brenntag Vietnam Co., Ltd. and Vietnam Food JSC (VNF) in the project **"Fisheries and aquaculture by-product processing by eco-friendly biotechnology approaches."**

2 *Seminar on "The Competitiveness of Vietnam's Fisheries in the Context of International Integration"*

November 30, 2016, NTU and Vietnam Association of Seafood Exporters and Producers (VASEP) co-organized the seminar on **"The Competitiveness of Vietnam's Fisheries in the Context of International Integration"** with the participation of over 300 students and faculties.

3 *Vietnam Teachers' Day celebration*

NTU organized many activities to celebrate Vietnam Teachers' Day, review the national tradition of respecting teachers and honor dedications of NTU's lecturers for education.

4 *The 25th IT Olympic Contest for Vietnamese Students & The 42nd ACM/ICPC International Collegiate Programming Contest 2016 Asia Regional Contest.*

November 29 to December 2, 2016, Vietnam IT Association, Vietnam Student Association, MOET and NTU jointly organized **the 25th IT Olympic Contest for Vietnamese Students (OLP'16) & The 42nd ACM/ICPC International Collegiate Programming Contest 2016 Asia Regional Contest** at Nha Trang University with the participation of nearly 350 teams from 70 universities and colleges across the country, and 13 teams from South Korea, China, Singapore, Indonesia and Taiwan.

COOPERATION ON PROCESSING FISHERIES AND AQUACULTURE BY-PRODUCT BY ECO-FRIENDLY BIOTECHNOLOGY APPROACHES

December 5, 2016, NTU signed a MoU with Brenntag Vietnam Co., Ltd. and Vietnam Food JSC (VNF) in Ho Chi Minh City.

In this cooperation, the parties will work together and share information in the project **“Fisheries and aquaculture by-product processing by eco-friendly biotechnology approaches”**. Specifically, the parties commit to collaborate on researching and developing by-products industry in Vietnam and applying biotechnology to create environmentally friendly products.

This is a cooperation among leading companies in Vietnam in various fields: i.e. Brenntag Vietnam Co., Ltd – is a leading chemical solutions provider; NTU is a leading research center on aquaculture, harvesting, and seafood processing; VNF is a leading company in shrimp by-products industry in Vietnam. The cooperation promises to create a great leap in technology, bringing many innovative products and benefits to the parties in particular and to the society in general.



STRENGTHENING THE COOPERATION WITH UDON THANI RAJABHAT UNIVERSITY, THAILAND



December 12, 2016, a delegation headed by President Nattitep Pitaksanurat from Udon Thani Rajabhat University (UDRU), Thailand visited NTU.

At the meeting, the two universities discussed some collaborative orientations focusing on undergraduate and graduate programs and other short courses on culture, tourism, Vietnamese language; staff and student exchange, and information exchange as well as joint research projects.

NTU and UDRU signed a MoU in August, 2011 and both universities have implemented many effective activities. For instances, NTU organized the professional food technology training course for 10 faculties from UDRU in 2012; NTU's lecturers attended international conferences as well as teaching and studying at UDRU; and in 2014, 30 students from UDRU came to learn about the culture and tourism in Vietnam.



NEW OPPORTUNITIES FOR COOPERATION IN TRAINING AND STUDENTS EXCHANGE



In October and November 2016, NTU had met with representatives from Western Michigan University (USA) and the Yunnan College of Foreign Affairs & Foreign Languages (China) to discuss collaborative opportunities.

Western Michigan University (WMU) is among 100 leading public universities in the US with 245 programs that cater to 25,000 students from the US and over 105 other countries around the world. WMU focuses on helping students discover their own strengths and pursue career goals. Through discussions, the two parties learned about each other's strengths, and suggested to cooperate in training in areas such as English language education, business, art and culture studies as well as in exchanging faculty and students through joint programs.

Also, in November, 2016, NTU's leaders had met with delegates from Yunnan College of Foreign Affairs & Foreign Languages, China. Founded in 2012, the College currently has more than 12,000 students and 28 programs including quite strong ones in language education and tourism. The two parties agreed to cooperate on training in areas such as Vietnamese and Chinese language education, Tourism, Vietnamese culture, and exchanging faculties and students. A MoU between the two universities is planned to be signed in February, 2017.

Within the framework of the cooperation between Southern Cross University (SCU) from Australia and NTU, from October 31 to November 11, 2016, ten students from SCU attended some short courses organized by NTU.

The program provided the group knowledge on aquaculture, fisheries and seafood processing, marine ecosystems and climate change in Vietnam. They also conducted fieldtrips to aquaculture sites, seafood processing factories, marine protected zones, research sites, etc. During the studies, the students also have plenty of opportunities to meet with locals, visit historical places, and learn about Vietnamese culture and language.

SCU and NTU have established collaborative relationship since the end of 2015 and recently, signed a MoU on September 12, 2016. This successful program is a good sign, showing the efficiency in the cooperation as well as deepening the relationship between the two universities. It also helps promote new collaborative activities in the future.

SCU is one of the three universities in the RUN network with a strong background in fisheries training. SCU students are from more than 60 countries. SCU is in the top 150 leading universities ranked by Times Higher Education magazine, of which more than 24 areas are leading in Australia and the world.

STUDENTS FROM SOUTHERN CROSS UNIVERSITY, AUSTRALIA ATTEND A SUMMER PROGRAM AT NTU





SEMINAR ON “DEVELOPING TOURISM IN KHANH HOA PROVINCE AND SOUTHERN CENTRAL COASTAL REGION IN THE CONTEXT OF INTERNATIONAL INTEGRATION”

November 15, 2016, the Faculty of Economics - NTU organized the seminar on “Developing tourism in Khanh Hoa province and southern central coastal region in the context of international integration” with the attendance of Dr. Quach Hoai Nam - Vice-Rector of NTU, Dr. Nguyen Tien Dung - Rector of the University of Economics and Law, Vietnam National University, HCMC, and Prof. Daniel Peyron - Rector of La Rochelle Business School, France.

At the seminar, there were 4 presentations on: Lessons learned in enhancing the competitiveness of the famous tourism destinations in France and Europe; Provinces and cities to cooperate in tourism development in the South Central coast; Application of the customer value innovation model to enhance competitiveness for island tourism in the South Central; Business Administration and Tourism bilingual program at NTU and cooperation opportunities.

Also at the seminar, the leaders of NTU and La Rochelle Business School, France discussed and signed a cooperation agreement on exchanging lecturers and students, especially in the field of business administration and tourism, exchanging textbooks, teaching and learning materials, doing research and announcement, organizing and participating in seminars and training courses and organizing short courses.

ACCEPTANCE OF AN ENTERPRISES ACCOUNTING SOFTWARE FOR TRAINING

DTSoff, founded in 1995, specializes in manufacturing and delivery of management software for enterprises and public authorities. The company has two offices, one branch and 7 representative offices nationwide.

November 11, 2016, a comprehensive cooperation agreement between NTU and Software Development and Delivery Co, Ltd. (DTSoff) was successfully signed with the participation of Dr. Quach Hoai Nam – Vice Rector of NTU, Mr. Nguyen Tien Dai – Vice Director of DTSoff and representatives of NTU and DTSoff.



According to the agreement, DTSoff will transfer an enterprise accounting software to NTU for use in training within 5 years. DTSoff will also accept NTU’s lecturers and students to do research, conduct field trips or internships at the company. NTU will help the company to promote their services, encourage students to use the services provided by the company and support it in training human resources.

STRENGTHEN COOPERATIVE RELATIONS WITH THE US CONSULATE GENERAL IN HCMC

November 22, 2016, Mrs. Mary Tarnowka – The US Consul General in HCMC and her delegation visited NTU.

The delegation had met with NTU's leaders. Rector Trang Si Trung suggested the US Consulate to support English experts, development of training programs and research projects, especially on fisheries, computer science, tourism, and hospitality management.

Mrs. Tarnowka highly appreciated the relationship between NTU with universities in the US. She herself supported and committed to promote cooperative relations, faculties and students exchange program between NTU and US universities.

According to the MoU, the two universities will collaborate in training (undergraduate and graduate joint programs and short courses), conducting research projects, publishing books and newspapers; developing consultancy projects, faculties and student exchange and other related fields.

Memorial University (MUN), Newfoundland, Canada, is a multi-disciplinary university, with many school members. MUN has more than 18,500 students studying in four schools and nearly 85,000 alumni working around the world. MUN's Marine Institute Canada's most comprehensive centre for education, training, applied research and industrial support for the ocean industries.

STUDENTS FROM KAGOSHIMA UNIVERSITY (JAPAN) STUDY AT NTU

Within the framework of the International Linkage Program (ILP), 3 students from Kagoshima University, Japan came to study at NTU from **October 22 to November 31, 2016**. The students attended courses in: Genetics in Fisheries and Aquaculture, Developmental Biology for Aquatic Animals, Fish Nutrition and Aqua-feeds.

Earlier, on February 29, 2016, NTU and Kagoshima University, Japan signed a cooperation agreement for training and research activities, information exchange, and faculty and students exchange. At the same time, NTU became an official member of the ILP headed by Kagoshima University together with 4 other universities in Southeast Asia.



In recent years, NTU has had partnerships with many universities in the US such as Ohio University (student exchange program from 2009 to 2014), Auburn University, Old Dominion University, University of Rhodes Island, University of Mississippi, University of Nevada, Las Vegas, etc. Especially, the exchange programs for student and lecturers, research and scholarship supports, etc have been implemented effectively.



SIGN A MOU WITH MEMORIAL UNIVERSITY, NEWFOUNDLAND - CANADA

October 31, 2016, a MoU signing ceremony between NTU and Memorial University, Newfoundland, Canada (MUN) was held with the participation of Assoc. Prof. Trang Si Trung – The Rector and Mr. Glenn Blackwood – MUN's Vice-President and other representatives.



IMPROVING THE QUALITY OF ENGLISH TEACHING FOR NON-ENGLISH MAJOR STUDENTS

Facing the urgent need of improving English proficiency for non-English major students, on **November 27, 2016**, NTU organized a seminar to discuss plans for improving the quality of teaching English. Over 100 staff attended the seminar. At the seminar, presenters discussed the assessment of the teaching of English for specific purposes and the needs of students, the practical application of teaching, learning English, efficient teaching methods and other solutions for English proficiency improvements for students from the faculties of Food Technology and Transportation Engineering.

Through discussions, the participants suggested some key solutions such as revising the minimum outcome level of specialized English programs; building community learning models for foreign languages in general and specialized English in particular; organizing extracurricular activities to strengthen English proficiency for students; encouraging lecturers to integrate specialized English into teaching; encouraging students to read books, newspapers in English to do thesis; and promoting the development of English clubs.

October 16, 2016, NTU held a graduation ceremony and awarded degrees to two new doctors majoring in Mechanical Engineering and 104 masters majoring in Biotechnology, Food Technology, Post-Harvest Technology, Aquaculture, Fishing Technology, Business Administration, Agricultural Economics, Development Economics, and Mechanical Engineering.

Speaking at the ceremony, Dr. Quach Hoai Nam - Vice Rector, congratulated the new doctors and masters who have overcome many difficulties to complete the studies. He expected that all the knowledge, skills and experience accumulated would be a foundation for them to get higher achievements in their profession. He hopes that they will continue to stay connected with all activities of the university.

NTU is a high quality and prestigious center for graduate training in the Central Region and the Central Highlands. NTU currently has 5 doctoral programs, 12 master's program with nearly 500 graduates each year.

AWARD DEGREES TO 106 NEW DOCTORS AND MASTERS





LAUNCHING 3 COMPOSITE FISHING VESSELS

In the fourth quarter of 2016, the Institute of Shipbuilding (UNINSHIP) has successfully launched three composite fishing vessels namely Anh Khoi, Anh Hao and Binh Minh.

The vessel Anh Khoi is the 7th one in the series of 24-meter vessel for seining, Anh Khoi is equipped with the hoist system driven by permanent magnet linear synchronous motor, serving the purse seine, helping the fishing operates efficiently, avoiding overload or abrupt stops.

The vessel Anh Hao was designed for trawling. More than 80% of the hull is designed with a sandwich structure that helps enhance the ability of insulation, noise-proof and anti-vibration. The vessel Binh Minh was designed for offshore fishing with some details improved in the structure of the deck, insulated basement and basement for storing shark baits. The mechanical systems of the two vessels were made of stainless steel which improves the appearance and longevity.

SEMINAR ON “THE COMPETITIVENESS OF VIETNAM’S FISHERIES IN THE CONTEXT OF INTERNATIONAL INTEGRATION”

November 30, 2016, NTU and Vietnam Association of Seafood Exporters and Producers (VASEP) co-organized the seminar on “The Competitiveness of Vietnam’s Fisheries in the Context of International Integration”.



Topics discussed in the seminar include: overview of Vietnam’s fisheries: opportunities, problems and challenges; the position of Vietnam’s fisheries in the world; Vietnam position in the seafood market; Vietnam seafood products to enter FTA and TPP; VASEP’s market information system, etc.

At the seminar, NTU and VASEP also discussed and proposed new cooperative activities such as opening new programs, establishing research institutes to meet the needs of businesses and society; and co-organizing national and international workshops. In addition, NTU will develop plans to invite representatives of VASEP and businesses to make presentations and discussions with faculties and students; VASEP will support NTU in connecting businesses for the faculties and student’s field trips and internships. Regarding training, the two parties will jointly organize short-term training courses while VASEP support NTU in assessing the training quality, building programs for the needs of businesses and society.

December 1, 2016, NTU and the Public Affairs Section – U.S. Consulate General in HCMC co-organized a workshop on “English Teaching Methodology” with the participation of Mr. Christopher Paul McDonnell – an English Language Fellow and more than 50 English teachers from universities, colleges and high schools in Nha Trang.



WORKSHOP ON “ENGLISH TEACHING METHODOLOGY”

There are five main topics presented in the workshop: using technology in the English language classroom; promoting creativity in the English language classroom; professional presentation skills; students centered classroom and integrating the 4 skills.

The workshop is a useful forum for teachers to learn and exchange with the expert the new and effective methodologies in teaching English, contributing to improve the quality of teaching English for students.

VIETNAM TEACHERS' DAY CELEBRATION

To celebrate the 34th anniversary of Vietnam Teacher's Day (20.11.1982 - 20.11.2016), NTU held a solemn celebration to review the national tradition of respecting teachers and honor dedications of NTU's lecturers for education.

NTU Rector sent his best wishes to the lecturers, expressed his respect and recognition of the dedication of the faculties, senior faculties, and all the staff to education and the development of the university.

Also at the ceremony, the university honored five newly appointed associate professors and announced the decision of Minister of Education and Training awarding medals to two lecturers who have many contributions to the national education.

In addition, a lot of activities had been held to celebrate Vietnam Teacher's Day. From November 7 to 18, 2016, NTU Labor Union organized a Sports Competition for hundreds of staff to participate in games such as mini football for male, tug of war, sack jumping, badminton, chess. These activities help the staff improve physical and mental health as well as strengthen solidarity. Moreover, student activities such as musical performance contest, writing contest to show gratitude to their teachers were also organized and drew many students to participate in.



Vietnam Heritage PHOTO AWARDS 2016

EXHIBITION OF VIETNAM HERITAGE PHOTO AWARDS 2016 "THE RIVERS OF VIETNAM"

The exhibition displayed 100 works selected from 5,446 works by 507 photographers (including 14 foreigners) participated in the Vietnam Heritage Photo Contest 2016. There are 5 themes, including the special theme "the rivers of Vietnam" and 4 others: nature, tangible and intangible culture and life in two categories: single images and image sets.

The exhibition helps the staff and the students gain knowledge of the beauty of nature, unique cultures of ethnic communities in many regions of the country, increase their love and pride about the country.

November 13, 2016, Vietnam Heritage Journal in collaboration with NTU organized the exhibition of Vietnam Heritage Photo Awards 2016 "The Rivers of Vietnam".



THE 25TH IT OLYMPIC CONTEST FOR VIETNAMESE STUDENTS & THE 42ND ACM/ICPC INTERNATIONAL COLLEGIATE PROGRAMMING CONTEST 2016 ASIA REGIONAL CONTEST

November 29 to December 2, 2016, the 25th IT Olympic Contest for Vietnamese Students (OLP'16) & The 42nd ACM/ICPC International Collegiate Programming Contest 2016 Asia Regional Contest at Nha Trang University jointly organized by Vietnam IT Association, Vietnam Student Association, MOET and NTU. The two contests attracted nearly 350 teams with more than 700 outstanding students from 70 universities and colleges across the country, and 13 teams from South Korea, China, Singapore, Indonesia and Taiwan. This is the 3rd time NTU hosted the contests.

November 30, 2016, the teams entered the OLP'16 contest in super trophy for individuals, for IT majors, for non-IT majors and open source software. On December 2, the online ACM/ICPC Asia contest took place with 118 teams (394 contestants). At the end of the contests, the organizers awarded prizes to the top ranked teams. Some of the best winners will be selected to attend the global ACM/ICPC in Rapid City, USA on March 5, 2017.

The contests OLP'16 and ACM/ICPC Asia Nha Trang is an important event to identify and praise talents, while encouraging them to keep researching and innovating in IT sector in Vietnam. It also helps improve programming skills to meet international standards and bring Vietnam universities to the top 100 IT training centers in the world.



ASSOC. PROF. TRANG SI TRUNG REAPPOINTED AS NTU'S RECTOR IN THE OFFICE TERM 2016 - 2021

November 1, 2016, NTU held a ceremony to announce the decision of the Minister of Education and Training to reappoint Assoc. Prof. Trang Si Trung as the Rector for the term 2016 - 2021. Mr. Nguyen Dac Tai - Vice Chairman of Khanh Hoa People's Committee and representatives of local departments, universities and colleges in the province attended the ceremony.

In the coming years, the leaders and staff of NTU will focus on major objectives such as focusing on program accreditation to meet national and international standards, especially ASEAN standards; enhancing capacity of lecturers and staff in accordance with international and regional standards; promoting external cooperation and international integration through research and training programs, staff and students exchange; promoting and

improving research capacity to reach the advanced level in the region, particularly in the field of fisheries; investing in infrastructure to meet with the university's development goals from 2020, vision to 2030; developing and implementing solutions to gradually achieve autonomy in line with the capacity of the university and building and completing media strategies and promotion activities.

CPA* POTENTIAL CONTEST 2016 – THE 2ND ROUND

(* Certified Public Accountant)

October 11, 2016, NTU and the University of Economics, HCMC held the 2nd round of the 15th CPA potential contest 2016 for students majoring in Accounting and Finance - Banking.



Nine students from the Faculty of Accounting - Finance were selected from the qualifying round to participate. The contestants had to overcome 10 quick questions within 180

seconds and rhetorical contest (free topics). In the end, the best four remaining contestants will take part in the third round (from October 27 to November 2), and eventually in the final round on November 10 in Ho Chi Minh City.

CPA potential contest 2016 is organized by the university each year in order to create a playground for students gain knowledge, improve skills for career development.

A GALA TO CELEBRATE THE SUMMER VOLUNTEER CAMPAIGN 2016



October 7, 2016, NTU Student Association and Youth Union organized a gala to celebrate the summer volunteer campaign 2016 and honor volunteers. More than 500 youth union members attended.

Summer volunteer campaign in 2016 attracted more than 1,000 youth union members participated in four main activities: National High School Exam Support, Green Summer, Heading to School Relay and Mid-Autumn celebration for children.

During the National High School Exam Support Campaign, over 250 students were present at the bus stations, intersections to support examinees. They have helped look for free drinks, meals and accommodations.

In the Green Summer campaign, the volunteers have completed lots of meaningful work such as constructing new roads and lighting system in Dong Xuan, Phu Yen Province ; constructing 600m² organic vegetable garden at Loc Tho Pagoda, Nha Trang; 1500 liter-filtered water tanks, water purification systems, roof landfill at Le Van Tam Secondary School, Khanh Vinh; painting classes of Lien Sang Primary School, Khanh Vinh; planting a flower garden and therapeutic vegetable garden at the Mental Hospital, Dien Khanh.

SHARING EXPERIENCES IN LEARNING AMONG STUDENTS



To help students improve academic results as well as develop themselves, student conferences were held for the students from Accounting and Auditing, Business Administration & Management Information System, Food Technology, Fisheries Management in the last quarter.

The conferences created opportunities for students to meet, learn and share experiences in studying, exchange and solve problems arising during studying. Specifically, outstanding students shared their own experience in studying subjects such as foreign

languages, information technology, and doing internship, applying for jobs and participating in social activities.

Moreover, businessmen and alumni were also invited to attend the conferences. They helped students gain a better understanding

of the real working environment and interview experience. In addition, students also received scholarships from businesses and alumni for outstanding academic achievement. The Department of Business Administration has received 60 million from the student's entrepreneurship supporting fund.

MUSIC PERFORMANCE CONTEST ON

"SONGS ABOUT SEA AND ISLAND SOVEREIGNTY AND REVOLUTION 2016"

November 11, 2016, NTU Youth Union held the grand final of the contest "Songs about Sea and Island Sovereignty and Revolution 2016" with the participation of nearly 1,000 students.

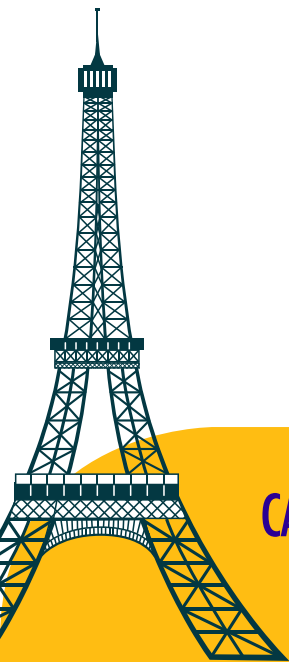


The contest attracted a lot of students from 12 faculties and institutes. Through the preliminary round, the organizers chose 8 best performances for the final. The performances were very diverse and reflected the student's pride and patriotism about our sea and islands. At the end of the contest, the organizers awarded the 1st prize to the Youth Union from the Faculty of Economics, the 2nd prize to the Youth Union from the Faculty of Transportation Engineering and the 3rd prize to the Youth Union from the Faculty of Foreign Languages.

The contest was an interesting activity which strengthens the students' patriotism and their awareness about the role and strategic position of Vietnamese seas and islands.

VNPT KHANH HOA AWARDS 40 SCHOLARSHIPS TO STUDENTS

October 5, 2016, Khanh Hoa Post and Telecommunication awarded 40 scholarships (value of 40 million VND) to the outstanding examinees in the high school national exam 2016 and the students who had excellent academic results in the school year 2015-2016. NTU thanks VNPT Khanh Hoa for their support over the years through scholarships and other activities. The support of the company has contributed to encourage and motivate student to gain higher achievements in their studies.



CAMPUS FRANCE INTRODUCED FRENCH SCHOLARSHIP FOR STUDENTS

November 24, 2016 Campus France hosted a French scholarship information session to NTU's faculties and students.

The session provided information for studies in French and English programs; student life in France; how to develop study plans and budget preparation; scholarship programs of French Government (Excellence scholarship of French Embassy, Excellence scholarship - Major, Eiffel scholarship, etc), AUF, the French local government and Vietnamese Government, etc. Campus France will support the scholarship application process, accommodation, part-time jobs and living in France.



AWARD TWO ELECTRICAL SOLAR POWER SYSTEMS FOR DAM MON BORDER DEFENSE POST, VAN NINH DISTRICT

October 20, 2016, NTU awarded two electric solar systems to Dam Mon Border Defense Post, Van Ninh district. This activity is for the program "Lighting remote islands" implemented by NTU.

The system was built by lecturers and students from the Faculty of Electrical & Electronics Engineering with many preeminent features such as: the power system performance up to 96%, and able to operate normally in harsh weather conditions; LEDs with high luminous efficiency, automatic power causing no communication interference; programming set with infrared port allows the system to sink 1.5 meter compared to sea level within 72 hours.

INSTITUTE OF SHIPBUILDING - 30 YEARS OF CONSTRUCTION AND DEVELOPMENT

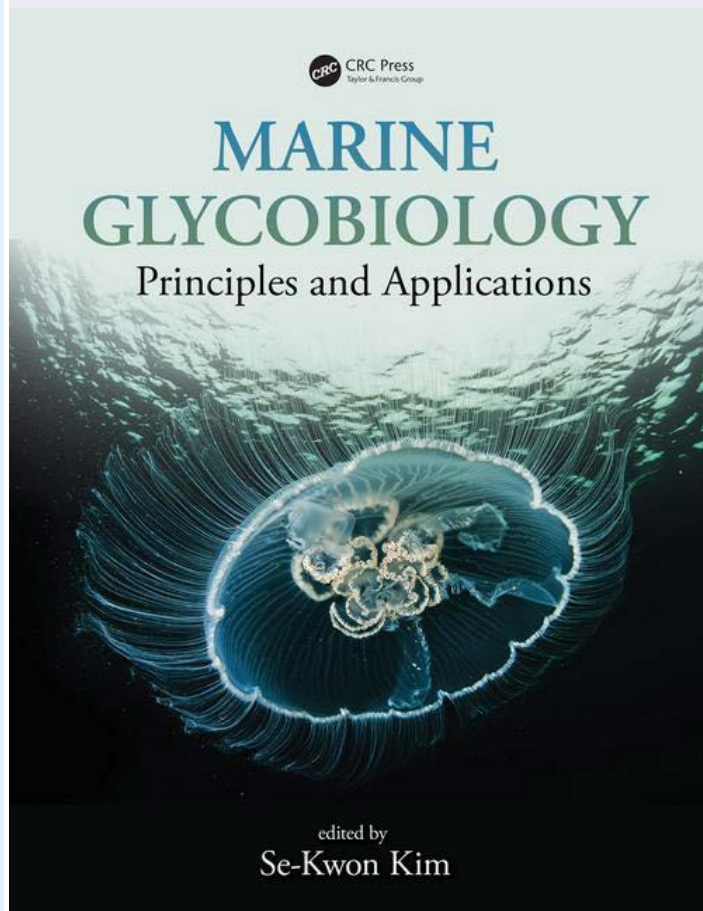
October 9, 2016, the Institute for Shipbuilding celebrated 30 years of construction and development. The Institute is formerly the Center for Research and Production of Fishing vessels and Equipment - University of Fisheries. After 30 years of construction and development, the Institute has carried out many research projects, brought benefits to people, and has applied successfully new materials in shipbuilding industry. This achievement has contributed to the development of new materials and products in many areas of life, especially the composite fishing vessel construction.

Antibiotics have played important roles in the prevention, control, and treatment of infectious diseases in humans and animals for more than 70 years. To overcome the increased rate of morbidity and mortality due to the ban on antibiotics, several alternative therapies have been suggested, which include vaccines, immunomodulatory agents, bacteriophages, antimicrobial peptides (bacteriocins included), probiotics, prebiotics, synbiotics, etc. A new term “pharmabiotics,” which is defined as any biological material from gut microbiota, including probiotics, bacteriocins, bacteriophages, and bioactive molecules, has also been introduced in recent years. Synbiotics, which are a combination of prebiotics and probiotics, are now gaining scientific credibility as functional food ingredients at nutritional and therapeutic levels, and there is also an increasing evidence to show their effectiveness to benefit human and animal health.

The most known prebiotics are glycans. As discussed in this chapter, glycans from seaweed and marine probiotics are increasingly being expected to become novel prebiotics or synbiotics. Typical examples of seaweed glycans include laminarans, fucoidans, and alginates from brown algae; floridosides and Agaro-oligosaccharides (AOs) from red algae; and ulvans from green algae. They function not only as prebiotics to support the growth of probiotics but also exert a broad spectrum of biological properties such as antiviral, antimicrobial, antitumor, anti-inflammatory, antioxidant, antifibrotic, and immunomodulatory activities.

In addition, exopolysaccharides (EPSs) from bacteria, which perhaps play an ecological role for the survival of the host in complex environments related to biofilm formation, stress resistance, and substrate utilization, are potential candidates for the development of drugs. EPSs produced by probiotics can help the host strain to compete pathogens for an adhesion site in the gut mucus, to sequester essential metals, and to support the growth of other probiotics. Although these glycans derived from marine probiotics have still been studied sparingly, surely, they are expected to formulate into novel prebiotics or synbiotics for future therapies in humans and animals.

Van Duy Nguyen, *Marine glycans in relationship with probiotic microorganisms to improve human and animal health*. In: S.K. Kim (ed.), “*Marine Glycobiology: Principles and Applications*”, CRC Press, 2017, pp. 67-84.



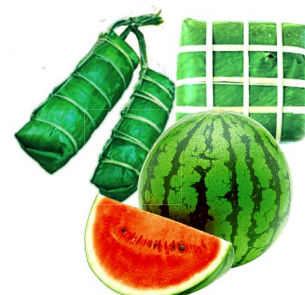
UPCOMING EVENTS



- 1 Admission of the international master's program on Marine Ecosystem-based Management & Climate Change (1/2017)
- 2 2017 Vietnam-Korea Chemical Engineering Joint Symposium (20/2/2017)



Happy New Year
2017





NORWAY & NHA TRANG UNIVERSITY

20 YEARS OF FRIENDSHIP AND COOPERATION

25 November 1971 is a memorable milestone for Norwegian-Vietnamese relations, as the day when diplomatic ties were established 45 years ago. Since then, the two countries have developed a multifaceted relationship within areas such as trade, investment, education, environment and climate change, energy, governance, fisheries, human rights and gender equality.

Norway and Vietnam are both countries with long coastlines, both are maritime oriented cultures and both are among the world's largest seafood producers. As a result, Norway and Vietnam have a long history of strong cooperation within the marine and maritime sectors.

Among many highlights of this long-term friendship is the two-decade long academic cooperation between the Norwegian Government and the Norwegian research institutions Tromsø University and Institute of Marine Research and Nha Trang University (NTU), with the aim to building a strong academic centre with high quality education and capacity in the marine sector. Through this period, NTU has transformed into a multidisciplinary university and one of the prestigious training institutions in the South Central and Highland regions. Support from the Norwegian Government and institutions has been an essential driver in this development. Many of the NTU's staff and faculties have followed master, doctoral, post-doc as well as short-term training programmes at prestigious Norwegian universities on subject matters such as fishery economics, aquaculture, biotechnology, and fishing technology. Whereas NTU had nine lecturers with PhD degrees in 1997, it now has 17 doctors and 39 masters who have been trained in Norway.

Inspired by Norway's advancement in gender equality, gender has become a theme cutting across all academic plans of the University. The number of female participants in master programmes, short-term courses and research projects has increased substantially, and NTU has adopted a plan to further scale this up. Furthermore, NTU has implemented a mentoring programme on career development for female lecturers.

With the Norwegian Government's support, NTU's research capacity has gradually improved and led to new findings. As a result, hundreds of articles have been published in national and international scientific journals. Along with the improved research capacity comes improvement in the University's training capacity. Among these are international programmes in Fisheries and Aquaculture Economics and Management, Marine Ecosystems Management and Climate Change. NTU has established a Centre of Aquatic Animal Health and Breeding Studies that focusses on culturing seabass breed for supply both inside and outside the country.

The cooperation with Norwegian institutions has increased NTU's focus on the business sector in training and research partnership, including through formal agreements with the private sector partners. The university's training and research efforts not only address domestic needs, but reach out to regional and international cooperation. Several business leaders and private sector workers have enrolled in the master and higher education courses of the University. NTU also regularly deliver short-term training courses to the community on food safety management. This is a win-win situation: Inputs from private sector and community outreach help ensure that academic researches address cases of actual concerns and facilitate sustainable economic growth.

Norwegian partners and NTU have been companions in the course of development of the university and of Vietnam's fishery industry. Norway and Vietnam are among the world's largest producers of seafood, and both countries have a large potential in the Blue Economy. On 23 November, the Norwegian Embassy and Innovation Norway will address this potential at a business seminar on Blue Economy in Ho Chi Minh City, with the contribution of Norwegian competence and technology and of Nha Trang University.