



## International Conference on Technology Innovative Educational and Multidisciplinary skills in the 21<sup>st</sup> century research

# 08th & 09th January, 2022



สถาบันเทคโนโลยี ภาคตะวันออกแห่งสุวรรณ Eastern Institute of Technology Sur

#### **Organized By**

Institute Innovation Technology Educational and Research for Eastern Institute of Technology Suvarnabhumi (EITS) in Association with

**Institute For Engineering Research and Publication (IFERP)** 

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## 2<sup>nd</sup> International Conference on Technology Innovative Educational and Multidisciplinary Skills in the 21<sup>st</sup> Century Research

## Thailand

## 08<sup>th</sup>–09<sup>th</sup> January, 2022

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#### **Editorial:**

We cordially invite you to attend the 2<sup>nd</sup> International Conference on Technology Innovative Educational and Multidisciplinary Skills in the 21<sup>st</sup> Century Research (ICTEMR -22) on 08<sup>th</sup>-09<sup>th</sup> January, 2022. The main objective of ICTEMR -22 is to provide a platform for researchers, students, academicians as well as industrial professionals from all over the world to present their research results and development activities in Multidisciplinary studies. This conference will provide opportunities for the delegates to exchange new ideas and experience face to face, to establish business or research relationship and to find global partners for future collaboration.

These proceedings collect the up-to-date, comprehensive and worldwide state-of-art knowledge on cutting edge development of academia as well as industries. All accepted papers were subjected to strict peer-reviewing by a panel of expert referees. The papers have been selected for these proceedings because of their quality and the relevance to the conference. We hope these proceedings will not only provide the readers a broad overview of the latest research results but also will provide the readers a valuable summary and reference in these fields.

The conference is supported by many universities, research institutes and colleges. Many professors played an important role in the successful holding of the conference, so we would like to take this opportunity to express our sincere gratitude and highest respects to them. They have worked very hard in reviewing papers and making valuable suggestions for the authors to improve their work. We also would like to express our gratitude to the external reviewers, for providing extra help in there view process, and to the authors for contributing their research result to the conference.

Since November 2021, the Organizing Committees have received more than 200 manuscript papers, and the papers cover all the aspects in Multidisciplinary skills. Finally, after review, about 90 papers were included to the proceedings of **ICTEMR -22**.

We would like to extend our appreciation to all participants in the conference for their great contribution to the success of **ICTEMR -22** We would like to thank the keynote and individual speakers and all participating authors for their hard work and time. We also sincerely appreciate the work by the technical program committee and all reviewers, whose contributions made this conference possible. We would like to extend our thanks to all the referees for their constructive comments on all papers; especially, we would like to thank to organizing committee for their hard work.



Unit of Technoarete Research and Development Association

#### Acknowledgement

IFERP is hosting the 2<sup>nd</sup> International Conference on Technology Innovative Educational and Multidisciplinary Skills in the 21<sup>st</sup> Century Research - 2022 this year in the month of January. The main objective of Multidisciplinary and Educational Innovation conference is to grant the amazing opportunity to learn about ground breaking developments in modern industry, talk through difficult workplace scenarios with peers who experience the same pain points and experience enormous growth and development as a professional. There will be no shortage of continuous networking opportunities and informational sessions. The session will serve as an excellent opportunity to soak up information from widely respected experts. Connecting with fellow professionals and sharing the success stories of your firm is an excellent way to build relations and be known as a thoughtful leader.

I express my gratitude to all my colleagues, staffs, professors, reviewers and members of organizing committee for their hearty and dedicated support to make this conference successful.



**Rudra Bhanu Satpathy** Chief Executive Officer Institute for Engineering Research and Publication (IFERP)

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#### Asst.Prof.Dr.Phumphakhawat humphongkhochasorn

Director, Institute Innovation Technology Educational and Research for Eastern Institute of Technology Suvarnabhumi (EITS), Thailand

#### Message :

On behalf of The organizing team, I am honored and delighted to welcome you to The 2<sup>nd</sup> International Conference on Technology Innovative Educational and Multidisciplinary skills in the 21<sup>st</sup> century research"(ICTEMR\_2022) to be held on 08<sup>th</sup>-09<sup>th</sup> January 2022 at Institute Innovation Technology Educational and Research for Eastern Institute of Technology Suvarnabhumi (EITS) with Institute For Engineering Research and Publication (IFERP), Chennai.

Any conference is intended for discussing lively and emerging issues of a particular educational domain and disseminating the awareness among other researchers and scholars. We have been witnessing dramatic improvements in the field of Education and Multidisciplinary Technologies and applications. I hope the 2<sup>nd</sup> International Conference on Technology Innovative Educational and Multidisciplinary skills in the 21<sup>st</sup> century research"(ICTEMR\_2022) will surely become the most important International event and bring out the latest trends in Multidisciplinary and Educational Innovation.

In order to provide an outstanding research level for the presentations at the conference, we have invited distinguished experts to participate in the program. We will have plenary sessions by keynote speakers during 2 days of conference including the awards presentation during the closing session on the last day of the conference.

I hope the 21st century research "2<sup>nd</sup> International Conference on Technology Innovative Educational and Multidisciplinary skills in the 21<sup>st</sup> century research" (ICTEMR\_2022) will make you to reflect yourself with state-of-the art and provide opportunity to discuss various educational issues and challenges including other sciences with multidisciplinary aspects.

2<sup>nd</sup> International Conference on

## Technology Innovative Educational and Multidisciplinary Skills in the 21<sup>st</sup> Century Research

## (ICTEMR- 2022)

Thailand 08<sup>th</sup> – 09<sup>th</sup> January, 2022

## **Keynote Speakers**



#### **Prof. Michalis Toanoglou**

Professor in Hospitality & Tourism - Development of International Programs Jeonju University South Korea

#### **Biography:**

Professor Michail Toanoglou is a Tourism expert and Hospitality professional with extensive involvement in the private and public sectors. He has been actively involved as a General Manager or Consultant in Destination Sustainable Management and Marketing for regional organisations. He has more than 25 years of managing experience in 4 & 5-star hotels in Greece and has provided competitive added value in various tourism and hospitality development projects. He also has an academic and research background with more than 15 years of teaching experience in higher tourism and hospitality education in Greece and South Korea and being involved in projects in sustainable tourism development and destination management & branding. He is Certified Sustainability Expert by GSTC (Global Sustainable Tourism Council) since 2018 and had contributed to various sustainability projects in APac region. He is also holding the top Professional (CHA-Certified Hotel Administrator) and Academic (CHE-Certified Hospitality Educator) certificates from AHLA (American Hotel & Lodging) With significant consulting contribution in private and public sectors, he implemented strategic development projects for regional public authorities and hotel companies. He is founding Member of the Greek NGO "EPOT - Tourism Think Tank"

Having essential publications in sustainability and carrying capacity, and contributing to international tourism and hospitality conferences keeps an active bond with the global tourism and hospitality academia. He is Co-Editor in Chief for the Journal of Sustainable Marketing (JSM) From August 2021 he got a new position in Jeonju University (South Korea) as a professor of Hospitality and Tourism, with the goal to develop the international Graduate and Undergraduate programs for Hospitality, Tourism and FoodService majors.



#### **Prof. Urs Hauenstein**

President; Honorary & Distinguished Visiting Professor International Council ICEM London, England, United Kingdom.

#### **Biography:**

Urs Hauenstein is the Volunteer President of the International Council of Leadership, Governance, Entrepreneurship and Management (ICLGEM), the Association of Swiss Quality Competencies and Qualifications (SQCQ), the Institute of Competencies and Qualifications in Switzerland and the International Network for Accreditation, Recognition and Dissemination in UK (INARD). In these functions he serves as well as Distinguished Visiting Professor in different Colleges / Universities in Eastern Europe and UK.

He supports the Leeds Beckett University / Centre of Governance, Leadership and Global Responsibility as Honorary Fellow in research, networking and fundraising/marketing and the Globethics.net in Geneva as Senior Fellow within the field of Global Ethics Chairs, profiling / branding / marketing and fundraising, quality management and accreditation.

He has been a keynote and master-class speaker at various international summits and conferences. He acts as a 'Goodwill Ambassador for Internationalisation' and TV moderator/editor for live shows at the organisation Business Days and the Central and Eastern European Entrepreneurship Summits and for the International Council.

As Senior Consultant, Lead Adviser, Auditor/Assessor, Counsellor and Facilitator, he has been guiding manufacturers and industry groups, companies, associations, organisations as well as professional, administrative and political bodies internationally in different expertise areas: Business Management, Operations Management, Effectiveness and Optimization (Priorities, Performance and Value Management), Multi-Channel-Marketing, HRM, Internationalisation, Future Education and Pedagogy fur sustainable learning, Change and Transformation Management, QM and Accreditation and Ethics & Responsive and Responsible Leadership, Governance and Entrepreneurship.

Urs initiated the research projects Management21, Incubator21, Accelerator21, Priorities and has authored or co-authored more than 70 original articles, review papers, case reports, book chapters/books in German and English.

The Lincoln International Business School is breaking new important ground, which is also being respected internationally. Obviously the particularly human interaction with the staff and the students provides an ideal basis for an authentic, ethical business school. An interactive and dynamic open and mutable transformative education and development towards sustainability and resilience helps build a better future - LIBS obviously does this. I am proud to be part of this and to support and develop for a unique international network.



#### **Dr. Pastor Arguelles**

Dean, College of Computer Studies University of Perpetual Help Molino Campus Philippines

#### **Biography:**

Pastor Arguelles Jr. is a Dean of the College of Computer Studies at University of Perpetual Help System Dalta in the Philippines. He did his Doctor of Philosophy in Technology Education from Rizal Technological University, Philippines. Twenty years successful ICT lecturing experience and 12 years of them as an effective Educational Manager and Administrator with a reputation for creative academic policies, curriculum designs, passionate instructions, and an excellent classroom management skill. An entrepreneur individual; experienced Software Engineer with passionate skills in Database Management System; and IT Consultant with respected background in business analysis and development. Enthusiastic individual successfully organized and tied up in different IT related organizations. Deeply committed to high quality education for students.



#### **Prof. Bradley Corbett**

Director of International Programs Vietschool Pandora School Systems Vietnam

#### **Biography:**

Dr. Bradley A. Corbett, Ph.D. (Education Studies) is a Canadian Educator who is currently working in South East Asia. He holds the position of Director of International Programs for the Vietschool School System in Vietnam. During the past six years he has worked in Thailand and Vietnam as an academic, educational consultant for programs, and the in the application of learning technologies, at the elementary, secondary and post-secondary levels. Dr. Corbett worked for the Government of Canada as a Research Analyst and as a faculty member at the Ivey School of Business. He has extensive experience in studying educational trends in education through analysis of data such as the Programme for International Student Assessment (PISA) and other large datasets relating to student's educational outcomes.



#### Dr. Prumsub Wetsukum

Deputy Director of System Development Dharmniti Internal Audit Company Limited Thailand

#### **Biography:**

Dr. Prumsub is an industry and academe expert. He started his career as an officer in Walt Disney World, USA and later on became a manager in Thailand. He also joined several colleges and universities in Thailand as a professor. From a freelance consultant, he is now the deputy director of Dharmniti Internal Audit Company Limited. He completed his Doctor in Business Administration at Sripatum University in Thailand and got a leadership certificate at INTI International University Malaysia. He is an expert trainer of various topics in leadership and quality management. His training involves activities for writing a student-centered management plan. As such, he is into developmental studies where he applied his knowledge in industry and management into social and educational issues. He has effective ways of formulating development plans which he shares in his lectures and training sessions. These form part of his paradigm in evaluating papers on developmental studies.



## 2<sup>nd</sup> International Conference on Technology Innovative Educational and Multidisciplinary Skills in the 21<sup>st</sup> Century Research

Thailand | 08<sup>th</sup>- 09<sup>th</sup> January, 2022

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ICTEMR -22

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# ABSTRACTS

**ICTEMR-22** 

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## Analyze the potential of ethnic tourism management in U Thong, Suphanburi

Wittaya Wisutruangdat, Faculty of Humanities and Social Science, Bansomdejchaopraya Rajabhat University

#### Abstract

The purpose of this research had analyzed the potential of ethnic tourism management in U Thong, Suphanburi. This was qualitative research with data collection by group discussions. Qualitative data was collected from community entrepreneurs Occupational group members and homestay operators involved in organizing ethnic tourism in U Thong Suphanburi Province. Used to analyze the data with a triangulation method. Results indicated that ethnic tourism in U Thong, Suphanburi has distinguishing identities with an environment still surrounded by nature and cultural conservation and family system living with few conflicts. In addition, agencies are involved in providing support. However, some problems were encountered such as youths' lack of care about their own culture, increasing online social media addiction, trash, narcotics, and tourism problems such as lack of direction signs, communities being far away from primary tourist destinations, lack of tourism budgetary support, and air pollution. The suggestions of this study were 1) Communities engaging in the business should pay attention to tourist services, whether on an individual or group basis. it will be more likely for tourists to feel impressed and 2) Communities engaging in the business should pay attenting strategies by making improvements to create distinction and fully meet the needs of tourists in line with what tourists want.

#### Keywords

Analyze the potential, Ethnic tourism management, U Thong District

### The Study of the Causes and Effects of Growth Mindset for Employees and Students of the Hospitality Industry

Surakiat Tadawattanawit, Business Administration Department, Dusit Thani College, Thailand

#### Abstract

The purposes of this research were 1) to study the level of a growth mindset of hospitality employees and students: 2) To study the factors affecting the growth mindset of hospitality employees and students, and 3) To study the influence of growth mindset on self-efficacy and resilience. The sample was comprised of 148 hospitality employees, categorized by gender and job status. Data were collected through a questionnaire to measure five variables including growth mindset, self-regulation, self-control, self-efficacy, and resilience. Data were analyzed using descriptive statistics and LISREL analysis. Data were analyzed using descriptive statistics and LISREL analysis. The results are as follows: 1) Hospitality students and employees have rated growth and fixed mindset levels with an average score of 37.48 - 37.57 2) Self-regulation and self-control have a significant effect on growth mindset with a score of 0.40 and 0.64. The level of growth mindset also influences self-efficacy and resilience with 0.99 and 0.87, respectively. 3) A conceptual model is then developed and performed to test the fit of the hypothetical model with the empirical data.

#### **Keywords**

Growth mindset, Self-regulation, Self-control Self-efficacy, Resilience.

### Developing guidelines for ethnic tourism in U Thong District, Suphanburi

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#### Abstract

The purpose of this research had developing guidelines for ethnic tourism in U Thong District, Suphanburi. This was qualitative research with data collection by indepth interviews involving key data providers, namely, Lecturer in the Department of Tourism Industry in the University, Cultural Tourism Specialist and community leaders of ethnic groups in U Thong, Suphanburi. Data analysis was by content analysis with triangulation data verification. The research found that guidelines for ethnic tourism in U Thong District, Suphanburi has 4 Components 1) Appearance and tourist attractions such as build landmark in the community to stimulate interest for tourists, had a continuous publicity of tourism 2) Public and private sector support such as increase the budget to stimulate tourism, find an agency directly responsible for tourism in U Thong District, local government heads need to pay more attention to tourism within the community 3) Community staff participation such as encourage people within the community to see the importance of theis own culture, people within the community must participate in tourism management and 4) Basic infrastructure such as cut to make a route linking tourism within U Thong District, eliminate water shortage problems, Public relations signs at tourist destinations in U Thong. The suggestions of this study were 1) Government agencies and communities should use the research findings as data to create strategies for developing community based cultural tourism 2) Government agencies should allocate budgets to stimulate tourism while reducing complicated procedures.

#### Keywords

Developing guidelines, Ethnic tourism, U Thong District

### Confirmatory Factor Analysis of Cultural Intelligence among Students in Hospitality Industry

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#### Abstract

The purposes of this research were to study the level and analyze the factors of cultural intelligence among students in the hospitality industry. This research was exploratory research. The data was collected from 532 students in the hospitality industry. The instrument used in this research was a questionnaire. The data were analyzed using descriptive statistics and confirmatory factor analysis. The results showed that 1) The average cultural intelligence among students in the hospitality industry was high and the overall average was 3.66. The cultural intelligence of cultural motivation was highest and the mean was 3.84, followed by cultural metacognition, cultural behavior and cultural intelligence, and the mean was 3.83,3.58 and 3.399, respectively. 2) The results of the confirmatory factor analysis of the cultural intelligence measurement form showed that the developed measurement model was consistent with the empirical data. This could be determined from the chi-square value of 19.71(p=0.346) and degrees of freedom of 18, Goodness of Fit (GFI) of 0.99, Adjusted Goodness of Fit Index (AGFI) of 0.98, and Root Mean Square Error (RMSEA) of 0.013. All factor loadings in terms of standard scores were positive, ranging from 0.69-0.89. All of them were statistically significant at the .05 level and the proportion could be explained by a factor of about 47% to 79%. The most descriptive variables were cultural general knowledge (GE\_CO) of 0.79, followed by cultural planning (PL\_ME), speech acts (AC\_BE), and non-verbal language (NO\_BE) of 0.78,0.77, and 0.76.

#### **Keywords**

Cultural Intelligence, Hospitality Industry, Confirmatory Factor Analysis.

### Integrated Marketing Communication to Promote Health Tourism for New Way

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#### Abstract

The objectives of this research are: 1) To create an integrated communication strategy for Sai Noi homestay health tourism, Bang Ban district, Phra Nakhon Si Ayutthaya province and 2) To create a good image in terms of products and services for Sai Noi homestay, Bang Ban district, Phra Nakhon Si Ayutthaya province. The researcher studied both quantitative and qualitative data by using an in-depth interview with the individuals who were the main source of information and using all the interview results to analyze and synthesize the results to achieve research objectives.

The results showed that concept of integrated marketing communications that affects health tourism decision making, including activity marketing, word of mouth marketing and online communication which has an influence in the decision-making motivation that is mainly from sponsoring the store was used. This makes it possible to determine an integrated marketing communication strategy which is in line with the needs of tourists and also creates a good image in terms of products and services of Sai Noi homestay, Bang Ban District, Phra Nakhon Si Ayutthaya province

#### Keywords

Integrated, Marketing Communication, Health Tourism

### Forecasting Retail Oil and Natural Gas Vehicles Prices in Thailand Using Time Series Data Mining Techniques

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#### Abstract

The purpose of this research is to develop the model of forecasting retail oil and natural gas vehicles prices for automobiles in Thailand using time series data mining techniques. There are three techniques such as Linear Regression, Multi-Layer Perceptron and Support Vector Machine for Regression. The data used for this study was collected the retail oil and natural gas vehicles prices in Thailand from 2012-2018 AD. totally 84 months. This research found that the suitable forecasting model for retail oil and natural gas vehicles prices as followed: 1) The forecasting model using Linear Regression was the most suitable for Gasohol E85 and Ultra Force Diesel, which had the rate of MMRE (Mean Magnitude of Relative Error) with the percentage of 2.46, and 4.60. 2) The forecasting model using Support Vector Machine for Regression was the most suitable for Gasohol 91, Gasohol 95, Gasohol E20 and Natural Gas Vehicles (NGV), which had the rate of MMRE with the percentage of 3.69, 3.20, 3.54, and 6.89, respectively

#### **Keywords**

Retail Oil and Natural Gas Vehicles Prices in Thailand, Times Series Analysis, Data Mining Techniques

### Development of Self-Assessment Instrument to Measure the Constructive Criticism Competence for Undergraduate Students

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#### Abstract

This research aims to construct a measurement tool to assess the constructive criticism competence in Thai university students. The data were collected using a mixed-methods design. We conducted research with three phases: 1) construct development by interviewing 12 experts to obtain the behavioral indicators in the context studied, 2) Instrument validation to verify the validity and reliability through the pilot-testing, and finally, 3) Instrument application by purposely collecting data from 335 undergraduate students from four southern Thai universities to analysis the construct validity and reliability of the instrument. For data analysis, qualitative content analysis from the interview was show with descriptive. The construct validity was analyzed based on the EFA (Exploratory Factor Analysis) and measured the instrument's reliability based on the value of Cronbach's Alpha Coefficient. The result of the study showed that the Constructive Criticism Competence Self-Assessment Instrument (CCC-SI) has fulfilled the requirements of instrument's validity and reliability. There are three aspects to measure constructive criticism competence included, 1) Mindful listening, with 5 items, 2) Intellectual humility with 11 items, and 3) Communication flexibility with 5 items. The implications for practice are discussed included, the instructor's role to assist and encourage learners throughout the learning process. This is crucial to achieving the aim of future learning and encourages each student to reflect on their progress.

#### Keywords

Constructive Criticism, Self-Assessment, Student Evaluation, Criticism characteristic, Undergraduate Student

### A Learning Model to Enhance Constructive Criticism Competence through Phenomenon-Based Learning for Undergraduate Students in Southern Thailand

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#### Abstract

Although criticism is an essential skill in higher education, destructive criticism is difficult to accept. This research aims to develop a learning model to enhance constructive criticism competence through phenomenonbased learning in undergraduate students in southern Thailand. The research was conducted as a quasiexperimental design consisting of 3 stages: firstly, it investigated the theoretical framework of constructive criticism and conducted an in-depth interview of 12 experts to examine the components and behavioral indicators. Secondly, design the elements of the learning model and evaluate them by 7 experts. Lastly, a pilot testing was conducted with One group pretest-posttest design of 48 undergraduate students. The results showed that constructive criticism competence consists of 3 aspects, namely: Mindful listening (5 behaviors indicators), Intellectual humility (11 behaviors indicators), and Communication flexibility (5 behaviors indicators). The result from expert's validation found that the developed model is validated in term of the alignment ( $\bar{x} = 4.49$ , S.D.= 0.55) and practicability ( $\bar{x} = 4.89$ , S.D.= 0.30). The learning model named 3H Model consists of 3 steps, namely: 1) Heart, encouraging learners to use their empathy in understanding the situation sincerely 2) Head, analyzing through critical thinking and thoroughly examining the facts; and 3) Hands-on, referred to as communication part, which students should express the opinion professionally. Furthermore, based on the pilot testing result, the students' constructive criticism competence increased significantly (t = -21.73). These show that the 3H learning model is practical to be implemented and appropriate for improving students' constructive criticism competence.

#### Keywords

Learning Model, Constructive Criticism, Competence, Undergraduate Students

### The Development of 3D media to promote career development in flooding season of people in the watershed community, Phra Nakhon Si Ayutthaya Province, Thailand

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#### Abstract

This research is the Area Based Development Research. The objectives are 1) to analyze the production and marketing potential of community products and 2) to create 3D media to promote appropriate careers in flooding season of the communities in Thap Nam Sub District Administrative Organization area Bang Pahan District Phra Nakhon Si Ayutthaya Province. By using TOWS matrix, Feasibility analysis in economics, Sensitivity analysis and assess satisfaction. The results of the study were as follows: 1) The analysis of the production and marketing potential of community products showed that the vegetable salad and lime products were economical and had the potential to resist the impact of changes in selling prices (income up to 15%) and cost change (15% of the price of production inputs) and there are strengths, weaknesses, opportunities and threat to be analyzed to create a strategy to enhance the market potential of promote a production. Increase the awareness channel of the product. As a result of a small group meeting with participation of farmers Thap Nam Sub District Administrative Organization. Found that it agreed to create 3D media as a corrective strategy (lime products) and preventive strategies (Vegetable salad products) to increase the channel of awareness and contribute to adding value to the product. 2) The results of the experiment using 3D media for promote career were found that from a small group meeting to develop participatory 3D media, by using the augmented reality technique for mobile phones using the "Nong Phon Narm" logo as the 3D media side used to promote community products. And has actually been put into trial and used in the area. The results of the performance test showed that 3D media were appropriate in terms of content.

#### Keywords

3D media, career development in flooding season, the watershed community, Phra Nakhon Si Ayutthaya

## Forecasting World Energy Index with the SARIMA Model

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#### Abstract

Energy plays a crucial role in economic systems in terms of consumption and production. At the present, there is a high fluctuation of energy prices due to the business cycle movement, as the different in demand of business energy consumption in each cycle. Therefore, energy price prediction could help the business plans appropriately. The model used in this study is Seasonal Autoregressive Integrated Moving Average model (SARIMA). It is a model increasing seasonal effects, which was developed from ARIMA (p, d, q) of Box and Jenkins. The purposes of this study is to 1) construct a suitable model with MSCI World Energy Index by using SARIMA (Seasonal Autoregressive Integrated Moving Average), and 2) predict MSCI World Energy Index. Data used in the study is monthly information of MSCI World Energy Index from 2005-2019 (15 years). In the research methodology, there is data stationary test by using the unit root test, and simulating SARIMA model, then selecting the most appropriate model to operate the data prediction test. In conclusion, the result of this study showed that the most appropriate model for prediction was SARIMA (2,1,1)×(2,1,3)12. The prediction model outcome was very close to the real indices, while the deviation of RMSE was 16.68 and MAE was 12.39 respectively.

#### Keywords

Forecasting, Energy Index, Model

### An Analysis of Health Communication and Thai Herbs Discourses for Self-care from Coronavirus Disease-2019 via Social Media of Medical Agencies in Thailand

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#### Abstract

The objectives of this research were: 1) to investigate health communication of "Thai herbs"; 2) to investigate Thai herbs discourses; and 3) to analyze contents, language and social context of "Thai herbs" discourses for self-care from coronavirus disease-2019 via social media of medical agencies in Thailand by means of qualitative research with an analysis of discourse information from contents and language via social media of the Department of Thai Traditional and Alternative Medicine. Moreover, in-depth interviews was applied with purposive sampling technique, including personnel in charge of producing contents via social media from the Department of Thai Traditional and Alternative Medicine, Protection and Promotion of Thai Traditional Medical Knowledge Subdivision, and the Institute of Thai Traditional Medicine. The findings were: 1) for the process of health communication of "Thai herbs," key encoders were health professionals in Thai traditional medicine, whose emphasis was to construct participation among people and to reduce communication inequality among them with the performance strategy to conform to the Policy and National Public Relations Plan No. 5 (2016-2021) focusing on getting information from people and using it to set the directions for content production; 2) "Thai herbs" discourses were: 1) the body of knowledge on Thai traditional and alternative medicine; and 2) self-care from coronavirus disease -2019; 3) from an analysis of contents of "Thai herbs" discourses, the followings were found: (1) an inspiration in self-care from coronavirus disease-2019; (2) creating accurate knowledge in using Thai herbs; and 3) clarifying contents of fake news found on social media; from an analysis of language used in "Thai herbs" discourses the followings were found: (1) creating creditability of medical information; (2) giving in-depth information; (3) exemplifying for clarity; and (4) writing through slogans; social context consisted of: (1) an economic aspect affected by the hoarding of Thai herbs; (2) an aspect of trends from people's rumors; and 3) an aspect of media and information literacy.

#### Keywords

health communication, discourses, Thai herbs, coronavirus disease -2019/ COVID-19, social media

### Confirmatory Factor Analysis: Brand Trust to Support of the Thai Herb to Treat Covid-19 Diseases

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Wongsakorn Choteviboonthanawong, Faculty of Communication Arts, University of Thai Chamber of Commerce, Thailand

Jantima Kheokao, Faculty of Communication Arts, University of Thai Chamber of Commerce, Thailand

#### Abstract

The objective of this study is to conduct a confirmatory factor analysis of brand trust in support of a Thai herb used to treat Covid-19 diseases. The study was conducted by a quantitative method with 630 samples who used to take Thai herbal medicines to treat Covid-19, which involved probability random sampling. Data collection was gathered by means of a questionnaire that was composed of the five-point scale. Cronbach's alpha reliability for all items indicated a high value of 0.814 at the overall reliability. It used confirmatory factor analysis (CFA) to detect the underlying latent variables that significantly determine brand trust. The result found that four components to the validation of a goodness fitted model and correlated to brand trust consisted of; 1) Quality of ingredients (QU), 2) Creditability of manufacturing (CR), 3) Influencer (IN), and 4) Channel and Distributor (CH) which the components had convergence with empirical evidence along with indexes consisted chi-square = 41.751, df = 29, p-value = 0.059, CMIN/DF = 1.440, GFI = 0.987, and RMSEA = 0.026.

#### Keywords

Brand trust, Thai herb, Covid-19 Diseases

### Online Thai Dance Practice During COVID-19 Pandemic Situation

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#### Abstract

This article is a part of online dance teaching and the objective is to study online Thai Dance Practice during COVID-19 Pandemic Situation, using the quantitative research method, consisting of studying from documents, interviewing and observation of sample: docents and students from the division of Thai Dance, the department of Dance, Faculty of Fine and Applied Arts, Chulalongkorn University. The analysis is a descriptive analysis. During COVID-19 Pandemic Situation, Thai Dance Practice has affected enormously, Thus, online Thai Dance Practice is needed instead of practice in the ordinary site. The study found that online Thai Dance Practice Process consists of three steps: the learners' needs survey, lesson planning and online Thai Dance Practice presentation. Factors that cause effectiveness of online Thai Dance Practice are electronic devices used in network connection, internet signal, programs/ applications used as an online classroom and place of instructors and of learners. The things that should be paid attention of are 1) an arranged appointment between instructors and of learners 2) explanation or communication while instructing should be explicit: rhythm, melody, lyrics. Moreover, verbal and non-verbal communication should be well applied with proper tempo, should not be too fast and instruction video should be recorded in order to send to the learners for rehearsing.

#### **Keywords**

Thai Dance, Thai Dance in online Practice, Thai Dance in the COVID-19 Pandemic

Integrated Learning Management System in Performing Arts Research Course, Bachelor of Fine and Applied Arts Program in Performing Arts (Thai Dance and Theatre), Faculty of Fine and Applied Arts, Suan Sunandha Rajabhat University

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#### Abstract

The objective is to study learning system, management, features, factors, achievement, and utilization of integrated learning system in Performing Arts Research course, Bachelor of Fine and Applied Arts Program in Performing Arts, Faculty of Fine and Applied Arts, Suan Sunandha Rajabhat University, academic year 2021. Research is conducted by documentation, interview, observation, and evaluation of learning achievement. For the results, 51 students were categorized by research skills into 3 groups: advanced development group, development with guidance group, and development with difficulties group. The learning was conducted online, emphasized the equality to develop learners according to their individual potential. The content is corresponded to performing arts and its related topics in both theory and practice. The learning system are: 1. Indication of benefits from research and selfdevelopment to adjust learners' attitude; 2. Application of games to stimulate learning, develop skills, and build learning experience. By learning with classmates, the learners will feel accepted by others, which will create confidence and pride in themselves; 3. Doing research on their chosen topic to discover their potential and development. Researching the interested topics will be beneficial for future studies and their occupation; 4. Exchange of knowledge, demonstration, and advices from friends and instructors, both in group and individually, to stimulate learning and help learners to accept opinions of others and understand the code of conduct for researchers. This is based on social psychology to adjust learners' attitude and social behavior. Using games as a medium can approach the learners effectively. The achievement is evaluated by: 1. Level of interests in learning contents; 2. Rate of assignment submission; 3. Idea for research topics, which helps develop research skills according to the course objectives; 4. Application of knowledge in other courses and in daily life. This study is innovative and worth developing in performing arts education.

#### **Keywords**

Integrated Learning Management System, Performing Arts Research Course, Thai Dance and Theatre, Suan Sunandha Rajabhat

Online Learning Management in COVID-19 Epidemic for the Bachelor of Fine and Applied Arts Program in Performing Arts (Thai Dance and Theatre), Faculty of Fine and Applied Arts, Suan Sunandha Rajabhat University

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#### Abstract

This research aims to study online learning management, system, features, factors, and its results in COVID-19 situation for the Bachelor of Fine and Applied Arts Program in Performing Arts, Faculty of Fine and Applied Arts, Suan Sunandha Rajabhat University. The research is conducted by studying documents, interviews, observations, and evaluation. The results revealed that, this program has applied technology since before the outbreak of COVID-19 epidemic, and has utilized the applications for managing online and on-site learning system. The system focuses on integrating knowledge with technology to develop learners' potential. The learning content is categorized into 3 groups: theory-based, combination of theory-based and practice-based, and practice-based. The learning system management is as follows: 1. Integration of content, activities, and assessment with applications; 2. Integration with community according to the policy of Rajabhat University system; 3. Reduction of learning hours while maintaining quality; 4. Adjustment of instructors and learners' attitude; 5. Collaborative approach to learning guidelines; 6. Presentation through social medias to develop learners' technology skills based on the policy of digital university transformation; 7. Opportunity to work while studying to enhance learning experience and earn income to alleviate family's burden. Factors for learning environment are: 1. Electronic equipment, 2. Accessibility and stability of internet system, 3. Nature of subjects that focus on practice, 4. Skills of instructors, learners, and staff for effective utilization, 5. Attitudes, encouragement, and skills in dealing with obstacles, 6. Financial resource, 7. Supporting network, 8. Universities and government policy. The evaluation is learners-based while maintaining quality of all assessment criteria. This approach can reduce learning management problems and learners can be developed within the limitation of COVID-19 epidemic. In addition, it is an encouragement to utilize technology for learning, and can be developed into the constant pursuit of knowledge throughout life.

#### Keywords

Online Learning Management, COVID 19 Epidemic, Performing Arts, Thai Dance and Theatre Department, Suan Sunandha Rajabhat University

### Tourists' Behavior in Selecting Accommodation at Wang-Yang Homestay in Wang-Yang, Sri-Prachan, Suphanburi

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#### Abstract

This study aimed at 1) studying types of tourists who stayed at Wang-Yang Homestay and 2) investigating tourists' behaviour who chose to stay at Wang-Yang Homestay. This paper was a survey by recoding tourists' statistics who traveled to Wang-Yang. 30 tourists who traveled to Wang-Yang was requested to fill in the open-ended questionnaire based on convenience sampling. This questionnaire was validated by the experts in the field. Descriptive statistics was used for data analysis. The findings revealed that there were three main types of tourists visiting Wang-Yang. The first group was an education tourist or a field study held by the organization. The second was a tourist who worked as a public relations staff, TV host and MC, presses and online media. The last group was an independent tourist. In terms of staying at Wang-Yang Homestay, it showed that the tourists who worked in the field of media had the highest rate of staying. This may be that they needed to collect data and take photos to be publicised on their platforms. Another type of tourist found was the education tourist or the field study held by the organizations with the limitations of inadequate accommodation. This can imply that, for the sustainable tourism in Wang-Yang, the ample accommodation should be improved to accommodate the large groups of tourists.

#### **Keywords**

tourists' behaviour, services, types of tourists

### Designation of Tourism Route and Activities to Experience the Culture of Ban Bang Mae Mai, Bang Yai Sub-district, Bang Pla Ma District Suphan Buri Province

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#### Abstract

This research article has a purpose to design routes and activities for community tourism to experience the culture of Ban Bang Mae Mai in the format of qualitative research. The research instrument used for data collection consisted of observation form, interview form, small group meeting with 25 key informants who were involved in tourism in Ban Bang Mae Mai community. Data was collected from field surveys that the researchers visited the community to collect information about the area and conducted group meetings for route design training including participatory action research (PAR) whereas the data analysis was content analysis in the format of narrative description. The research results showed that the designation of community tourism route to experience the culture of Ban Bang Mae Mai comprises the outstanding natural tourist resources include sightseeing hundred sugar palms in a row, sugar palm groves, herbs and boat trips to see the Tha Chin River lifestyle; Cultural tourism resources for 12 months include the festival of making merit and offering food to monks which is considered as a blessing across the year, loads of silver and gold, making gifts for rice and the Mae Phosop-goddess of agriculture-parade; Activities resources include hundred-year broom-making, water hyacinths weaving, local food cooking and Thai sponge cake making; Festival resources include the long drum dance, the legendary Bang Mae Mai dance and Service resources include homestay accommodations, restaurants and souvenir shops. After collecting information, the researchers cooperated with the community to design a cultural tourism route to experience the lifestyle of Ban Bang Mae Mai for 2 days and 1 night in the name of "Relaxing and Wandering in Bang Mae Mai style"

#### **Keywords**

Designation, Route, Tourism activities, Culture experience community

### The Techniques and Process of Teaching Arts and Dance in Higher Education by Project based Learning Method

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#### Abstract

This article aims to study 1) the meaning and concept of project-based learning method 2) the techniques and process of teaching arts and dance based no project-based learning method. The scope of this study consists of a sample group of arts and dance teachers from 6 subject areas at the Faculty of Fine and applied arts, Suan Sunandha Rajabhat University, Bangkok Thailand. Data collection is based on document study, interviews, observations, and focus groups. The finding shows that Projectbased Learning is teaching method creating projects based on problems and student's interest. PBL process improve students' skill in various aspects such as creativity, critical thinking and problem solving, communicating, collaborating, and cross-cultural understanding skills which are essential learning and life skills in the 21st century. Teaching Arts and Dance by using PBL method at the Faculty of Fine and Applied Arts, Suan Sunandha Rajabhat University can be divided into 3 groups of subjects as follows: 1) Theory and Arts and Dance Skill group 2) Final Project group 3) Foreign Language group. The process of teaching arts and dance by using project-based learning is staring from 1) survey the problem 2) design and define theme of the project 3) planning 4) working on draftproject 5) evaluating and correcting 6) presenting final draft project 7) evaluation and 8) reflection. Project-based learning is a good teaching and learning tool in encouraging teachers and students sharing and exchanging ideas and decreasing the gap between them for making the effective learning in arts and dance in the future.

#### Keywords

Process of Teaching Arts and Dance, Higher Education, Project based Learning Method

### The Development of Learning Process of Fine and Applied Arts Based on Contemplative Education

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#### Abstract

This article aims to study 1) the guideline for developing the learning process of fine and applied arts based on the contemplative education 2) the benefit of applying contemplative education in the learning process. The scope of the study focuses on a group of teachers from 5 Departments in fine and applied arts at the Faculty of Fine and Applied Arts, Suan Sunandha Rajabhat University, Bangkok Thailand. The data collection is based on document study, interviews, observations, and focus groups. The finding shows that contemplative education is a study of inner temperament learning with the experience of awareness such as feeling, thoughts, belief, and attitude through the awareness observation. The main concept of the contemplative study is to create normality in the human mind, which can be generated the stability of mind and action when the human encounters either positive or negative situations. The guidelines of the development of learning process in fine and applied arts based on the contemplative education are 1) creating the opportunities in recognizing background and differentiation between teachers and learners 2) using communication method based on mindfulness 3) adjusting friendly and safe space classroom environment for everyone 4) designing modern learning content based on leaner's needs, and skills. The development of the learning process in fine and applied arts based on the contemplative education leads the benefits to learners as follows: 1) making the learning process systematically 2) awakening self-awareness for creating the normality reaction in every situation 3) creating wisdom and mindfulness that lead to life-long successful learning. The learning process based on Contemplative education encourages students to initiate their art skills and mindfulness synchronously which improves the learning and teaching process more effectively.

#### Keywords

Learning Process, Fine and Applied Arts, Contemplative Education

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### Approach to and Factors of Creating Dance Performance Thesis of Undergraduates in Dance Program, Bachelor of Fine Arts, Faculty of Humanities and Social Sciences, Bansomdejchaopraya Rajabhat University

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#### Abstract

This qualitative research aims to analyze the Approch to and Factors of Creating Dance Performance Thesis of Undergraduates in Dance Program, Bachelor of Fine Arts, Faculty of Humanities and Social Sciences, Bansomdejchaopraya Rajabhat University. The research employed observation and interview as well as studying 77 students' theses published during 2013-2018. The research instruments include related research papers, audiovisual media, an observation form, and an interview form. The data was analyzed, synthesized, and concluded. It is found that there are six concepts on which the students' dance thesis development are based: 1) Traditions and cultures (45.45%) 2) Areabased approach (12.99%) 3) Literature or historical legend (12.99%) 4) Interpretation of point of view or beliefs (12.99%) 5) Imagination and fantasy (10.39%) and 6) Aesthetics (5.19%). The approaches and factors of dance thesis development incorporate documentary research, field research, interviews with experts, studying information technology sources, and employing personal experience to find the way to create the work that can be furthered and developed unlimitedly. The components of the created dance performances consist of 1) Plot/Story 2) Music and lyric composition 3) Performer selection 4) Choreography and movement design 5) Performance space design 6) Costume design and 7) Props design which respond to the objectives of the dance performance creation.

The findings as found in the students' dance theses can be used as a guideline for future curriculum development and thesis development involving a variety of concepts which respond to different needs of society, economy, and the country.

#### Keywords

Approch, factors, dance thesis, Bachelor of Fine and Applied Arts

### Adding Value of Thai Herbs to Create a Career for the Semi-urban, Semi-rural Community in a New Way of Life, Phra Nakhon Si Ayutthaya

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#### Abstract

The objectives of this research and development are 1) to explore and study the properties of herbs in Lam Ta Sao municipality community which was found that Moo 5 plant various herbs such as kaffir lime, lemongrass, and phrai to use as food in daily life and the community want to develop herbal products to generate income for their livelihood due to the decreasing of income caused by the COVID-19 epidemic ; 2) to develop products and packaging design for 4 types namely herbal oils, herbal balsams, herbal conditioner s and herbal balms since the community is semi-urban, semi-rural which allows a variety of packaging designs and 3) to explore consumer satisfaction towards purchasing herbal products by collecting questionnaire from 400 people.

The results showed that most of the informants were women, aged 35 - 44 years and have company employee occupation. In terms of purchasing behavior, it was found that they bough herbal products from community production to promote career and income at  $\bar{x}$  4.52, bough herbal products for relatives and acquaintances at  $\bar{x}$  4.35, bought herbal products for inhalation to help the respiratory system at  $\bar{x}$  4.26 and bought 2-3 bottles of herbal products each time for daily use at  $\bar{x}$  4.10. The purchase decision found that the price was at  $\bar{x}$  4.34 because herbal products have a reasonable price for the quality of the product. On the product aspect was at  $\bar{x}$  4.30 because the product has no color additives and is natural. On the distribution channel was at  $\bar{x}$  4.08 due to the recommendation from surrounding people. Location aspect was at  $\bar{x}$  3.98 because of the production facility in a community that is easily accessible with a clear location. Overall satisfaction in purchasing herbal products was at  $\bar{x}$  4.37 because they are products made from natural and quality raw materials. The packaging is the reasonable amount for the price and can keep the product safe.

#### **Keywords**

Added value, Thai herbs create a career, Semi-urban, semi-rural community in new way of life

### The creating of performance for learning performance literature for students of the Faculty of Fine and Applied Arts Suan Sunandha Rajabhat University

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#### Abstract

The purposes of this qualitative research were 1) to study how students created a performance for learning performance literature, 2) to study the opinions of students of the Faculty of Fine Arts, Suan Sunandha Rajabhat University. The author synthesized knowledge from texts, academic documents, observation, and interviews. The data were analyzed by criticism the inductive and deductive, analyzed by categorizing information, analytic induction, and verifying the validity of the findings with the students. It was ascertained reliability and validity again with triangulation. The data were also presented by analytical description. The finding showed that students learn how to create a performance for learning performance literature by choosing the characters they are interested in. They analyze the literature on that subject completely, study ethnicity and related history, and perform arts design from the literature. The next step is producing the lyrics, deciding to use the melody and form of the performance. In addition, the students created costumes from the knowledge of ethnic clothing, folk dress, and royal dress. They choreograph dance movements from their knowledge and imagination. The students responded after the learning methods that the feeling in the classroom was pleasant. They have experimented with creating works. It increases writing skills. The students have thoroughly studied for self-knowledge, learned to create exciting performances, have a greater understanding of literary content for performance. They learn and use skills that they have never used before. They work with unity. They have shown their potential and enhanced their costume creation skills. The creating of performance for learning performance literature encourages the interest to focus on studying other literature. The students' cognitive embodiment plays a significant role in the design. It contributes to making the aesthetics of the show have a novelty. It reflects the learner's background in what interests he or she is interested in.

#### Keywords

performance literature, creating, performing arts

### Thaw Worachan (Wad) The famous actress in the reign of King Rama IV, who created Pleng Cha Pleng Reow Narai, the special holy and noble dance

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#### Abstract

The purposes of this qualitative research were 1) to study the biography of Thaw Worachan (Wad), 2) to study how she created Pleng Cha Pleng Reow Narai. The data record is from her biography. Including the author synthesized knowledge from texts, previous research, experiences from teaching and performing, and expert interviews. The study of the biography of Thaw Worachan (Wad) is descriptive writing. The data were analyzed by criticism of the inductive and deductive, categorizing information, analytic induction, and verifying the validity of the findings with experts. The author ascertained the reliability and validity again with triangulation. The finding showed that Thaw Worachan (Wad) was born in 1841 during the reign of King Rama III. The original name is Wad. She was born in a noble family and orphaned his father from a young age. Chao Chom Nak, her aunt, brought her to present as a Thai court drama since 10 and later became King Rama IV's concubine. In the reign of King Rama V, she promotes to a higher position Thaw Worachan (the highest status of the female court officials). Thaw Worachan (Wad) is famous for her beauty and talent. However, she never mentioned or responded to her dramatic ability. There is only one dance, which is the Pleng Cha Pleng Reow Narai. Thaw Worachan (Wad) created Pleng Cha Pleng Reow Narai from the basic dance. She has repeatedly practiced basic dance for a long time until she has offline cognition, implicit memory, reasoning, and problem-solving processes. In addition, Pleng Cha Pleng Reow Narai also shows the creative process from embodied cognition, which consists of creative genius. The dance emphasizes interesting backgrounds, interpolating ways of thinking, traditions and includes many symbols. Pleng Cha Pleng Reow Narai reflects the processing of perceptions arising from environmental situations, and this knowledge shapes her life. Thaw Worachan (Wad) lived in 5 reigns and passed away in 1939 at 98 years old.

#### **Keywords**

Thaw Worachan (Wad), pleng cha pleng reow narai, embodied cognition, implicit memory

### The choreography of Unakarn: the female character when she disguised as a man in the Thai court drama, "Unakarn Panji Chom Suan Khwan"

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#### Abstract

This creative research aims to design the movements of Unakarn in the Thai court drama, "Unakarn Panji Chom Suan Khwan" by essentially based on the Thai court drama literature of King Rama II. The author synthesized knowledge from texts, academic documents, self-training, experiences from teaching and performing, observation, expert interviews, and dance evaluations by Thai classical dance experts. Accordingly, all the data were analyzed to create and design the dance postures. The design was then qualitatively recorded and presented to the experts for evaluating and confirming the recorded qualitative data. The data collected from the assessment form were analyzed using basic statistics for the quantitative data analysis, including mean and standard deviation. The data were also presented by analytical description and performance. The finding showed that King Rama II created the character Unakarn that was different from Kuda Narawangsa in the Panji stories (the original version). This character corresponds to the character of females in Thai traditions as well as the sociocultural context. It makes Unakarn lively and enables Panji to question if Unakarn is a woman or a man. The character of Unakarn headed to the creation of the female character when she disguised as a man in the Thai court drama dance style. The choreographer uses three ways for the design: 1. choreography based on the Tamraram (dance recording textbook), 2. choreography based on the original dance, and 3. developing from the original dance. This creation is new. The choreographer guarantee that the character of Unakarn in "Unakarn Panji Chom Suan Khwan" is the most consistent with the Thai court drama literature of King Rama II. According to the four experts, the performance creation efficiency of "The choreography of Unakarn in the Thai court drama, "Unakarn Panji Chom Suan Khwan" is considered efficient. The choreography is rated at the highest level in creativity, with a mean of 4.75 and a standard deviation of 0.50. In suitability and experts' satisfaction, the results show the highest with a mean of 5 and a standard deviation of 0.00.

#### Keywords

Panji, Kuda Narawangsa, Unakarn, Thai court drama, King Rama II

### Service Innovation of Eco-Friendly Hotel in Thailand

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#### Abstract

This Academic Article on Service innovation of Eco-Friendly Hotel Business in Thailand, which is an important strategy for differentiating the hotel business. which is the invention, development, improvement of new products and processes, provide services to customers that are constantly changing based on the quality service and environmentally friendly. There are documentary and selfexperience and used for the studies, documents, research, and self-experience. In Theories and Concepts Concerning theories and concepts of environmental management policies related to hotel business. which is an environmentally friendly service business covering all aspects, hotel design must consider energy saving. Systematic conservation of resources and waste management Involvement with communities and local authorities both socially, culturally, and economically. The objectives of the study were to be able to use them appropriately in accordance with the service innovations of the eco-friendly hotel business. In management innovation, external communication innovation, service scope innovation and support innovation. Results of the study were to cause conservation and proper use of resources. Reduce consumption and excessive use of resources and reduce waste generation. Preserving and promoting diversity of nature, society, and culture, with an emphasis on online transmission of information to promote information and present new promotions to customers. both in the hotel and on the limousine Including adding channels to communicate with customers through social media channels. To be innovative, sustainable environmentally friendly services in the future.

#### Keywords

Service Innovation, Eco-Friendly Hotel

### Value added for Elephant Dung to Create New Environmentally Friendly Products in Ayothaya Community, Phra Nakhon Si Ayutthaya Province

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#### Abstract

The objectives of this research and development are 1) to create a model for adding value to elephant dung by constructing boilers and blenders to make paper and new products. The boiler used in the study was 200liter steel oil tank due to its durable and generates heat quickly with the capacity for boiling of 30 kg at a time. The blender was 304stainless steel to reduce corrosion and can be used for a long time with capacity of blending of 30 kg at a time by taking 2-3 hours for each blending; 2) to create 3 paper products from elephant dung paper namely paper bags, picture frames, and handle bags to sell in Ayothaya Floating Market in order to generate more income in the community and 3) to survey consumer satisfaction towards new environmentally friendly products by collecting the questionnaire from 200 tourists. The research results revealed that most of the informants were female, aged 20-30 years and have their own business. They are satisfy with new environmental friendly product and have environmental liability at 4.36, be environmentally and socially responsible when purchasing environmentally friendly products at 4.56, participate in the promotion of career in the community at 4.43, aware of environmentally friendly products at 3.79, have a positive attitude towards environmentally friendly products and, socially and environmentally responsibility at 4.01, concern and aware of environmental issues at 3.88, feel satisfy with environmentally friendly products in overall at 4.30, feel interested in innovative products developed from elephant dung at 4.52 and feel happy to participate in environmental protection by using natural products at 4.45. The Ayothaya community wants to develop a wide range of products to create sustainable careers and income in the community.

#### **Keywords**

Added value creation, New product, Environmental friendly

### An adaptation of the goat business throughout the supply chain in the spread of Viral Diseases Corona 2019 in Phra Nakhon Si Ayutthaya Province, Thailand

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#### Abstract

The spread situation of Viral Disease Corona 2019 in 4th wave (COVID 19), Phra Nakhon Si Ayutthaya province is the highest controlled area. Entrepreneurs throughout the goat supply chain were affected from upstream where production costs were higher. Midstream, gatherers, wholesaler's restaurant operators who could not normally open the shop. And downstream that refrain from performing religious ceremonies and reduce income affects purchasing power and demand for goats declined. This research article aims 1) to analyze the current goat supply chain situation 2) synthesize an adaptation of the goat business in the spread situation of Viral Disease Corona 2019 case study in Phra Nakhon Si Ayutthaya province. In order for entrepreneurs to survive under uncertain situation (VUCA World) by using in - depth interviews with structured questionnaires that were passed the accuracy and Content Confidence Test (IOC) with entrepreneurs throughout the goat supply chain by choosing a chain sample (Snowball Sampling) of 414 sampling samples. Analyze issues (pain points) by using with Whole supply – demand chain. Descriptive research based on VUCA framework for proposing an adaptation guideline. The results of the study were as follows: 1) Network value chain of meat goats, the main stakeholders of the goat business, divided into 3 main players: (1) live goat collectors or butchered goats outside the area (11.9% income ratio) (2) processors (halal food producers) will bring live goats to the area (5%) and import them outside the area. And (3) entrepreneurs with integrated business (74.3% income ratio) and 2) VUCA World analysis found that Volatility's demand for meat goat reduce 95% while production costs were increasing 20%, leading to vision processing the meat goat products in line with uncertainty of consumer behavior. The Quantities of consumer demand for products lead to understanding and focusing on strategic business planning, risk management and complexity of the product market to clarify by analyzing the entrepreneurs, products model and ambiguity of the trend consumption of goat products. Entrepreneurs must agility and choose to use tools that suit the personality of entrepreneurs such as Game Theory.

#### **Keywords**

adaptation, goat business, supply chain, value chain, Phra Nakhon Si Ayutthaya

Interpretation, Influence, and Development of Architectural Styles of Tai Lue Viharn: a Case Study of Tai Lue Viharn of Saen Mueang Ma Temple, Yuan Subdistrict, Chiang Kham District, Phayao Province

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#### Abstract

Nowadays Tai Lue Viharn of Wat Saen Mueang Ma obtains the status of cultural heritage and is a representative of Tai Lue Viharn, influenced by Tai Lue ethnic group from Xishuangbanna in China, influencing areas of Thai boundaries, through the city of Chiang Kham. The objectives of this research were to: 1) study influences and development of architectural styles of Tai Lue Viharn of Wat Saen Muang Ma Temple, and 2) study and find out methods and approaches for interpreting related issues about influences and development of Buddhist architecture. Qualitative research was designed, integrating knowledge of Thai architectural history and interpretation of cultural heritage to witness influences of architectural styles and to create a model for communicative approaches by collecting information about the interpretive approach through the target groups who were tour guides and students. It was found that 1) Tai Lue Viharn of Wat Saen Mueang Ma was influenced and reflected through the curvature of the lines around the shape of the roof structure. The original architectural style has influenced Viharn, which can be seen from the canopy or hip roof elements covering the surrounded building. The shape of the roof has been applied with "open gable shape" style, generally found in Lanna. 2) Methods for interpreting the meanings should be prepared with examples of temples in Xishuangbanna, compared with Viharn of Wat Saen Mueang Ma, including Tai Lue Viharn in Chiang Kham District and nearby cities, in order to see the development of architectural style, i.e. the "roof shape" style which is an important point portraying influences and differences in the development of the architectural style. For recommendations, this can be used as a learning medium for the community museum of Wat Saen Mueang Ma and the development guidelines for old city with cultural heritage.

#### **Keywords**

Interpretation, Architectural Influence, Architectural Development, Architectural Styles of Tai Lue Viharn, Viharn of Saen Mueang Ma Temple

### Product Development and Branding for Safety Rice and Herb Processing in Chai Nat

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#### Abstract

Having conducted the research, titled "Communication for Knowledge Management on Safety Rice in Chai Nat Province," farmers from Ban Klongree Farmer School were interested in adding value to safety rice and herbs by means of processing and branding. This research was qualitative by nature using the following instruments, namely in-depth interviews and participant their members who took part in the activities, advisors, and experts. The findings revealed that: 1) the development of products and branding for safety rice and herbs used the concept of community identity and local wisdom, participatory communication and the construction of community network, integrated marketing communication, branding, product certification, and information technology system to distribute the products; 2) researchers had their roles as mentors of the farmers who constructed processing and branding in every step; 3) stages of the activities started from investigating needs of the community, initiating the perception of paying attention to customers, looking at the same goal from the beginning, including thinking about products, designing packages, stages of requesting product standards, and the use of social media as the distribution channel; 4) persuading the FDA staff to educate the farmers for the duration of one year while conducting the research, resulting in both efficiency and effectiveness of the project; 5) the problem found was that the farmers were accustomed to former marketing communication; accordingly, the researchers had to assess the farmers' knowledge and opinion before, while and after conducting the research project as well as emphasizing the target group and brand.

### Forgiveness and Violent Behavior Among Vocational Students in Pathum Thani Province

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#### Abstract

These instructions give you guidelines for preparing papers for the International conference ICCSE). Use this document as a template The purpose of this research was to study forgiveness, violent behavior, and the relationship between forgiveness and violent behavior among vocational students in Pathum Thani Province. This study was quantitative research. The sample consisted of 400 students with vocational certificates and higher vocational certificates at an educational institution in Pathum Thani Province. The multistage random sampling was used. The data collection tool was a questionnaire. Data was collected and analyzed using descriptive statistics, independent sample (t-test), one-way analysis of variance (F-test), and correlation.

The results showed that personal factors were significantly associated with levels of forgiveness at .05. It could be divided into each aspect as follows: 1) Positive self-forgiveness varied with gender, age, and field of study. 2) Negative self-forgiveness varied with gender, age, religion, educational level, and field of study. 3) Positive forgiveness for other varied with gender. 4) Negative forgiveness for other did not vary with personal factors. 5) Forgiveness in positive situations varied with gender, and birth order. 6) Forgiveness in negative situations varied with birth order, and field of study. 7) Violence behavior varied with parents' income. To determine the relationship between forgiveness and assessment of violent behavior, it was found that forgiveness had an effect on assessment of violent behavior. This consideration could be divided into individual aspects. Negative forgiveness for other was associated with a very low level (r= 0.101), and forgiveness in negative situations was associated with a very low correlation (r= 0.114).

#### Keywords

forgiveness, violent behavior, vocational students

### Enhancing Speaker's Ethos in Persuasive Speech: A Case Study of Oprah Winfrey

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#### Abstract

It is believed that enhancing ethos (speaker's credibility) in persuasive speech seems to be a difficult work. However, previous studies suggest that it can be strategically learned. With this respect, this study aims at exploring strategies used in enhancing speaker's credibility and trust in an actual persuasive speech. This study employed a qualitative method by using textual analysis. Oprah Winfrey's speech delivered after she received the Cecil B. DeMille award at the Golden Globes 2018 was selected and transcribed as data for analysis and Aristotle's rhetorical appeal: ethos was chosen as an analytical framework. Purposed by Higgins and Walker (2012), ethos or speaker's credibility and trust can be enhanced through five appealing devices including similitude, deference, expertise, self-criticism and the inclination to succeed. The results revealed that Winfrey employed four devices including self-criticism, expertise, similitude and the inclination to succeed in order to enhance her credibility in her speech as well as strengthening her trust to her audiences. This study also sheds light on the patterns of how each device was used effectively.

#### **Keywords**

Aristotle's rhetorical appeal, Ethos, Oprah Winfrey, Persuasive speech

### A Research and Product Development for Home Decoration by Textile of Dong Jen Sub-District Group, Phayao Province

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#### Abstract

The development of community products in Dong Jen Sub District, Phu Kamyao District, Phayao Province reflects local wisdom and responds to customer needs in today's era, giving rise to building product image to be widely known and achieve customer recognition. By doing this, community businesses will be stimulated and tourism will be promoted at a community level. Furthermore, the spread of Covid-19 has changed the world of work from working in a workplace to work from home, and people spend more time living at home. Therefore, building work atmosphere at home in response to the Work From Home policy is a guideline to develop home decorating items to meet consumer needs. The objectives of this research were 1) to study community current status and a guideline to develop handicraft products from textiles of Dong Jen sub-district community, 2) to study community identity, 3) to study consumer needs towards product development, 4) to make a conclusion of a guideline for product development and present a product prototype, 5) to assess consumer satisfaction towards products. Steps to conduct the study included the following: Step 1 – seeking a guideline for product development. The researcher collected data from interviewing the group of community leaders, studied consumer needs and identity of Dong Jen community, leading to the steps of criticism, conclusion of a developing guideline, and presentation of a product prototype. Step 2 – assessing consumer satisfaction from 30 users. The findings from the study revealed that 1) currently people in Dong Jen community are the elderly who have basic handicraft skills in embroidery, 2) most of people in the community make a living from agriculture, 3) consumers need products made from natural materials in blue and gray colors with minimal and geometric designs, 4) a product development guideline is making backrest pillows from natural materials, i.e. using hand woven cotton, hemp embroidery threads, indigo dyeing process, hand stitch embroidery technique, a design concept is derived from designs of wickerwork and community way of life, rice field, rice grain, and stream in conjunction with patchwork technique, 5) satisfaction assessment results found that consumer satisfaction towards utility was at a good level, aesthetics was at a very good level, materials was at a good level. The suggestion from this study can be applied to the development of different products made of other types of textiles, and the development of designs, production techniques and materials to be more diversified.

#### Keywords

Interior architecture design, Product design

### Effect of electric field strength and pulse number on total phenolic content, total flavonoid content and biological activities of Chinese garlic (Allium chinense)

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#### Abstract

Allium chinense (Chinese garlic) contains a variety of phytochemicals that are beneficial to health. Several extraction methods have been developed in order to achieve a high extraction yield. A pulse electric field was used in this study to aid extraction and reduce the use of harsh chemical solvents. The objective of this study was to investigate the effect of pulsed electric field (PEF)-assisted extraction of Chinese garlic on total phenolic content (TPC), total flavonoid content (TF), and biological activities like antioxidant activity (FRAP and DPPH), and anti-angiogenic activity. The study conditions varied PEF intensity (4, 5, and 6 kv/cm) with 1000, 3000, and 5000 pulses. As a control, Chinese garlics macerated in water were used. The results demonstrated that pulse electric fields have different effects on TPC and TFC. TPC value increased as the number of pulses increased, but electric field strength had no effect on TPC value. The garlic extracted at 5 kV/cm and 5000 pulses had the highest TPC value, measuring 56.46±3.64 mgGAE/100gFW. The FRAP assay revealed a positive correlation between antioxidant activity and TPC value, with a R value of 0.8647. TFC showed a distinct trend in which the values were affected by electric field strength but differed slightly when different pulse numbers were used. The TFC value was 18.72±0.43 mgQE/gFW when the garlic was treated with 6 kV/cm and 5000 pulses. Furthermore, the chick chorioallantoic membrane (CAM) assay was used to investigate the antiangiogenic activity of garlic extracts. The pattern of percent angiogenic inhibition followed the trend of total flavonoid content. It can be concluded that pulse intensity and pulse number had a positive effect on total phenolic and total flavonoid content extracted from garlic; however, different types of phytochemicals may be responsible for different biological activities.

#### Keywords

Chinese garlic, phenolic content, flavonoid content, pulse electric field, biological activities

### Factors Affecting GPA in Higher Education in Asia: A systematic review

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#### Abstract

Academic achievement refers to the capacity of students in studying and is an important index that can be used to predict the beginning salary and salary growth rate. Although there are multiple studies investigating factors that affect academic achievement, the review that summarized the factors is scarce. This review summarized the literature describing academic achievement and investigated the importance of the factors that affected academic achievement described as grade point average (GPA). ScienceDirect, PubMed, Scopus, and CINAHL databases were systematically searched for the literature that investigated the impact of covariates on GPA; was conducted in higher education in Asia; and was published from January 2001 to June 2021. We found 65 studies that met the inclusion criteria. 67.69% of the studies were conducted in Southwest Asia. Factors concerning the academic performances of students could be classified as demographic factors, psychological factors, admission criteria, learning-related daily habits, and learning environment. This review showed that academic achievement was most likely affected by psychological factors. Negative psychological factors impeded academic achievement while positive psychological factors improved academic achievement. Such factors can be incorporated into learning and classroom management to improve the academic achievement of students. Negative factors, when are known, can be avoided or even negated.

#### **Keywords**

academic achievement, demographic, psychology, learning-related daily habits, admission criteria, learning environment

<sup>2<sup>nd</sup></sup> International Conference on Technology Innovative Educational and Multidisciplinary Skills in the 21<sup>st</sup> Century Research Thailand, 08<sup>th</sup> - 09<sup>th</sup> January, 2022

# Lay Tham Kham of Lanna Style Temple Pillar to Apply in New Pattern Design: A Case Study of Wat Phra That Lampang Luang, Lampang Province Thailand

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### Abstract

From the problems that can be lumped together because of open wall building system affected by the hot and humid and from human behavior such as stroking, touching, and leaning. The purpose of this project was to collect information about the striped on the pillar of Northern style temples under the valuable religious architecture. This can be used as basic elements to continue building up ideas of using different striped to design repeated patterns or new pattern by according to personal style to be use for further development and application. The scope of the study emphasized striped on the pillar only in the middle part not included the top or borrow parts of the pillar. Qualitative research applied to design pattern. The data was collected by using existing documents and architectural measured work and draw black and white striped pattern on paper at Vihara Phra Phuttha and Vihara Nam Tham Wat Phra That Lampang Luang , Kokha District, Lampang province. The result was presented by describing the drawing of black and white striped, and then added the new pattern with some colors on it. These patterns will be applied or developed to use in suitable designs in the future.

#### Keywords

Conserving Old Patterns, Lay Tham Kham, Temple Pillar, Lay Lanna

# Design Method in Difficulty levels of Assembling Wooden Puzzle

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### Abstract

An interlocking puzzle has normally been designed for learning problem solving and spatial intelligent skills. These skills are important for study in various fields of design and technology. The way to develop understanding for assembling puzzle may come from the levels of difficulty which suit for individual player. The process for design interlocking wooden puzzle in difficulty levels is rare. Other researchers suggested that an amount of components and a different shape of components are effected to difficulty levels for assembling. Therefore, this research interested in developing a design process. The research aimed to explore variables which effect design consideration by setting for 5 students design for different interlocking models. Each model had 3 difficulty levels for assembling. After that tested by 50 participants composed all difficulty levels and collected by video recorder for compared play time by statistical analysis. The result of experiment showed that the play time of 3 students who designed wooden puzzle of weighing apparatus, house, and rectangle shape were significantly different. On the other hand, the result of experiment showed that the play time of 2 students who designed wooden puzzle of triangle, circle shape was not significantly different. Further, we found that an important variable to effect difficulty levels of assembly was different hints in which players can found in different stages of assembling process. Finally, discovery variables led to consider new method to make difficult levels of assembly in various shapes of interlocking puzzle. Designers and researchers can consider and use this method to design and develop interlocking puzzle by themselves in the future.

### Keywords

Difficulty levels of Assembling, Interlocking Wooden Puzzle, Conceptual Models

# Investigating Politeness Strategies During Uncoupling Process of Internacial Relationship

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#### Abstract

Uncoupling seems to be a difficult task since we do not want to hurt other's feeling. People always seek their ways to politely end up their relationship in order to minimize some negative effects that may happen during or after ending process. Therefore, this study aims to investigate politeness strategies used in breakup messages of interracial couple. Leech (2005)'s politeness strategies including Tact maxim, Generosity maxim, Approbation maxim, Modesty maxim, Agreement maxim, and Sympathy maxim, together with Goffman (1967)'s the notion of face were used as frameworks to analyze the breakup messages during uncoupling process between a Thai woman and a French man. The messages were divided into two series; pre-breakup and post-breakup messages. The results revealed that Thai woman, during pre-breakup process, mostly obey Tact Maxim. At the same time, she violated Tact Maxim and Approbation Maxim. She, in her post-breakup process, mostly employed Modesty Maxim to uncouple her boyfriend. For a French man, he differently used politeness strategies to react to her girlfriend's statements. Noticeably, power was shifted during uncoupling process.

#### **Keywords**

Break up messages, Face-Threatening Acts (FTAs), Interracial relationship, Politeness Strategies

# Tourism experience need for local food tourism activities of Trang Province, Thailand

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#### Abstract

This research article aims to analyze tourism experience for local food tourism activities in Trang.Province, Thailand. This action research was used quantitative research with a research tool as questionnaires. The sample group in this research, who are 400 Thai consumers that had eaten in local restaurants. Data was analyzed by using descriptive exploratory and confirmatory factor analysis. Standardized factor loading was found greater than 0.5 for all components. The samples are suitable for acceptable empirical data. The Research found that the result of exploratory and confirmatory factor analysis of the need for tourism experience for local food tourism activities in Trang Province had different factors. Data from confirmatory factor analysis: CFA had gotten 3 components 1) Edutainment is consist of 6 indicators, 2) Esthetics consist of indicators and 3) Escape consist of 4 indicators. The most influential factor of tourist experience needed for local food tourism activity in Trang Province, Thailand was esthetics that factor loading was 0.94. The esthetics component was consisting of 1) living with the Muslim lifestyle on the island and joining cook local seafood, 2) Living with the old town community and joining cook Thai-Chinese food, and 3) Taking a tuk-tuk for sightseeing and dining. The article can be used to define, develop or modify the elements of food tourism activities according to the context of the area

### **Keywords**

Tourism Experience, Local Food, Food Tourism Activity, Trang Province

Communication and Civic Culture Supporting Knowledge and Ideology Transfer from generation to generation: A Case of Kamalunislam Masjid Community in Bangkok

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#### Abstract

Having conducted the research in 2009 and the community context has changed, the researcher studied it again in 2019. The purposes of this research are to study about: To study about 1) the communication supporting knowledge and Ideology transfer from generation to generation; 2) the civic culture supporting knowledge and Ideology transfer from generation to generation. Research methodology used is that of qualitative as ethnography with participatory observation, documentary research, and in-depth interviews with key informants. The research findings are as followed: 1) communication which supports community transfer knowledge and ideology to develop community from the older to younger cultivated from their family, schools, and Masjid. The message was integrated Islamic doctrine to everyday life practices. They use mixed media both traditional and new media. The youths who have continually absorbed knowledge and Ideology from Imam Winai Samaul, are the significant persons of the community nowadays. 2) Civic culture which support knowledge and Ideology to develop community from the older and the younger was meaning, practice, communication and Identity. There were many applications Islamic doctrine to be meaning of community development such as cooperative Saan Saeb canal conservation, the significant of every member as a piece of houses etc. There was everyday life participation practice in masjid, community, and educational institutions. Islamic Identity is crucial principal to develop community in every level of participation. It's begin with Islamic people all of the world is kinship, and continue with develop from inside to outside personal, sacrifice from personal to community and social, mercy the poor and disadvantage people, and accumulate the good to meet Islamic god in the world after death. The research conclusion is Kamalunislam masjid community model to transfer knowledge and ideology is connect between Imam as agency and Islamic doctrine structure, integrated governing community, masjid, and educational institutions, develop suitable youth to work out with 3 parts of community.

### **Keywords**

Communication, Civic Culture, Knowledge and Ideology transfer, generation

# Appropriate agricultural system management approach in the area of Land Readjustment and Irrigation for Agriculture, Thailand

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### Abstract

The purposes were to study 1) context of farmer's agricultural system management 2) appropriate alternative farming systems, and 3) appropriate agricultural system management approach. The populations were 1) 348, 595, and 567 farmers participated in the land readjustment and irrigation for agriculture project in Chainat, Kalasin, and Phatthalung Provinces, respectively. The samples were determined using Taro Yamane's formula at an error level of 0.1, resulting in a sample of 78, 86, and 85 people, respectively. The simple random sampling was used. Data were collected using an interview form and analyzed using descriptive statistics in the context of farmer's agricultural management. 2) Key informants on appropriate alternative farming systems and appropriate agricultural system management approach consisted of 50 farmers, entrepreneurs, agricultural extension scholars. The purposive sampling was used. Data was collected using focus group and analyzed by content analysis.

The results showed that 1) all farmers managed their agriculture with rice mono-cropping system. The farmers in Chainat and Kalasin province had a loss from rice farming in the amount of 1,326.77 and 256.51 baht per rai respectively whereas the farmers in Phatthalung province earned a profit of 1,160.76 baht per rai. 2) Overall, the appropriate alternative farming systems could be divided into 4 systems: (1) rice mono-cropping system (2) rice-bean rotation system. (3) rice production system in combination with other agricultural activities, and (4) integrated farming system. 3) Overall, the appropriate agricultural system management approach found that (1) Upstream - fertilizer application based on the value of soil analysis, cost reduction by mixing self-use fertilizers, reducing the rate of seed use, use of biologics, and integrated pest management. (2) Midstream - production of agricultural products to standards under the collaborative farm system. (3) Downstream - product price guarantee, pre-sale of goods, direct sales of goods, and online marketing promotion.

#### Keywords

agricultural system management approach, alternative farming systems, land readjustment, supply chain

# Extension Guidelines to Participation of Farmers in Agricultural Management in the area of Land Readjustment and Irrigation for Agriculture, Thailand

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Sujja Banchongsiri, Sukhothai Thammathirat Open University, Thailand

### Abstract

The purposes were to study: 1) factors related to farmers' participation 2) problems related to participation of farmers, and 3) extension guidelines to participation of farmers. The populations were 1) 348, 595, and 567 farmers participated in the land readjustment and irrigation for agriculture project in Chainat, Kalasin, and Phatthalung Provinces, respectively. The samples were determined using Taro Yamane's formula at an error level of 0.1, resulting in a sample of 78,86, and 85 people, respectively. The simple random sampling was used. Data were collected using an interview form on participation factors and farmers' participation problems. Data were analyzed using descriptive statistics, and exploratory factor analysis. 2) Key informants on extension guidelines to participation consisted of 50 farmers, entrepreneurs, agricultural extension scholars. The purposive sampling was used. Data was collected using focus group and analyzed by content analysis.

The study found that 1) An exploratory factor analysis of 13 variables related to the participation of farmers indicated that there were 12 variables organized into components. Two components could be summed up: 8 internal factors and 4 external factors. 2) An exploratory factor analysis of the 22 variables of farmers' participation problem showed all variables were included. It could be summarized into 5 components, namely, problems in extension and supporting production planning of 6 variables, problems of members and leaders of 6 variables, problems in wisdom / technology and production agreements of 4 variables, problems in capital and resources of 3 variables, and problems of incentive compensation of 2 variables. 3) extension guidelines to participation were: (1) encouraging participation in every step of the work process; (2) launching of collaborative learning process; (3) designing methods/activities appropriate to the community context; (4) creating activities for continuous participation; (5) establishing mechanisms to drive participation at different levels; and (6) linking with network partners.

### Keywords

participation, extension guidelines, land readjustment, farmers

# New Normal Interior Architecture: Space in Hotel Design

# Nilubon Puraprom, Udomsub Dangkhawkeaw

### Abstract

In the year 2021, the world has been facing the Covid-19 pandemic. The tourism industry in Northern Thailand was affected by restricted travel, and the country lockdown and Social distancing practical guidance effect all physical environment, especially in public areas such as hotels must adjust the interior layout for the new use of space. The research aimed to propose guideline for design new normal interior architecture of hotel for the future. This study emphasized research through surveys and assessments of elements within a building to design a space for the new normal, using minimized spread of virus as key criteria. Results showed that the public areas of the hotel must contain: openings for ventilation within the building, limiting users number with rotate to reduce time of use, space for personal distancing, and interior decoration that uses surface materials that are easy to sanitize. Within an interior privacy atmosphere that lead to green space perspective, it enable guests who must have a longer stay experience happiness and leisure in the new normal environment

### **Keywords**

Space, Hotel, Covid-19, New normal, Spread of virus, Thailand

# Development of Local Models for Home Decoration: A Case Study of Communities in Dong Jen Sub-District, Phu Kam Yao District, Phayao Province

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### Abstract

The objectives of this research were 1) to study the problems of the products and the old wisdom of the people in the community, 2) to develop a model community product that demonstrates the values and identity of the community, and 3) to study the guidelines for product management within the community in order to develop innovations in community products in the future. The research process was divided into two parts: 1) Collect product information in the community and survey consumer demand for wicker products for home decoration. 2) Small meetings and in-depth interviews from the sample group including designers, distributors, and product manufacturers. The results revealed that the main problem with community products was a lack of product variations and no online sales of products. The community can create a variety of products, especially bamboo woven products that use the technique of weaving from the community's old wisdom. For the development of prototype products, the results of the survey on the consumption of wicker products for home decoration revealed that consumers preferred products that focused on storage and placement the most, such as baskets, trays, and plant pots kept a new style that can be used as a center table or coffee table. The characteristics were as follows. 1) A rounded shape was a simple geometric shape. 2) All natural bamboo materials from the local area that focus on natural tones mixed with brown tones. 3) Inserting rice grain patterns was a new weaving technique whose concept comes from the context of communities related to agriculture to create product identity. In addition, product management guidelines within the community for future community innovation development include: 1) creating added value for products, 2) market surveys of product consumers, and 3) community involvement.

### Keywords

Local Products, Home Decoration, Handicraft

# A Research Development of Products for Wickerwork Souvenirs Local Handicrafts of Dong Chen Subdistrict Phu Kamyao District, Phayao Province

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#### Abstract

The objective of this research is to study the local identity of Dong Chen Sub-district, Phu Kamyao District, Phayao Province, and consumer behavior and factors affecting the selection of souvenir products in Phayao Province using applied research methods to study the qualitative data to find and define the local identity from a sample of community entrepreneurs and handicraft community members with an interview and consumer behavior questionnaires. The sample group is those interested in souvenir products. The results were analyzed by descriptive statistics to select the types of wicker souvenir products that will be developed to meet the needs of consumers and summarized to propose a new guideline to develop new wickerwork souvenirs. The results of the study showed that 1) the local identity of Dong Chen Sub-district was lifestyle related to agriculture, prosperous natural contexts, rivers, and mountains contribute to agricultural productivity, agricultural products processing as an export 2) Decoration as a souvenir product, which is the best seller, includes woven plant basket set and tableware decoration set according to the current trend, New Normal, after the COVID-19 crisis. The factors in purchasing are reasonable price in accordance with its quality for the real use, beautiful colors and design, uniqueness and the craftsmanship of the production, increasing sales through online platforms, which is a product design guide for increasing economic value, developing potential of local wickerwork manufacturers, creating innovative production, material mixing and use of other materials that lead to the creation of more unique souvenir products of Dong Chen Subdistrict.

### Keywords

Development of Product ,Wickerwork ,Souvenirs ,Dong Chen handcraft

# Bringing the technology to be Applied with Arbitration

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### Abstract

The objectives of this paper were to: (1) study principles and regulations of E-Arbitration in Thailand; (2) study process of E-arbitration in Thailand, China and United States of America; (3) compare legal measures for E-arbitration in Thailand with foreign countries; and (4) find guidelines of legal measures for e-arbitration in Thailand. This paper is qualitative research with a method of documentary research. Data used for investigation are from the THAC of Online Disputes Resolution Rules B.E. 2563(A.D. 2020) and the laws in foreign countries such as the United States of America, People's Republic of China and related laws, books, articles, academic papers, research, thesis, and information from the Internet, both in Thai and English. The results of the research were as in the followings: (1) the process of E-arbitration is not accessed by people; and (2) the process of E-arbitration is not efficient. Therefore, the researcher suggests that E-arbitration should be the suitable legal measures in Thailand.

### Keywords

Alternative Dispute Resolution, Technology, E-arbitration

<sup>2<sup>nd</sup> International Conference on Technology Innovative Educational and Multidisciplinary Skills in the 21<sup>st</sup> Century Research Thailand, 08<sup>th</sup> - 09<sup>th</sup> January, 2022</sup>

The Development Learning Activities Model Performing Arts: Contemporary Kub Lue to Promote Mental Health and Prevent Depression in the Elderly Thai Lue Ethnic Group of Phayao Province

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### Abstract

This experimental research aims to study the outcome of applying performing arts learning activities: contemporary Kub Lue, to promote mental health and prevent depression in elderly people. The sample includes 50 elderly Tai Lue people in Ban That Sob Waen who age between 60 - 80 years. The sampling methods are purposive selection and simple random sampling. The sample is divided into two groups of 25 people: the experimental group and the control group. The research methods are 1) The Mental Health Department's 15-item Thai Geriatric Depression Scale (TGDS-15) questionnaire 2) The Mental Health Department's 15-item Thai Mental Health Indicator (TMHI-15) questionnaire 3) performing arts learning activities: contemporary Kub Lue. The result of this experiment shows that The Depression Scale decreased while the Mental Health Indicator increased among the experimental group. The TGDS-15 and TMHI-15 scores of the control group contrast to the experimental group in the statistical significance level of 0.05 (p<.05). In conclusion, Contemporary Kub Lue performing art learning activities are emerging alternative activities which were shaped from cultural assets: performing arts of Tai Lue ethnic group in Phayao Province by following the 5 Dimensions of Happiness Program in Elderly guidelines from the Mental Health Department. These activities can effectively promote mental health and prevent depression in the elderly Thai Lue ethnic group of Phayao Province.

### **Keywords**

Performing Arts, Contemporary Kub Lue, Depression, Elderly Ethnic Groups

# The Study of Craftsmanship and Hand-on Knowledge of Gem Cutter Community in Phayao Province, Thailand

### Patcharaporn Lueraj, University of Phayao, Thailand

### Abstract

This article is part of practice-based research in contemporary jewellery collaborated with Mae Na Reu Gem cutter community in Phayao province, Thailand. This section focuses on 1) studying the community's hands-on learning knowledge in gemstone cutting. The practice of craft in gem cutting leads a practitioner to become a gem cutter.2) studying the process of cutting gemstones from various shapes. Data was collected through interviews with the remaining gemstone cutting artisans and jewellers in Phayao Province, participant observation, and immersive learning with artisans. Now, there are a few gem-cutting machines and artisans left in the studio since the Gem Center in Phayao province has been closed due to the economic crisis and lack of support. It caused the gemstone cutting knowledge in Phayao province to almost disappear through time. The study found that: 1) It takes 3 months to a year to gain knowledge and skills in working and training to become a gem cutter. Moreover, less experienced artisans need to work under skilful senior artisans. 2) The Gem Cutter community at Ban Mae Na Ruea, Phayao Province, employ work from the beginning of the trimming stone process. They can cut cabochons as well as facets in the round shape, oval shape, heart-shaped, heart-shaped, teardrop, marquise, and square shapes. The knowledge of gemstone cutting is a skilful craft. To learn this knowledge requires devotional practice. However, working as a gem cutter is more difficult in rural areas like Phayao province, which is far from Bangkok. As a suggestion, this profession can continue with the support of both the public and private sectors. In the future hopefully, the wisdom of the gemstone cutting community in Phayao province can be carried on.

### **Keywords**

Gem Cutting Knowledge, Craft practice, gemstone faceting, jewellery

# Vietnamese Cultural Wisdom to Promote Tourism Activities in Ban Mae PhraPrajak Community, Song Phi Nong District, Suphanburi Province

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#### Abstract

The objectives of this research are 1) to study cultural wisdom of the Vietnamese ethnic community and 2) to propose activities and travel routes for the Mae PhraPrajak Vietnamese community. This research study is a qualitative research, using a purposive sampling method from 15 key informants, namely government, private and community sectors. The data were collected from in-depth interviews and participatory action research (PAR) in the design of community tourism routes with the method of content analysis and presented the study results in a descriptive. The results of the study found that cultural wisdom of the Vietnamese ethnic group in Ban Mae PhraPrajak community, includes the wisdom of local food culture, community handicraft, dress culture, traditions and way of life of ethnic groups which has a distinctive cultural identity. The results of the study can be applied to design tourism activities to learn and engage with the community in creating a tourism experience through activities on the wisdom and culture of the community as follows: "Making Pra Mom" or food from fish preservation activities with Vietnamese wisdom, food menu from Pra Mom, Vietnamese roast suckling pig, Vietnamese Bua Loi desserts, Mudd Tai desserts, Vietnamese hammock handicrafts, traditional dress; riding sidecar to see the beauty of Ban Mae PhraPrachak Church and Chom Tung Tower; take a boat trip to see the waterfront community lifestyle. These activities can be offered in the pattern of 2 types of tourism routes as follows: Type 1- 2 days 1 night, "Visiting the riverside village lifestyle in Ban Mae PhraPrajak community- The only one in Suphan" and the second one-day trip as "one day trip to visit the only Vietnamese culture in Suphan"

### **Keywords**

Tourism activities, Vietnamese, Wisdom

# A Study of Music Teaching of Private Music School, Muang District, Phayao Province Thailand

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### Abstract

The objectives of this research were to study the teaching and learning of music, teaching materials, and assessment in private music schools, Muang District, Phayao Province Thailand. This research was qualitative research using in-depth interview. The findings indicated that each school has a similar style of teaching and learning music both classical and popular music, and it depended on the learners' need. The teaching and learning of music have changed rapidly. Most learners study music individual because it enhance more effective than study in group. Schools have provided appropriate teaching and learning for learners. The teachers can substantially teach about Scales, Arpeggios, and Sight-reading, but learners still have less basis about music because the learners are too young. The problems in teaching and learning because of young learners behave self-willed, which is based on the age of the learners. Therefore, teachers have to provide different methods to teach music lessons. Each school mainly uses the teaching materials of Trinity Guildhall standard, and the schools apply teaching materials to be appropriate and effective for the learners as much as possible. Moreover, teachers assess the learning outcome by themselves. Teachers assess the performance of learners by playing musical instruments and exercises set by teachers. After that the teachers send learners to grade the music at Trinity Guildhall standard because it is very popular among music learners and the test results are standardized. Students can choose to take the exam or not, depending on the needs and voluntary requirements of the learner.

### **Keywords**

music teaching, private music school

<sup>2<sup>nd</sup> International Conference on Technology Innovative Educational and Multidisciplinary Skills in the 21<sup>st</sup> Century Research Thailand, 08<sup>th</sup> - 09<sup>th</sup> January, 2022</sup>

The Development of Distance Learning Model through Group Process on Food Safety and Organic Agriculture for the Well-Being of the Elderly in Nonthaburi and Chonburi Provinces, Thailand

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 Dr.Ponsaran Saranrom, Assistant Professor, Sukhothai Thammathirat Open University
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 Dr.Benchamas Yooprasert, Associate Professor, Sukhothai Thammathirat Open University
 Dr.Nareerut Seerasarn, Assistant Professor, Sukhothai Thammathirat Open University

### Abstract

The objectives of this research were 1) to study the basic conditions of consumption, health, and learning among the elderly 2) to develop a distance learning model through group process on food safety and organic agriculture for elderly well-being, and 3) to design the learning management and media according a model. The research and development model were used. The populations were (1) 120 elderly people participated in the program from Nonthaburi and Chonburi provinces. Quantitative data were collected from the entire population using the interview form and analyzed using descriptive statistics. (2) representative of the elderly and experts. 21 representatives was determined by using purposive sampling method. Qualitative data was collected using focus group and analyzed by content analysis. The results showed that 1) Most of the elderly want to participate in health care learning for themselves and their family. Factors related to learning management included internal factors: learners and lessons or content issues and external factors: support from various agencies in terms of knowledge, budget, and place of operation. 2) Developing a learning model according to the elderly needs included group process learning, learning from experiences, and application in daily life. The learning management model was divided into Phase 1 - Study of basic conditions of the elderly, Phase 2 - Learning model development, and Phase 3 - Experimentation and evaluation of learning models. 3) Designing learning management and media from the developed model. The learning management was divided into Phase 1, the comprehension, focused on learning content through a 4-week session, and Phase 2, the access and development, focused on learning from practice through a 12-weeks session. Learning media included publications and electronic media in 4 subject areas: paradigm and way of organic agriculture, safe and organic food production and marketing, health care of the elderly, and infotainment.

### Keywords

learning model development; distance learning; group process learning; elderly health; food safety and organic agriculture

<sup>2<sup>nd</sup></sup> International Conference on Technology Innovative Educational and Multidisciplinary Skills in the 21<sup>st</sup> Century Research Thailand, 08<sup>th</sup> - 09<sup>th</sup> January, 2022

The Evaluation of Distance Learning Model through Group Process on Food Safety and Organic Agriculture for the Well-Being of the Elderly in Nonthaburi and Chonburi Provinces, Thailand

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### Abstract

The objectives of this research were 1) to experiment with distance learning management through group processes on food safety and organic agriculture towards the well-being of the elderly. 2) to assess the distance learning model. The populations were (1) the elderly people participated in the program from Nonthaburi and Chonburi provinces consisted of six groups of 20 persons per group, totaling 120 people. Quantitative data were collected from the entire population by using an interview form. Data were analyzed using descriptive statistics and t-tests. (2) Representative of the elderly and experts in geriatrics, distance education and food safety, and organic agriculture consisted of 21 persons. The purposive sampling was used. Qualitative data was collected using focus group and analyzed by content analysis. The results showed that 1) The experimental management of learning consisted of Phase 1 - Comprehension, and Phase 2 - Access and Development. 2) The assessment of distance learning model found that (1) the appropriate of distance and group process learning model was a model with flexibility, blended informal learning, learners-centered learning, spatial suitability, and linking farming to the health care of the elderly. The elements of learning management model were considered to be appropriate at the highest level in three areas: curriculum standards, objectives, and learning media, and there was a high level of appropriateness in two areas: the course content, and the course's learning management process. (2) Appropriate learning methods and learning media were experimental and hands-on focus, field trips as early activities, supportive learning managers, voluntary participation of learners, and the appropriateness and accessibility of media to the elderly. (3) There was the highest level of change from learning at individual, group, community, and agency level. (4) There was a significant difference at the 0.05 level between mean pre- and post-test knowledge scores of elderly.

### Keywords

evaluation of distance learning; learning model assessment; group process learning; elderly health; food safety and organic agriculture

# Vernacular Landscape of Tai-Lue Chiangkham District, Phayao, Thailand

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### Abstract

Tai Lue Community in Chiang Kham District, Phayao Province. It is a culturally strong ethnic community. Tai people migrated from Xishuangbanna, Yunnan Province, China becoming a Tai Lue community and settled throughout the north of Thailand centuries ago. This research aims to study the part of the local garden in the Tai Lue community that tends to be attenuated by physical components. The vernacular landscape has changed the living space relevant to beliefs, concepts, and wisdom. The study in this research involves the collection of tangible cultural data based on evidence from indigenous gardens. In particular, the study involves the examination of documents, textbooks, and photo collections of the community in the past as well as interviews with the elderly and local plant specialists in the community plus field surveys. The analysis results of the study revealed that the area allocation of Tai Lue folk gardens is unique in the use and cultivation of plants. The parts of the area are given specific names in dialects and there are some similarities with the Lanna people. The result of the research can be classified as follows: 1. Areas according to beliefs and wisdom; 2. Living space in daily life; 3. Decorative parts; and 4. The identity is shared with the Lanna people. This information can be used for academic purposes, preserving the wisdom heritage of the Tai Lue Community. It can also be used to develop community tourist attractions to promote cultural landscapes of ethnic Tai Lue communities. In addition, it can be a guideline for designing landscape works that are consistent with local houses.

### Keywords

Tai Lue, Vernacular Landscape, Cultural Landscape

# New Normal Architectural: Northern Thailand Identity in Hotel Design

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#### Abstract

The objective of this research was to a model was created in the development of the area by using architectural knowledge based on the cultural context in Mae Ka Sub-District, Mueang District, Phayao Province. Architectural elements of public buildings were designed in the category of hotels ready to accommodate health tourists in the style of "New Normal". By visiting the area to explore the architectural elements of the residential types and learn about shapes, styles and materials of ventilation openings, doors and windows of local houses in the targeted area. Analyze the variables that affect the good ventilation in the building to prevent the spread of COVID-19 in the building by natural and compare architectural elements of the vernacular architecture, Such as columns, balcony railing, visor panels, in pursuit of a unique style and identity for the applied design to Reuan Euang Kham Hotel University of Phayao, in the concept of "Modern Lanna at Mae Ka". This creates a prototype for designing architectural elements of a hotel type public building that is ready to accommodate tourists both in Thailand and abroad. Including academics, students, parents, as well as those who come to coordinate with the university in the heathy matter with a new normal lifestyle, to clearly convey the indigenous vernacular architecture in Mae Ka Subdistrict, Mueang Phayao District, Phayao Province.

#### Keywords

New Normal Architectural, Northern Thailand, Hotel Design

# Antibacterial Activity of Mitragyna Speciosa Korth. Leaves

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#### Abstract

The crude extracts of hexane, dichloromethane, ethyl acetate, ethanol, 50% acetic acid and mitragynine from Kratom leaves were tested for antibacterial activity. According to the study of grampositive Staphylococcus aureus and gram-negative Escherichia coli, using "Disk diffusion techniques" and "Minimum inhibitory concentration". It was found that kratom leaf extract had activity against Staphylococcus aureus and Escherichia coli bacteria. Mitragynine was effective against Staphylococcus aureus bacteria with an inhibition zone of  $4.35 \pm 0.68$  mm at a minimum concentration of 6 mg/mL. The crude extract extracted with 50% acetic acid was effective against both Staphylococcus aureus and Escherichia coli bacteria with an inhibition zone of  $5.52 \pm 0.44$  and  $4.65 \pm 1.02$  mm, at a minimum concentration 6 and 9 mg/mL, respectively.

#### **Keywords**

crude extract, antibacterial, kratom leaves, Mitragyna Speciosa Korth, mitragynine

# Agro-Tourism Extension: Comparison between Kingdom of Thailand and Socialist Republic of Vietnam

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#### Abstract

The research was to study (1) agro-tourism attractions context, (2) evaluation of the agro-tourism attraction management, (3) agro-tourism extension, (4) problems of agro-tourism attractions, and (5) comparative analysis of agro-tourism attractions between Thailand and Vietnam. Population comprised of 134 agro-tourism attractions in Thailand and Vietnam. 268 samples were determined by using purposive and snowball sampling methods from 3 groups: (1) 96 farmers or owners of agrotourism attractions (2) 79 tourists and (3) 93 key informants related to agro-tourism. This research was survey research by conducting interview for data collection. Statistics used in data analysis included descriptive statistics, comparative statistics, and content analysis. The results revealed that (1) agrotourism attractions of Thailand were a mixed of natural-made and man-made. The prominent point was agricultural learning resource with 19.67 Rai. Agro-tourism activity was organized in agricultural area visitation, and received support from government agencies. For Vietnam, they were nature-made attractions. The prominent point was agricultural learning center with 24.85 Rai. Agro-tourism activity was organized in the form of agricultural area visitation, and mostly did not receive support from government agencies; 2) Thai farmers thought that lecture and demonstration gave sufficient knowledge at the high level. Regarding the organization, leader or leader quality and potential of carrying capacity were essential. For Vietnamese farmers, the distribution of products and product processing were sufficient at the highest level. The leader and quality of the leader were important and prominent point was on the aspect of attracting tourists; 3) Thai farmers wanted the knowledge through electronic media and personal media in form of lecturing and field trip while Vietnamese farmers wanted through all channels and method; 4) Thailand problem was about the development of tourist attractions while the problem of Vietnam was about accommodation service; 5) comparison of the differences, showed that the differences lied in the accommodation sufficiency, customer focus, knowledge management, people focus, tourist service, and tourism sustainability, management agencies, along with the needs of knowledge in extension, marketing, and electronic channel extension.

### Keywords

Extension, Agro-tourism, Thailand, Vietnam, Comparison

# Plan for potential in street food management to promote tourism after the Covid-19 crisis in Bangkok

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#### Abstract

This research is quantitative research that is objected to determine: 1) To study demographic factors affecting in street food management to promote tourism after the Covid-19 crisis in Bangkok, Thailand; 2) To study the marketing mix factors affecting in street food management to promote tourism after the Covid-19 crisis in Bangkok, Thailand; and 3) plan for potential in street food management to promote tourism after the Covid-19 crisis in Bangkok, Thailand. The sample group of the study tourism of 400 people. The questionnaires are used as a tool to collect data whereas analyze the data of a frequency distribution, percentile, mean, standard deviation via T-test independent Oneway ANOVA and Multiple Linear Regression. Results show that majority of the sample group are female at the age of 25 to 34 years old who graduated Bachelor's degree and working as a private employee. Their average income is THB 20,001 to THB 40,000. The mixed marketing factors influence the majority of the sample group at a high level. Moreover, the most influencing mixed marketing factors are person and distribution channel. The results showed that different demographic factors such as age, education level and occupation had different effects on the management of street food to promote tourism after the COVID-19 crisis in Bangkok. Moreover, the marketing mix factors were price, distribution channel, individual aspect, physical aspect and process, effects on the management of street food to promote tourism after the Covid-19 crisis in Bangkok, Thailand with the statistical significance level of 0.05.

### **Keywords**

The management of street food, Street food, Food Tourism

# Factors affecting decision on health tourism of Tha Khan Tong Community, Chiang Sean, Chiang Rai Province

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#### Abstract

This research is quantitative research that is objected to determine the factors relating decision on health tourism of Tha Khan Tong community, Chiang Sean, Chiang Rai province, Thailand. The sample group of the study tourism of 400 people. The questionnaires are used as a tool to collect data whereas analyze the data of a frequency distribution, percentile, mean, standard deviation via T-test independent and One-way ANOVA. Results show that majority of the sample group are female at the age of 25 to 34 years old who graduated Bachelor's degree and working as a state-enterprise employee. Their average income is THB 20,001 to THB 40,000. The mixed marketing factors influence the majority of the sample group at a high level. Moreover, the most influencing mixed marketing factors are product and person. the majority of the sample group tourists approximately once a month and spend money between THB 10,001 to THB 20,000. Tourists come to travel for recreational and leisure purposes, they got some information from the internet. Finally, results show that the differential of demographic factors, i.e. education level, incomes, and average income, relating to health tourism of Tha Khan Tong Community, Chiang Sean, Chiang Rai Province, Thailand with the statistical significance level of 0.05.

#### Keywords

Tourism Behavior, Health Tourism, Marketing Mix

# Creation of Ceramic Wall Tiles from Tai Lue Woven Patterns Chiang Kham District, Phayao Province

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#### Abstract

This project of designing a ceramic product to promote tourism in the Tai Lue Cultural Village represents a qualitative research. The objective of this research was to study the patterns of Tai Lue woven fabrics in Chiang Kham, Phayao Province. These patterns were then used to design and create decorative tiles and to guide the design of cultural heritage products. Data was gathered by survey and interview; it was then analyzed and used to develop tile designs. The tile patterns can be divided into four types based on the following characteristics: 1) designs from techniques used in weaving and traditional fabric patterns, 2) designs from tools and weaving equipment, 3) designs from animal patterns that appear on woven fabrics, and 4) designs created by combining patterns. Then to create a mold prototype for hand compression molding. Produce works according to the ceramic process. The tiles are fired at 1,250 degrees Celsius (Cone 7), these tiles were then installed on the wall of the shop selling products. Tai Lue Cultural Center, Wat Yuan. The results of this research revealed that incorporating the beauty of Tai Lue woven fabrics into decorative wall tiles can offer a new way to carry on and convey cultural heritage. This work may play a part in promoting tourism in the Tai Lue Cultural Village and offers a guideline for how to build local wisdom into cultural innovations that continue to maintain the identity of the community

#### Keywords

Ceramic Tiles, Wall Tiles, Tai Lue Textiles, Cultural heritage, Pattern

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The Development Model of Environmental Management of Hotel and Resort Spa for Control and Prevention of Spread of COVID-19 in Spa Services in Pattaya, Chon Buri Province, Thailand

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#### Abstract

The objective of this article was to present a model of environmental development of health spa business in the category of "Hotel and Resort Spa" in Pattaya, Chon Buri Province, Thailand. Data were collected from the management of the three spa managers of the two establishments and 12 experts / experienced spa and/or environmental management. The semi-structured interview was used in conjunction with the collection of documents and social networks. The data were then analyzed using percentages, and averages. The best practices in environmental management of health spa establishments in the category of "Destination Spa", and "Hotel and Resort Spa", both domestically and internationally, were studied for a total of 5 establishments. Data were analyzed using content analysis techniques. According to a study on environmental management potential of hotel and resort spa in Pattaya, it was found that there were 13 establishments registered and licensed by the Department of Health Service, Ministry of Public Health. The management of all establishments was directly managed by the hotels and resorts. Only 5 establishments had been certified with the "Amazing Thailand Safety and Health Administration (SHA)" standards of the Ministry of Tourism and Sports of Thailand (TAT) under the control and prevention of the spread of COVID-19 in tourism. The environmental development model of Hotel and Resort Spa in Pattaya consisted of 5 environmental policy developments and 11 environmental management, a total of 56 guidelines: products (3), location/cleaning (7), equipment/bedding (4), manuals and brochures (3), packaging (4), landscaping (4), electrical system (10), water system (9), waste disposal (4), community (3) and Support for the COVID-19 Pandemic (5). This was to ensure that environmental management in health spa business establishments in in Pattaya, Chon Buri Province, Thailand could be as practical as possible. All such operations should be carried out simultaneously through the environmental management process. Importantly, it should be managed in the form of a network both within the establishment and outside the establishment, such as the local government agency, the environmental management agency, and the health spa establishment management agency.

# Keywords

Development Model, Environmental Management, Hotel and Resort Spa Business, Control and Prevention of Spread of COVID-19 in spa services, Thailand

# A Model of Potential Development in Environmental Management of Day Spa Business in Active Beach Prepared as Wellness Hub of Asia

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### Abstract

The main purpose of this research was to present guidelines for environmental development of Day spa business establishments in the Active Beach of Thailand by collecting primary information from 7 owners/managers/staffs of 19 establishments, 60 spa users, and 10 spa and/or environmental management experts/experienced professionals with a semi-structured questionnaire and interviews together with the collection of secondary data from documents and online social networks. The quantitative data were then analyzed using the following statistical values: percentage, mean, test statistical values as Pearson correlation coefficients, One-way ANOVA. The qualitative data were analyzed using content analysis techniques. Results indicated that the level of satisfaction of spa users towards environmental management in health spa business establishments on 10 aspects were at a high level overall (mean= 3.90). The comparative statistics of the environmental management satisfaction of health spa business establishments at a significance level of 0.05 showed that education, occupation, average monthly income, and the average number of visits to health spa services per year were different/correlated with the environmental management satisfaction scores of the establishments. Therefore, this research presents guidelines for environmental development of Day spa business in Active Beach of Thailand, which consists of three guidelines for the development of environmental policies and 11 aspects of the environment management, totaling 42 guidelines were as follows: products (3 guidelines); location/cleaning (5 guidelines); equipment/bedding (4 guidelines); manuals and brochures (3 guidelines); packaging (3 guidelines); landscaping (3 guidelines); electrical system (8 guidelines); water system (5 guidelines), waste disposal (2 guidelines); community (3 guidelines); and other aspects (3 guidelines).

### **Keywords**

Potential Development in Environmental Management, Day Spa Business, Active Beach, Wellness Hub of Asia

# <sup>2<sup>nd</sup></sup> International Conference on Technology Innovative Educational and Multidisciplinary Skills in the 21<sup>st</sup> Century Research Thailand, 08<sup>th</sup> - 09<sup>th</sup> January, 2022

# The Creative Work of Hea-Mon

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#### Abstract

The creative work of Hea-Mon envisioned to create works of arts based on behaviors of living creatures and environment all of which are impacted by the winter season in the northern part of Thailand. The Creative Work of Hea-Mon aimed to study the process in creating work of Hea-Mon in order to create the work of Hea-Mon. Qualitative research technique was operated by using action research processes including methods of planning, performance, observation and reflective assessment. The target group in the study consisted of 10 students from the Department of Music and Dance, School of Architecture and Fine Arts, University of Phayao. The major findings indicated as follows. 1) The Creative Work of Hea-Mon series applied the creative process through learning and integration of sciences of courses in the Department of Music and Dance in order to focus on developing performers' skills. Casting process was used to select performers with diverse aptitudes and skills to bring out their potentials so that the talented performers could execute the play that could most effectively show the full potential of the performers. 2) The creation of works consisted of the elements of the performances in order to increase aesthetic by using international and Lanna musical instruments integrated in the play. The performers wore costumes inspired by the Lanna people of warm tones matching the concept of wintery weather. The props were created to enhance the play scenario. The results of this study can be applied for teaching and learning skills development of learners and creation of works from the learning process and the integration of science of the course.

#### Keywords

Creative work, Hae-Mon, Integration, Contemporary music and dance

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Tai Lue Elephant Puppets

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#### Abstract

The research on "Tai Lue Elephant Puppets" aimed to create a performance based on Tai Lue ethnic identity for youths to promote cultural tourism villages through a qualitative research process with a focus on data-driven studies in Chiang Kham District, and Tai Lue Cultural Center (Wat Yuan). Document studies, local observations, interviews with local artists, and studies of different types of Thai puppetry were used to create the Tai Lue elephant puppetry. In this regard, workshops were organized for local youths, and patterns on puppetry and puppetry were designed with local artists to advise and guide each step. Data were analyzed using descriptive methods. After the completion of the research process, it was found that the elephants were related to the way of life of the Tai Lue people, which appeared in sculptures, fabric patterns and Lai Tung. "Tai Lue Elephant Puppet Show" was designed using mechanisms from Thai puppets, along with fabric patterns and Lai Tung decorations on the puppets to show the identity of Tai Lue ethnicity. "Tai Lue Elephant Puppet Show" was the creation and extension of art and culture from the original wisdom of the Tai Lue ethnic group. Importantly, Thai Lue youths could bring elephant puppets to perform in various festivals to welcome tourists and developed Tai Lue elephant puppets as local souvenirs.

### **Keywords**

Tai Lue, Elephant, Puppetry

# An Application of the Burra Charter Guidelines to Assess the Physical Status of Traditional Architectural Buildings in the Old Town of Thailand

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### Abstract

The preserving of cultural heritage buildings and heritage site is urgently needed to fine the guideline to prevent the loss of valuable cultural heritage resource due to the problem of building abandoned less of maintenance systematic and use of the building. The purpose of this research was to apply the BURRA charter guidelines to assess the physical status of traditional architectural buildings in the old town of Thailand to propose the guidelines for support the development of tourism place standard consisting of Lamphun, Phrae, and Nan old town. Community-based action research and qualitative research were used, and research tool uses field survey forms, photographs, record the precious stories and critical situation, cultural heritage assessment form, tourist attraction standard assessment form, and architectural simulation. Data were collected from in-depth interviews, focus group discussion and collect data from the evaluation results from architectural conservation experts. Results of applying the guidelines of the BURRA Charter showed the cultural heritage value in the three areas was at high potential of environment and architecture. However, when assessed according to physical tourist attractions standards, it found that the building physical and physical environmental standard were assessed as medium to low. As the result, it needed to be developed to have the standard of tourist attraction especially the tourism basic facilities for provide services especially for seniors and handicapped tourism in most urgently. And the potential development should be harmoniously with the development guidelines to the historical tourist attraction that requires both strategic planning and tourism development.

### **Keywords**

BURRA Charter, Physical Status, Traditional Architectural Buildings, Old Town, Thailand

# Central Region Style Folk Performance of Angthong Province

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### Abstract

This research was qualitative research. The objectives of this study were to: 1) collect information on types and troupes of central region folk performances in Ang Thong Province, and 2) study the history and style of central region folk performances in Ang Thong Province. Documents and field data were collected for a period of not less than 20 years (until 2022) by the central region folk Performing troupes in Ang Thong Province. The tools were preliminary surveys, interview forms, and informal observations. The results showed that there were 4 types of central region folk performances in the in Ang Thong Province and there were the following performance troupes: 3 Khon Sod, 7 Likay, 1 Ram Tone, and 23 Chatree drama.

Khon Sod is a performance caused by villagers to sing and dance. It is based on various types of performances such as Nang Talung, Khon, Chatree drama, and Likay. It's a fast-paced, humorous story.

Likay originated from the recitation of praise and was introduced in Thailand by Muslims in the south. It is an entertainment that conveys the performance through singing, dancing, dialogue, and gestures that the audience can understand.

Ram Tone is a folk song performed by memorizing lyrics without written notes. The reason why it is called "Ram Tone" is because it uses the "Tone" that looks like a single-faced drum as the main instrument for rhythm.

Chatree drama is a show for entertainment and a ritual of belief in the performance of offerings to the sacred things. It features a fast-paced, playful, and humorous manner through singing and dialogue in the lyrics to increase understanding.

### Keywords

Central region folk performance, Ang Thong Province

# The Creation of Dance Movement of Foreign Characters in Thai Drama

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#### Abstract

This article aims to present the dance choreography design of foreign characters in Thai dance dramas. Documentary study, interview and observations were used for the study. This article is also constantly evolving in relation to the tastes of the creators and the audience, social relationship, academic recognition as well as the selection of new theories for interpretation to point out the principles and performance elements in the dance choreography design in the Thai dance drama.

The results showed that there are 4 principles in the design of the dance performances: 1) using the main dance moves from Thai dance, 2) Selection of main dance moves in foreign dances, 3) the combination of dance moves between Thai and foreign dances, and 4) Rethinking the moves. There are also three factors that are taken into account: 1) giving more weight to Thai dances than foreign dances, 2) creating a balance of dance postures that are related or consistent, and 3) modern storytelling. This information will be a guideline for creating dance moves of foreign characters in the Thai dance dramas.

#### **Keywords**

dance choreography design, Thai dance dramas, foreign character roles

# Comparison of the Uncertainty of Returns between SET50 index and SET50 Mutual funds with Monte Carlo model

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#### Abstract

Mutual fund is one of the most popular investments. It is suitable for investors who do not available for gathering and analyzing information. Instead, rely on fund managers investment analysis and made an investment decisions. This reduces investors' time and cost consuming in the analysis and consideration. One of the most popular mutual funds is SET 50. It is investment focusing the top fifty stocks in Thailand Stock Exchange. It is interesting that what are differences between the investors buying the top fifty stocks by themselves and invest via SET 50 mutual funds. This paper aims to 1) study the overall returns and volatility of SET 50, and SET 50 mutual funds, and 2) compare the return from SET 50 and SET 50 mutual funds by using Monte Carlo Simulation Model analyze six out of twelve SET 50 mutual funds with more than ten-year establishment were chosen in this study. The result showed that there were two SET 50 mutual funds providing higher return and having lower coefficient of variation than SET 50 index. When imitating the investment situation by using Monte Carlo Simulation Model, it was found that SET 50 Fund with lower coefficient of variation than SET 50 index.

### **Keywords**

Mutual Fund, Return, Monte Carlo

# The effect of knowledge management, market orientation and strategic flexibility on business model innovation in SMEs

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#### Abstract

In the changing business environment is increasingly competitive and unpredictable of business performance. Business model innovation are challenged to develop new business ideas in to superior performance and sustainable competitive advantage. The main purpose of this study is to test the relationship of knowledge management, market orientation, strategic flexibility and business model innovation. Data were collected from 245 SMEs in Thailand applying structural equation modeling (SEM). The results revealed that knowledge management has positive effects on market orientation, strategic flexibility and business model innovation. Market orientation has positive effects on strategic flexibility and business model innovation. Furthermore, strategic flexibility plays an important role in mediating the effects of both knowledge management and market orientation on business model innovation. The findings of the presents study may contribute to understanding how strategic flexibility effects on business model innovation in the SME sector.

#### **Keywords**

Knowledge management, Market orientation, Strategic flexibility, Business model innovation

# Ethnic Identity through Textile: The Case Study of Tai Lue of Phayao Province, Thailand and Tai Aiton of Assam, India

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#### Abstract

"Tai" refers to people who speak Tai language, and share similarity on culture and beliefs, Tais settle down in Southern China, Southeast Asia, and Northeast India. In this paper tries to study the textile of Tai Lue and Tai Aiton. Tai Textile reflects the ethnic identity among both of Tai groups through its motif and its color. This study uses participant observation and group interview for collecting the data. The study shows that both Tai groups use their dresses as the ethnic identity. Gender role plays an important role in textile activities, while the women have to know the process of weaving and men have to help in making weaving instrument. Both Tai groups still maintain the norm that women have to know how to weave that defines as a good woman. Thus, Textile is not only the tool of showing ethnic identity, but it reflects the socialization and the division of labor in the community.

### Keywords

Tai, Tai Lue, Tai Aiton, Tai Textile, Ethnic Identity

Applying Business Model Canvas (BMC) for planning marketing strategies and strategies for the customers of the consumer and consumer retail business Case Study: Kong Khong Market Business, Ban Sang Som

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#### Abstract

This article is the application of the Business Model Canvas (BMC) to 1. Marketing strategy planning to increase sales as well as solving problems such as operational results and declining sales; and 2. Customer strategic planning in the consumer and consumer retail business Case Study Saeng Som House to create awareness and satisfaction of existing and new customers It starts with an analysis of the general business conditions of the establishment. from the study of business environment data and assess the return of the past business The results were then analyzed using the Business Model Canvas (BMC) to obtain a business overview. and then to formulate a strategic plan The details of the strategic plan are as follows: Strategy 1 focuses on increasing operational results, i.e. increasing sales. The researcher has a goal of increasing sales by 50 percent and strategies 2. Focus on creating awareness. and satisfaction of existing and new customers 30 percent increase

#### Keywords

Business Model Canvas (BMC), Marketing Strategic Plan, Customer Strategic Plan and retail businesses, consumer good

# Casual Relation Analysis Influence of Innovation Affecting to the Small and Medium Enterprise in the Food Sector, Thailand

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#### Abstract

Innovations in the European union promotes industrial development of the industry and affect the GDP of 3% in 2020 and found that in Stuttgart, Germany has the highest R&D development in Europe at 2.34 percent (Eurostat, 2021). Therefore, the research objective is to study the causal influence of innovation on the operations of small and medium-sized businesses in food sector.

This research is quantitative research by using a questionnaire as a research tool collected from a sample of 400 small and medium-sized business entrepreneurs in the food industry in Bangkok and its vicinity. The results of the quality examination of the questionnaire in terms of content validity from 5 experts found that the consistency value is between 0.57 - 1.00. The researcher analyzed data by structural equation modeling.

The results of the causal influence analysis revealed that organizational innovation was related to marketing innovation (t=2.04) and was related to internal variables in innovation capability (t=6.63). The correlation with marketing innovation (t=4.00) and correlation with competitive advantage (t=3.24) are new findings of this research. Ultimately, product innovation is related to marketing innovation (t=6.41).

The results of the fit index assessment showed that the chi-square statistic ( $\chi 2$ ) was 516.65, the degree of freedom (df.) was 476, and the relative chi-square value ( $\chi 2$ /df.) was 1.08, the goodness of fit index (GFI.) was 0.99, and the root mean square error of approximation (RMSEA.) is equal to 0.045. Researcher concluded that the conceptual framework is appropriate and consistent.

Suggestions for developing guidelines for creating marketing innovations such as promoting marketing through social media new marketing promotion, including the creation of more innovative products. Small and medium-sized enterprises in the food sector can apply their findings by developing innovative food production to be economical savings. Reduce costs, stored for a long time. Moreover, food must be developed to suit the aging society.

# Keywords

Marketing Innovation, Small and Medium Enterprise, Structural Equation Modeling

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### Effective Transformation via ICT Tools

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#### Abstract

The pandemic situation declared by World Health Organization challenged humans to learn. Education system is one among the systems which has been forced to apply and adapt the changes overnight. Moving from traditional classrooms to online classrooms was very challenging for educators as well as learners. The article provides a quantitative approach for online lectures with Visuals, Instructional strategy and Presentation (VIP) in the time of crisis and the suggestions to deal with the challenges allied with online learning. In this article, we report the adaption and judgement of students regarding different format of exercises, and how effectively they adjudged them for assessment and evaluation of learning. The engagement of students during the lectures is also studied via behavior analysis to validate the VIP analysis.

#### Keywords

Assessment, Evaluation, Engagement, Online learning

## The Design of involvement innovation by using the community base through activities based learning. A Case Study of Ban La Ha Farmer School, Waeng District, Narathiwat Province

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#### Abstract

The objective of this study is to design innovation involvement in using the community as a base through learning base activities. This study is qualitative research by using a semi-structured interview form and group discussion as a tool as long as participant observation. The sample are 3 farmers as the board of Ban Laha School, 2 scholars and 10 people of youth.

The result found that this study is a social innovation that explains the process of youth participation which are brainstorming, planning, commenting, and joining in activities. Moreover, it is an open space and opportunity for youth to join in the practice by using the community as a base which is the learning base through Farmer School's activities. There are three steps in the process: 1) preparation and readiness stage, 2) experimental and feasibility stage, and 3) implementation stage. Therefore, the process results in youth getting to know better about the community. Also, they are interested and aware of farming. Additionally, it builds confidence in youth as well.

#### Keywords

innovation, participation, the community base, farmer school

## How Vietnam Response to the United States "Nonmarket economy" Barrier in Trade cooperation?

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#### Abstract

Over the past time, the bilateral relationship between Vietnam and the United States has continued to reach strong development in various fields. In the last 5 years, Vietnam's export turnover to the US has increased by 230%, while exports from the US to Vietnam have also grown by more than 175%. The United States has become Vietnam's largest export market, while Vietnam has become the 10th largest trading partner of the United States. The year 2020 is the first year that the total trade turnover between the two countries surpasses the milestone of 90 billion USD (reaching 90.8 billion USD) and is aiming for 100 billion USD in 2021. However, there are still several obstacles the trade development between the two countries, in which the "non market economy" provision in the US anti-dumping regulation makes Vietnam'export difficult to anti-dumping investigations from the US. The status of the "nonmarket economy" that the United States is currently applying to Vietnam's exports has become an invisible trade barrier, causing adverse effects for Vietnamese exporters in the anti-dumping lawsuits. This article aims to analyze the non-market economy status in US anti-dumping legislation; assess the impact of this regulation on Vietnam's exports to the US market. By using data from the bilateral trade between Vietnam and the US for years, the article points out that the "non market economy" notion caused damage to Vietnam in anti-dumping lawsuits with the United States, and it affected the fairness of international trade.

#### **Keywords**

Non-market economy; U.S. anti-dumping; Vietnam; trade cooperation; response.

### Machines and Mechanisms Subject, A Key Subject for Electrical, Electronic and Automatics Engineers

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#### Abstract

This article analyzes which are the interests of students of the degree in electrical, electronic, automatics engineering. This subject: Machines and Mechanisms, apparently, strongly related with mechanics do not match with the interests of these type of studies, however the electrical vehicle, mechatronics or robotics, strong linked with these type of engineering studies, can give a new approach to Machines and Mechanisms subjects which are necessary to be adapted to the new demands of the students and gives an effort to be more attractive and offer contents of interest for this grades, and at the same time contributing and giving basic knowledge to give an approach to mechanics: Machines and Mechanisms to these engineers. On the other hand the article gives a model of studies plan, relating themes, practices and other aspects that may develop this subject.

# Gender as a factor of entrepreneurship in university students

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#### Abstract

Understanding which elements explain the intention to become an entrepreneur helps to propose extracurricular activities by the university and to encourage the creation of companies. This study seeks to analyze the influence of gender on the factors that explain the intention of entrepreneurship in undergraduate students of a public university. The research responds to the quantitative approach, of explanatory level, for data collection a questionnaire "Intention to undertake" based on the Likert scale was applied and through the Google forms 619 students were surveyed. A multiple regression model was used for the analysis, using RStudio and SPSS 22.0. The results show that 53% of students identify an entrepreneurship in their family environment; furthermore, upon graduation, 41% aspire to a job in a private company, and 35% to develop an entrepreneurship. According to the multiple regression model for entrepreneurial intention, in both sexes, personal factors (desire for independence) stand out; in women, the need for fulfillment prevails, while in men, the capacity for communication and persuasion. And in the contextual factors, the following were identified as significant: the capacity for innovation and political and economic factors.

#### **Keywords**

Gender, entrepreneurship, university, personal factors, contextual factors

### A proposed model of a future university in the era of the transformative society: from why to how

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#### Abstract

This paper is an attempt to circumscribe briefly the evolution and the revolution of the Global Society in which we live (usually called the Transformative Society) that embedded a huge change in technologies, digitalization, and knowledge-based economy. We need to develop future oriented curricula for "a new university paradigm" that adjust dynamically with the needs of the society and the employers to make the students straightforwardly ready from an output of the new model of university to a swift productive input for the employers. This will help the economy to be more competitive and improves the wellbeing of the Citizens in terms of health and better quality of life. While a traditional University sells degrees, the New Model of University we are offering sells skills for students and prospective employees who want to be life learners equipped with the cutting edge technologies and knowhow. We will use coop programs, in-field learning, and international internships and worldwide student exchange through a wealth of network.

#### **Keywords**

Transformative Society; Traditional University; Future University; New Teaching Curricula; Sustainability, competency-based teaching; Soft skills, Coop-programs; In-field learning; Cross-Culture tolerance; Interdisciplinary curricula and research

## Visualizing Teacher's Opinion on the Application of Project-Based Learning

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#### Abstract

Teachers are the most important actors in the educational process. They are the main persons to conduct and orchestrate the course. Therefore, understanding their point of view of the teacher is important. Project-Based Learning (PBL) has been well-recognized for its benefits contributed to both teachers and students. It is one of the most frequently used teaching pedagogies. This paper presents the exploration of the teachers' opinions on the application of PBL. The data was collected by using a semi-structured interview. The data were analyzed by using the Epistemic Network Analysis (ENA) to portray the differences in teachers' points of view on the application of the PBL. ENA is one of the data mining techniques that quantifies the coded conversation and constructs them into a network. Therefore, the relationship between identified educational elements can be visualized and observed. The results showed the common and different views from teachers who specialized in different subjects and where the school were located. That is, teachers who teach the school located in the urban area tends to focus more on how PBL changes the teaching approach while teachers who teach in a school located in rural area focused on the students' excitement and performance.

### The Analysis on the Lexicalization Patterns of Motion Verbs in Chaoshan Dialect

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#### Abstract

The motion verbs: 走 tsau2 'run' and 行 kian5 'walk' in Chaoshan dialect were analyzed and compared to Ancient Chinese and Modern Chinese in this research. We used Leonard Talmy's lexicalization patterns to examine eight path verbs that collocate with this set of motion verbs respectively. The analysis shows that the verbs in Chaoshan dialect, 走 tsau2 'run' and 行 kian5 'walk', are semantically similar to Ancient Chinese but syntactically more inclined to Modern Chinese. It can be concluded that the semantics of Chaoshan dialect preserves ancient meanings well, while the syntax doesn't keep the structure of Ancient Chinese anymore. Whereas, the syntax of Chaoshan dialect is evolving in the direction of Modern Chinese.

#### **Keywords**

Applied Linguistic, Chaoshan Dialect, Lexicalization Patterns, Motion verbs.

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## A Pilot Study of Serious Simulation Games in Decision-Making Lectures for Graduate Business Students. An Integrated Approach for Active Lectures in an Online Learning Environment

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#### Abstract

Business education is traditionally theoretical, as it is easier to teach theories than apply them in the classroom. But it is the actual application in practice that will make a difference to the students and their employers. With advancing digitization, simulation-based learning has become more popular and we expect this trend to continue as the COVID-19 pandemic facilitates digitalization. Though there are various business simulations, there is no de facto standard that is widely used. Such simulations are also specific when it comes to the contents that they convey, such that teachers might find them not applicable to their classes. We created a new simulation game with a limited scope to apply decision-making skills in a digital business management and applied it in a classroom. Our results show that the students in the class saw the simulation as highly beneficial, including the transfer of theory into practice, higher student motivation and participation, as well as a higher degree of teamwork during the class. As such, the benefits are like those of existing simulations. However, the simulation we created is specific to the class setting and easy to learn. Due to its simplicity, it could be tested in the class with limited time investment. The main contribution is to demonstrate how business education can be supported with focused and uncomplicated simulations while achieving the benefits of simulation-based learning.

#### Keywords

Classroom technology; simulation game; student learning; experiential learning, games; online learning

### The Innovation of Human Resource Development in the Hospitality Business

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Ninusra Mintrasak, Yala Rajbhat University
Suppamas Rattanapipat, Yala Rajbhat University

#### Abstract

The objective of this research are 1 to study the innovations which used in human resources development of the hospitality business 2) to know the result of innovation using in hospitality business 3) to present innovative approaches to human resource development in the hospitality business. It is a mixed method research which use an in-dept interview and questionnaire as a tool with 35 sample in Pattani hospitality business. The results showed that the hospitality business is an organization that focuses on applying innovation to human resource management from the recruitment and selection process, training and development, remuneration and employee relation. The implementation of innovation in human resource management in the picture is the most integrated ( $x^{-1}$ = 4.27) by applying innovation to human resource management. Recruitment and selection is at the highest level (x = 4.52). The approaches to enhanc human resource development innovation in the service business in the field of recruitment and selection should be increased by reporting to collect rate statistics which employee in and out of staff accrual rate to be recruited for replacement or additional staff. Training and development should be added to online courses such as E-learning and focus on learner-based training. Measurements are made by assessment after training, with competency measurements in compensation and employee relations should be increased in regards to the use of performance evaluation programs or the number of days that are absent, leave late for accuracy and clarity in salary adjustment assessment.

#### Keywords

Innovation, Human Resource Development, Hospitality Business

### A Chatbot Escort for Pupils using Python Machine Learning Libraries

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#### Abstract

The purpose of this study is to determine the challenges encountered by the Social Studies teachers in teaching Contemporary Issues, implemented in 2013, as the latest curricular content in the Philippines. The literature and studies were concentrated on the foreign countries' concerns they experienced upon implementing the subject. Utilizing a qualitative case study to uncover participants' perceptions and supplemented by a video-recorded standardized open-ended interview, this was undertaken on four (4) Social Studies teachers currently teaching Grade 10 Contemporary Issues in San Jose National High School. Gathered data were coded manually and supplemented by Colaizzi's (1978) phenomenological method in transcript analysis and categorizing the interview results.

This study revealed the challenges they encountered on the following; (1) Teachers' Perceptions in teaching the subject (2) Utilization of approaches, and (3) Preparation and Utilization of Learning Resource Materials. Conclusions were drawn as teachers lack skills in teaching sensitive content, inefficiency in using ICT, and teaching the subject was affected by class size, diversity, poor internet connection, outdated, delayed, and limited resources.

Despite these challenges, teachers' initiative and efforts to teach the topic and prepare and utilize learning resources should be acknowledged. Contemporary Issuesneeds further development and collective actions as strengthening the use of Learning Action Cell (LAC), training, seminars, and providing of LRMs from school administrators and other stakeholders to attain its long-term goals for the learners and community efficiently and effectively.

### Higher Education Professors in Blended Learning Modality of Teaching: The Silent Tears of Heroes Towards Resiliency

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#### Abstract

With the amplified effects of the pandemic, higher academic institutions are forced to embrace blended learning as a modality of teaching. Blended learning has been a modality of teaching for the past decades to address urgency in the educational sector gaining numerous literature that exemplified its effects to the students' academic performance, however, there's no literature that examined the lived experiences of the professors in this modality of teaching. Thus, this study investigated and explicated the lived experiences of higher education professors in blended learning modality of teaching. With 8 participants, that data was treated utilizing the Interpretative Phenomenological Analysis (IPA) anchored from the Modified Van Kaam Approach popularized by Moustakas. Four emerging core themes were generated such as (Theme 1) pedagogical challenges in delivering quality education, (Theme 2) technical Struggles are real, (Theme 3) potential Health Risk is at stake, and (Theme 4) resiliency is the key. With these emerging core themes, it is clear that although most of the professors are struggling pedagogically and technologically with their health at risk, there are some of them who thrive and gradually dance with the tune of technology. It is a recommended that sufficient skill training such as webinars and web talks in manipulating technological tools and online platform may be provided to all higher education professors.

#### **Keywords**

Blended Learning, Pandemic, Pedagogical challenges, Professors, Technological struggles

### Study of Properties of Dolomite Powder Used In Concrete: A Review

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#### Abstract

Several pozzolanic materials are used in construction industries nowadays. Fly ash, silica fume, metakaolin, limestone etc. are used in concrete to improve the strength. Besides, limestones are also used to produce cement and cement manufacturer industries consume more amount of limestone. To overcome the drastic uses of limestone in cement manufacturing, the best option is dolomite powder. Dolomite powder also improves the strength and workability of the concrete. The addition of dolomite powder in concrete with fly ash affects the setting time of the concrete mixture. Dolomite particles improve the early hydration process and form a dense microstructure in the concrete. The calcined dolomite powder is more effective than the normal white dolomite powder. The calcined dolomite powder was obtained by giving the temperature of 800 degrees Celsius. Dolomite microparticles contain massive crystals and show the similar morphology to calcite. The literature study shows dolomite powder can be used as pozzolanic material and also as the main content in cement manufacturing. This review paper has discussed the use of dolomite powder in concrete and their effects. Moreover, the application of dolomite and its origin also has been discussed.

#### Keywords

White Dolomite powder, calcined dolomite powder, mechanical properties and microstructural characterization.

### Teachers' Competence in Integrating Technology in Teaching and Learning: A Mixed Methods Study

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#### Abstract

The global pandemic has undeniably brought difficulties to different sectors, including educational institutions that are compelled to shift from traditional face-to-face classroom modalities to flexible, blended, full-online, or distance learning. This sequential explanatory mixed-method study aimed to explore the competence and experiences with technology integration among 43 teachers and 134 students in Gov. Alfonso D. Tan College, Tangub City, Misamis Occidental, Philippines. This study is anchored on the Triple E Framework of Liz Kolb in 2011. A framework for educators to measure how well technology tools integrated into lessons in terms of three Es: engagement, enhancement, and extension of learning goals. The quantitative data gathered using survey questionnaire revealed that the teachers' overall level of technology competence is excellent as perceived by the teachers and good as perceived by the students. There was a significant difference in the perception of the teachers and the students. The qualitative data were gathered through module analysis, classroom observation, and indepth interviews with the teachers. Using Braun and Clarke thematic analysis, 9 themes emerged for the teachers' technology integration in the time of the pandemic, namely: making classes creative and engaging, facilitating distance teaching and learning, providing opportunity to explore and learn, allowing access from vast and unlimited resources, knowing how to navigate the LMS and other instructional tools, grappling with internet and data connection, collaborating with one another, considering students' skills and abilities, and adapting with the new modalities in teaching. It can be concluded that the teachers have integrated technology in their teaching and learning in this time of the pandemic. It is evident in their modules, online classes, and students' perception, that they have utilized various technology to engage, enhance, and extend their learning goals. It is recommended that the administrators should conduct various trainings to improve the technology integration and perform revisitation of the learning modules to further align the learning outcomes with the learning experiences.

#### **Keywords**

engagement, enhancement, extension, learning goals, technology integration, mixed-methods study

### Academic Predictors of the Licensure Examination for Teachers' Performance of Qsu's Bsed Graduates

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#### Abstract

The academe assures the effectiveness of their educational programs through analyzing determinants of Education Graduates' Performance in Licensure Examination for Teachers. One of the pressing concerns of the College of Teacher Education of the Quirino State University is the passing percentage of its graduates in the licensure examination for teachers; thus, the researchers made this study to determine if the academic grades of the students are a predictor of their performance in the board examination. With this study, findings revealed that the correlation between the overall rating in LET and General Education indicates high correlation, while the correlation between Professional Education and Specialization indicate moderate correlation and slightly high correlation respectively, thus, there is a linear relationship between the three academic subjects and the overall rating of LET. Results have shown that he overall academic average correlates slightly high to the LET overall rating indicating a linear relationship. This means that the better the performance of the graduates in the college academic subjects, the better are their performance in the overall rating of LET. The study also revealed that only the General Education average statistically significantly contributed to the regression model. However, the Overall Academic Average was found to be significant in predicting the variance in LET performance.

#### **Keywords**

Academic Predictor of LET, LET Performance, Academic Performance, Multiple Regression Analysis

# Classification of learning object resources using clustering algorithms in E-learning system

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#### Abstract

Active classification of learning objects is one of the most important tasks in the E-learning research area. This paper presents a generic approach for learning object Classification using Classification methods based on clustering algorithms. This approach identifies each feature in the learning object resource according to a particular form of similarity based on label correlation. This article suggests a new system that enables the classification of learning objects and provides adapted support to make the most suitable choice among many alternatives. In general, classification or categorization is usually a multi-label learning algorithm in which each object is assigned to a subset of categories. Current classification algorithms generate only the frequency classes according to specific rules, which classify learning objects by topic. The proposed algorithm has been tested on a real-world application dataset related to the DataShop@CMU a data analysis service for the learning science community. The experimental results show that our algorithm outperforms the traditional approach and produces good results.

#### Keywords

Learning Object Resources, Learning Object Categorization, E-learning System, Clustering Algorithms.

### Automatic Number Plate Recognition System (ANPR)

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#### Abstract

Every country's traffic management and car owner identification has become a core concern. It can be tough to detect a car owner who breaks traffic laws and drives too quickly at times. As a result, it is impossible to apprehend and penalise such individuals since traffic officers may be unable to extract a car number from a moving vehicle due to the vehicle's speed. As a result, one of the answers to this challenge is to design an Automatic Number Plate Recognition (ANPR) system. There are a plethora of ANPR systems on the market today. These systems use many approaches, but it is still a difficult task because factors like as vehicle speed, non-uniform vehicle number plates, vehicle number language, and lighting conditions can all have a significant impact on the overall identification rate. The majority of systems operate within these constraints. In this paper, we would look upon

#### **Keywords**

Automatic Number Plate Recognition (ANPR), Artificial Neural Network (ANN), Character Segmentation Image Segmentation, Number Plate, Optical Character Recognition

## Water Billing System with Business Intelligence and Data Analytics

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#### Abstract

Water resource management involves the day to day operations such as computing water consumptions and collecting payments of water consumers. It also includes the activity of planning, developing, distributing, and managing the optimum use of water resources. Two of the major problems in water resource management are the lack of an automated system for collection and the distribution of water facilities. This study is about the development of a Water Billing System with Business Intelligence and Data Analytics for Water Resource Management using Linear Regression a web-based application that implements business intelligence and linear regression. In the development, the researchers used the agile model to systematically create the system. The system is evaluated by IT- Experts to meet the software Industry standards. The developed system can generate a dashboard through the implementation of business intelligence particularly data aggregation that can produce different graphs in terms of water consumption, consumer distribution, revenue collections, and collectibles. The developed system can generate data analytics through the implementation of a Linear Regression Algorithm that can also produce forecasts and patterns in terms of water consumption, revenue collections, and collectibles based on previous data trends. As a result, there is a significant increase in collections based on the last four months' implementation of the system. Using the ISO-9126 as an evaluation instrument the system has passed the industry standard because the evaluation results show only two verbal interpretations; "Highly" and "Very Acceptable".

#### Keywords

Business Intelligence, Water Resource Management, Linear Regression, Water System, Information System

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### **Review On Big Data Techniques**

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#### Abstract

Big Data is defined as a huge amount of data that requires new technology and architecture to extract value from it through data entry and analysis. Data is growing at a rapid rate which makes it difficult to manipulate using traditional techniques because volume increases faster compared to computer resources. As Big Data is the latest technology to come, it can bring significant benefits to business organizations. Therefore, it is necessary that the various challenges and problems associated with introducing and adapting these technologies are brought to light.

This paper introduces Big Data technology and its importance to the modern world. Various challenges and problems in adapting and adopting Big Data technology, its tools are also discussed in detail and the problems that Hadoop is facing.

### Deepfake Detection in Picture

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#### Abstract

This paper introduces how to automatically and effectively detect facial expressions in videos, and focuses mainly on the two most recent hyper-realistic counterfeit videos: Deepfake and Face2Face. Traditional forensic methods of photography are generally unsuitable for videos due to the very degrading pressure of the data. Therefore, this paper follows an in-depth learning approach and introduces two networks, both of which have a low number of layers to focus on mesoscopic image structures. We explore those fast networks in both the existing data set and the data we have built into online videos. Tests show a very successful acquisition rate of more than 98% for Deepfake and 95% for Face2Face

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