## 2019 IPN CONFERENCES OSAKA, JAPAN

OSAKA, JAPAN 15-17 NOVEMBER 2019



## **Welcome to IPN Conferences 2019**

#### Dear Professor, Dr and distinguished delegates,

Welcome to the IPN Conferences 2019 in Osaka, Japan. On behalf of *IPN Education Group*, I would like to thank all the Conference Chair, Program Chairs and the Technical Committees. Their high competence and professional advice enable us to prepare the high-quality programs. For the participants, we hope all of you have a wonderful time at the conference and also in Osaka, Japan.

We believe that by this excellent conference, you can get more opportunities for further communication with researchers and practitioners. For the conferences of **ICEBS 2019**, **ICBER 2019 and ICHSS 2019**, more than 60 submitted papers have been received and 45 papers have been accepted and published finally.

In order to hold more professional and significant international conferences, your suggestions are warmly welcomed. And we are looking forward to meet you again next time.

#### Best Regards, Thank you.

Yours Sincerely,



Datin MZ Zainab Director – Conference Management IPN Education Group Chairman, IPN Conferences 2019 Osaka, Japan

## **Message from IPN Honorary Advisor**

On behalf the IPN Education Group, it is my privilege to welcome you to the IPN Conferences Osaka, Japan 2019. IPN is an independent, non-political, non-governmental organization of distinguished scientists dedicated to advancing science around the world. We aim to help scientists and researchers to publish their findings in scientific journals and to promote and help to organize worldwide conferences. We believe that has no boundaries, regardless of the great distances between countries and continents. Thus IPN welcomes contributions from researchers from all concern irrespective to the race, colour, religion and nationality.

**Best Regards** 

Abdel Al-Tamba

Prof. Dr. Abdel Rahman Mohammad Said Al Tawaha Honorary Advisor IPN Education Group IPN Conferences 2019 Osaka, Japan

## **About IPN Education Group**

The IPN Education Group is a non-profit international association dedicated to the promotion of international education and university cooperation in the field of Business, Art, Social Science, Management, Education, Science, Technology, Engineering and any other related field.

Through the organization of different international events, it brings together institutions, bodies and organizations from different countries of the world for discussion and cooperation IPN Mission is to promote and enhance the dialogue in education among the institutions devoted to field mentioned above through:

- Promotion of best practice standards in the service of international education.
- The facilitation of relevant forums, training and information exchange.
- Creation and dissemination of knowledge; exert an influence in public policy.
- Production of publications used as a database document for research works, projects and innovation activities held on the international education field.

IPN believes that this is best achieved through international cooperation and promotes the development of closer links among relevant institutions and individuals around the world. IPN supports that such international cooperation can help countries learn from each other and promotes the dissemination of scientific and engineering activities. IPN intends to achieve the mentioned objectives and get an international visibility by the organization of international conferences and by interacting with public and private organisms from all parts of the world.



www.ipneducationgroup.org www.ipnconference.org

### **ANNOUNCEMENT**

All accepted papers will be published in:

- Active Scopus Indexed Journal
- ESCI Journal
- Active ERA Journal
- Journal of Applied Management Science (IJAMS) (EISSN: 1755-8921/ ISSN: 1755-8913)
- Management Science Letters (MSL) EISSN: 1923-9343/ISSN:1923-9335
- International Journal of Recent Technology and Engineering (IJRTE) (TM) ISSN: 2277 -3878 (IJRTE JOURNAL) or other active Scopus Indexed Journal
- Journal of Industrial Engineering Research (JIER) (ISSN: 2077-4559) (Google scholar, Scientific World Index, Directory of Indexing and Impact Factor (DIIF), Academia.edu.)
- Advances in Environmental Biology (ERA Journal) (ISSN 1995-0756)
- Science International Journal (SI) ISSN: 1013-5316 (Google Scholar)
- Journal of Asian Scientific Research EISSN: 2223-1331, ISSN: 2226-5724
- International Journal of Asian Social Science EISSN: 2224-4441 ISSN: 2226-5139
- Journal of Mechanics of Continua and Mathematical Sciences EISSN: 0973-8975, ISSN: 2454-7190
- Revista Publicando (ISSN: 1390-9304)
- Journal of Engineering and Science Research (JESR) (eISSN: 2289-7127)
- Research Journal of Social Sciences (RJSS) (ISSN:1815-9125 ) (CNKI SCHOLAR, SIS DATABASE, ULRICH'S PERIODICALS, THOMSON GALE, DOAJ, OPEN J-GATE, INDEX COPERNICUS, ELECTRONIC JOURNALS LIBRARY, EBSCO HOST)
- Advanced Journal of Technical and Vocational Education (AJTVE) (eISSN: 2550-2174)(Google Scholar, MyJurnal)
- International Journal of Business and Management (IJBM) (ISSN 2321 8916) (Google scholar, Scientific World Index, Directory of Indexing and Impact Factor (DIIF), Academia.edu.
- Journal of Social Sciences and Humanities (JSSH) (ISSN 2600-9056) (Google scholar, Scientific World Index, Directory of Indexing and Impact Factor (DIIF), Academia.edu.

One Best Presenter Award will be selected from each oral session. The Certificate for Best Presenter award will be awarded after presentation session.



## 🕮 IPN CONFERENCES OSAKA 2019 蕊





#### **KEYNOTE SPEAKER:**



Dr. Alan Libert University of Newcastle

Alan Libert is a senior lecturer in linguistics at the University of Newcastle in Australia, and head of its applied linguistics and German programs. He was born in Los Angeles and grew up mainly in New York City. He completed a B.A. in Latin and Ancient Greek at New York University and a Ph.D. in linguistics at McGill University in Montreal. His research interests include word classes, Turkic languages, artificial languages, and names.

#### **Abstract**

### Polyfunctionality in Linguistics and in Life

Polyfunctionality means having more than one function. This term has more than one sense in linguistics, but perhaps the most common sense is when a word can belong to more than one word class. For example, book can be a noun or a verb, and dry can be an adjective or a verb. Objects in ordinary life can also be *polyfunctional*; for example, one could use a screwdriver as a hammer, if one could not find a hammer. However, in such cases we would not say that a screwdriver can also be a hammer, but rather that it could function as a hammer. There thus seems to be a difference in the way that we conceive of polyfunctionality in linguistics and in life. In this talk, I will explore possible reasons for this, as well as presenting examples of polyfunctionality in many domains.

## LIST OF THE CONFERENCE COMMITTEE

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#### Devices Provided by the Conference Organizer:

- Laptop (with MS-Office & Adobe Reader)
- Projector & Screen
- Laser Sticks

#### Materials Provided by the Presenters:

PowerPoint or PDF files

#### Duration of each Presentation (Tentatively):

- Regular oral presentation: about 15 minutes (including Q&A)
- Keynote speech: about 40 minutes (including Q&A)

Notice: Please keep your belongings (laptop and camera etc) with you!

#### **During registration:**

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Lunch Coupon
Participation Certificate (collected from Session Chair after the session)
Conference Bag



### IPN Conferences 2019 Osaka, Japan

## **Conference Program**

November 15, 2019	Venue: <b>Lobby</b>	1000 - 1200	Registration	
	Venue: Opera	0830 – 0845	Opening Remarks	Opening Remarks
	Room	0845 – 1000	Plenary Speech 1	Keynote Speaker
		1000 – 1030	Group Photo	and Coffee Break
November 16, 2019	Venue: Opera Room	1030 – 1230	Session 1	
	Venue:	1230 – 1400	Lunch	
	Venue: Opera Room	1400 – 1600	Session 2	
		1600 – 1630	Coffee Break	
November 17, 2019	Lobby hotel	0800 - 1200	Networking	

Session 1

Time: 1030 – 1230 Venue: **Opera room** 





No	Paper ID	Presenter
1	003-jpn	Engaging and helping seniors: The case of the pioneer generation ambassadors in Singapore
		Intan Azura Mokhtar
		Singapore Institute of Technology, Singapore
2	007-jpn	The Onomastics of Model Rocketry
		Alan Reed Libert
		University of Newcastle, Australia
3	008-jpn	Experiences of Power, Politics, and Transfer of Training
		Michelle Ru Hui Ng, Patricia Yin Yin Lau
		SEGi University, Malaysia
4	009-jpn	The development of marketing strategies for Lao Khrung woven cloth products by participation of housewife group of Punumron Sub-
		district, Dan Chang district, Supanburi province
		Asst. Prof. Dr. Rachadaporn Boonruang, DBA.
		Phranakhon Rajabhat University, Bangkok, THAILAND
5	025-jpn	The Role of Information Systems and Knowledge Management in Implementing Digital Transformation: Evidence from Japan
		Seigo Matsuno, Iori Nakaoka, Yasuo Uchida, Takao Ito
		National Institute of Technology, Ube College, Japan
6	032-jpn	A Literature Review: Determinants for Family Takaful Demand in Malaysia - Breaking Out of the Shadow of Conventional Insurance
		Sofea Arisya Muhammad Shaifuddin, Suhaily Hasnan
		Kolej Yayasan UEM, Malaysia
7	028-jpn	A Trial of Bidirectional Transcription Learning for Beginner Programmers
		Tatsuhiro Tamaki, Harumi Hashimoto, Atsushi Onishi, <b>Yasuo Uchida</b>
		National Institute of Technology, Ube College, Japan
8	034-jpn	A Case Study of the Use of Taiko Drumming to Improve Attention and Social Interaction Skills for Remote Children with Learning Disabilities
		Yu-Huei Su, Mei-Hua Li, Xin Tong
		National Tsing Hua University, Taiwan.

Session 2

Time: 1400-1600 Venue: **Opera room** 



Session Chair: Assoc. Prof. Dr. Rosmilah Misnan & Assoc. Prof. Dr. Suhaily Hasnan

No	Paper ID	Presenter
1	001-jpn-icesr	Molecular Characterization and Comparative Analysis of Tropomyosin Gene
		Sequence from Orange Mud Crab, Scylla olivacea with other Crustaceans
		Nur Farah Hani Azemi, <b>Rosmilah Misnan</b> *, Remmy Keong Bun Poh
2	015 :	Universiti Pendidikan Sultan Idris, Malaysia  Regional landfill planning for improvement of wests management
2	015-jpn	Regional landfill planning for improvement of waste management in Maputo, Mozambique
		<b>Chelsea Langa</b> , Kengo Nakamura, Noriaki Watanabe, Takeshi Komai
		Tohoku University, Sendai City, Japan
3	029-jpn	Developing a microalgal-bacterial symbiotic system to improve the efficiency of swine wastewater treatment
		<b>Shu-Ping Kuan</b> , Chun-Yen Chen, Hsin-Yueh Chang, Yu-Han Chang, Jo-Shu Chang
		National Cheng Kung University, Tainan, Taiwan
4	031-jpn	Corporate Governance Mechanisms and Ownership Structure on Illegal Insider Trading Activities in Malaysian Public Listed Companies
		<b>Suhaily Hasnan</b> , Nor Azlina A. Rahman, Alfiatul Rohmah Mohamed Hussain
		Universiti Teknologi MARA (UiTM), Malaysia
5	005-jpn	Marker-Assisted Backcrossing for Recovery of Recurrent Parent Genome from A Cross between Mr264 and Pongsu Seribu 2
		N Hasan, M Y Rafii, A R Harun, N S Alı, N Mazlan, S Abdullah
		Universiti Teknologi MARA, Negeri Sembilan, Malaysia
6	017-jpn	Elements of gastronomy tourism affecting the behavior of Thai tourists traveling in Thailand
		Puri Chunkajorn
		Dhurakij Pundit University Bangkok, Thailand
7	035-jpn	Positive Impact of Servqual and SOCB: Implementation and Evaluation from the Perspective of Banking Employees and Customers
		Soni Harsono, Harry Widyantoro, Tjahjani Prawitowati, Basuki Rahmat
		STIE Perbanas, Surabaya, Indonesia
8	036-jpn	Social Network Analysis for Investigating the Upper North Thai Scholar
		Performance and Culture
		Sirikorn Santirojanakul, Phasit Charoenkwan, Phusit Kornsurin
		Chiang Mai University, Thailand
9	030-jpn	Heterotrophic cultivation of microalgae using low cost waste molasses for protein production
		Chun-Yen Chen <b>, Jhih-Ci Lu</b> , Yu-Han Chang, Jo-Shu Chang
		National Cheng Kung University, Taiwan





## ibis Styles Osaka

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## Note



#### **List of Abstract**

No	Paper	Abstract
1	003-jpn	Engaging and helping seniors: The case of the pioneer generation ambassadors in Singapore
		Intan Azura Mokhtar
		Singapore Institute of Technology, Singapore
		Abstract: Singapore, a young and modern city-state in Southeast Asia, is home to more than 5.6 million people, with about 3.5 million Singapore citizens. About 10% or 550,000 of its residents are 65 years old and above, while the country's Total Fertility Rate is rather low at 1.14. Both of these statistical data indicate that Singapore is an increasingly ageing population. Singapore takes on a whole-of-government approach to ensure the country is ready to support seniors and an increasingly ageing population. Legislation and policies are constantly reviewed and changed to help Singaporeans remain employable and employed for longer; numerous health-related programs and initiatives are put in place to ensure active and healthy ageing; and amenities and infrastructure are constantly upgraded to make housing estates and public places more friendly and ready for seniors. Other than legislation, policies, programs and infrastructure, one other important aspect of this whole-of-government approach is the human touch and personal communication. The Pioneer Generation Office (PGO), initially set up in 2014 to reach out to and explain the Singapore government's \$\$9 billion Pioneer Generation Package, has since expanded its scope of work and objectives to include outreach to, engagement and befriending of all seniors in Singapore. This paper presents a case study of the PGO through the
		lens of its Chief Training Officer, as she was tasked with overseeing the training, development and readiness of the Pioneer Generation Ambassadors (PGAs) in order to prepare them to carry out their
	00=:	outreach and engagement initiatives to seniors in Singapore.
2	005-jpn	Marker-Assisted Backcrossing for Recovery of Recurrent Parent Genome from A Cross between Mr264 and Pongsu Seribu 2
		<b>N Hasan<sup>1</sup>,</b> M Y Rafii <sup>2</sup> , A R Harun <sup>4</sup> , N S Alı <sup>5</sup> , N Mazlan <sup>6</sup> , S Abdullah <sup>7</sup>



		<sup>1</sup> Faculty of Applied Sciences, Universiti Teknologi MARA, Negeri Sembilan, Malaysia <sup>2</sup> Institute of Tropical Agriculture and Food Security, Universiti Putra Malaysia,
		Serdang, Selangor, Malaysia <sup>3</sup> Department of Crop Science, Universiti Putra Malaysia, Serdang, Selangor, Malaysia
		<sup>4</sup> Agrotechnology & Bioscience Division, Malaysian Nuclear Agency, Kajang, Selangor, Malaysia <sup>5</sup> Department of Plant Protection, Universiti Putra Malaysia, Serdang, Selangor, Malaysia <sup>6</sup> Department of Agriculture Technology, Universiti Putra Malaysia, Serdang,
		Selangor, Malaysia  Abstract: Background selection is the most crucial steps in marker-
		assisted backcrossing breeding (MABC). The primary goal in this selection is to develop a backcross progeny carrying interest gene with maximum recovery of recurrent genome which can be used after many generations. MABC is the most significance technique to recover the recurrent genome within 2 to 3 generation and minimize the drawbacks of conventional breeding. In this study, MABC technique was adopted to cross between MR264, a local rice variety of Malaysia (susceptible to blast) with Pongsu Seribu 2, a traditional variety possess resistant genes (donor) to produce a new blast resistant rice variety. Present study identify the introgression of blast resistance genes, Pi-kh and Pi7(t) which tightly linked to markers, RM5961 and RM206. Out of 375 SSR markers, 72 polymorphic SSR markers between parental lines were used to monitor the recovery of recurrent parent genome in backcross population. Backcross populations, BC <sub>1</sub> F <sub>1</sub> and BC <sub>2</sub> F <sub>1</sub> revealed 76.1 to 87.9% and 86.5 to 95.2% of recurrent parent genome recovery in background analysis, respectively. The average percentage of recipient genome recovery in selected BC <sub>2</sub> F <sub>2</sub> lines was 94.4%, which indicated a close similarity at phenotypic resemblance to the recurrent parent MR264. Seven homozygous plants carrying blast resistance genes having maximum genetic backgrounds of MR264 were selected as improved blast resistant lines for development of blast resistant variety. Dendogram analysis revealed that the selected BC <sub>2</sub> F <sub>2</sub> lines were clustered together with MR264 indicate a strong relationship with MR264. This study concluded the effectiveness of marker-assisted backcrossing for rapid
		recovery and maximizes the restoration of recurrent parent genome in backcross populations.
3	007-jpn	The Onomastics of Model Rocketry
		Alan Reed Libert
		University of Newcastle, Australia
		<b>Abstract:</b> Model rockets, like other commercial products, have names, and these names are designed to make them appeal to potential buyers. This paper will be a survey of the names of model rockets and will examine how they have changed over the past few decades.



4	008-jpn	Several types of names can be identified: 1) names of real rockets, e.g. <i>Saturn V</i> and <i>Mercury Redstone</i> ; 2) names which refer to space, e.g. <i>Galaxy Glow</i> ; 3) names which refer to the (supposed) performance of the rocket, e.g. <i>Hi-Flier</i> ; 4) names containing words with positive connotations, e.g. <i>Dazzler</i> ; 5) names containing words with normally negative connotations, e.g. <i>Zombie</i> ; and 6) others, e.g. <i>Indicator</i> . Some names belong to more than one of these types, e.g. <i>Space Twister</i> , which combines types 2) and 3). Comparisons will be made between names of model rockets and names of other model and real vehicles.  Experiences of Power, Politics, and Transfer of Training
		Michelle Ru Hui Ng¹, Patricia Yin Yin Lau²
		<sup>1</sup> Faculty of Business, Accounting, and Management , SEGi University, Malaysia michelleruhui@segi.edu.my <sup>2</sup> School of Business, Monash University, Malaysia patricia.lau@monash
		Abstract: Organizations invest a significant amount of money on training annually yet trainees often fail to transfer training back to the workplace. Transfer problem led researchers to investigate factors affecting the transfer of training such as trainee characteristics, training design, and work environment. However, most studies were biased towards trainees' perspectives as supervisors' perspectives were rarely focused on. This led to a gap in literature in comparing both sides of the transfer of training phenomenon. In addition, power and politics were acknowledged to influence human resource management (HRM) practices. While past studies have suggested that power and politics affect adult learning, not much is known about the role of power and politics in the transfer of training. Therefore, this study aims to understand power and politics in transfer of training from both the trainees' and supervisors' perspectives by asking "How does power and politics play a role in the transfer of training?" A qualitative study was conducted with six trainees and six supervisors in a media company, resulting in four themes: Importance of training, reasons for training selection, reasons for transfer, and reasons for lack of transfer. Practical implications for HR practitioners include: (1) unequal power play in the organization hinders the transfer of training on a personal level not an organizational level, (3) absence of a safe and trusting environment creates skepticism to training opportunities, and (4) trainees desire power in the form of autonomy essential to transfer training.
5	009-jpn	The development of marketing strategies for Lao Khrung woven
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	cloth products by participation of housewife group of Punumron
		Sub-district, Dan Chang district, Supanburi province
		Asst. Prof. Dr. Rachadaporn Boonruang, DBA.
		Phranakhon Rajabhat University, Bangkok, THAILAND



		rachada_u@hotmail.com
		utapao.dr@gmail.com
		Abstract: The Lao Khrung woven cloth product is the cloth weaved by hands to be used by the Lao Khrung ethnic group. The production process was transferred from generations to generations. Thai Lao Khrung is the descendant of Lao Khrung people who lived along the Mae Kong River of Laos. They migrated to Punumron sub-district. Their cloth products have unique patterns and production process which passed along as inheritance from ancestors. The materials used were cotton and silk. The participation of the housewife group began from the pattern designs which displayed their unique identity. Patent and copyright of the patterns were advised. Price setting should be premium thus to aim at the wealthy customers. Distribution channels should be trade events. In the events, the housewife group should perform the unique weaving technique, cotton and silk spinning technique to the spectators. The promotional strategy suggests for the collaboration with religious events by wearing these unique cloths to vastly publicize the products to bigger audiences. On line publicity is also suggested.
6	015-jpn	Regional landfill planning for improvement of waste
	, F	management in Maputo, Mozambique
		<b>Chelsea Langa<sup>1</sup>,</b> Kengo Nakamura <sup>2</sup> , Noriaki Watanabe <sup>3</sup> , Takeshi Komai <sup>4</sup>
		<sup>1</sup> Graduate School of Environmetal Studies, Tohoku University, Sendai City, Japan chelsea.adelina@gmail.com <sup>234</sup> Graduate School of Environmental Studies, Tohoku University, Sendai City, Japan
		Abstract: This study consisted of selecting potential landfill sites in Maputo province where population increased from about 1 million to 2 million from 1997 to 2017. This growth resulted in waste increase and space reduction which are conflicting aspects in the selection of landfill sites. Eight criteria representing geophysical and social characteristics were analyzed on the Geographic Information Systems environment, namely soil, geology, slope, land use, road network, river, lakes and special protection units. Suitability indexes of each layer map where individually analyzed and later overlaid on the ArcMap environment. The maps were classified into 3 degrees, unsuitable, moderate and suitable. Analytical Hierarchy Process was used to measure the degree of importance and weights of each criteria. Finally, results show that 74% of the area is unsuitable, 7% is moderate and 19 % is suitable. Results indicated that a regional landfill is necessary for the four disctricts to improve their waste management system.



7	017-jpn	Elements of gastronomy tourism affecting the behavior of Thai tourists traveling in Thailand
		Puri Chunkajorn
		Culinary for Health Program, College of Integrative Medicine Dhurakij Pundit University Bangkok, Thailand
		Abstract: The purpose of this research is to study the behavior of Thai tourists on food and to study the civilization and the elements of gastronomy tourism affecting the behavior of Thai tourists. The sample group used in this research is 400 Thai tourists. The variables in the study consists of the independent variables, namely personal factors such as gender, age, status, education level, occupation and average income per month, and the elements of food tourism and the dependent variable is the behavior of Thai tourists. Using statistical methods to find the frequency, percentage, mean, standard deviation, and use Chi-Square Test to analyze data at significance level 0.05. The results of the research were as follows: 1. Most of the sample groups had a convenient season to visit gastronomy tourism, ie November-December. The expected number of days for food tourism were 1-2 days. The source of food tourism information was Facebook. People who were travel buddies on gastronomy tourism for them were lovers / spouses. Travel method for food tourism was by using a personal car. The main purpose of traveling in food tourism was they loved a variety of local ingredients and the average cost of food tourism / people / meals was over 701 baht. 2.Demographic factors on gender, age, status and average income per month affected the behavior of Thai tourists on food. 3.Elements of gastronomy tourism that did not affect the behavior of Thai tourists with statistical significance at the level of 0.05.
6	025-jpn	The Role of Information Systems and Knowledge Management in
		Implementing Digital Transformation: Evidence from Japan
		Seigo Matsuno <sup>1</sup> , Iori Nakaoka <sup>3</sup> , Yasuo Uchida <sup>3</sup> , Takao Ito
		123Dept. of Business Administration, National Institute of Technology, Ube College, Ube, Yamaguchi, Japan  1matsuno@ube-k.ac.jp  2Graduate School of Engineering, Hiroshima University, Higashi-Hiroshima, Hiroshima, Japan
		<b>Abstract:</b> Digital transformation has recently become a new paradigm of business strategy. However, it is still unclear that what factors affect effective implementation of digital transformation. This paper investigates the factors that affect the implementation of digital transformation empirically. We address especially the role of information systems management and knowledge management as promoting factors of digital transformation. A regression model of the relationship between these factors and digital transformation is



	proposed. The model is analyzed using the data from a survey of sample of firms in Japan. The results suggest that each of the degree of information systems management and knowledge management has a significant influence on digital transformation implementation, and formar has the most positive inpact on it. Furthermore, this relationship is not affected statistically by either firm size or the type of industry. And finally implications of this study are discussed. This paper therefore provides an empirical perspective on the implementation of digital transformation of frims in Japan.
028-jpn	A Trial of Bidirectional Transcription Learning for Beginner
	Programmers
	<sup>1</sup> Tatsuhiro Tamaki, <sup>2</sup> Harumi Hashimoto, <sup>3</sup> Atsushi Onishi, <sup>4</sup> Yasuo Uchida
	<sup>1</sup> National Institute of Technology, Okinawa College, Department of Media Information Engineering, Nago, Japan
	<sup>2</sup> Setsunan University, Department of Business Administration and Information, Osaka, Japan <sup>3</sup> National Institute of Technology, Tsuyama College, Department of Integrated Science and Technology, Tsuyama, Japan
	<sup>4</sup> National Institute of Technology, Ube College, Department of Business Administration, Ube, Japan
020 inn	Abstract: Adoption of programming education has become a global trend. In Japan, the Japan Revitalization Strategy 2016, announced by the Headquarters for Japan's Economic Revitalization in 2016, set forth the aim of making programming education compulsory in primary and secondary education. The purpose of this is to cultivate basic logical thinking skills through programming education, as part of efforts to develop and secure human resources for sparking economic growth. On the other hand, it will likely be necessary to review previously existing programming education in ICT human resources development courses at various types of schools. In the programming education for beginners that we are implementing at a college of technology, there is a considerable percentage of students who feel they are not up to programming. Thus, this study proposes "bidirectional transcription learning" for beginner programmers as an educational method to help strengthen programming education. Based on experience, transcription learning is regarded as effective for mastering programming, but we have conducted a trial to further improve efficiency and deepen understanding, and here we provide an overview and report on our results.
029-jpn	Developing a microalgal-bacterial symbiotic system to improve
	the efficiency of swine wastewater treatment
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Abstract: Our recent studies showed that microalgae could be a promising tool for treating various types of wastewater, such as industrial and swine wastewaters. However, the process of wastewater treatment usually involves both microalgae and other microorganisms. In particular, bacteria could provide critical contributions in wastewater treatment systems. Therefore, the aim of this work is to develop a simulative system of algal-bacterial symbiosis in swine wastewater for enhancing the treatment efficiency. First, the role of bacteria in microalgal-based swine wastewater treatment system was investigated. The results show that the microalgae grown in the sterilized wastewater exhibited a lower growth rate and lower COD removal efficiency when compared with those obtained from growing on the unsterilized wastewater. The biomass productivity and COD removal efficiency increased by 116% and 27%, respectively, when the microalgae were grown on unsterilized wastewater. Thus, the symbiosis of microalgae and bacteria in wastewater seems to accelerate the growth rate of microalgae and simultaneously improve the efficiency of wastewater treatment. Next, it was explored whether the two-stage operation is more effective for the overall efficiency of the biological treatment system than the single-stage process. The results show that the twostage operation not only failed to improve efficiency, but also caused an increase in processing time, which in turn led to an increase in operating costs. Therefore, a one-step operation could meet the needs. In summary, specific bacteria indeed could help the growth of Chlorella sorokiniana AK-1, and the study will utilize mixed bacteria for improving the treatment efficiency in algal-bacterial symbiotic system. Our future work will further explore the bacterial species that could enhance the treatment efficacy.

#### 030-jpn

#### Heterotrophic cultivation of microalgae using low cost waste molasses for protein production

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Abstract: Fishmeal is the most widely used protein source in commercial aquaculture feed. However, the supply of fishmeal has shrunk year by year, and the market demand has continued to increase, resulting in an increase in the cost of aquaculture. Our study argue that microalgae are suitable alternatives to fishmeal. Because microalgae contain complete protein with essential amino acids and taste amino acids, such a protein-rich co-product is a promising alternative to unsustainably sourced fishmeal in aquaculture diets. Using heterotrophic microalgae for protein production has some advantages, such as (1) heterotrophic growth can overcome limitations of light to give significant reductions in complexity of cultivation, (2) cultivation facilities are simpler to construct, and (3) heterotrophic cultivation is more stable on a large scale than autotrophic cultivation. Therefore, heterotrophic cultivation can achieve higher protein productivity in the industry. However, under heterotrophic conditions, the most common carbon sources, such as glucose, are relatively expensive. In this study, we demonstrate that some new strains of microalgae can grow under heterotrophic cultivation conditions using waste molasses as an organic carbon source. Molasses is an important by-product of the beet sugar and sucrose refining plant, which has high nutritional value and effectively reduces production costs. The results show that using hydrolyzed waste molasses as the feedstock could obtain higher microalgal biomass productivity and protein productivity with a value of 647.0 mg/L/d and 263.6 mg/L/d, respectively. In addition, microalgae contain complete protein with taste amino acids, and they can be a potential feed in aquaculture.

#### 031-jpn

Corporate Governance Mechanisms and Ownership Structure on Illegal Insider Trading Activities in Malaysian Public Listed Companies

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**Abstract:** This study examines the effect of corporate governance and ownership structure on illegal insider trading activities. Specifically, this study examines the effect of board independence, audit quality, family ownership, managerial ownership and institutional ownership on the illegal insider trading activities in the Malaysian public listed companies. This study uses content analysis on the annual reports over a 16 year period from 2000 until 2015 of 112 Malaysian public listed companies. Out of the 112 public listed companies, 22 public listed companies were involved in illegal insider trading activities whilst the remaining 90 public listed were not involved in the illegal insider trading activities. This study shows that audit quality and

	managerial ownership significantly influence illegal insider trading activities in the public listed companies in Malaysia. However, this study shows that board independence, family ownership and institutional ownership do not have significant influence on illegal insider trading activities in the public listed companies in Malaysia. This study contributes to the existing literature on the illegal insider trading activities especially in Malaysia. The findings in this study may assist the relevant authorities in strengthening the enforcement that can minimize illegal trading activities in the Malaysian securities market.
032-jpn	A Literature Review: Determinants for Family Takaful Demand in Malaysia - Breaking Out of the Shadow of Conventional Insurance
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	<b>Abstract:</b> Malaysia is currently regarded as a leading contributor to the Islamic finance industry. Over the last decade, this industry has witnessed tremendous growth across the country. One of the four main markets of the Islamic finance industry is the Takaful industry. This industry is expected to sustain its growth momentum as we move into the 21st century world of technology and innovation. However, Takaful penetration among Malaysians today is still relatively low and stands at only 15.2% compared to the 61.3% Muslim population in the country. While the Takaful industry still has a long way to go to be on par with conventional insurance, it has nevertheless laid the foundations necessary to bridge the gap. Several studies have been done to identify the challenges and future prospects of the Takaful industry. This paper aims to discuss the plausible determinants of family Takaful demand in Malaysia as found via a literature review. This study is useful as a guide for stakeholders in the industry to revisit their strategies to gain sufficient momentum, so as to provide a significant challenge to the conventional insurance industry.
034-jpn	A Case Study of the Use of Taiko Drumming to Improve Attention and Social Interaction Skills for Remote Children with Learning Disabilities
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**Abstract:** Playing musical instruments helps promote cooperation, enhance attention, increase joint mobility as well as the range of motion, improve rhythm, balance, power, and raise self-esteem. The aim of the study was to explore the effects on remote children's attention and social interaction skills from taiko drumming. It applied a case study methodology with the subject being a fifth-grade boy with learning disability (LD) and assessed to have unfocused behavior and emotional instability. With experiments conducted in taiko group lessons, the research consisted of a three-month pilot study and further a three-month main study. The pilot study was carried out by giving 12 once-a-week taiko group lessons which lasted 40 minutes each, with the Classroom Attention Observation Form developed by researchers recording the inattentive behavior of the child. The findings showed that the percentage of inattentive behavior in the classroom dropped from 100 to 60 percent. In addition, it was found that the child could obtain much experience of communication and more opportunities to have interaction with others through the process of ensemble taiko drumming. The main study was also carried out by giving 12 once-a-week taiko group lessons which lasted 40 minutes each, with the Chinese Version of SNAP-IV (Gao, 2006) and the Elementary & Junior High School Social Skill Behavior and Characteristic Checklist (Meng, 2004) as the tools. The findings showed that the LD child's degree of inattention had turned from severe to mild, and his social skill disabilities had a significant reduction as well. In general, the six-month taiko group lessons could effectively improve the attention and social interaction skills of students with learning disabilities, and it is hoped that the findings of this research would provide a wealth of new information and reference for subsequent research related to the educational counseling of students with learning disabilities.

#### 035-jpn

Positive Impact of Servqual and SOCB: Implementation and Evaluation from the Perspective of Banking Employees and Customers

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**Abstract:** So far there has been no research that begins with customer evaluation of the Banking employees' Service-oriented Organizational Citizenship Behavior (SOCB) and Service Quality (Servqual), from which the customer evaluation results are then considered in training, and the training results are finally re-evaluated by customers. This study aims to identify the effectiveness of the training conducted, see differences in customer assessment of employee performance before and after attending the training, and analyze changes in banking employee's behavior and skills related to SOCB and service quality. This study was conducted using associative and comparative approaches involving 330 respondents, consisting of 30 banking employees and 300 banking customers. This study used a questionnaire as a primary data collection tool. The results of the

036-jpn	research indicate that the training carried out reaches level one of effectiveness which is the presence of the trainee's positive response to the learning process with the resource persons, there is an increase in knowledge after attending the training especially in SOCB scores, there is no difference in the results of the study, both before or after the training, that S-OCB has a significant positive effect on Servqual, and there are changes in employee behavior and skills related to SOCB and Servqual.  Social Network Analysis for Investigating the Upper North Thai Scholar Performance and Culture
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	Abstract: The purpose of this study is to investigate the ultimate potential publication and relationships between the co-authors of the Upper North Thailand Scholar. The research government policies have been highly effective towards STEM's publication and their academic title in a positive way. From 2017 to 2019, 14.33% of the Upper North Thailand STEM had academic titles changed. 11.00% of lecturers had been promoted as new assistant professors, 0.33% of lectures had been promoted as new associate professors, 2.33% of assistant professors had been promoted as new associate professors, and 0.67% of associate professors had been promoted as new professors. Three from the four group had their academic title changed, their publications were closely in collaboration with scholars from the United States and United Kingdom. The total of 4281 papers were published having co-authors from 31 countries. The significant results of the publication growth for every five years was shaped like a U. Moreover, results were consistent with the rules and procedures for the appointment of academic positions of the Office of the Higher Education Commission. The results revealed that the highest average degree from being an assistant professor to associate professor was 19. The modularity of this study between 0.141 – 0.151 was a low density. A social network of publication is very important to understand the formation of the community structure. Today the cohesive group of international research nodes were not really highly
	connected. Researchers can create more international densely for
	increasing high research performance by working with an
0041	international university, a well known lab, and with a real industry.
001-jpn-icber	Molecular Characterization and Comparative Analysis of
	Tropomyosin Gene Sequence from Orange Mud Crab, Scylla
	olivacea with other Crustaceans



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**Abstract:** Consumption of shellfish can produce multiple allergenic symptoms in susceptible individuals. Among shellfish, crab including mud crab can cause mild, moderate, severe and potentially lifethreatening allergic reactions. Tropomyosin, a myofibrillar protein of 36 kDa has been recognized as the major allergen in orange mud crab Scylla olivacea by proteomics approach. However, there has been no report on the molecular characterization of tropomyosin from S. olivacea and no comparative analysis with other crab and crustacean species. Hence, this study was performed to clone, identify and compare the molecular structure of tropomyosin in S. olivacea and other crab and crustacean species. This study has first cloned the fulllength tropomyosin cDNA from *S. olivacea*. The sequence was then compared with other custacean tropomyosin in the database. The tropomyosin cDNA of S. olivacea contained an open reading frame (ORF) of 855 bp which encoding a tropomyosin protein of 285 amino acid that shared high sequence identity with other crab tropomyosin. This includes 99% identity to the giant mud crab (Scylla serrata) and 97% identity to both Japanese blue crab (Portunus trituberculatus) and swimming crab (Charybdis feriatus). While, the similarity with other crustacean species was ranged between 90.14 to 95.74%. As a conclusion, this study demonstrated the amino acid sequence of tropomyosin is highly conserved among crab and other crustacean species, which might contributing to highly allergenic cross-reactivity between crab and other crustacean species.