



ICIC 2023

# IMAGINE THE FUTURE

International Conference at the Tunghai  
University International College

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June 15<sup>th</sup> 2023



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# PROGRAM AT A GLANCE

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09.00	Welcome Remarks
09.20	Keynote Speech (Dr. Randall Nadeau, Fulbright Taiwan)
10.10	Coffee Break
10.30	Oral Presentation Session 1
12.00	Lunch Break
13.00	Oral Presentation Session 2
14.30	High School Poster Contest / University Poster Contest
16.30	Awards, Recognitions, and Photos
17.10	End of Conference

# PROGRAM IN DETAIL

## KEYNOTE SPEECH (09.00-09.20)

(Dr. Randall Nadeau, Executive Director of Fulbright Taiwan)

## ORAL PRESENTATION SESSION 1 (10.30-12.00)

### Session 1A



#### 1A-1 Applications of photogrammetry and videogrammetry

**Jack Leifer, Associate Professor**

Department of Engineering Science, Trinity University

#### 1A-2 A pilot analysis of Kahoot! reading comprehension data in a freshman management course

**Kseniia Dubinina**

International Business Administration Program, Tunghai University

**Carol Troy, Associate Professor**

International Business Administration Program, Tunghai University

#### 1A-3 Research trends on ChatGPT: A momentary fad or the iceberg's tip?

**Hen, Kai Wah, Assistant Professor**

International Business Administration Program, Tunghai University

### Session 1B



#### 1B-1 Indirect communication as a teaching tool in higher education

**Melynie Tooley, Instructor**

Department of Foreign Language and Literature, National Chi Nan University

#### 1B-2 Secret societies for open sexual activities in Taiwan

**Yu-Ching Wei, National Taiwan Normal University**

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**1B-3 Performing culture through reacting to the past games**

**Sherry Mou, Associate Professor**

Department of Chinese Literature and Language, DePauw University

**ORAL PRESENTATION SESSIONS 2 (13.00-14.30)**

**Session 2A**



**2A-1 Enhancement of a decentralized wastewater system by applying a bio-rower – A project for improving our environmental footprint**

**Klaus Doelle, Associate Professor**

Department of Paper and Bioprocess Engineering, SUNY College of Environmental Science and Engineering

**2A-2 Application of emerging recycled fiber materials and bio based additives to enhance paper board properties – A possibility for a greener paper industry**

**Klaus Doelle, Associate Professor**

Department of Paper and Bioprocess Engineering, SUNY College of Environmental Science and Engineering

**2A-3 Electric moped sharing - Traveler intentions and behavior change**

**Timmo Eccarius, Assistant Professor**

Department of Transportation and Logistics Management, National Chiao Tung University

**Session 2B**



**2B-1 Eileen Chang now and then: 20th-Century literary biography for 21st-Century readers**

**Karen S. Kingsbury, Professor**

Department of Women's and Gender Studies, Chatham University

**2B-2 Philosophical influences on the conception of autonomy in the writings of Stephen Greenblatt**  
**Phil Sced, Project Lecturer**  
Department of Cultural Creative Industry for International Professionals program, Da-Yeh University

**2B-3 Biopolitics and gender in three seventeenth-century Chinese homoerotic stories**  
**Ying-Hsiu Lu, Assistant Professor**  
International Business Administration Program, Tunghai University

**HIGH SCHOOL POSTER/  
UNIVERSITY POSTER CONTEST (14.30-16.30)**

**Social Issues**

- S-1 Using nature journaling to create a comic on water striders (*Aquarius elongatus*) for popular sustainability education (Senior project)**  
**Sandy Lee and Timo Eccarius (Assistant Professor), Tunghai University International College**
- S-2 The impact of nutrition on workout performance, muscle growth, and fat accumulation**  
**Linus Chen, Edwin Yen and Jeanne Tsou, Tunghai University International College**
- S-3 Harm or reduce**  
**Sandy and Lanny, Taichung Lizen High School**
- S-4 Plastic pollution in the ocean: Implications for marine ecosystems and human health**  
**Si-Kei (Cherry) Chiu, International Bilingual School at Tainan-Science-Park (IBST)**
- S-5 Marine pollution vs. marine life**  
**Yi Sin Lai, Kaohsiung Municipal Gushan High School**
- S-6 The world needs water**  
**Patricia Ivana Simanggang and Chelsea Gabriela Susanto, Tunghai University International College**
- S-7 Reduce Recycle Redesign -- Consumption behavior in fast fashion**  
**Leo Chen, Jason Su, Symbat Togombaeva and Clara Nunn, Tunghai University International College**
- S-8 Can electric cars save the planet?**  
**Catherine Lin and Nai Yee Shyen, Tunghai University International College**
- S-9 Evaluating, assessing, and improving walkability in Taichung**  
**Christopher Norris Silva, University of Pittsburgh**
- S-10 Micromobility at Tunghai University**  
**Devin Lewis, SUNY College of Environmental Science and Forestry; Mira Sherif, Tunghai University International College**
- S-11 Non-consensual sex - Morally good?**  
**Veronica Lin and Ayla Nguyen, Tunghai University International College**

- S-12 Moral issues of robot prostitution**  
Benjamin Harter and Liberty Mata, Trinity University
- S-13 Physical cheating vs. emotional cheating**  
William Daniel, Alexandria Fermin and Darianne Cabral, Tunghai University International College
- S-14 Morally problematic fetishization of Korean men among Korean media fans**  
Sofia Stankevich and Lisa Gavrina, Tunghai University International College
- S-15 Are online beauties really a beauty?**  
Jess Chen, Minnie Chang, Vanessa Chen and Erin Lai, Tunghai University International College
- S-16 What percentage of the population attends university after graduating from high school immediately in the United States?**  
Jordan George, Lyra Feng and Winn Liu, Tunghai University International College

## International Perspectives

- I-1 Resume 101: Differences between the United States and Taiwan**  
Nyja Quash, Davidson College
- I-2 Business culture**  
Vonny Cristina Tan and Tereza Balounova, Tunghai University International College
- I-3 Foreign English teachers in Taiwan: Comparing trends in the employment websites**  
Ian Smith, Davidson College; Doris Shih and Ivy Kuo, Tunghai University International College
- I-4 Cram school culture clash: Complaints of Western teachers**  
Jordan George, Jessica Tai and Anita Hou, Tunghai University International College
- I-5 Taiwan's evolving regulations on expat K-12 teacher qualifications**  
Eddie Aliu, Millikin University; Veronica Chiao and Benson Shen, Tunghai University International College
- I-6 Retrospective feedback of Taiwan's university students concerning former Western cram school English teachers**  
Michael Sanchez, Trinity University; Penny Lu and Yirong Li, Tunghai University International College
- I-7 Translating Jay Chou's 晴天(Sunny Day)**  
Riley Hesbacher, University of Pittsburgh; Jocelyn Luo, Suggie Yan and Anna Li, Tunghai University International College
- I-8 Translation of Eileen Chang's short story—Lust, Caution (色, 戒)**  
Henry Lukens, University of Pittsburgh; Roman Koval, Chrysant Hasim and Venus Yeh, Tunghai University International College

- I-9 The Translation and Transformation of Hǔ Gū Pó (虎姑婆)**  
Zoe Ren, Davidson College; Betty Lin and Sandy Chou, Tunghai University International College
- I-10 Translation of 童话 by Michael Wong**  
Lily Cusack, University of Pittsburgh; Clarence Eleazer Winerungan, Jack Hsieh and Sean Lin, Tunghai University International College
- I-11 A practice in the translation of Taiwanese menus**  
Nyja Quash, Davidson College; Ian Smith, University of Pittsburgh; and Irene Lin, Tunghai University International College
- I-12 Period piece -- Success**  
Rebecca Potts and Mulder Liu, Tunghai University International College
- I-13 The complexity and impact of betrayal in two of Eileen Chang's movies**  
Jessica Tai, Tunghai University International College
- I-14 Masks of comprehension**  
Cecilia Rike, University of Pittsburgh
- I-15 Pretending, acting, and behaving, Which one is the truth?**  
Keshia Syalommita Yaqub, Tunghai University International College
- I-16 Characters from movies**  
Veronica Lin, Tunghai University International College
- I-17 The Art of Taichi: An Introduction to Ju Ming and his Taichi Statues**  
Morgan Buckner, Trinity College; Benson Shen, Doris Shih and Jenny Yang, Tunghai University International College
- I-18 Fashion in "Lust, Caution" and "Love after Love"**  
Miffy Lin, Tunghai University International College
- I-19 Differences in resumes in Taiwan vs. America**  
Arianna Surma, College of St. Benedict - St. John's University
- I-20 Grievances of live-in Indonesian domestic workers in Taiwan**  
Ezra Ruben, Jeremy Hosea, and Elisa Chen, Tunghai University International College
- I-21 Are You African?**  
Nzigiyimpa Mutoni Don Divin, Kelvin Valentine Somi and Lilian Hong, Chang Jung Christian University
- I-22 The art of Taiwanese tea making**  
Samantha Cauvin and Dylan Clasby, Trinity University; Charles Buss, Saint John's University; Tina Lo and Yevvon Yi-Chi Chang (Associate Professor), Tunghai University International College
- I-23 A bird's eye view of coffee and tea across the global**  
Eric Huang, Tunghai University International College

## Academic Topics

- A-1 Transparent wood as a potential construction material: Exploring opportunities of indoor air purification and building integrated photovoltaics (Senior project)**  
Christiane Kalamelu and Mrinalini Mishra (Assistant Professor), Tunghai University International College
- A-2 College students' intention to use eco-cup rental machines: A study based on unified theory of acceptance and use of technology model**  
Yue-Ming (Heather) Lin and Mrinalini Mishra (Assistant Professor), Tunghai University International College
- A-3 Synthesizing molybdenum diselenide (MoSe<sub>2</sub>) for supercapacitor application**  
Janeth Carolina Ramirez Pineda, George Krizza Kiongson and Mrinalini Mishra (Assistant Professor), Tunghai University International College; Jeng-Yu Lin, Tunghai University
- A-4 Sustainable cellulose-based supercapacitor using Nitrogen-doped graphene obtained from waste Polyethylene terephthalate (PET) bottles (Senior project)**  
Ling-Chi and Muhammad Omar Shaikh (Assistant Professor), Tunghai University International College
- A-5 The effect on indoor PM<sub>2.5</sub> concentration reducing by ten species of plants in short term period (Senior project)**  
Alan Jiang and Omar Shaikh (Assistant Professor), Tunghai University International College
- A-6 Elongation growth by red and blue light, independent of photoperiod: A study on broccoli microgreens (Senior project)**  
Weiwei (Stephen) Shih and Omar Muhammad Shaikh (Assistant Professor), Tunghai University International College
- A-7 Temperature and thermal reduction efficiency of green roof application at the International College in Tunghai University (Senior project)**  
Peter Shen and Muhammad Omar Shaikh (Assistant Professor), Tunghai University International College
- A-8 The ability of tilapia (*oreochromis niloticus*) to control chlorella (*chlorella vulgaris*) concentration in water with different trophic states (Senior project)**  
Kirastar Zhang and Alexandra Drizo (Professor), Tunghai University International College
- A-9 Impacts of organic matter addition on growth rate of lettuce (*Lactuca Sativa*) in aquaponics systems**  
Garim Jones and Alexandra Drizo (Professor), Tunghai University International College
- A-10 Green fence**  
Anne Cheng and Mrinalini Mishra (Assistant Professor), Tunghai University International College
- A-11 The utilization of algae as an alternative source of biodiesel**  
Kevin Amadeus Wijaya and Alexandra Drizo (Professor), Tunghai University International College

- A-12 Textile recycling : Chemically recycling cotton-based waste textiles conversion into glucose by acid hydrolysis (Senior project)**  
Yen Ting (Melinda) Chen and Muhammad Omar Shaikh (Assistant Professor), Tunghai University International College
- A-13 Consumer behavior towards sustainability within fashion (Senior project)**  
Yu Hsiang (Alvin) Huang and Alexandra Drizo (Professor), Tunghai University International College
- A-14 Title Phosphorus removal in domestic wastewater by Water Hyacinth (Pontederia Crassipe)**  
Yusan Tong and Alexandra Drizo (Professor), Tunghai University International College
- A-15 The impacts of environmental, social, and governance (ESG) performance indicators on small and medium businesses in Taiwan (Senior project)**  
Adam Chen and Aleksandra Drizo (Professor), Tunghai University International College
- A-16 Assesment of student attitude, behaviors, and awareness toward energy-saving practices in Taiwan**  
Bright Hubert Mbuya, Elvis Kilasara Frank, Gretta Dushime and Leilla Ishimwe, Chang Jung Christian University
- A-17 Luxurious vs. economical products & discount promotions**  
Eric Huang, Penny Lu, Haley Chen, and Yevvon Chang (Associate Professor), Tunghai University International College
- A-18 Lithium ion vs. vanadium redox batteries (applied in an electric grid)**  
Anthony Chow, Northeastern University
- A-19 Application of recycled materials for sustainable hand sheet paper making**  
Ryan Lee, Nadia Chang, Kezia Gracia, and Zilma Daniel, Tunghai University International College
- A-20 The application of classical approach in the Big 4 accounting firms- How they attract, retain and motivate employee**  
Ooi Wei Gen, Tunghai University International College
- A-21 From waste to paper: Specialty paper with sustainable materials**  
Stefanie Yang, Jessica Tai, Wendy Wu and Jorge Estevez, Tunghai University International College
- A-22 A credit for sustainable future, Carbon credits**  
Doris Shih, Ivy Kuo, Anita Su, Nai Yee Shyen, and Yevvon Chang (Associate Professor), Tunghai University International College
- A-23 The water-saving model of toilet flushing pressurization**  
Eason, Taoyuan Municipal Nei-Li Senior High School
- A-24 Investigation of sustainability awareness among students in Taiwan (Senior project)**  
Ray Huang and Alexandra Drizo (Professor), Tunghai University International College

## Multimedia Videos

**V-1 Jay Chou**

**Scott Chien and Thomas Lin, Tunghai University International College**

**V-2 The rise of Mayday**

**Serge Chao and Linus Chen, Tunghai University International College**

**V-3 Teresa Teng**

**Callysta Seraphine and Patricia Ivana Simanggang, Tunghai University International College**

**V-4 Eric Chou**

**Catherine Lin and Carin Novianty Lim**

**V-5 Swifties "The Man" recreated video**

**Dylan Clasby, Michael Sanchez and Liberty Mata, Trinity University; Tina Lo and Teresa Balounova, Tunghai University International College**

**V-6 Flowers**

**Nicole Huang, Maggie Su, Jennifer Wang, Christina Chang and Jasmine Chiu, Tunghai University International College**

**V-7 Break up with your girlfriend, I'm bored**

**Penny Lu, Fiona Fan, Sharlyn Yu, Yirong Li, Christy Lin, Angelina Chou, Tunghai University International College**

**V-8 Scars to your beautiful-Alessia Cara (cover)**

**Monica Zefanya, Marcella Benedikta, Valencia Sufanto, Vonny Cristina Tan, Anna Bai, Minnie Chang and Special Shi, Tunghai University International College**

**AWARDS, RECOGNITIONS, AND PHOTOS (16.30-17.10)**

**END OF CONFERENCE (17.10)**

# ORAL PRESENTATION 1

## ABSTRACTS

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### Oral Presentation 1A-1

#### Applications of Photogrammetry and Videogrammetry

**Jack Leifer, Associate Professor**

Department of Engineering Science, Trinity University

#### **Abstract**

The topic of my 2013 IC Minimester Class - Photogrammetry and Videogrammetry - is one that does not spark immediate recognition for most people. Yet this technique - the use of photographs to make accurate physical measurements - forms the basis for computer vision, facial recognition and autonomous vehicle/robotic navigation, all of which are increasingly prevalent. The basic concepts required for understanding of photogrammetry relate to the idea that multiple two-dimensional photographs of an object or a scene can be used to generate an accurate three-dimensional model. This is done by identifying points on each photograph that reference the same physical location on the object or scene being analyzed, and then employing mathematical transformations between 2D "local" coordinate systems defined on each photograph and the "global" 3D coordinate system that accurately depicts the object or scene.

Specific real-world applications of photogrammetry include the following: (a) Mapping the scene of a collision. In a fatal car wreck that left significant wreckage and skid marks, photogrammetry was used to map the markers left by the police officers who worked the scene, so that skidmark and impact analysis could be later performed. (b) Vehicle crush caused by a collision. Measurement of vehicle crush damage is one factor that is used to estimate speeds and impact forces associated with a car wreck. (c) Determination of Vehicle Speed. Once one realizes that videos are simply streams of photographs made in rapid succession at a fixed rate (e.g., 30 images per second), mapping changes in position of objects of interest within the view of a video camera can be used to calculate the velocity of the tracked object in a process known as videogrammetry. A simple application of videogrammetry calculates vehicle speed using the progression of lane lines, frame rate, and measurements of line length made using Google Earth.

## **Oral Presentation 1A-2**

### **A pilot analysis of Kahoot! reading comprehension data in a freshman management course**

**Kseniia Dubinina**

International Business Administration Program, Tunghai University

**Carol Troy, Assistant Professor**

International Business Administration Program, Tunghai University

#### **Abstract**

Frequent, low-stakes assessment should improve reading comprehension by sensitizing students to features of the target reading materials. The authors' long-term goal is to test this conjecture using data from weekly quizzes administered to freshman management students. To motivate the participants, we adopt the Kahoot! platform, which learners may find more appealing than paper-and-pencil exams. Each quiz includes multiple choice and true/false items based on an assigned textbook chapter. We conduct pilot analyses of quiz data collected from 40 students in Fall 2022. Rasch modeling is employed to examine the consistency and quality of the responses. Our dichotomous sample features 209 items, each with only one correct answer choice. The Rasch output revealed variability in both the proficiency level and quality of answers. While certain students demonstrated high performance, others exhibited a clear need for additional support and improvement in their understanding of the reading materials. On the whole, the performance patterns were consistent, evidence that the quiz scores plausibly measured participant ability. Exceptions were observed, in which high-performing students struggled with relatively straightforward questions, while lower-performing students successfully tackled more challenging ones. We discuss potential causes of these anomalies and propose enhancements to the quality of the Kahoot! assessments, including question formatting techniques and standards for item length and timing. Our analyses suggest that as whole-class activities, Kahoot! quizzes pose different issues from traditional exams.

New data will be collected in Fall 2023, using revised Kahoot! quizzes and improved testing procedures. The improved quizzes will include polytomous items, in which there are several correct choices. The new sample will yield evidence on how Kahoot! quizzes impact reading comprehension among management majors. The improved testing format will ensure fairness and enhance the learning experience. This study illustrates how assessment can bolster students' awareness of their own reading comprehension processes.

## Oral Presentation 1A-3

### Research trends on ChatGPT: A momentary fad or the iceberg's tip?

**Hen, Kai Wah, Assistant Professor**

International Business Administration Program, Tunghai University

#### **Abstract**

There has been a lot of discussion regarding ChatGPT's uses, features, and AI-related concerns since its introduction around the end of 2022. In less than two months after their introduction, the programs have garnered 100 million users, shattering TikTok's record. While some say that the application significantly helps researchers and individuals with their works and other daily tedious tasks, there is also worry that the Artificial Intelligence's chatbot may someday outperform human intelligence. As a result, ChatGPT is now a hot topic for debate among academics. This study aims to analyze the key research trends in ChatGPT research in terms of emerging keywords, authorships collaboration and publications by using bibliometric approach. 530 publications that were published between December 2022 and May 2023 that were related to ChatGPT in the context of article title, abstract and keywords, have been systematically extracted from Scopus databases. The citation data were re-categorized and re-coding to obtain meaningful inference and trends. The top five main research areas are medicine, social science, computer science, engineering, and nursing. The publications also involve 750 academics from 71 countries, majority of them are from the United States, the United Kingdom, India, China, and Australia. The analysis also shown robust collaborations among the researchers. It is anticipated that this field of research will continue to be one of the most popular ones to be investigated in the upcoming months as more comparable AI apps are released.

## Oral Presentation 1B-1

### Indirect communication as a teaching tool in higher education

**Melynie Tooley, Instructor**

Department of Foreign Language and Literature, National Chi Nan University

#### **Abstract**

One of the main purposes of higher education is to prepare students to apply learned knowledge in new contexts and in real-world situations. However, studies have shown that there is a disconnect between what a student learns in college and that students' ability to perform specific tasks, thus affecting a students' workforce readiness. Most students entering college have been taught to memorize facts and vocabulary, but cannot use that information in the real world. Companies in major industries report that they are unable to grow or compete because the students coming out of college are not able to apply the knowledge obtained in school with the capability to perform in the global job market. Currently, 88 percent of employers in Taiwan have reported having difficulty with finding the qualified talent they need. Managers report that 89 percent of new hires fail due to a lack of soft skills, such as team-building, critical thinking, and problem-solving skills, not to a lack of technical knowledge. Direct teaching methods, such as lecture-based instruction, are often ineffective at boosting students' capability. Soft skills appear to be learned by indirect instruction, however, indirect communication, as a teaching method is a relatively new concept in higher education. While university scholars have discussed the need for a change in teaching styles, to accommodate the new technological generation of students, none have approached the topic from the aspect of indirect communication, as a teaching method for acquiring capability. The traditional lecture and rote memorization techniques are inadequate, yet are still used in today's classrooms. The present study explores how indirect communication can be used as an innovative educational tool for teachers in moving students from textbook knowledge to developing capability that can be used in new contexts and in real-world situations.

**Keywords:** indirect communication, capability, knowledge transfer, higher education

## Oral Presentation 1B-2

### Secret Societies for Open Sexual Activities in Taiwan

Yu-Ching Wei, National Taiwan Normal University

#### Abstract

In Taiwan, where traditional societal norms and moral frameworks prevail, secret societies such as those involved in sexual activities cannot openly operate. However, in some so-called 'mainstream countries' such as the UK, France, and Germany; such sexual activities have been prevalent for centuries and have a long history.

These societies are often public secrets, with many of them initiated by the aristocratic class (Kelly, J. M. ,2004;

Rosenberg, C. E. ,1973). They represent a "lifestyle." an internal way of living that is often found through tacit recognition at various social events. These events are regarded as a form of social activity, a secretive and exciting way of socializing between high-end social classes who acknowledge and recognize one another.

Collective sexual activities can be more than just an attempt to break free from societal moral constraints. They can also have a political function that has been an extension of power and domination throughout history (Weeks. J. 2017). This political element can still be seen today in the power dynamic that occurs during polyamorous sex where roles of domination and submission come into play.

In recent years, there has been a gradual expansion of acceptance towards these activities and ideas in Taiwan and Asia due to changing attitudes towards the concept of "enjoyment culture" among the younger generation who seek to satisfy their immediate desires and bodily impulses in a legal and mutually consensual context. It could also be a more trend-oriented choice towards a "collective identity" based on social class. This paper examines the power dynamic between participants in polymorphous sex effect in Taiwan.

## Oral Presentation 1B-3

### Performing Culture through Reacting to the Past Games

**Sherry Mou, Associate Professor**

Department of Chinese Literature and Language, DePauw University

#### **Abstract**

This presentation introduces a pedagogy in teaching cultural ideas: Reacting to the Past (RTTP) games. An RTTP game is elaborately designed based on a specific historical moment. The class is transformed into that historical time and place, and the class members are all essential enactors of that historical moment. Briefly, RTTP pedagogy takes role-playing a great leap forward by asking students to research, learn, and think critically about the roles they play and to act out every step of the incident as if it were happening the very first time and, thus, could result in situations unlike what history recorded. RTTP games foster the development of important skills, including critical thinking, written and oral communication, problem-solving, and strategic mediation. Each game is also based on certain canonic works, which at once shape the core thoughts and arguments for the historical moment and provide indications of their relevance to our times. Through playing historical personages, studying related canonic works, and collaborating with other “historical characters,” students enter the psyche of that era and perform a culture that is alien to them. Through such “historical playing,” students acquire deep learning and appreciation of ideas and practices that are not only essential to its historical context but also relevant to our own times.

# ORAL PRESENTATION 2 ABSTRACTS

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## Oral Presentation 2A-1

### Enhancement of a decentralized wastewater system by applying a bio-rower - A project for improving our environmental footprint

#### **Klaus Doelle, Associate Professor**

Department of Paper and Bioprocess Engineering, SUNY College of Environmental Science and Engineering

#### **Abstract**

This presentation introduces a pedagogy in teaching cultural ideas: Reacting to the Past (RTTP) games. An RTTP game is elaborately designed based on a specific historical moment. The class is transformed into that historical time and place, and the class members are all essential enactors of that historical moment. Briefly, RTTP pedagogy takes role-playing a great leap forward by asking students to research, learn, and think critically about the roles they play and to act out every step of the incident as if it were happening the very first time and, thus, could result in situations unlike what history recorded. RTTP games foster the development of important skills, including critical thinking, written and oral communication, problem-solving, and strategic mediation. Each game is also based on certain canonic works, which at once shape the core thoughts and arguments for the historical moment and provide indications of their relevance to our times. Through playing historical personages, studying related canonic works, and collaborating with other “historical characters,” students enter the psyche of that era and perform a culture that is alien to them. Through such “historical playing,” students acquire deep learning and appreciation of ideas and practices that are not only essential to its historical context but also relevant to our own times.

## **Oral Presentation 2A-2**

### **Application of Emerging Recycled Fiber Materials and Bio Based Additives to Enhance Paper Board Properties - A Possibility for a Greener Paper Industry**

**Klaus Doelle, Associate Professor**

Department of Paper and Bioprocess Engineering, SUNY College of Environmental Science and Engineering

#### **Abstract**

This presentation introduces a pedagogy in teaching cultural ideas: Reacting to the Past (RTTP) games. An RTTP game is elaborately designed based on a specific historical moment. The class is transformed into that historical time and place, and the class members are all essential enactors of that historical moment. Briefly, RTTP pedagogy takes role-playing a great leap forward by asking students to research, learn, and think critically about the roles they play and to act out every step of the incident as if it were happening the very first time and, thus, could result in situations unlike what history recorded. RTTP games foster the development of important skills, including critical thinking, written and oral communication, problem-solving, and strategic mediation. Each game is also based on certain canonic works, which at once shape the core thoughts and arguments for the historical moment and provide indications of their relevance to our times. Through playing historical personages, studying related canonic works, and collaborating with other "historical characters," students enter the psyche of that era and perform a culture that is alien to them. Through such "historical playing," students acquire deep learning and appreciation of ideas and practices that are not only essential to its historical context but also relevant to our own times.

## Oral Presentation 2A-3

### Electric Moped Sharing - Traveler intentions and behavior change

**Timmo Eccarius, Assistant Professor**

Department of Transportation and Logistics Management, National Chiao Tung University

#### **Abstract**

This presentation introduces a pedagogy in teaching cultural ideas: Reacting to the Past (RTTP) games. An RTTP game is elaborately designed based on a specific historical moment. The class is transformed into that historical time and place, and the class members are all essential enactors of that historical moment. Briefly, RTTP pedagogy takes role-playing a great leap forward by asking students to research, learn, and think critically about the roles they play and to act out every step of the incident as if it were happening the very first time and, thus, could result in situations unlike what history recorded. RTTP games foster the development of important skills, including critical thinking, written and oral communication, problem-solving, and strategic mediation. Each game is also based on certain canonic works, which at once shape the core thoughts and arguments for the historical moment and provide indications of their relevance to our times. Through playing historical personages, studying related canonic works, and collaborating with other “historical characters,” students enter the psyche of that era and perform a culture that is alien to them. Through such “historical playing,” students acquire deep learning and appreciation of ideas and practices that are not only essential to its historical context but also relevant to our own times.

## Oral Presentation 2B-1

### Eileen Chang Now and Then: 20th-Century Literary Biography for 21st-Century Readers

**Karen S. Kingsbury, Professor**

Department of Women's and Gender Studies, Chatham University

#### **Abstract**

What can a project in biography, a detailed exploration of the life of a highly accomplished and controversial 20th-century Chinese woman writer, Eileen Chang, offer to our world today, this world whose many fractures include drastically deepened rifts between the U.S. and China? Can a fuller understanding of one woman's life—starting in Shanghai in 1920, then surviving and even thriving in the time of Japanese invasions and world war, till the rise of Communism drew her out into Hong Kong then the U.S., where she spent the latter half of her life, finally dying all alone, in 1995, in a Los Angeles apartment—can such a life, especially one that was persistently dedicated to watching from the margins, the edges of social life, help us understand mainstream currents and central problems in our often vexed and too often violent world today? This paper attempts to answer these questions by drawing out the implications and significances of Eileen Chang's life story for later generations, with special—but not exclusive—emphasis on American and Anglophone contexts.

## Oral Presentation 2B-2

### Philosophical influences on the conception of autonomy in the writings of Stephen Greenblatt

**Phil Sced, Project lecturer**

Department of Cultural Creative Industry, Da-Yeh University

#### **Abstract**

This paper will examine ways that freedom has been conceptualized in three of Stephen Greenblatt's writings, originating during a thirty-year time period: *Renaissance Self-Fashioning* (1980), *Shakespearean Negotiations* (1988), and *Shakespeare's Freedom* (2010). These texts, as one would expect, exhibit Greenblatt's brilliant close readings, arresting anecdotes, and startling juxtapositions, but the the lines of reasoning and philosophical analysis underlying his thinking on freedom tend to be carefully concealed from our view. In a review article, Robert Matz has provocatively suggested that *Shakespeare's Freedom* represents "the Greenblatt of the twenty-first century arguing with his earlier critical self," but adds that Greenblatt, regretfully, does not make this inner argument explicit. This paper will attempt both to identify significant ways in which the conception of freedom changes throughout the three works, and to delineate some of the possible philosophical influences which might underly these changes. I will attempt to demonstrate ways in which Greenblatt both synthesizes and draws creatively upon the work of three major continental philosophers in the broad Marxian tradition: Foucault, Deleuze, and Adorno. Specifically, I will attempt to highlight the roles played in Greenblatt's synthesis by the Foucauldian concepts of power, resistance, and subversion, the Deleuzian concepts of difference, multiplicity and becoming, and the Adornoian concepts of autonomy, transcendence, and transformation. In addition, I will examine reasons why "dialectic," a term used prominently in *Renaissance Self-Fashioning* has, by the time of the two later books, been completely replaced by "paradox" as the conceptual framework around which Greenblatt organizes his ideas. I will further consider Greenblatt's discussion of absolutism in *Shakespeare's Freedom* in light of his arguments in the earlier works in favor of the necessity of recognizing the contingent. Finally, I will address the role of limit in Greenblatt's conceptions of freedom. I will propose that Greenblatt's treatment of freedom is viewed most fruitfully when considered not only against the background of the aforementioned Marxian philosophers on whom he explicitly draws, but also against the background of Hegel's philosophy of freedom out of which the entire Marxian tradition has grown. I will further propose that the Hegelian tradition on which Greenblatt indirectly draws, should itself be viewed against the against the long history of philosophico-theological debate on the nature of divine and human freedom ranging from the medieval voluntarists, through the Reformation, the German Idealists and on into the contemporary writings of Badiou, Žižek and others

## Oral Presentation 2B-3

### Biopolitics and gender in three seventeenth-century Chinese homoerotic stories

**Ying-Hsiu Lu, Assistant Professor**

International Business Administration Program, Tunghai University

#### **Abstract**

This paper examines three seventeenth-century Chinese homoerotic novellas, 'A Story of Sacrificing Love', 'A Story of Extraordinary Love' and 'The Moon', to consider how the physical body of the passive partner is exploited as a moral site in which gender norms and orthodox sexual morality are upheld. I use the yin-yang paradigms, as conceptualised by Confucianised and traditional Chinese medical discourses as my analytical tools to examine gender representation in these three texts. My study aims to illuminate the convergence of these two theories, both of which drive a conservative literary discourse on the morality of homoeroticism in late imperial China. My analysis shows that the representation of homoeroticism in these three stories duplicates the binary perception of gender and sexuality that is typical of a patriarchal society by revealing a predominance of the Confucianised yin-yang order over the traditional Chinese medical theory of bodily gender. In this way, same-sex desire is regulated, and homoerotic pleasure is contained within social boundaries and a moral system.

**Keywords:** homoeroticism, male-male sexual relationships, yin/yang paradigm, late Ming, libertinism

# POSTER PRESENTATION ABSTRACTS

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## **Social Issues: S-1**

### **Using nature journaling to create a comic on water striders (*Aquarius elongatus*) for popular sustainability education (Senior project)**

**Sandy Lee and Timo Eccarius, Assistant Professor**  
Tunghai University International College

#### **Abstract**

As urbanisation rates continue to rise, an increasing number of people are growing up and living in densely populated cities. With it arose the problem of disconnect with the natural environment and animals, plus the problem of education varying in quality could worsen it. Science comics have been proposed as one way to educate young people in a less formal way about their natural environment. This paper aims to create a popular science comic based on water striders living in the Tungda river stream. The comic creation is informed by observational research results obtained by using nature journaling Through this comic. we aim to showcase the powerful combination of art and science, as well as promote meta-cognition, observation, interpretation, and representation skills.

**Social Issues: S-2**

**The impact of nutrition on workout performance,  
muscle growth, and fat accumulation**

**Linus Chen, Edwin Yen and Jeanne Tsou**

Tunghai University International College

**Abstract**

The purpose of this report is to examine nutrition and its impact on workout performance, muscle growth, and fat accumulation. Proper nutrition plays a crucial role in optimizing fitness goals and overall health.

## **Social Issues: S-3**

### **Harm or reduce**

**Sandy, Lanny**

Taichung Lizen High School

#### **Abstract**

The poster highlights the issue of ocean pollution, particularly plastic waste, and its detrimental impact on marine life. It is aimed at promoting ocean conservation. The poster's text reads "Plastic." The use of a bold, attention-grabbing font draws the viewer's attention to the urgency of the issue. The poster also includes a call to action, urging people to take action to protect the ocean, such as participating in beach cleanups.

**Plastic pollution in the ocean: Implications  
for marine ecosystems and human health**

**Si-Kei (Cherry) Chiu**

International Bilingual School at Tainan-Science-Park (IBST)

**Abstract**

This poster comprehensively reviews the worldwide ocean pollution caused by plastic waste, explicitly focusing on land-based sources and river plastic mass inputs. The impacts of plastic waste on marine ecosystems, organisms, and human health are explored, including sources, distribution, categorization, characteristics, degradation, and global trends in coastal and marine pollution. The effects of physical features and chemical additives of microplastics related to plastic contamination and possible microorganism transport risk on human health are also analyzed. In addition, the poster highlights the effects of plastic accumulation on the economy. We give our recommendations for improvement of this issue, including implementation of government regulations to reduce and ban the use of single-use plastics, limit plastic production, monitor and punish littering, encourage recycling and suitable disposal of plastics, and advocate the use of biodegradable materials, as well as efforts to correct the consumption practices. Conclusively, plastic pollution is an emergent challenge that endangers marine ecosystems and organisms, human health, and the global economy. Immediate action is necessary. A multi-faceted approach involving educating the public on correct knowledge and concept, leading changes in individual behavior, encouraging organization support, implementing government policies, and specifying industry practices is effective in ensuring a healthier, more sustainable future for our planet.

**Marine pollution vs. marine life**

**Sandy, Lanny**

Yi Sin Lai, Kaohsiung Municipal Gushan High School

**Abstract**

The topic I chose was around the issue of marine pollution. People often pollute the ocean intentionally unintentionally. For example, oil pollution from ships or untreated trash. It is serious impact on marine ecology. We can not tell marine life that trash is not food. How ever they ate plastic bags that looked like jellyfish. Thousands of sea animals are killed each year as a result of marine polluBon. Protecting marine environment is an important topic for human. According to the United Nations Sustainable Development Goals(SDGs) 6 and 14, we should conserve and sustainable use the oceans, seas and marine resources for sustainable development. We can raise awareness on the importance of the protecBon of marine life and the preservaBon of healthy marine ecosystems, and promote acBons, and start by protecBng the ocean in our daily habits. Our acBons have impact, and together, we can build a healthier future for the ocean. The more people who take posiBve acBon to save our seas the greater the impact we can make.

**The world needs water**

**Patricia Ivana Simanggang and Chelsea Gabriela Susanto**  
Tunghai University International College

**Abstract**

Water is everywhere, but not a drop to drink and use. Our planet is covered with 75% of the water that's why it is called the blue planet. But 97,5% of that is salt water which we can not directly use, yet we only have 2.5% of freshwater to drink. Schools taught us that water is a renewable life resource, but who would've known that our water demand is much larger than the water supply? A lot of organizations and environmentalists say that our water supply is dwindling but very few take it seriously

## **Social Issues: S-7**

### **Reduce Recycle Redesign -- Consumption behavior in fast fashion**

**Leo Chen, Jason Su, Symbat Togombaeva and Clara Nunn**

Tunghai University International College

#### **Abstract**

The need for cheap clothes has risen rapidly, and mass production has brought a number of problems, including environmental and social issues. This is important because it affects the environment and causes health problems which will cause societal level issues.

**Can electric cars save the planet?**

**Catherine Lin and Nai Yee Shyen**

Tunghai University International College

**Abstract**

Since more and more people care about the environment and the topic of sustainability, electric vehicles will be a trend in the future. Due to their low carbon emissions, electric vehicles have been used as a solution to reduce carbon dioxide and fight climate change. This leads to improved air quality and public health benefits. Electric vehicles help to reduce our dependence on fossil fuels and increase the use of renewable energy sources such as solar and wind. However, there are still many challenges that need to be addressed, e.g., the production of electric cars, recycling of batteries and the building of charging infrastructure. Nowadays, we can see electric vehicles on the road, such as Tesla and Gogoro, gradually increasing. Electric vehicles can bring not only a healthy earth, but also a silent environment. This poster will focus on the benefits of electric vehicles through infographics showing how air pollution is improving.

**Evaluating, assessing, and improving walkability in Taichung**

**Christopher Norris Silva**

University of Pittsburgh

**Abstract**

In essence, walkability refers to the extent to which a given location accommodates pedestrians, namely in the variables of safety, efficiency, amenities, and equitable access. Public infrastructure investment to improve walkability yields countless net positives that benefit everyone, for some amount of travel by foot is necessary in any commute. However, higher walkability especially benefits public health, local commerce, and—by encouraging walking over, more motorized forms of transportation—the sustainability of the biosphere. Therefore, the following project aims to evaluate the walkability of several locations throughout Taichung through the use of a variety of metrics that take into account how well the city accommodates the wants and needs of pedestrians. Additionally, the locations will be placed in conversation with each other to assess which areas are presently the most walkable and which ones require the most improvement. Upon the final assessment of each location's walkability, infrastructure recommendations will be offered to account for each location's most prevalent flaws, with higher foot-traffic areas such as universities and pedestrian malls receiving greater attention in this regard.

## **Micromobility at Tunghai University**

**Devin Lewis**

SUNY College of Environmental Science and Forestry

**Mira Sherif**

Tunghai University International College

### **Abstract**

In essence, walkability refers to the extent to which a given location accommodates pedestrians, namely in the variables of safety, efficiency, amenities, and equitable access. Public infrastructure investment to improve walkability yields countless net positives that benefit everyone, for some amount of travel by foot is necessary in any commute. However, higher walkability especially benefits public health, local commerce, and—by encouraging walking over, more motorized forms of transportation—the sustainability of the biosphere. Therefore, the following project aims to evaluate the walkability of several locations throughout Taichung through the use of a variety of metrics that take into account how well the city accommodates the wants and needs of pedestrians. Additionally, the locations will be placed in conversation with each other to assess which areas are presently the most walkable and which ones require the most improvement. Upon the final assessment of each location's walkability, infrastructure recommendations will be offered to account for each location's most prevalent flaws, with higher foot-traffic areas such as universities and pedestrian malls receiving greater attention in this regard.

**Non-consensual sex – Morally good?**

**Veronica Lin and Ayla Nguyen**

Tunghai University International College

**Abstract**

We argue that nonconsensual sex can never be morally good, even if both partners end up enjoying it, on the ground that the enjoyment is trumped by being treated as a mere means. In this case, “mere means” is using someone as a way to get what you want and not considering that person to be a person. By not considering the humanity in that person, the one who crossed the boundary of “consent” ignores the needs and feelings of the partner. He let the “lust” defect him, making him decide to turn his partner into the instrument satisfying his appetite, and this remains even when the person ultimately enjoys it in the end.

On the contrary, if non-consensual sex turns into consensual sex, it will be morally good. In view of the fact that both partners are now considering each other's wants and needs, nobody becomes the “mere means” for the other. Even though some might argue that they still utilize each other as “means” for satisfying their needs, it is now on a mutual level since both partners agree to do so and understand what they can get and offer back to the other half.

**Moral issues of robot prostitution**

**Benjamin Harter and Liberty Mata**

Trinity University

**Abstract**

Is robot prostitution morally wrong? In this poster presentation, we argue that robot prostitution is morally wrong on the grounds that it promotes the objectification of women. Robot prostitution is purchasing or renting a robotic sex doll designed to reflect a real person to fulfill sexual desires.

Objectification involves treating people as things or a mere means to an end. One may say that sex robots aren't real women and therefore women are not being objectified. However, these sex dolls are still perpetuating that men can always have their way on women and encourages compulsive sexual behaviors. Another take may be that it may help reduce objectifying women as it allows men to explore their dangerous fantasies knowing they won't be harming a real person. In disproof of this, these fantasies are widely based on an unfair power imbalance itself which can't be achieved using a sex doll, meaning that objectification of women would simply be normalized instead of lessened. Therefore, commonly available robot prostitution would only serve to encourage deviant sexual addictions and objectification of women overall.

## **Physical cheating vs. Emotional cheating**

**William Daniel, Alexandria Fermin and Darianne Cabral**

Tunghai University International College

### **Abstract**

Our topic "Is worse physical cheating than emotional cheating"

Our stance is that physical cheating is worse than emotional cheating.

In our poster we will argue that physical cheating is more difficult to rectify.

Physical Cheating (in most cases) can't be done unknowingly. This can make it difficult to reconcile for the non-cheating partner. The reason the Cheating partner decided to do so, might be difficult to address as it may be a combination of factors (some of which are beyond our control). While in the case of emotional cheating rehabilitation and reconciliation can be achieved. Because even though it hurts, the damage wont be permanent.

**Morally problematic fetishization of Korean men among Korean media fans**

**Sofia Stankevich and Lisa Gavrina**

Tunghai University International College

**Abstract**

Fetishizing Korean men based on false representations in Korean pop and dramas is morally problematic as it perpetuates stereotypes. While the popularity of K-pop has grown, concerns have arisen about the objectification of Korean men due to the false perceptions created by media. This research aims to explore the forms, moral issues, and consequences of this phenomenon. Differentiating between generalizations and stereotypes is crucial. Generalizations acknowledge common characteristics within a group while allowing for individual differences. For instance, assuming all Korean men look like K-pop idols is a generalization, creating unrealistic expectations and pressuring individuals to conform. This can disappoint both fans seeking an idealized version and Korean men who feel objectified based on their appearance. Stereotypes, on the other hand, oversimplify beliefs about a group, disregarding individual differences. False stereotypes about Korean men, derived from dramas and idols, reduce them to superficial attributes and fail to recognize their diversity. This leads to feelings of inadequacy and exclusion among those who do not fit the stereotype. Fetishization reduces individuals to objects of desire and contributes to their unhappiness. Moreover, the issue of fetishization goes beyond stereotypes. Some individuals exploit the desires of women who idealize Korean men, engaging in scams for personal gain. For instance, scammers pretend to be idealized Korean men on social media platforms to manipulate fans, seeking sexual activities, intimate photos, or money. In summary, generalizations acknowledge commonalities while recognizing individual differences, while stereotypes oversimplify traits or behaviors based on biases. Fetishizing Korean men based on false expectations from Korean pop and dramas perpetuates stereotypes and objectifies individuals, leading to negative consequences for both parties involved.

**Are online beauties really a beauty?**

**Jess Chen, Minnie Chang, Vanessa Chen and Erin Lai**

Tunghai University International College

**Abstract**

In this era of information explosion, social media has become one of the primary means of communication and entertainment for people, while also serving as a major platform for shaping the definition and standards of beauty.

**What percentage of the population attends university after graduating from high school immediately in the United States?**

**Jordan George, Lyra Feng and Winn Liu**  
Tunghai University International College

**Abstract**

Attending a higher level of education (i.e. university and college) is becoming more and more popular for high school graduates in the current age. We would like to figure out exactly what percentage of the population attends higher level education after graduating from high school immediately in the United States and what is the trend over the years as this is a relevant problem in society. Furthermore, we would like to know what affects the decision of pursuing higher education immediately instead of working. This includes whether the individuals attend higher education after working or whether they just continue working with their high school diploma. The decision of high school students to pursue a higher education vs enter the workforce may be influenced by a number of factors. Some students choose to attend college due to personal desires and career aspirations and this plays a significant role in gaining specific skills and knowledge to their desired profession. One's choice may also be influenced by family expectations and cultural norms as some families may prioritize higher education whilst others may want their son/ daughter to gain work experience before pursuing a degree. Additionally, some students may want to take a gap year in order to explore personal interests, travel, or gain hands-on experience before committing to further education. Employment opportunities may also attract students to immediately enter the workforce rather than pursue a degree straight after graduation. Employment opportunities may be related to domestic GDP and the unemployment rate. We hypothetically suggest that when the GDP is low and the unemployment rate is high, students might tend to enter higher education because there is less pressure on their essential needs.

## **International Perspectives: I-1**

### **Resume 101: Differences between the United States and Taiwan**

**Nyja Quash**

Davidson College

#### **Abstract**

Our project will focus on differences in the working structure between the United States and Taiwan. We will be looking at differences on how resumes are presented in the United States and why they are different.

## **International Perspectives: I-2**

### **Business culture**

**Vonny Cristina Tan and Tereza Balounova**

Tunghai University International College

#### **Abstract**

This project is focusing on a business culture in three different countries: Taiwan, Indonesia, and Czech Republic.

Business culture is a set of behaviors and norms that can be observed within a company. What shapes the business culture of a company is the culture of the country where the company operates. Different cultures have different values, norms, beliefs, etiquettes, mannerisms, expressions etc. When we decide to sell goods and services to another country, we need to keep this fact in mind. We should take time to learn about their culture, to show respect to our business partners and build long-lasting trusting relationships.

The purpose of this presentation is to point out the differences between business culture in our home countries and business culture in Taiwan. This way, we can illustrate what role does the culture play in the business world. Each one of us will introduce one country's business culture and point out some interesting aspects of it. The whole presentation is based on how contrasting these business cultures are.

## **International Perspectives: I-3**

### **Foreign English teachers in Taiwan: Comparing trends in the employment websites**

**Ian Smith**

Davidson College

**Doris Shih and Ivy Kuo**

Tunghai University International College

#### **Abstract**

As a result of intensifying globalization within the past century, demand for the internationalization of nations' respective workforces has similarly grown. Taiwan presents an especially unique case, as academic institutions have continued to seek out native-English speakers for instruction over recent decades. This trend of internationalization amongst Taiwan's educational institutions maintains characteristics such as generous offers of financial compensation as well as various other forms of support. Saliently, there is a wealth of websites promoting the hiring of native English speakers within Taiwan.

## **International Perspectives: I-4**

### **Cram school culture clash: Complaints of Western teachers**

**Jordan George, Jessica Tai and Anita Hou**

Tunghai University International College

#### **Abstract**

As Taiwan moves toward becoming a bilingual nation, cram schools have increasingly recruited Western English teachers. However, differences between Western and Eastern educational practices have created challenges for these instructors. This study investigates the common complaints of Western teachers working in Taiwanese cram schools and identifies key areas of concern. Data were collected from online platforms, including social media groups, forums, and blogs, where teachers shared their experiences. Using thematic and quantitative coding, the study identifies three primary categories of issues: administrative problems, financial concerns, and cultural differences in the education system. Findings suggest that unclear administrative expectations, excessive workloads, and inconsistent policies contribute to dissatisfaction. Financial pressures and inflation further affect teachers' quality of life, while differences in teaching styles and limited cultural support create additional barriers. The study concludes that improved communication, clearer contractual guidelines, and enhanced intercultural training can help create a more supportive and effective working environment for Western educators in Taiwan.

## **International Perspectives: I-5**

### **Taiwan's evolving regulations on expat K-12 teacher qualifications**

**Eddie Aliu**

Millikin University

**Veronica, Benson**

Tunghai University International College

#### **Abstract**

In recent years, Taiwan has begun to focus on foreign language education which has led to significant changes in the Ministry of Education's policies and regulations regarding the hiring of foreign English teachers. It reflects the changes the government has made to improve the quality of English education and ensure the welfare of foreign teachers. We will summarize the major elements of the Department of Education's regulations governing the hiring of cram school and K-12 public school teachers, create a timeline of the major changes in foreign language policy developed over the years, and explain the reasons that led to the policy changes and the forces that drove the changes. Finally, we describe the major foreign language policies of recent years, such as FET, TFETP, and ETF, and investigate what successful benefits these policies have created.

## **International Perspectives: I-6**

### **Retrospective feedback of Taiwan's university students concerning former Western cram school English teachers**

**Michael Sanchez**

Trinity University

**Penny Lu, Yirong Li**

Tunghai University International College

#### **Abstract**

Over half of all Taiwanese students attend cram schools at some point in their lives. Many become enrolled at a young age in cram schools to learn English, this is done because many families feel as if their children aren't being taught sufficient English skills during day school, as laid out by the Ministry of Education (MoE). Many of these families specifically seek out foreign, in many cases Western, teachers because they believe they will provide a better education than a domestic teacher. Given so many students attend cram schools for English, it is important to understand the satisfaction and dissatisfaction students faced. Through retrospective complaints from current college students, it's possible to investigate complaints against foreign teachers. After conducting retrospective interviews/complaints, a thematic analysis was conducted to find commonalities among students. Complaints included: (1) foreign teachers couldn't provide effective 1-on-1 lessons, (2) teachers could not explain concepts in Mandarin, (3) teachers didn't prepare students for day-to-day dialogue, (4) different teaching styles between Western and Eastern teachers. These results highlight deficits in cram schools as experienced by many students. With these four main points, it is possible to enhance cram schools for every student better: (1) training for Western teachers and (2) a change in learning guidelines.

## **International Perspectives: I-7**

### **Translating Jay Chou's 晴天(Sunny Day)**

**Riley Hesbacher**

University of Pittsburgh

**Jocelyn Luo, Suggie Yan and Anna Li**

Tunghai University International College

#### **Abstract**

We are translating Jay Chou's 晴天 (Sunny Day). We'll discuss how the audience and type affects the translation of a text, as well as the strategies and theories that contribute to a good translation. Translating this work also opens the door to more people who want to learn about the Chinese music scene.

## **International Perspectives: I-8**

### **Translation of Eileen Chang's short story—Lust, Caution (色, 戒)**

**Henry Lukens**

University of Pittsburgh

**Roman Koval, Chrysant Hasim and Venus Yeh**

Tunghai University International College

#### **Abstract**

We will be translation the beginning of Eileen Chang's short story Lust, Caution. In this presentation we will analyze the source text and give reasoning as to why we chose this story and how the process of translation was done. Being literature, the translation process can vary a lot depending on who is translating, and for what reason, we will discuss the problems we faced and how we were able to come up with what we think is the story translated to the best of our ability.

## International Perspectives: I-9

### The Translation and Transformation of Hǔ Gū Pó (虎姑婆)

**Zoe Ren**

Davidson College

**Betty Lin, Sandy Chou**

Tunghai University International College

#### **Abstract**

This poster presents a translation of the captivating Taiwanese folktale, Hǔ Gū Pó (虎姑婆), with a focus on capturing its original purpose and cultural significance transposing it into English. Through a meticulous and culturally sensitive approach, we will delve into the story's nuances, symbolic motifs, and historical context to offer a comprehensive understanding of its essence.

## **International Perspectives: I-10**

### **Translation of 童话 by Michael Wong**

**Lily Cusack**

University of Pittsburgh

**Clarence Eleazer Winerungan, Jack Hsieh and Sean Lin**

Tunghai Univeristy International College

#### **Abstract**

We would like to introduce and translate a song by Michael Wong called “ 童话 ” (Fairytale) as this it has become a classic in Chinese society. Through the use of various translations devices, our group wants to better capture the meaning of this song in hopes of broadening Chinese music’s foreign audience and possibly adding new meaning to the song for current fans.

## **International Perspectives: I-11**

### **A practice in the translation of Taiwanese menus**

**Nyja Quash**

Davidson College

**Ian Smith, University of Pittsburgh; and Irene Lin**

Tunghai University International College

#### **Abstract**

For Americans visiting Taiwan, it is very difficult for them to understand Chinese characters and/or the rich culture behind menu items. Our project seeks to bridge the gap between the two cultures in understanding their respective cultural contexts. We will be translating a menu items and noting the intricacies of the delicacies provided, how they could be perceived by foreigners, and the process we will use to maintain the brilliant culture behind the dish while making it easy for English speakers to understand.

## **International Perspectives: I-12**

### **Period piece -- Success**

**Rebecca Potts, Mulder Liu**

Tunghai Univeristy International College

#### **Abstract**

We discuss what makes a good period piece. We delve into the cinematography, costumes, set design, and all the little elements that can catch and captivate an audience.

## **International Perspectives: I-13**

### **The complexity and impact of betrayal in two of Eileen Chang's movies**

**Jessica Tai**

Tunghai University International College

#### **Abstract**

Throughout history, betrayal has been an intriguing and intensely emotional issue. Its complexity stems from the many impulses and emotional conflicts that are deeply rooted in human nature. Betrayal is an act that can provide power and benefit to the betrayer while causing pain and suffering to the one being deceived, whether in personal relationships, political power struggles, or collective groups.

Why do people betray? What events and experiences lead a person down the path of betrayal?

Perhaps betrayal can be traced back to our basic human instincts for power, security, self preservation, independence, and other things. On an individual level, betrayal may stem from dissatisfaction, disillusionment, or trauma that leads people to seek inner freedom. On a collective level, betrayal can arise from power struggles, group pressures and conflicting loyalties, all of which encourage people to abandon their original loyalties in pursuit of higher status and influence. Betrayal, however, is more than an individual decision or action; it also includes emotional reactions and consequences for others who have been deceived. Betrayal can have devastating effects on relationships, societies and organizations, causing grief, disillusionment and loss of trust. It demonstrates the complexity of human nature and the contradictions in moral standards, prompting us to consider how such behavior affects relationships.

The many elements of the issue of betrayal are explored in depth in Eileen Chang's story. We will explore the psychological causes, moral dilemmas, and emotional barriers to betrayal through the lives, decisions, and consequences of the characters and strive to understand the tremendous impact betrayal has on people and the whole.

**Masks of Comprehension**

**Cecilia Rike**

University of Pittsburgh

**Abstract**

This poster is based off Professor Sherry Mou's A Confucian Game of the Throne: Dong Zhuo's Court. The course is based on the period preceding the Three Kingdom era and explores major contemporary themes and issues via the lens of each student assuming the role of a major historical figure. Using the visual cue of Peking opera masks, this poster presents the cognitive connection between assuming a role and comprehending historical themes and issues. By researching and representing a historical figure in the context of historical roleplay, students can more fully grasp not only the historical content but its applicability to modern issues. The act of internalizing the character of a historical figure sparks connections for the student between past and present, leading to deeper comprehension via a "mask."

## **International Perspectives: I-15**

### **Pretending, acting, and behaving, Which one is the truth?**

**Keshia Syalommita Yaqub**

Tunghai University International College

#### **Abstract**

“Pretending, Acting, and Behaving, Which One is the Truth?” is based on a fiction by Haruki Murakami and a movie by Ryusuke Hamaguchi called Drive My Car which is about an actor whose wife died and he was really devastated. Why is he pretending, why is he acting, and why did he choose to behave like that? It is the heartbreak that causes him to put on acts or fake in front of his loved one, finally allowing him to open up and move on from his heartbreak. It is about what he shows others and what he felt deep inside his heart and at last, he was able to get up, learn, and continue his life with the help of someone he never expect. The story might allow us to dig into our deepest hearts and make peace with our hearts when we faced problems that make us pretend to be someone else.

## **International Perspectives: I-16**

### **Characters from movies**

**Veronica Lin**

Tunghai University International College

#### **Abstract**

I have seen several movies during the course. I want to compare the female characters in two of the movies for their lives, characteristics, thoughts or anything and make it into a poster.

## **International Perspectives: I-17**

### **The art of Taichi: An introduction to Ju Ming and his Taichi statues**

**Morgan Buckner**

Trinity College

**Benson Shen, Doris Shih, Jenny Yang**

Tunghai University International College

#### **Abstract**

The theme we have chosen is about the Tai Chi stone statue of Taiwanese artist Zhu Ming. We found articles on this topic online and translated them into English using our own methods. The main content will be two paragraphs selected and translated into English with approximately three to four hundred words. The translation will introduce relevant information about the work, In addition to the creative concept and attitude we want to express, we will briefly describe the source text and cite the source to discuss why we chose this topic and explore what words to use for modification.

Our project is focused on the Taiwanese artist Ju Ming. Ju Ming is famous for his various sculptures, especially the stone works in his Tai Chi series , which are proudly displayed throughout Taiwan as symbols of cultural heritage. We will take excerpts from an article discussing Ju Ming, his artistic philosophies, and his Tai Chi statue series and translate the text from Chinese to English using translation strategies that we learned in our Mini-Semester course. Along with our translation, we will conduct an analysis of both the original and the translated texts as well as a comparison between them. We will thoroughly discuss the process we employed in the translation of the original text, including our creative intentions, any modifications we made, the terminological research we conducted, and the specific translation strategies that we used.

## **International Perspectives: I-18**

### **Fashion in "Lust, Caution" and "Love after Love"**

**Miffy Lin**

Tunghai University International College

#### **Abstract**

Although the two stories both happened in Hong Kong, the general mood of society differs because of the distinct colonial regimes, and this influences the way the characters dress. The directors of the two movies made their lead male characters wear different clothes to symbolize the different stages they're at.

## **International Perspectives: I-19**

### **Differences in resumes in Taiwan vs. America**

**Arianna Surma**

College of St. Benedict - St. John's University

#### **Abstract**

Resumes in the business world differ drastically between cultures. A custom in Taiwan may be frowned upon in the American business world, and vice versa. If one tries to submit a resume in a culture different from their own without doing adequate research first, they may not get the job. This poster will discuss the differences between Taiwanese and American resumes.

## **International Perspectives: I-20**

### **Grievances of live-in Indonesian domestic workers in Taiwan**

**Ezra Ruben, Jeremy Hosea, and Elisa Chen**

Tunghai University International College

#### **Abstract**

The National Development Council predicts that Taiwan will be a super aged society by 2025 and the demand for domestic workers will inevitably increase. So meeting the needs of domestic workers, especially caregivers/maids, is essential to help elders in their daily life. Of the 660,000 domestic workers in Taiwan, almost 236,000 or around 35 per cent are Indonesian according to Taiwan's Labour Ministry. From multiple articles, we found that Indonesian domestic workers, especially those who work as caregivers/maids, face several types of problems with their employer. The worst case, two of them experienced abusive behaviour from their employer. We also use qualitative methods to collect our data, to argue that the employer sometimes mistreats domestic workers

**Are You African?**

**Nzigiyimpa Mutoni Don Divin, Kelvin Valentine Somi and Lilian Hong**

Chang Jung Christian University

**Abstract**

Internationalization initiatives of Taiwan's culture and recognition should go along with creating global citizens with global understanding and engagement. This poster aims to show the diversity and richness of Africa in terms of its regions, countries, languages and cultures. It also challenges the stereotypes and misconceptions that are based on racism and colonialism, which portray Africa as a poor, backward or violent continent. Instead, it shows that Africa has various achievements and challenges, as well as diverse economies, societies and politics. It also explains why learning about African countries and cultures is important for being global citizens who value and respect diversity. Moreover, it clarifies why asking "Are you from Africa?" to anyone who may have African roots or looks is wrong. This question assumes that Africa is one country or identity, and that anyone who differs from the dominant group does not fit in or belong. The poster has also introduced one of the countries has an example of one of the many beautiful, peaceful and plenty opportunities that the African Countries has to offer.

## **International Perspectives: I-22**

### **The art of Taiwanese tea making**

**Samantha Cauvin, Dylan Clasby, Tina Lo, Charles Buss, Yevvon Yi-Chi Chang; Assistant Professor**

Tunghai University International College

#### **Abstract**

Tea making is an integral part of Taiwan's tea culture, deeply cherished by tea enthusiasts. Taiwan, renowned for its tea production, cultivates tea as a major cash crop. The tea production in Taiwan showcases a diverse range of teas, each originating from a specific county. Miaoli County is known for Miaoli White Oolong, Taipei County for Biluchun Green, Chiayi County for Alishan High Mountain Oolong, Kaohsiung County for Lugwei Black, and Pingtung County for Gunko Oolong. Embark on a journey through the captivating and intricate process of Taiwanese tea making, from the delicate plucking of tea leaves to the final roasting.

## **International Perspectives: I-23**

### **A bird's eye view of coffee and tea across the global**

**Eric Huang**

Tunghai University International College

#### **Abstract**

In today's fast-paced and demanding lifestyle, an increasing number of individuals heavily rely on the invigorating effects of coffee and tea to kickstart their day or boost their energy. As a result, gaining a comprehensive understanding of the global trends surrounding these beloved beverages has become imperative. This research aims to delve into and analyze the geographical locations where coffee and tea plants thrive, as well as the distribution patterns of their consumption worldwide.

By providing a comprehensive overview and comparison of coffee and tea consumption patterns, this research will contribute to our understanding of the global phenomenon surrounding these beverages. It will help uncover the underlying factors driving their popularity in specific areas, facilitating a more informed analysis of the cultural, economic, and environmental dynamic at play. On the other hand, the unexpected pandemic plays a crucial role in the tea and coffee industry, leading to challenges for many countries. The closure of restaurants and cafes resulted in a decline in demand for tea and coffee.

Ultimately, this study will provide a foundation for informed decision-making in the industry and contribute to the development of strategies that can adapt to the changing customer preferences and market conditions.

## **Academic Topics: A-1**

### **Transparent wood as a potential construction material: Exploring opportunities of indoor air purification and building integrated photovoltaics (Senior project)**

**Christiane Kalamelu and Mrinalini Mishra (Assistant Professor)**

Tunghai University International College

#### **Abstract**

The twin goals of reducing energy use and emissions mean that the construction sector is on the lookout for eco-friendly materials, sustainable, and renewable materials. Moving beyond building energy usage, the current focus is on life cycle analysis of buildings where the embodied energy and global warming potential of construction materials also play an important role in how green a building is.

Natural wood is an ecofriendly and sustainable resource which can play a critical role in creating sustainable built environments of the future. Recently several studies have addressed the use of transparent wood, which is one of the wood-based products, as a new functionalize building materials due to its unique combination of properties. By removing the light-absorbing lignin from natural wood and then fusing the resulting structure with a transparent polymer, we are able to create a transparent material that still has the structural integrity, impact resistance, and aesthetic appeal of wood. Here, in this case we use a straightforward yet efficient "top-down" approach.

To further functionalize transparent wood, we proposed the use of nano-titania. Through the coating of titanium dioxide on TWM we created solar cells. But herein, in addition to using the titania for energy generation, we would also be leveraging the ability of titania to function as a photocatalyst. Titania nanoparticles can produce reactive oxygen species when they are exposed to light, which can then break down and destroy organic contaminants like volatile organic compounds (VOCs) in the air. This potentially opens the opportunity for windows, based on TWM, that are aesthetically pleasing, that contribute to energy production, and to cleaning out harmful compounds from air.

## **Academic Topics: A-2**

### **College students' intention to use eco-cup rental machines: A study based on unified theory of acceptance and use of technology model**

**Yue-Ming (Heather) Lin and Mrinalini Mishra (Assistant Professor)**

Tunghai University International College

#### **Abstract**

With the increase of people's awareness of environmental protection and the follow-up of government policies, it is expected that stores will reduce the use of disposable plastic containers. This study is based on the Unified Theory of Acceptance and Use of Technology model to investigate the intention of the college students of the eco-cup rental machines based on different configurations, in the hope that it can help the operators to set up eco-cup rental machines in campus and provide the results of the academic research on eco-cup rental machines.

## **Academic Topics: A-3**

### **Synthesizing molybdenum diselenide (MoSe<sub>2</sub>) for supercapacitor application**

**Janeth Carolina Ramirez Pineda, George Krizza Kiongson and Mrinalini Mishra  
(Assistant Professor)**

Tunghai University International College

**Jeng-Yu Lin**

Tunghai University

#### **Abstract**

With the increase of people's awareness of environmental protection and the follow-up of government policies, it is expected that stores will reduce the use of disposable plastic containers. This study is based on the Unified Theory of Acceptance and Use of Technology model to investigate the intention of the college students of the eco-cup rental machines based on different configurations, in the hope that it can help the operators to set up eco-cup rental machines in campus and provide the results of the academic research on eco-cup rental machines.

## **Academic Topics: A-4**

### **Sustainable cellulose-based supercapacitor using Nitrogen-doped graphene obtained from waste Polyethylene terephthalate (PET) bottles (Senior project)**

**Ling-Chi and Muhammad Omar Shaikh (Assistant Professor)**

Tunghai University International College

#### **Abstract**

In recent years, nitrogen doped graphene (NG) has shown promise as an effective electrode material for application in high performance supercapacitors. However, most of the research used toxic and nonbiodegradable chemicals, such as heavy metals or strong acid solvents, during NG synthesis and they could lead to negative impacts on the environment. Therefore, in our proposed research project, we developed a green chemistry and waste-to-value approach for NG synthesis reusing waste polyethylene-terephthalate (PET) bottles. NG was synthesized from waste PET bottles using urea by chemical vapor deposition (CVD) chamber. Through electrochemical measurements, we found the relationship between the structure and morphology of NG and the observed cyclic voltammetry (CV) and galvanostatic charge-discharge (GCD) electrochemical performance. Thus, the proposed NG supercapacitor has potential for sustainable energy storage applications in a range of wearable devices. In addition, our green synthesis method could be used for mass production of NG as it is cost-effective and environmentally friendly in addition to processing waste plastic materials.

## Academic Topics: A-5

### The effect on indoor PM2.5 concentration reducing by ten species of plants in short term period (Senior project)

**Alan Jiang and Omar Shaikh (Assistant Professor)**

Tunghai University International College

#### **Abstract**

The concern of the indoor air pollution issue is aroused by public who live in high population density and developed industrial activity regions begin in the past many years due to the PM2.5 (particulate matter diameter less than 2.5 micrometers) and PM 10 (particulate matter diameter less than 10 micrometers) airborne particulate emissions from the industrial activities such as thermal energy stations ,cement factories and vehicles wasted air emissions the composition of particulate matter are combine with toxic compound for example Ammonium Sulfate (emission of power station) , Ammonium Nitrate( emission of vehicles and power station ), Organic Carbonaceous Mass (emission of vehicles ,power station, wasted burning , wild fire and biogenics ) ,Crustal Material ( emission from suspended soil and metallurgical activities), the particulate matter is hazardous to human respiratory and cardiovascular systems depending on size of the particulate matter, with a diameter 10  $\mu\text{m}$  or less classify to PM 10 can effortlessly penetrate the alveoli , which eventually trigger bronchoconstriction .While particulate matter size smaller than 100 nanometers they can easily penetrate the cell membrane that makes its have a probability to effect the cardiovascular system by migration from the respiratory system . For the reason particulate matter can cause multiple health effect on human In now a day people are more willing to spend majority of their time in the indoor environment such as office room and house, hence the concept of our experiment is going to testing the concentration of PM 2.5 at the office room, and measure the PM2.5 reducing rate that absorb by the plants which depends on different ten species .

## **Academic Topics: A-6**

### **Elongation growth by red and blue light, independent of photoperiod: A study on broccoli microgreens (Senior project)**

**Weiwei (Stephen) Shih and Omar Muhammad Shaikh (Assistant Professor)**

Tunghai University International College

#### **Abstract**

For microgreens production, elongation stem has positive effects, also it will be more attractive to sell and make the eater feel full. Research has shown that under 24-hour LED lighting, blue light promotes plant elongation in certain species compared to red light, for example: Kale. The main aim of this study was to investigate whether a shortened photoperiod would alter the effect of blue versus red light on the elongation growth of broccoli microgreens, if so we can save energy consumption when growing. Stem extension rate of broccoli microgreens was compared at the stage from sowing to harvested under two light qualities and two photoperiod treatments: Red and blue light, using continuous (24 hours light/0 hours dark) or periodic (16 hours light/8 hours dark) LED lighting. An air temperature around 24 degrees was used for the processing of the reference article. After around 6 days of light treatment, Blue light promoted a little more elongated growth compared to Red light, regardless of the photoperiod. This suggests that the elongation growth facilitated by blue LED lights may benefit a little more for the indoor production of broccoli microgreens.

## **Academic Topics: A-7**

### **Temperature and thermal reduction efficiency of green roof application at the International College in Tunghai University (Senior project)**

**Peter Shen and Muhammad Omar Shaikh (Assistant Professor)**

Tunghai University International College

#### **Abstract**

During the past decades, human activities have caused an urban heat island effect which has resulted in about 1°C increase in global average surface temperature, better known as global warming or global climate change. At the Paris climate agreement in 2015, world leaders agreed to decrease the average global temperature by 1.5°C. Sustainable and innovative solutions are being researched and implemented to combat global warming, including green roofs to resolve the urban heat island effect. In Taiwan, 78% of the rainfall is concentrated over the summer and especially during the typhoon season between July and September. However, according to the Intergovernmental Panel on Climate Change (IPCC), the typhoon pathways will begin to shift north in the Pacific, thus decreasing the number of typhoons in Taiwan. According to the Taiwan Ministry of Interior, the standard surface temperature of the roof during summer months should be about 60 to 70°C. If the number of typhoons decreases, it is likely that roof temperatures will increase. Therefore, the aim of the proposed research project is to investigate whether the green roof can reduce the surface and ambient air temperature while also retaining water. Currently, there is a lack of information and data analysis on the thermal performance of green roofs in the subtropical climate of Taiwan. The main objectives are to:

- 1) investigate whether the implementation of a green roof will result in thermal reduction.
- 2) determine the extent of this reduction.
- 3) investigate green roof water retention ability.
- 4) discuss potential applicability of the green roof technology in Taiwan.

To simulate a rooftop in Taiwan and perform controlled experiments, we will fabricate wooden boxes from recyclable pallet material. The insulation layer and green roof will be placed on top of the wooden box while a window on the side of the box will allow us to perform temperature analysis. All experiments will be conducted on the rooftop of the International College at Tunghai University, Taichung, Taiwan.

## **Academic Topics: A-8**

### **The ability of tilapia (*Oreochromis niloticus*) to control chlorella (*Chlorella vulgaris*) concentration in water with different trophic states (Senior project)**

**Kirastar Zhang and Alexandra Drizo (Professor)**

Tunghai University International College

#### **Abstract**

The eutrophication problem always exists around the world, but due to human activities, nutrient wastewater caused more and more harmful algal blooms (HABs), which severely damaged the ecosystem and water safety. Some researches indicated the potential of tilapia (*Oreochromis niloticus*) in treating HABs by its ability of toxicity tolerance and omnivorous. In this case, the aquariums that contained different eutrophic states water were set, to test whether the tilapia at the best stocking density 8 fish per cubic meter could maintain the concentration of algae. The result is that tilapia control the density of chlorella successfully under mesotrophic but failed in eutrophic and hypertrophic water. And inferred that control nutrients is more important than control the algae itself.

## Academic Topics: A-9

### Impacts of organic matter addition on growth rate of lettuce (*Lactuca Sativa*) in aquaponics systems

**Garim Jones and Alexandra Drizo (Professor)**

Tunghai University International College

#### **Abstract**

In the face of increasing global population, concerns over food security, and water shortages, sustainable agricultural practices are essential. Aquaponics systems have gained significant attention from practitioners and researchers in recent years. Aquaponics incorporates aspects of aquaculture and hydroponics as a sustainable method of food production. This method can help to address Taiwan's food security and water scarcity issues by maximizing resource usage and reducing water consumption. This study investigates the influence of organic matter derived from organic fertilizer on lettuce growth in aquaponics systems, specifically focusing on applications in Taiwan.

Two aquaponic systems were constructed, one serving as the control group and the other treated with organic matter from organic fertilizer with a composition of 80% organic matter, 8.0% nitrogen (N), phosphorous (P), and potassium (K). Lettuce seedlings were transplanted into aquaponics grow beds. Growth parameters (shoot height, number of leaves) were measured over a 4-week period. Water quality parameters (pH, dissolved oxygen, oxidation-reduction potential, turbidity, temperature, ammonia, nitrite, nitrate) were monitored over the 4-week period.

Results showed that organic matter did influence lettuce growth. The treated group exhibited higher growth, an increased number of leaves, and a taller shoot height. Furthermore, the appearance of the treatment group was more vibrant in color and had wider and longer leaves. However, the pH of the treatment group dropped significantly due to the acidity of the organic fertilizer. This study highlights the advantages of organic matter addition in aquaponics and can optimize sustainable food production practices for food security in Taiwan.

**Green fence**

**Anne Cheng and Mrinalini Mishra (Assistant Professor)**

Tunghai University International College

**Abstract**

This is a project that is really needed nowadays. Taichung has a law that construction sites need to be surrounded by a 160 cm high fence. And on the fence needs to full of plants. On the road, we can see that each pot has a plant. But it is all plastic because the cost is cheaper. The galvanized steel holders and pots are all single-use. Why don't we shift to a more sustainable material?

## Academic Topics: A-11

### The utilization of algae as an alternative source of biodiesel

**Kevin Amadeus Wijaya and Alexandra Drizo (Professor)**

Tunghai University International College

#### **Abstract**

This study focuses on the production of biodiesel from *Chlorella vulgaris* algae using a combination of flocculation with alum, maceration extraction with ethanol, and transesterification with sodium hydroxide (NaOH). *Chlorella vulgaris*, a promising microalgal species rich in lipids, is explored as a potential feedstock for biodiesel production.

The flocculation process involves the addition of alum as a coagulant to induce the aggregation of *Chlorella vulgaris* cells, aiding their separation from the culture medium. The optimal dosage of alum is determined through experimental trials to achieve efficient flocculation and biomass recovery.

Following flocculation, maceration extraction is employed to extract lipids from the flocculated biomass. Ethanol is used as a solvent to selectively dissolve the lipids, enabling their separation from the biomass. The extraction parameters, including ethanol concentration and extraction time, are optimized to maximize lipid extraction efficiency.

The obtained lipid extract is then subjected to transesterification using NaOH as a catalyst to convert the lipids into biodiesel. The transesterification reaction is conducted under controlled conditions of temperature, reaction time, and molar ratio of alcohol to lipids. The reaction parameters are optimized to achieve high conversion efficiency and yield of biodiesel.

The integrated process of flocculation, maceration extraction, and transesterification offers a comprehensive approach for the efficient production of biodiesel from *Chlorella vulgaris*. The combination of these techniques enables enhanced lipid extraction and conversion into biodiesel. The optimized process parameters ensure high yields and quality of biodiesel, demonstrating the potential of *Chlorella vulgaris* as a viable feedstock for biodiesel production.

## **Academic Topics: A-12**

### **Textile recycling : Chemically recycling cotton-based waste textiles conversion into glucose by acid hydrolysis (Senior project)**

**Yen Ting (Melinda) Chen and Muhammad Omar Shaikh (Assistant Professor)**

Tunghai University International College

#### **Abstract**

The emergence of "fast fashion" has led to disastrous environmental consequences. More clothing is being manufactured than ever before, with the majority of clothing ending up in landfills or being burned. Although fiber-to-fiber recycling has been used for a long time, the fact that mechanical recycling will degrade fiber quality and reduces textile performance, only a small fraction of waste textiles are now recycled. And also most clothing is made up of many different kinds of components that have different chemical and mechanical qualities. We devised directly depolymerize cotton fibers and create glucose using sulfuric acid as the sole catalyst the glucose solution produced. The glucose produced in this process has a high concentration with lower purification costs. This could be further converted into valuable chemicals or fuels, and could assist to entirely close the fashion loop.

## **Academic Topics: A-13**

### **Consumer behavior towards sustainability within fashion (Senior project)**

**Yu Hsiang (Alvin) Huang and Alexandra Drizo (Professor)**

Tunghai University International College

#### **Abstract**

The purpose of this research was to examine the factors influencing consumer buying behavior of fast fashion clothing in the Taiwan. The consumption of fashion has grown in recent years, fast fashion clothing are designed to be replaced with new clothing as fast as possible and it has significant environment impact. This study analyzing the motivations and barriers for consumers to adopt sustainable fashion, and what the underlying causes that form the behavior in Taiwan. Fast fashion appeals to customers on an emotional, financial, and psychological level. A survey was conducted on 25 respondents in Tunghai university, the sampling method targeted a balanced distribution of respondents with respect to gender and age . We find the relationship between shopping habits and environmental consciousness. By understanding consumer behavior towards sustainable fashion can assist businesses and governments in developing strategies to encourage eco-friendly consumption behavior, resulting in a more sustainable fashion industry in Taiwan.

## **Academic Topics: A-14**

### **Title Phosphorus removal in Domestic wastewater by Water Hyacinth (Pontederia Crassipe)**

**Yusan Tong and Alexandra Drizo (Professor)**

Tunghai Univeristy of International College

#### **Abstract**

This study aimed to investigate the effectiveness of water hyacinth (*Eichhornia crassipes*) in reducing phosphorus (P) concentrations from water, which is the main trigger of eutrophication pollution. A simulated wastewater effluent containing 3.5 grams of  $\text{KH}_2\text{PO}_4$  was prepared and diluted in 40 liters of water, resulting in a 20 mg/liter concentration before introducing the water hyacinth. The water hyacinth plants were placed in the water and grown for 40 days (which is about 50 centimeters tall) prior to introducing the influent. Water hyacinth system consisted of two tanks 56 (L) x 41 (W) x 31 cm (H), each. The wastewater was recirculating in the system at 5.55 cycles per day, resulting in the hydraulic residence time of 4.4 h. Samples were taken once per day to analyze the chemical concentration and evaluate the plant's ability to absorb and reduce P. The preliminary results indicate the potential of water hyacinth as a natural and cost-effective method for reducing P concentrations from wastewater and mitigating its environmental impact. Further research is warranted to optimize the use of water hyacinth in larger-scale applications and assess its long-term effectiveness and sustainability.

## **Academic Topics: A-15**

### **The impacts of environmental, social, and governance (ESG) performance indicators on small and medium businesses in Taiwan (Senior project)**

**Adam Chen and Aleksandra Drizo (Professor)**

Tunghai University International College

#### **Abstract**

Environmental, social, and governance (ESG) factors have become increasingly important to businesses in recent years as a result of the world's expanding environmental pollution issues. ESG refers to a group of non-financial performance measures that assess a company's activities in terms of corporate governance, its social and environmental effect, and other factors. ESG factors are critical for managing risks associated with environmental and social issues. Climate change, for example, is a significant risk for businesses, and companies that fail to address this issue may face reputational and financial risks. This research is conducted with the help of Karos integrated marketing agency and two of their clients as main case studies, Herb Pork and Pear Cafe. Herb Pork stands out from its competitors by prioritizing the welfare of pigs. The pigs are raised with a combination of European-style herbs and special Chinese herbal prescription to achieve high-quality goals in terms of meat safety, unique flavor, and health preservation. Pear Cafe, one of Karos's clients, aims to become a certified B Corp. The cafe offers catering and educational events, serving as a sustainable coworking space. The results demonstrated the fact that there are still big challenges and improvements should be made for these SMEs to keep up with the regulations. However, through the comprehensive interview and implementation, It is obvious that the companies have raised strong awareness in terms of sustainabilit

## **Academic Topics: A-16**

### **Assesment of student attitude, behaviors, and awareness toward energy-saving practices in Taiwan**

**Bright Hubert Mbuya, Elvis Kilasara Frank, Gretta Dushime and Leilla Ishimwe**  
Chang Jung Christian University

#### **Abstract**

Humans' primary source of energy is currently non-renewable energy. As demand grows, global challenges such as climate change and global warming become more severe. University students' perspectives on these issues are important as they are young people who will be more impacted by environmental challenges and may play a key role in making good choices in the future if well-equipped.

In this study, the awareness, attitudes, and behaviors of students toward energy saving were assessed using a questionnaire survey, which was provided to students from different cultural backgrounds and departments. The results showed that although most students reported familiarity with energy-related words, they did not actively engage in self-energy-saving behaviors. The findings also showed that, while students' behaviors are not affected by their age or gender, their awareness of energy conservation is influenced by the academic year and curriculum. Furthermore, the study found that the majority of students are eager to learn more about energy conservation if given the opportunity. The outcomes of this study will serve to provide a basis for aiding in the conversion of students' perceptions toward energy conservation.

## **Academic Topics: A-17**

### **Luxurious vs. economical products & discount promotions**

**Eric Huang, Penny Lu, Haley Chen, and Yevvon Chang (Associate Professor)**

Tunghai University International College

#### **Abstract**

Customer perceptions of value are crucial in purchasing decisions. Chanel and Charles & Keith use distinct strategies to maintain sales: brand loyalty and high quality for Chanel, and reasonable pricing for Charles & Keith. Pricing tactics like charming pricing and promotions influence the perception of value, making customers feel they receive more for the price paid.

## **Academic Topics: A-18**

### **Lithium ion vs vanadium redox batteries (applied in an electric grid)**

**Anthony Chow**

Northeastern University

#### **Abstract**

With many countries striving to reduce carbon emissions and go green in the coming years, the energy industry is rapidly developing technology to meet these goals. Taiwan hopes to have renewable energy take up 20% of their supply by 2025. However, for the eventual progression of clean energy past that, there must be methods of distributing energy across a national grid. The following research evaluates and compares the suitability of two battery types, lithium-ion batteries (LIBs) typically used in electric vehicles (EVs), and vanadium flow batteries (VFBs), for storing and distributing energy in solar farms. The scope of the research considers the economic viability of these energy sources, their performance and safety as energy sources, and finally, their convenience and ease of deployment.

## **Academic Topics: A-19**

### **Application of recycled materials for sustainable hand sheet paper making**

**Ryan Lee, Nadia Chang, Kezia Gracia and Zilma Daniel**

Tunghai University International College

#### **Abstract**

The presented poster describes different process steps of making small paper handsheets from various cellulosic collected fiber materials.

The first step was collecting the fibrous material, in our case recycled board, tree cotton, copy paper, leaves.

The second step was to manufacture a handsheet mold from wood and a polyester screen net as the main sheet making tool to produce a 230 x 130 mm handsheet.

The third step was to prepare the papermaking solution by mixing and blending the fiber material with a kitchen blender. This includes mixing the above fiber material with a slurry made from regular copy paper

In the fourth step includes making the handsheets and air drying the manufactured handsheets.

The fifth step includes tests for printing.

## **Academic Topics: A-20**

### **The application of classical approach in the Big 4 accounting firms- How they attract, retain and motivate employee**

**Ooi Wei Gen**

Tunghai University International College

#### **Abstract**

According to classical management theory, employees are strongly motivated by their physical needs and monetary incentives. Organizations that implement this management style often incorporate regular opportunities for employees to be rewarded for their productivity with incentives.

## **Academic Topics: A-21**

### **From waste to paper: Specialty paper with sustainable materials**

**Stefanie Yang, Jessica Tai, Wendy Wu and Jorge Estevez**

Tunghai University International College

#### **Abstract**

The presented poster describes different process steps of making small paper handsheets from various cellulosic collected fiber materials.

The first step was collecting the fibrous material, in our case recycled coffee cups, palm tree leaves, banana peels, and grass.

The second step was to manufacture a handsheet mold from wood and a polyester screen net as the main sheet making tool to produce a 230 x 130 mm handsheet.

The third step was to prepare the papermaking solution by mixing and blending the fiber material with a kitchen blender. This includes mixing the above fiber material with a slurry made from regular copy paper.

In the fourth step includes making the handsheets and air drying the manufactured handsheets.

The fifth step includes tests for printing.

## **Academic Topics: A-22**

### **A credit for sustainable future. Carbon credits**

**Doris Shih, Ivy Kuo, Anita Su, Nai Yee Shyen, and Yevvon Chang (Associate Professor)**

Tunghai University International College

#### **Abstract**

The idea behind carbon credits is to create a market-based mechanism to incentivize emissions reductions. By creating a monetary value for each tonne of carbon dioxide (or equivalent greenhouse gas) that is prevented from being released into the atmosphere, carbon credits provide a financial incentive for businesses and governments to reduce their emissions.

**The water-saving model of toilet flushing pressurization**

**Eason**

Taoyuan Municipal Nei-Li Senior High School

**Abstract**

The study is investigating on adjusting toilet water Pressure to save water, especially in Taiwan where water resources are scarce. The use of control variables such as water volume, pressure, and pipe diameter is a wise approach to understanding the impact of these factors on water-saving models. The experimental results show that 1. Pressure and decontamination have a logarithmic relationship, which means that as pressure increases, decontamination increases, but the decontamination marginal effect gradually decreases, 2. The flushing effect is better with a shrink tube. 3. Additionally, there is a quadratic function relationship between the decontamination difference and the pressure, which means that there is an optimal pressure for the shrinkage effect, which maximizes the effect of decontamination, and the addition of shrinkage pipes for each flushing water volume has its optimum decontamination pressure, which can achieve the maximum decontamination effect. In conclusion, the study's focus on adjusting toilet water pressure to save water is a crucial step towards sustainable water management in Taiwan. The findings provide valuable insights into ways to optimize water-saving models for toilets, which can have a significant impact on water conservation efforts in the region. The study's recommendations can help households, businesses, and policymakers make informed decisions about water-saving technologies and practices, ultimately contributing to the sustainable use of water resources in the region.

## **Academic Topics: A-24**

### **Investigation of sustainability awareness among students in Taiwan (Senior project)**

**Ray Huang and Alexandra Drizo (Professor)**

Tunghai University International College

#### **Abstract**

With the development of human beings, Taiwan's environment continues to deteriorate. For Taiwan's future environmental sustainability, social harmony, and economic development, I think the young people of our generation also need to take it seriously and learn how to be more environmentally friendly. Through the questionnaire, we can understand students' understanding of sustainable development and where they get relevant knowledge, and investigate whether their future work is willing to be related to sustainable development. According to the needs and wishes of young people, the government can carry out more policy planning, or add more channels, so that students can obtain a more correct and complete awareness of sustainable development.

## Multimedia Videos: V-1

### Jay Chou

**Scott Chien and Thomas Lin**

Tunghai University International College

#### **Abstract**

This short biographical video tells the story of Jay Chou, the Taiwan-born singer, songwriter, and creative artist. It traces Chou's life, from the childhood emergence of his musical talent to his promotion by Jacky Wu, meteoric rise in the Taiwan pop charts, and marriage to Hannah Quinlivan. We show highlights from some of Chou's most well-known songs and talk about what makes Chou the 'king of mandopop.'

## **Multimedia Videos: V-2**

### **The rise of Mayday**

**Serge Chao and Linus Chen**

Tunghai University International College

#### **Abstract**

This video traces the rise of Mayday, from a group of high school friends playing music together to one of Taiwan's most influential bands. It highlights their early days performing in small venues, their breakthrough in 2000, and the strong friendship that has held the group together over the years. Along the way, it emphasizes how their music and lyrics connect with fans across different generations. The presentation also includes reflections from the band and others on what makes Mayday's concerts such a powerful shared experience. It ends with a montage of live performance footage that captures the raw energy, emotion, and sense of unity that define a Mayday show.

## **Multimedia Videos: V-3**

### **Teresa Teng**

**Callysta Seraphine and Patricia Ivana Simanggang**

Tunghai University International College

#### **Abstract**

This video offers a brief look at the life and career of Teresa Teng, tracing her rise from a young singer in Taiwan to an international star. Using photos and historical footage of live performances, it shows how her early training, family support, and talent helped her gain recognition across Asia. The video also highlights her success in Japan and other countries, as well as the challenges she faced, including censorship in different regions. It touches on Teng's musical versatility and ability to connect with audiences in multiple languages. The presentation ends by reflecting on her lasting influence and the sense of loss following her untimely death at the age of 42.

## **Multimedia Videos: V-4**

### **Eric Chou**

**Catherine Lin and Carin Novianty Lim**

Tunghai University International College

#### **Abstract**

This video gives a brief overview of Eric Chou's life and music, using a mix of photos and clips from some of his best-known songs. It traces his early years, his move to Boston, and how he gradually found his voice as a singer and songwriter. The presentation also highlights a few key milestones in his career, including his breakout hits and growing popularity in Mandopop. It closes with a short personal reflection from Chou on what singing means to him, adding a more personal touch to the overall story.

## **Multimedia Videos: V-5**

### **Swifties "The Man" recreated video**

**Dylan Clasby, Michael Sanchez and Liberty Mata**

Trinity University

**Tina Lo and Teresa Balounova**

Tunghai University International College

#### **Abstract**

This music video was made for the Women, Music, and Culture class. The song verses are meant to showcase how differently young women and men are treated from each other in daily activities. The chorus shows both genders dancing and having fun together to encourage unity and friendship.

## Multimedia Videos: V-6

### Flowers

**Nicole Huang, Maggie Su, Jennifer Wang, Christina Chang and Jasmine Chiu**

Tunghai University International College

#### **Abstract**

This song is talking about a girl who was hurt by a man they deeply love each other. Waste her youth to hang out with him. After they broke up, she realizes that she is a happy girl as a blooming flower.

We are going to perform the changing of emotions, using some simple prop to explain.

## **Multimedia Videos: V-7**

### **Break up with your girlfriend, I'm bored**

**Penny Lu, Fiona Fan, Sharlyn Yu, Yirong Li, Christy Lin and Angelina Chou**

Tunghai Univeristy International College

#### **Abstract**

Story of our music video: A love triangle between three students in the same University. At the beginning, a woman-Ariana bumped into a man-Sean in the campus, but actually Sean already had a girlfriend-Olivia, Sean soon has a crush on Ariana. Afterwards, Ariana and Sean soon found out that they had the same class with each other, thus, they also get to know each other more. Moreover, Ariana later walked into a party place and meet Sean and Olivia, suddenly she found out that her dress is similar to Olivia's, but Olivia still invite Ariana to dance with them. Despite this, Ariana and Sean start flirting with each other, it can tell Sean is very attractive to Ariana that doesn't even look at his girlfriend Olivia. Unfortunately, Ariana's initial purpose of getting close to them is to make Sean break up with Olivia, so that she has a chance to be with Olivia.

## **Multimedia Videos: V-8**

### **Scars to your beautiful-Alessia Cara (cover)**

**Monica Zefanya, Marcella Benedikta, Valencia Sufanto, Vonny Cristina Tan, Anna Bai, Minnie Chang and Special Shi**

Tunghai University International College

#### **Abstract**

“Scars to your beautiful” is a song about acceptance of our insecurities. We picked this song specifically to address the common problems of society that many girls have gone through nowadays. There are three main characters in our music video. Monica represents insecurities, Vonny represents bullying problems that still commonly occur in society, and Special represents family problems.

## **Multimedia Videos: V-9**

### **Discover Taiwan through Music**

**James Lee**

Trinity University

#### **Abstract**

This multimedia presentation delves into the captivating world of Taiwanese music culture and highlights its potential as an effective tool for language learning. Focusing specifically on how students can leverage music to enhance their Chinese proficiency, the presentation features two iconic Taiwanese songs, "Mo Li Hua" and "Lan Hua Cao," as key examples.