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MULTIDISCIPLINARY
STUDIES**

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RISE 2024
Research Innovation for Sustainable Education

**1st ICREATE
INTERNATIONAL
CONFERENCE ON RESEARCH & EXHIBITS
ON AVIATION & AERONAUTICS, TOURISM,
ENGINEERING & EDUCATION**

 **WCC AERONAUTICAL & TECHNOLOGICAL COLLEGE
BINALONAN, PANGASINAN, PHILIPPINES**

 **MAY 28-29, 2024**

ORGANIZED BY



CO-HOSTED BY



IN PARTNERSHIP WITH



ABOUT

1st International Conference on Research & Exhibits on Aviation & Aeronautics, Tourism, Engineering & Education (RISE 2024: ICREATE)

The WCC-ATC Binalonan Campus' will hold the “Research Innovation for Sustainable Education 2024: International Conference on Research & Exhibits on Aviation & Aeronautics, Tourism, Engineering & Education (RISE 2024:ICREATE) with the theme Innovating for Sustainable Futures: Advancing Aviation, Aeronautics, Tourism, Engineering, and Education” is an event scheduled to take place on May 28 and 29, 2024. The event aims to exhibit research projects and foster a research culture that promotes innovation and research engagement in the field of Aviation, Aeronautics, Tourism, Hospitality Management, Business, Finance, Management, Education and Engineering & Technology aligned with the Harmonized National Research Agenda and Sustainable Development Goals.

With a focus on fostering multidisciplinary research and collaboration, RISE 2024: ICREATE serves as a dynamic platform for the exchange of innovative ideas, cutting-edge research findings, and best practices across a spectrum of fields crucial to global development specifically in the fields of aviation, aeronautics, tourism, engineering and technology, and education of various fields including hospitality management, business, finance, and management. This pioneering conference will feature a comprehensive program encompassing keynote speeches, plenary sessions, panel discussions, paper presentations and project exhibits. Through these diverse avenues, attendees will engage in insightful discussions, gain valuable insights, and establish meaningful connections with peers and thought leaders in their respective fields.

RISE 2024: ICREATE showcases the latest advancements and trends in Aviation, Aeronautics, Tourism, and Engineering & Technology, addressing critical issues facing these industries while exploring emerging opportunities for growth and development. Moreover, the conference highlights the integral role of Tourism, Hospitality Management, Business, Finance, Management, Education in shaping global economies and fostering sustainable development, with a focus on innovative approaches to enhancing visitor experiences and preserving natural and cultural heritage, discovering business opportunities, and expand knowledge in general education specially in providing sustainable development in the community.

In addition to aviation, aeronautics, and tourism, RISE 2024:

ICREATE extends its scope to encompass the broader field of engineering, encompassing diverse disciplines such as civil, mechanical, electrical, and computer engineering. Participants will have the opportunity to explore innovative research and technological innovations with a particular emphasis on their applications in Aviation, Aeronautics, Engineering & Technology Tourism, Hospitality Management, Business, Finance, Management, Education Technology, Social Science, Arts & Humanities, Criminal Justice Education, and Health Technology.

The WCC-ATC- Binalonan Campus is organizing this event to provide a platform for students, researchers, educators, and professionals to present their research findings, share innovative practices, and research engagement. The specific details regarding the venue, schedule, and participants may vary depending on the organizer of the event.

The research exhibits component of the event will likely involve showcasing research projects, prototypes from the College of Aviation, College of Avionics Technology, Aircraft & Maintenance Technology, Aeronautical Engineering and demonstrations related to sustainable education by the College of Tourism, Hospitality Management, Business & Finance Management, Education Technology, Social Science, Arts & Humanities, Criminal Justice Education, and Health Technology which will be presented by the students and professional with collaboration of the partner institutions and participating institution. This provides an opportunity for researchers to present their work visually and interactively to attendees, fostering knowledge exchange and collaboration.

The research conference, on the other hand, typically involves presentations or panel discussions where researchers, experts, and practitioners share their insights, findings, and experiences related to sustainable education. It serves as a forum for intellectual discourse, allowing participants to engage in discussions, ask questions, and gain valuable insights from the presenters.

Overall, the WCC-ATC RISE 2024:ICREATE provides a platform for researchers and educators to contribute to the advancement of sustainable education through research, innovation, and research engagement.

The following are in the SEVEN (7) equally significant research program areas:

1. Aviation & Aeronautics
2. Tourism & Hospitality Management
3. Engineering and Technology
4. Business, Finance and Management
5. Educational Technology, Social Studies, Arts & Humanities
6. Criminal Justice Education Technology
7. Health Technology

HIGHLIGHTS

WCC-ATC RISE 2024:ICREATE serves as a venue for sharing and discussing research issues, concerns and output in a scholarly yet friendly environment. The RISE 2024:ICREATE International Research Conference & Project Exhibits Highlights will span two (2) days and will include a rich assortment of sessions such as:

KEYNOTE SESSION: Distinguished experts will deliver keynote speeches that focus on the event theme of regional, national and international relevance.

PLENARY SESSIONS: Invited scholars and industry leaders will hold panel discussions and interactive sessions on multidisciplinary topics.

RESEARCH PROJECT EXHIBITS: Showcasing of Innovative Products, Projects on Development of Community to a more Sustainable Cities and Communities

RESEARCH PRESENTATIONS: An opportunity for students, faculty, non-teaching personnel and other professionals to present their original completed and ongoing research work, receive feedback, and network with peers and professionals.

RESEARCH AWARDS: A ceremony to honor outstanding research work and presentations during the conference.

BEST RESEARCH PROJECTS

Food & Non-Food Category

BEST IDEA AWARD

Food & Non-Food Category

BEST RESEARCH PAPERS

BEST PRESENTERS

The RISE 2024:ICREATE International Research Conference & Project Exhibits will be participated in by students, faculty, non-teaching personnel, innovators, research enthusiasts from invited partner institutions, stakeholders, media and industries; and government bodies, academicians and administrators as speakers.

CONFERENCE PARTNERS



GUIDELINES

ABSTRACT SUBMISSION GUIDELINES:

1. Submit a 200 to 300-word abstract consisting of the following sections:
 - a. Title of the Paper
 - b. Name of Author/s
 - c. Affiliation
 - d. email address
 - e. logo of the College/University
 - f. picture of the Main Author
 - g. Content must contain the rationale, objectives, methods, results and recommendations.
 - h. Keywords (at least 5 words)
2. Abstract should be submitted electronically in PDF Format

FULL PAPER SUBMISSION GUIDELINES:

1. The full paper should follow the prescribed format with the following parts:
 - a. Title of the Paper
 - b. Name of the Author/s
 - c. Affiliation
 - d. Email Address
 - e. Abstract
 - f. Keywords
 - g. Introduction
 - h. Methodology
 - i. Results and Discussions
 - j. Conclusion and Recommendations
 - k. Bio-note of the Authors
2. Full paper should be submitted electronically in MS Word file.

REVIEW PROCESS

1. All abstracts will undergo a blind peer-review process. The Review Committee will evaluate submissions and notify authors of acceptance via email one to two weeks after the submission deadline.
2. All submitted papers will be evaluated for the selection of Best Paper.

PROJECT EXHIBIT GUIDELINES

This project exhibit aims to bring together the most-tech savvy and innovative products/projects align with the Harmonized National Research Agenda and Sustainable Development Goals and enhance partnership with different colleges and universities in line with research and technology. This exhibit seeks to encourage these students, faculty and professionals to think and propose out-of-the-box solutions and provide students the much-

needed space to present their projects and ideas especially to disseminate knowledge and share innovations that could form part of the country's pool of practices in the hope of gaining a sustainable cities and communities.

- Exhibitors

- o The exhibitors shall be categorized as:

- Food Category

- Tourism & Hospitality Mgt. Students from participating institutions

- Business, Finance & Mgt Students from participating institutions

- Non-Food Category

- Aviation & Aeronautics Students from participating institutions

- Engineering, Education and IT Students from partner institutions

- Educational Technology, Social Studies, Arts & Humanities from partner institutions

- Criminal Justice Education Technology from partner institutions

- Health Technology from partner institutions

- o Duration of Submission – Organizers will start accepting entries via online submissions from April 25, 2024

- Exhibit Requirements

- o School entries must have been researched and developed (food and non-food products) prior to the event proper.

- o They must submit their latest or existing school projects using any developed food and non-food products, robotics, machineries, parts, and platforms.

- o Must highlight their latest product innovations (food and non-food products) that might be significant in Harmonized National Research Agenda and Sustainable Development Goals and can be of great help to the institution.

- o The project exhibit will be displayed together with the relevant materials e.g. promotional ads submitted by the participating school for exhibition.

- Content

- o Each exhibitor shall also submit IMRAD full paper (see attached template)

- o Each exhibitor must present a poster, banner, catalogue (if available), and other media-related materials highlighting the special features of the robotic technology, product or service. Prepare and print a 2ft x 5ft poster.

- o They can present different media elements that may include high-quality photos, charts, diagrams, illustrations, etc. that would help bring the content to life.

- o The exhibitors must submit a video (if applicable) showing the capability of the project in solving a problem and serve as aid to their respective department/colleges and the institution; or a sustainable

project that would be of great help to aid the community.

- Exhibit Proper
 - o All exhibit materials must be submitted for thorough screening.
 - o Each exhibitor will be given a booth in the Cabin Hall, WCC ATC Binalonan Campus

RESEARCH PRESENTATION GUIDELINES

- Oral Presentation Guidelines
 - o Papers are grouped closely according to the selected project discipline.
 - o To minimize technical errors, the presenter may submit their PowerPoint presentation on or before May 20, 2024.
 - o Use English as a medium for presentation.
 - o The suggested number of slides is 15-25, however, it will depend on the decision of the presenter as long as it will not exceed on the allotted time. Each presenter is given 5 to 10 minutes presentation.
 - o A 15-minute question and answer will follow after the presentation of the group presenters/cluster presenters.

Evaluation Criteria for Best Paper:

Originality	20%
Technical Merit of the Study	25%
Significance and Contribution of the Findings/Outputs	25%
Quality of information	20%
Language Usage	10%
Total	100%

Evaluation Criteria for Best Presenter:

Mastery of the Topic(Show extensive knowledge of the topic)	30%
Language Use and Delivery(Communicate effectively)	25%
Quality of the Presentation	25%
PowerPoint Presentation(Clarify of presentation of graphs/images)	10%
Over-all Impact	10%
Total	100%

Evaluation Criteria for Best Research Project:

Technical Design	30%
Programming, Functionality and Innovation	25%
Presentation & Teamwork	25%
Documentation	10%
Over-all impact	10%
Total	100%

Evaluation Criteria for Best Idea Award:

Innovation Integration	30%
Clarity and Usability	25%
Sustainability of the Idea	25%
Stability and Scalability	10%
Over-all impact	10%
Total	100%

Conference Fees:

1. One paper presentation:
Student (₱2500 Early Bird Payment)
(₱3000 Regular Payment)
Professional (₱3400 Early Bird Payment)
(₱3900 Regular Payment)
**Inclusive of Kit, Book of Abstract, Program, ID, Certificate and Foods & Refreshments*
2. Non-paper presenter/Observer will have to pay (₱1300 Early Bird Payment)
(₱1500 Early Bird Payment)
**Inclusive of Kit, Program, ID, Certificate and Foods & Refreshments.*
3. Publication: IJAMS
Online Publication with ISSN: ₱4,500
Printed & Online Publication with ISSN & ISBN and National Index: ₱5,500
**Inclusive of Journal.*

PAYMENT DETAILS:

Bank Details:

BDO Account Name: WCC Aeronautical and Technological College Inc.

BDO Account Number: 001498023954

Landbank : 5692110457

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CONFERENCE COMMITTEE:

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Conference Chairs	Dr. Rosalie Sheryll T. Rosales, CMITAP, DBA
	Dr. Darwin G. Quintos, CHP, CHCD, PhD(c)
Conference Co-Chairs	Prof. Dannah Valerie J. Dulnuan, MPA
	Prof. Angielyn M. Raquedan, MBA
Co-Hosts	University of Luzon
	Pangasinan State University
	Senor Tesoro Colleges
	Lyceum-Northwestern University
	Baguio Central University
	University of Eastern Pangasinan
PARALLEL SESSIONS	
Session Chairs	One representative from each co-Host HEIs
Evaluator	One representative from each co-Host HEIs
Technical Team (2)	From the Organizer and Partner Institution
Facilitator/Moderator	One representative from each co-Host HEIs
Site Layout	Doc Lorna Sir Raffa DSA SBO
Floor Planning	Safety WCC-ATC Binalonan Campus
Technical Support/Assistants	ITSD and Engineering WCC-ATC Binalonan Campus
Pictures & Documentation	The Chronicles WCC-ATC Binalonan Campus The Chronicles WCC-ATC North Manila Campus Marketing Team
Program & Awards Committee	RPDO WCC-ATC Binalonan Campus RPDO WCC-ATC North Manila Campus
Food Committee	WCC-ATC Binalonan Campus
Logistics	
EMCEE	Ms. Andrea Liz Ebilane

PROGRAMME

DAY 1: PROJECT EXHIBITS & PROJECT PRESENTATION

8:00am to 8:30am	Registration and Billeting	
8:30am to 8:50am	Cutting of Ribbon	CHED Region 1 WCC-ATC President WCC-ATC Executives Co-Hosts/Partner Institutions Participants & Guests
8:50am to 9:00am	Invocation National Anthem Pangasinan Hymn Binalonan Hymn CHED WCC-ATC Hymn	
9:00am to 9:10am	Welcome Remarks & Introduction to the President	Dr. ROGER A. MARTINEZ, JR. Executive Chairman, RISE 2024: ICREATE
9:10am to 9:25am	Welcome Address	Mr. RAYMOND PATRICK V. GUICO, MM President World Citi Colleges & WCC Aeronautical & Technological College, Inc.
9:25am to 9:55	Message from the University Presidents	Dr. LUIS M. SAMSON JR. President, University of Luzon Dr. ELBERT M. GALAS President, Pangasinan State University Dr. MARGARITA CECILDA B. RILLERA President, Baguio Central Universit Dr. LUZ T. DUQUE-HAMMERSHAIMB President, Lyceum Northwestern University

		<p>Dr. EVELYN A. TOMBOC President, University of Eastern Pangasinan</p> <p>Pres. EDITHA T. CARDOZO President, Señor Tesoro College</p>
9:25am to 9:35am	Inspirational Talk	<p>Dr. CHRISTINE NABOR FERRER Director IV Commission on Higher Education, Regional Office I San Fernando City, La Union</p>
9:25am to 9:50am	Keynote Address Innovation, Technology Transfer, Intellectual Proper and Patenting of Research Project	<p>Dr. THELMA D. PALAOAG Director, Innovation & Technology Transfer University of Cordilleras Baguio City</p>
9:51am-11:10am	Plenary Talk 1	<p>DR. HWANSOO JUNG CEO, Biochar Company Vice Chairman, Innopolis Community South Korea</p>
	Plenary Talk 2	<p>Ms. MARIA LUISA A. ELDUAYAN Chief, Provincial Tourism Officer & Cultural Affairs Office</p>
	Plenary Talk 3	<p>Ms. NATALIA DALATEN Provincial Director DTI Pangasinan Office</p>
	Plenary Talk 4	<p>Engr. LEONORA QUARTE Education Supervisor II Commission on Higher Education, Regional Office I San Fernando City, La Union</p>
	Plenary Talk 5	<p>Dr. LEONILO CAPULSO CEO, Beyond Books Publications IJAMS</p>
11:10am to 11:20am	Awarding of Certificate of Recognition to the Keynote Speaker & Plenary Speakers Pictorial/Documentation	

11:20am to 12:00nn	Special Number: Cultural Dance Special Number: Ms. Paula Sagun, WCC Musikalipad, Ms. Jam Manuel & AMT Department	
11:16am to 12:00nn	Presentation of Delegates and Participants in the Project Exhibits Project Presentation and Exhibits & Assessment/Judging	Dr. Rosalie Sheryll T. Rosales Director, RPDO WCCATC Binalonan Campus Dr. Darwin G. Quintos Director, RPDO WCCATC North Manila Campus
12:00pm-1:00pm	LUNCH BREAK	
Parallel Sessions (1:00-4:00 PM)	Mechanics of the Presentation/Presentation Proper	
Parallel Session 1: <i>Aviation & Aeronautics</i>	Session Chair 1.1 Mr. Jerome Almario Session Chair 1.1 Capt. Kianah S. Vincoy Session Chair 2.1 Capt. Kayle Vincent D. Mallari Session Chair 2.2 Engr. Aries Hernandez	
Parallel Session 2: <i>Engineering and Technology</i>	Session Chair 3.1 Prof. Lersan Del Mundo Session Chair 4.1 Dr. Rhowell Dellosa	
Parallel Session 3: <i>Tourism & Hospitality Management</i>	Session Chair 5 Dr. Renato Salcedo Session Chair 6 Dr. Ma. Emma J. Tuvera	

DAY 2: RESEARCH PRESENTATION

7:30am to 8:00am	Registration	
8:00am to 8:15am	Invocation National Anthem Pangasinan Hymn Binalonan Hymn CHED WCC-ATC Hymn	
8:15am to :8:25m	Opening Remarks	Mr. RAYMOND PATRICK V. GUICO, MM President World Citi Colleges & WCC-ATC
8:25am to 8:45am	Message on Internationalization	Dr. Christine N. Ferrer Director IV Commission on Higher Education, Regional Office I
8:45am to 9:10am	Keynote Speaker	Dr. Nurzal Effiyana Binti Ghazali Director, Centre for Engineering Education Universiti Teknologi Malaysia Johor, Malaysia
9:10am to 9:25am	Plenary Speaker	Dr. Paul Doungrtran Full Professor, Department of Social Work College of Health, Nursing, and Human Services California State University, Dominguez Hills, Carson, California
Special Numbers		
9:30am to 10:00am	Awarding of Certificate of Recognition to the Speakers & Co-Host/Partner Institution Pictorial/Documentation	
(10:00am - 12:00pm)	Mechanics of the Presentation/Presentation Proper	
Parallel Session 4 <i>Business, Finance and Management</i>	Session Chair 7 Prof. Melody Villacorta, CPA Session Chair 8 Dr. Jeanica C. Joson	

Parallel Session 5 <i>Educational Technology, Social Studies, Arts & Humanities</i>	Session Chair 9 Dr. Cynthia P. Lopez Session Chair 10 Session Chair 11 Session Chair 12
Parallel Session 6 <i>Criminal Justice Education Technology</i>	Session Chair 13 Dr. Aldrin Tarangco Session Chair 14 Dr. Maribeth J. Dulnuan
Parallel Session 7 <i>Health Technology</i>	Session Chair 15 Dr. Rodney Odesson P. Raguidin Session Chair 16 Dr. Gina Casi
12:00pm-1:00pm	LUNCH BREAK
1:00pm to 3:00pm	Awarding Ceremony
3:00pm to 3:30pm	Closing Remarks
	Dr. ROGER A. MARTINEZ, Jr., LPT, CGSP Vice President for Academic Affairs WCC-ATC



1st 
INTERNATIONAL
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 RESEARCH & EXHIBITS ON
 AVIATION & AERONAUTICS,
 TOURISM, ENGINEERING &
 EDUCATION

ICREATE 2024

EXTENDED UNTIL APRIL 20, 2024

CALL FOR PAPERS

 **WCC AERONAUTICAL & TECHNOLOGICAL COLLEGE BINALONAN, PANGASINAN**
 **MAY 28-29, 2024**

PRESENTER

STUDENT

2500 PHP (EARLY BIRD PAYMENT)
3000 PHP (REGULAR PAYMENT)

PROFESSIONAL

3400 PHP (EARLY BIRD PAYMENT)
3900 PHP (REGULAR PAYMENT)

NON PRESENTER (OBSERVER)

***1300 PHP (EARLY BIRD PAYMENT)**
***1500 PHP (REGULAR PAYMENT)**

INTERNATIONAL PUBLICATION (IJAMS)

***4000 PHP (ONLINE)**
***5000 PHP (PRINTED & ONLINE)**

SCAN TO SUBMIT


<https://forms.gle/eKj28AVeZ9cLhBP7>




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SUB CATEGORIES

- TOURISM AND HOSPITALITY MGMT.
- AVIATION AND AERONAUTICS
- BUSINESS, FINANCE, MANAGEMENT
- EDUCATIONAL TECHNOLOGY, SOCIAL STUDIES, ARTS AND HUMANITIES
- CRIMINAL JUSTICE EDUCATION TECHNOLOGY, HEALTH TECHNOLOGY
- ENGINEERING & TECHNOLOGY

IT SHOULD BE ALIGNED WITH THE NATIONAL HARMONIZED RESEARCH AGENDA (NHRA) OR SUSTAINABLE DEVELOPMENT GOALS

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BOOK OF ABSTRACT
International Journal of Advanced
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AVIATION AND AERONAUTICS

Knowledge, Attitude, And Practices of The Student Pilots on Having Experienced Home-Based Simulators Prior to Enrolling in Flying Schools Compared to Having None



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This study aimed to investigate the Knowledge, Attitude, and Practices (KAP) of student pilots with and without prior experience in home-based flight simulators before enrolling in flying schools. The study utilized a mixed-method approach to distinguish differences in the Knowledge, Attitude, and Practices (KAP) and to determine their correlations. Quantitative data analysis was used to evaluate significant disparities in student pilots' knowledge and attitude considering that some student pilots have exposure to home-based flight simulators (HFSs) before their formal training and some do not have any experience. Qualitative method was used to analyze the Practices of student pilots through interviews and their Attitudes through observation. The study revealed that there was no significant difference between student pilots with experience in HFSs and those with none, but what was identified was the distinctive attitudes and practices they showed influenced by their exposure towards home-based flight simulators (HFSs). The correlation between KAP shows the relationship between Knowledge, Attitude, and Practices. Recommendations include longitudinal study and in-depth analysis to track knowledge development over time. This includes determining factors that contribute to more insights into the student pilots' effective knowledge application during their transfer of learning to actual training. This study provides valuable insights for aviation studies to enhance student pilots' training strategies and address the diverse needs of student pilots.

Keywords: Knowledge; Attitude; Practices; Home-based Flight Simulators

Human-Centered Approach of Philippine Air Traffic Control Operators (ATCOs): A Comprehensive Cognitive Evaluation Towards Decision Making and Resiliency



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The exponential growth of the Philippine aviation industry cultivates the upsurge of air traffic volume and flight delays that imposes great pressure on Air Traffic Control Operators (ATCOs) to achieve efficient and safe Air Traffic Management (ATM). This paper explores an in-depth cognitive analysis of Philippine Air Traffic Control Operators (ATCOs) to produce a comprehensive approach toward decision-making and resiliency. The study specifically targeted ATCOs registered under the Civil Aviation Authority of the Philippines (CAAP), encompassing different ratings within the profession- 20 participants were selected through a parametric convenience sampling technique tailored to the practical constraints of active ATCOs. The investigation integrated principles from aviation psychology, incorporating cognitive testing within a controlled setting. The researchers administered psychological assessments; Connor-Davidson Resilience Scale, Raven's Progressive Matrices, and Multi-domain Decisiveness Test, supervised by a registered psychometrician. The qualitative phase involved in-depth interviews with three ATCOs to further deepen the findings. Contrary to expectations, no significant differences in cognitive state and resilience were discerned between ATCOs with 0-9 and 10-20 years of experience. However, a significant difference is seen in decision-making indicating superior scores among those with a decade or more of service. Moreover, psychological variables influence resilience and decision-making, including cognitive and attentional decline, error recovery, situational awareness, and stress. Recommendations proposed by researchers in the case of replication studies as follows; investigations into gender and rating-specific, geographic locations and procedures influenced by culture that may influence the outcome of the study.

Keywords: ATCO, Attentional decline, Cognitive decline, Decision-making, Resiliency, Situational awareness, Stress

Attainment of Student Learning Outcomes of the BS in Aeronautical Engineering Students



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This research paper examined the attainment of Student Learning Outcomes (SLOs) among aeronautical engineering students of PATTS College of Aeronautics. To gather data on the perceived degree of attainment in various aspects of the aeronautical engineering program, the study focused on 30 graduating students and 30 alumni who were currently employed in the aviation industry. An online survey was utilized as the primary data collection tool. The survey results revealed a remarkably high level of student satisfaction concerning the attainment of learning outcomes. This strongly indicated that the students' assumptions aligned with the fact that the learning objectives received considerable instructional time and were deliberately reinforced to ensure a thorough comprehension and practical application. Moreover, the findings provided substantial support to the educational programs at PATTS College of Aeronautics, showcasing their effectiveness in preparing graduates for successful and fulfilling careers in the aviation field. The valuable feedback from working professionals who participated in the survey offered deeper insights into the applicability and practicality of their acquired knowledge and skills. PATTS College of Aeronautics' commitment to delivering a comprehensive and practical education was further fortified by the invaluable insights obtained from this study. The data played a critical role in the improvement of the program's curriculum, guaranteeing that future graduates would be equipped to excel in their careers and make significant contributions to the ever-evolving field. With this, the college could confidently nurture the next generation of skilled aeronautical engineers, poised to shape the future of aviation.

Keywords: Aeronautical Engineering, Aviation, Student Learning Outcome, Aviation Education. Aeronautics

Shop Material Acquisition in Aircraft Engine Electricals and Ignition System: Development of an Online Directory



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This study delved into the transformative influence of the Aircraft Engine Electricals And Ignition System course on students at PATTS College of Aeronautics. With an emphasis on expediting the acquisition of necessary supplies, the study sought to alleviate the difficulties students encounter in acquiring supplies that are required for their academic endeavors. The project looked into innovative ways to make learning materials easier in order to improve students' access to resources without experiencing undue hardship. The challenge of understanding how students can easily get the resources they need to meet the demands of their curriculum was among those that this research attempted to handle. The main objective is to set PATTS College of Aeronautics students on the correct path and create an atmosphere in which they can safely and effectively work on their challenging tasks. The study presents a user-friendly website that acts as a central platform for instructors and students in order to accomplish this goal. This website would be simple to use and give students detailed information on locations, contact information, and availability of materials. The project is to advance the general advancement of students' learning experiences at PATTS College of Aeronautics by streamlining the material acquisition process. The ultimate goal of this research is to enable teachers and students to effectively manage and attend to each other's needs in order to create a supportive learning environment.

Keywords: Aircraft Engine Electricals, Ignition System, Material Procurement, Learning Experience, Academic Resources

Contributing Factors of Error for Aviation Maintenance and Inspection: Identifying Aircraft Accidents, Causes, and Safety Recommendations From 2006-2023



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Aviation maintenance and inspection is a critical part of ensuring the safety of air travel. However, errors and failures in maintenance can lead to aircraft accidents. This study investigated the contributing factors to errors and causes in aviation maintenance and inspection. Using a Mixed-Method, quasi-experimental, and narrative approach, and record-keeping meta-analysis, data from CAAP/FAA Flight Accident Data Reports were analyzed. The study found that the frequency of aviation accidents attributable to maintenance errors has decreased in recent years, but substantial aircraft damage remains a concern. Human factors within the maintenance department, such as lack of knowledge, complacency, and negative norms, pose significant risks to airworthiness. Engine and landing gear failures are the most common culprits behind aviation accidents, highlighting the importance of rigorous maintenance and inspection in these areas. Recommendations include implementing comprehensive training programs that address human factors, investing in digital platforms for technical information, conducting stricter quality assurance measures, and encouraging a safety-first culture. For future research, exploring the potential of digital technologies, researching human factors specific to the aviation maintenance environment, and investigating the correlation between components, maintenance practices, and fatigue failure are suggested. These recommendations aim to mitigate the risk of maintenance errors and enhance aviation safety. By implementing these measures, the aviation industry can make substantial progress in preventing maintenance errors and associated accidents.

Keywords: aircraft accidents, aviation maintenance, contributing factors, safety recommendations

Correlation Analysis of the Tracer Studies of the BS in Aeronautical Engineering Graduates



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The paper presented a correlation analysis of tracer studies conducted on graduates from the Bachelor of Science (BS) in Aeronautical Engineering program. Using a Qualitative-Correlation Archival Research Meta-Analysis approach, the study aimed to explore the relationships between career outcomes and educational experiences to assess the program's effectiveness in preparing graduates for the aviation industry. The findings reveal a positive correlation between employability outcomes and graduates' perception of curriculum relevance. Educational institutions are advised to focus on providing industry-driven education to enhance students' employability while considering diverse perspectives in curriculum design. Furthermore, the study uncovered how core values instilled in graduates contribute to developing competencies relevant to the industry. Emphasizing practical and technical skills, along with fostering industry-aligned core values, enables institutions to better equip graduates for successful aviation careers. The paper concluded with recommendations in three key areas: curriculum improvement, continuous curriculum assessment through tracer studies, and the establishment of valuable connections with industry stakeholders to enhance program quality and job placement opportunities.

Keywords: Correlation, Aeronautical Engineering, Tracer Study

The Effects of Teaching Styles of Flight Instructors in the Flight Performance of Student Pilots



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Common problem of students of WCC-ATC and the student pilots around the globe is that the effect of the teaching style of their flight instructor is in line with their style of learning. This quantitative research investigates the correlation between the flight instructor's teaching styles and the flight performance of students at WCC Aeronautical & Technological College Binalonan. This study employs a structured survey instrument to gather data to 50 currently flying students and assess the effectiveness in enhancing student's flight performance. This study looks at how student pilots' flight performance is affected by the assimilation and accommodation-focused teaching styles used by flight instructors. It turns out that even though instructors primarily use the accommodation technique, student pilots undertaking flight training prefer the assimilation strategy. Though there is little connection between performance and teaching techniques during the first flight training, interesting trends start to crop themselves as the training goes on. Correlation study shows that assimilation correlates positively with better flight performance in subsequent sessions, but accommodations connect negatively with better performance in the last training session. Using different teaching styles to individual preferences may be crucial for optimal student pilot performance, with a shift in emphasis from accommodation to assimilation as training progresses.

Keywords: Flight instructor, teaching style, student pilot, flight performance, assimilation, accommodation

Assessing Flight Readiness and Safety Through I Am Safe-Air Developmental Apps



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The researchers employed a mixed-method through the use of a survey method to gather data and to correlate it with the profile of the students to determine the I AM SAFE-AIR DEVELOPMENTAL APPS TO ASSES FLIGHT READINESS AND SAFETY. This study focused on evaluating the readiness of student pilots in their flying activities. With the use of online surveys and questionnaires, data were gathered and tallied which helped the researchers to find the answers they needed for the study. The researchers considered 8 features that would determine the effectiveness of the app in evaluating the readiness of student pilots. These 8 features are Functional Suitability, Performance efficiency, Compatibility, Usability, Reliability, Security, Maintainability, and Portability. Based on the data gathered, all 8 fatures were highly effective as per respondents with Portability ranking the highest and Usability, though still highly effective, ranking the lowest. Furthermore, these 8 features are effective when it comes to evaluating the readiness of student pilots and each feature serves its own purpose. The researchers aim to help the students prepare for their flight training which will also promote a high sense of security in the safety of the student pilots.

Keywords: Flight readiness, safety assessment, student pilots, I AM SAFE-AIR, developmental apps

Enhanced Cross-Country Navigational Training E-Module for Learning Efficiency Enhancement for Student Pilots in WCC Aeronautical and Technological College



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This study aims to optimize the learning efficiency of student pilots at WCC Aeronautical and Technological College by introducing a cross-country navigational training e-module supplemented with comprehensive learning assessments. Employing a quantitative approach guided by the ADDIE Model, the development process of the navigational training e-module.

Cross-country flight training involves navigating to aerodromes beyond the departure point, typically initiated post-pre-solo training and first solo flight. By targeting the challenges encountered by student pilots during this phase, the researchers aimed to conceptualize and implement a cross-country flight training e-module app. Emphasizing the importance of accurate and up-to-date resources, a reliable platform was created to provide lessons with assessments tailored to Cross-Country Navigational training.

The study identified six essential topics crucial for inclusion in the cross-country navigational training e-module. Data collection involved surveys distributed to Licensed Flight Instructors at WCC-ATC, assessing the validity of the e-module content. Results indicated high validity and acceptability, aligning with the overall functionality, suitability, usability, maintainability, and security of the developed mobile application. Based on the findings, an e-module app and operational manual was developed for the enhancement of training for student pilots. The research underscores the endorsement of this navigational tool by Flight Instructors for distribution among student pilots.

Keyword: Cross-Country Navigation; ADDIE Model; Updated Resources; Learning Assessments; Training E-module

Evaluating the Influence of Emotional Intelligence on Flight Performance among Student Pilots



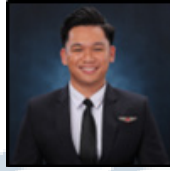
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This study explores the relationship between emotional intelligence (EI) and flight performance among student pilots, drawing on a range of academic literature from psychology and aviation. The aim is to understand how EI influences various aspects of aviation training, including self-awareness, decision-making, situational awareness, and communication, particularly in the fast-paced and high-stakes environment of aviation. The research involved assessing N=50 respondents from both AOM and COMFLY courses at WCC ATC. Despite little to no correlation in the regression analysis (R Square of 0.023 or 2.3%), and a low positive correlation (R value of .152), the study suggests that EI still plays a role in cognitive performance, safety, and airmanship. Respondents reported feeling a major influence of EI on cognitive performance (AWM of 3.47), a moderate influence on safety (AWM of 3.19), and a major influence on airmanship (AWM of 3.41). Despite the results however, the study acknowledges limitations such as the small sample size. It suggests that increasing the number of respondents could yield more robust results. Additionally, the researchers propose introducing a tertiary variable to better correlate EI with flight performance effectively. Overall, while recognizing the complexities of the relationship between EI and flight performance, the study underscores the relevance of EI in aviation training and suggests avenues for further research to enhance understanding and potentially improve training programs' effectiveness.

Keyword: Emotional Intelligence, Flight Performance, Influence, Student Pilot, Intelligence

Relationship of WCC-ATC Student Pilots' Personality Traits and Their Response to In-Flight Emergency



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Safety remains a priority in aviation, emphasizing technical proficiency and pilots' stress management and decision-making skills in critical situations. Recognizing the link between personality and emergency response is crucial. Reactions to emergencies hinge on the individual, influenced by various factors, including personality. Personality varies among student pilots, therefore reactions to emergencies also differ. The researchers observed a diversity in the personality traits exhibited by student pilots at WCC ATC when confronted with specific in-flight situations that demand immediate responses from taking risks and making prompt, decisive choices, to displaying a composed disposition, meticulously evaluating the situation, and considering various approaches. Conversely, some showed elevated anxiety and stress, which could lead to panic. This prompted the study, aiming to enhance pilots' skills by leveraging their personality strengths. It also aimed to address gaps in personality research within the Philippine aviation industry. This study investigates the relationship between the personality traits of student pilots in WCC ATC and their responses to in-flight emergencies. Utilizing standardized online personality tests and a researcher-made survey, it examines DISC and Eysenck's Personality theory traits and their correlation with emergency responses. The findings revealed that the prominent personality traits of the student pilots of WCC ATC were Dominance and Steadiness from DiSC Personality Traits, Extraverted, and Stable from Eysenck's Personality Traits, with communicating with the flight instructor and tower, and following emergency procedures strictly as their immediate responses during the emergency. The researchers concluded that there is no significant relationship between student pilot's personality traits and their response to in-flight emergencies. Despite this, a pamphlet was developed as a personal guideline for student pilots based on their personality. Furthermore, the researchers recommend integrating further studies to better understand how personality traits influence emergency responses, potentially enhancing future programs.

Keywords: emergencies, personality traits, in-flight emergencies, DiSC personality traits, Eysenck's personality traits.

Healthy Lifestyle Practices of Student Pilots: A Significant Factor in their Flying Performance



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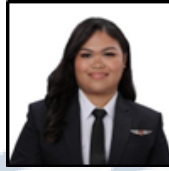
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This study investigates how leading a healthy lifestyle affects student pilots' general well-being and performance. The lifestyle and fitness decisions made by pilots are examined in light of biological, psychological, and social aspects (BPS). The purpose of this is to help the researchers create and ascertain the relationship between lifestyle elements. In light of this, with the use of a survey questionnaire, findings demonstrated that students at WCC Pilot Academy prioritized their psychological and social well-being over their physical health when it came to flight training, which is suggestive of a deliberate effort to promote a positive outlook during training. Furthermore, the results showed a significant relationship between the biopsychosocial characteristics baseline of the respondents and their adherence to healthy lifestyle practices, which was especially noticeable in regard to the outcomes of the neurological exam and physical evaluation. Certain procedures were less frequently observed, even though the majority of characteristics baseline were largely followed but not strictly enforced. In general, the study emphasizes how important respondents believed psychological and social well-being to be in order to ensure a successful and efficient flying performance, in addition to acknowledging the role that biological elements had in their lifestyle choices. To increase the accuracy of the investigation, the researchers employed the Pearson Product-moment. The Pearson correlation was utilized to validate the study and evaluate the association between the flying proficiency of student pilots and their healthy lifestyle choices. This study aimed to fill gaps in previous research on seasoned airline pilots, providing insights for students, instructors, and pilot academy.

Keyword: Lifestyle; career development; flying performance; biopsychosocial; student pilots

Contributory Factors to Radio Communication Errors: Enhancing Aviation Communication Management



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Radio miscommunication remained a major factor causing accidents and incidents in the aviation industry. Various studies and literature showed that much like the Swiss cheese model, fatal accidents caused by communication error between pilots and air traffic controllers is a domino effect of elements including technological factors, human factors, communication operation factors, and environmental factors. Examining these components advocates for the safety of air travel and provides a background for analyzing related incidents and accidents. The study utilized the descriptive quantitative research design aided with survey method. Additionally, questionnaires involving a Likert Scale were used to produce numerical data that were measured using the quantitative method. These questionnaires served as an essential tool in determining the profile of the respondents, their encounter with the contributory factors to radio communication errors, and their self-assessment of how frequent the contributory factors to radio communication errors affected them. The findings of the study indicate that there is no significant relationship between age and the encountered contributory factors to radio communication errors. It was also found that there is a significant difference between the encountered technological factors and the frequency of its effect. In conclusion, the majority of the respondents were aged 21 to 23 years old, spoke Tagalog, and had 61 to 100 flight hours. Technological factors were the most encountered factor to radio communication errors yet human factors affect the respondents the most. Significant relationship between dialect as well as the flight hours and the encountered contributory factors to radio communication errors were also found. With these findings, a strong recommendation on how to eliminate the future commitment of radio communication errors may be made.

Keywords: radio miscommunication; aviation radio error; communication management; radiotelephony; internal & external factors.

From Novice to Expert: Differentiating the Aviation Related Experiences of Flight Instructors in WCC ATC Binalonan



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This study investigates the aviation-related experiences of Flight Instructors at WCC Aeronautical and Technological College Binalonan to provide insights into the challenges and coping mechanisms encountered throughout their professional journeys. A qualitative narrative research design was employed, utilizing thematic analysis to explore the narratives of five selected Flight Instructors. Additionally, the study explores the potential development of a motivational booklet and video documentary based on the insights gathered from the participants. By emphasizing these experiences, the research contributes valuable insights to the aviation community, informing strategies for professional development and enhancing support systems for Flight Instructors within similar contexts.

The findings show that novices transitioning into instruction face hurdles like adjusting to teaching roles and managing diverse students but find guidance from colleagues. Patience and a positive outlook prove crucial for resilience and optimism. In the intermediate stage, instructors refine teaching skills, manage classrooms effectively, and prioritize collaboration for success. Experts handle increased responsibility, prioritize safety and excellence, and demonstrate a commitment to continuous learning and problem-solving. As a result of these findings, the researchers developed a motivational booklet and video documentary aimed at inspiring aspiring aviators and newly graduated commercial pilots to consider a fulfilling career as flight instructors. Based on these findings, a life experience booklet and video documentary were developed to motivate aspiring aviators and newly graduated commercial pilots, promoting the growth and sustainability of the aviation industry. This study contributes to the aviation community by providing valuable insights for flight training schools, flight instructors, and aviation professionals, ultimately fostering the development of skilled pilots and supporting the future of aviation education.

Keyword: Aviation Related Experiences; Coping Mechanisms; Flight Instructor; Novice; Intermediate; Expert

Emergency Locator Transmitter for Aircraft Search and Rescue Operations: Status and Prospects



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Emergency Locator Transmitters (ELTs) are radio beacons installed on aircraft to quickly locate the aircraft wreckage and occupants by search and rescue operations through SAR team units (Australian Transport Safety Bureau, 2013). This study assessed the status and prospects of ELTs, primarily focusing on their role in ELT-aided aircraft. This study used an exploratory descriptive qualitative research design, observation, and focus group discussions with the Philippine Aeronautical Rescue Coordination Center (PARCC); the research explains several key points. Commercial aircraft and airliners are required to install registered and tested operational ELTs. Moreover, General Aviation aircraft must install ELTs as per CAAP's rules and regulations when performing cross-country flights beyond the training areas or aerodromes. Registering ELTs is highly recommended to enable immediate verification of the notifications received, enabling differentiation of actual emergencies and testing. Despite the mandate on regular battery inspections, a number of ELT activations were caused by non-emergency sources, primarily testing procedures. To add, there was one particular brand commonly registered with IBRD. ELTs must also be checked to be in prime condition by the pilots, before flights as it is crucial for safety. The researchers aim to highlight the high rate of false alarms as well which are significantly higher than the recorded actual emergency-caused activations. Unregistered transmitters pose challenges to search and rescue operators. This study also emphasized the responsibility of pilots to ensure ELTs are in mint condition before each flight through regular testing and preventive maintenance, recognizing their importance in ensuring aircraft and pilot safety.

Keyword: Emergency Locator Transmitters; CAAP; False alarms; IBRD; Registration

Aviation Communication Skills of WCC ATC Commercial Flying Students – An Essential Competency in Aerial Maneuvers



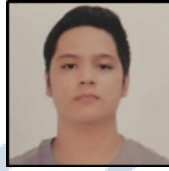
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This study was carried out to know the communication competency during aerial maneuvers of the COMFLY student pilot. This study is quantitative descriptive research and was already conducted on 3rd and 4th year students of Bachelor in Science of Aviation Major in Commercial Flying through a random sampling. The data were collected by a valid and reliable questionnaire consisting of three sections: question about profile of the students, Level of Competency in Speaking, Listening and Reading Skills, Communication Barrier between of the COMFLY student pilot and its profile. This study is proposed to enhance the communication skill of the student pilots in WCC-ATC through radio communication during maneuvers using a Student Pilot- Radio pamphlet as an instrument for guide. The Student Pilot- Radio pamphlet includes guide to build a better communication skill, techniques how to improve its communication skills, ways to improve its public speaking, fluency, consistency during its radio communication, etc. This will allow the COMFLY student to improve their communication skills through reading the pamphlet. Thus, the findings of this study, shows that the profile of the student affects the communication skills. The goal of this study is to give better and more enhanced communication skills of the student pilots. The Student Pilot- Radio pamphlet is an instrument to guide and helps to develop the communication skills of the future pilots.

Keywords: Student Pilot- Radio pamphlet; Communication skills; Communication barrier; Aerial Maneuvers; Instrument

Contributory Factors Influencing the Preparedness of Student Pilot in Flight Training



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The study “Contributory Factors Influencing Student Pilot Preparedness in Flight Training” aimed to identify and analyze the contributory factors influencing the preparedness of student pilots in flight training at WCC Pilot Academy. Wherein the study intended to evaluate the level of preparedness of a student pilot in flight training as to the following factors: Personal Factors, Familial Factors, Social Factors, Monetary Factors, and Learning Environment Factors. It also aimed to assess the significant difference in the level of preparedness of the student pilot in flight training and provide a program recommendation to enhance the level of preparedness of a student in flight training. The study also intends to inform the Institution, Faculty, and students of the challenges that the student pilots experience prior to their preparations for their flight training.

Based on the result of the study, it is clearly shown that most of the respondents has a below average level of preparedness when it comes to the respective factors such as social, monetary, and learning environment while average readiness in terms of personal and familial aspects. However, with the support of the family to the students the study shows that the lack of experience with the social, monetary, and learning environment aspects still affects the level of student preparedness in terms of flight training. Despite of the differences in the result, the analysis using ANOVA found that there are no significant differences in the level of preparedness and indicates that the result of the aforementioned factors has equal degree of contribution to the level of preparedness of the respondents.

Keywords: Contributory Factors, A.M.S. Flight Training Array, Flight Training, Student Pilots, Preparedness

Against The Wind: A Study About Gender Identity in Aviation



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Gender identity is a broad and sensitive topic to tackle as it explores the challenges that surround it within the aviation industry. Whereas this topic talks about the different complex challenges and barriers that aviators with different gender identities go through such as discrimination, societal stereotyping, and legal complexities. This study aims to create an open and safe space for those who wish to dive into the aviation industry as we navigate to a more diverse and inclusive environment.

This study utilizes the flexibility and convenience of the internet, whereas the researchers simply used social media to spread and give surveys for the researchers to be able to gather data, analyze, and tabulate the compiled information. Articles, past research, and descriptive data have been utilized to confirm the following data. These findings indicate that all of the respondents engage with several different activities that they enjoy, most with activities that do not usually fit in the societal expectations such as cross-dressing, baking, and the likes. While most of the respondents have moderately encountered all of the given scenarios with challenges regarding their identities such as discrimination and pressure from societal standards and expectations.

These findings call for a development of a program which could help produce a much safer environment for those who wish to continue working in the aviation industry without the need to feel uneasy or uncomfortable with judgment and pressure, as this will create a much better and safer unity and bond among those under the LGBTQ+ and the students, along with the industry itself.

Keyword: Aviation LGBTQIA+, Inclusivity, Gender Equality, Diversity

Impact of Psychological Well-Being of Student Pilots to their Flight Performance

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The aviation industry places significant emphasis on the technical skills and knowledge of pilots, often overlooking the crucial role that psychological well-being plays in ensuring optimal flight performance. The emotions that the pilots experience during flight training is often neglected in which it poses a threat since we do not know what one's mind is thinking. This research is also done for the purpose of investigating the relationship between the psychological well-being of pilots and how it affects them during flight training. The industry also plays an important role in ensuring the safety of the pilot, the crew, and its passengers. That is why careful and thorough investigation must be conducted in order for the efficient and safety in the aviation industry must be conducted. The researchers used a quantitative research design using an enumeration sampling aided by the PERMA method to figure out whether psychological well-being affects flight training performance. We will be sampling our fellow 4th year COMFLY students to know whether what goes through their minds and know whether one has positive thinking emotions or negative thinking emotions. This research sheds light on the critical need for holistic pilot training programs that incorporate psychological support alongside technical instruction. The research also helps in ensuring the safety of the pilots and everyone involved. With the help of these findings stated in the study conducted, it would help not only the aviation industry, but also the future researchers willing to dig deep and learn more for the improvement of safety and the improvement of the psychological well-being of the pilots. The implications of these findings extend beyond the realm of aviation training, emphasizing the importance of addressing psychological well-being in professions where individuals are responsible for critical decision-making in high-pressure environments. By being able to make critical decisions in critical scenarios in different types of environments, just as mentioned earlier, the people involved such as the pilots, the crew, and the passengers would be safe and sound. In this study, we will dig deep, research, and identify on how the psychological well-being of student pilots affect their flight performance.

Keyword: Psychological well-being; flight performance.

Philippine Aviation Industry Driven Curriculum: Its Relevance to Aircraft Maintenance Technology Students

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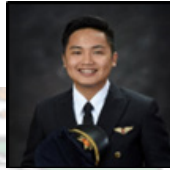
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The Philippine aviation industry is facing challenges from rapid technical improvements, changing regulatory landscapes, and rising demand for trained people. Aligning the curriculum with CHED and CAAP criteria is essential to addressing these issues. Considering the sector's new developments, potential, problems, and complexities, this study examines the feasibility and effects of integrating CAAP and CHED rules into the curriculum. The suggested program offers aircraft maintenance technology students many opportunities, including regulatory compliance, employability improvement, and labor market competitiveness. It incorporates cutting-edge methods like digitalization and sustainability into training modules and homework. Many challenges must be resolved while creating and implementing a CAAP and CHED-compliant program. These include changing regulatory frameworks, resource availability, and a lack of industry-certified educators. Maintenance technology students must see hands-on training throughout the curriculum. While theoretical knowledge and regulatory compliance are important, few studies have examined how practical training affects skill development, industry readiness, and learning outcomes. How hands-on training components help students use theoretical knowledge in practical situations could inform aircraft maintenance curriculum and pedagogy.

This study examines aircraft maintenance technologies, specifically structure repair. Flight maintenance technicians, aviation mechanics, CAAP, CHED, and the Department of Labor and Employment are examined. Content knowledge, curriculum development, validation, and industry-centric curricula are also studied. Aviation industry-higher education collaboration boosts graduates' employability. The study emphasizes industry-driven programs to solve aviation industry gaps. Action learning and reflective practice are promoted in the context of globalization and digital change. OBE is promoted to match training to industrial needs. This study critically assesses airplane maintenance technology schools' industry-driven curriculum using a descriptive design survey and comparison analysis. To choose 160 aviation education students, teachers, and alumni industry practitioners from Caloocan City, Bulacan, and southern Pampanga, convenience sampling was used. The study's findings inform educators and practitioners of the need of a curriculum that promotes students' overall development and aviation career growth.

Keyword: curriculum; aircraft maintenance, Philippine aviation industry, CAAP

Adaptability of Automatic Dependent Surveillance - Broadcast (ADS-B) System in Selected Philippine Flying Schools



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This research study aimed to investigate the adaptability of Automatic Dependent Surveillance - Broadcast (ADS-B) technology in selected Philippine flying schools. The study used a quantitative research method, with a survey questionnaire as the data collection tool. The participants included 42 pilots from three selected aviation schools in the Philippines. The survey questionnaire consisted of three parts, with the second part focusing on the level of agreement on the applicability of the ADS-B System in Flight Training. The survey questionnaire was made available using Google Forms to address participants' health concerns, and informed consent was obtained. Statistical techniques, such as frequency and percentage, weighted mean, Kruskal-Wallis H test, and ranking, were used for data analysis and interpretation.

The study found that the participants were fully aware of the required level of situational awareness needed during flight training and identified significant differences based on the category and number of years in flight training. The study also revealed that the participants strongly agreed that ADS-B technology was beneficial for flight training in terms of safety, efficiency, and providing real-time information. Based on these findings, the study recommends that flight training programs continue to emphasize situational awareness training, review their training methods and standards, and prioritize the development of training programs for pilots and air traffic controllers on the use of ADS-B technology. Furthermore, the study suggests that governments and regulatory bodies work with industry stakeholders to develop cost-effective solutions for ADS-B equipment installation and maintenance, promote the benefits of ADS-B technology, and address privacy and security concerns associated with its implementation.

Keywords: surveillance, flying schools, broadcast

Establishment of the Enderun College's Aviation Training Center Using PESTEL Analysis

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The aviation industry played a vital role in global transportation and economic development, demanding a skilled workforce trained in aviation-related fields. Establishing an aviation training center was crucial for meeting this demand and ensuring the industry's sustainability. However, successfully establishing such a center required careful consideration of various factors, including equipment, facilities, personnel, and regulatory compliance. This study examined the essential requirements for establishing an aviation training center through a comprehensive analysis of Political, Economic, Social, Technological, Environmental, and Legal (PESTEL) factors. A total of 29 participants from diverse backgrounds, including aviation regulatory officials, executive and administrative officials from Enderun Colleges, and local government officials from Taguig City, were surveyed. Statistical analyses, including ANOVA tests, frequency, percentage, and mean distribution, were employed to assess participants' level of agreement on various factors related to establishing the aviation training center. Additionally, thematic analysis was employed to extract critical insights from participants' responses regarding equipment, facilities, and personnel requirements for successfully establishing the aviation training center. The findings revealed that ensuring access to state-of-the-art equipment, designing scalable facilities, and investing in personnel development was critical for successfully establishing an aviation training center. These findings provided valuable insights for policymakers, educational institutions, and industry stakeholders seeking to establish similar training centers.

Keywords: training center, enderun, aviation, pestel

Gender Equality: Inclusivity of Female Aeronautical Engineering Students



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Women have played pivotal roles in aviation history, from being the first pilots to breaking barriers in leadership and ownership within the industry. However, despite these achievements, the representation of women in aeronautical engineering remains significantly lower than that of men. This study delves into the persistent gender disparities in aeronautical engineering, aiming to uncover the underlying attitudes towards female students in this field and the factors shaping these attitudes. Drawing on recent demographic data and existing literature, we explore historical gender norms, stereotypes, and cultural factors contributing to the underrepresentation of women in aeronautical engineering. Furthermore, this research investigates the impact of these attitudes on the educational and professional experiences of female aeronautical engineering students. By providing insights into the prevailing attitudes and experiences, this study seeks to inform the development of more effective strategies for promoting gender equality and inclusivity in aeronautical engineering education and the aerospace industry as a whole. Ultimately, fostering greater diversity and inclusivity in this critical field is essential for driving technological advancement and innovation.

Keyword: inclusivity of female aeronautical engineering students

Correlation of Speaking Skills to Aeronautical Engineering Students' Communication Proficiency and Academic Engagement in WCC ATC Binalonan



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This study entitled, “Correlation of Speaking Skills to Aeronautical Engineering Students’ Communication Proficiency and Academic Engagement in WCC-ATC Binalonan” This study investigates the speaking abilities and academic involvement of Aeronautical Engineering students at the WCC-ATC Binalonan Campus. While students display competency in speaking, the relationship between speaking skills and academic interest deviates from expectations. Despite high levels of confidence, issues such as limited involvement in public speaking activities and fear reduce engagement. To overcome these challenges, the report recommends increasing chances for public speaking and presentation activities in the curriculum. Educators may reduce anxiety by creating supportive conditions for skill development, fostering increased confidence and interest in academic pursuits. Finally, efforts to improve speaking skills should focus on reducing proficiency obstacles and providing targeted skill development assistance to ensure students’ academic achievement.

Keywords: aeronautical engineering, speaking skills, proficiency

VIQUMO: Digitized Flight Planning and Tracing App

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The VIQUMO Flight Planning App presents a significant opportunity to address the challenges faced by student pilots in accessing crucial flight information. Its integration into training programs at WCC Aeronautical and Technological College and other aviation institutions could streamline learning processes and enhance overall efficiency. By leveraging VIQUMO's features, such as real-time weather updates and comprehensive flight plan data, student pilots and flight instructors can improve their decision-making and operational effectiveness. Additionally, flight operations teams stand to benefit from VIQUMO's capabilities in optimizing workflow and minimizing disruptions. Future research in this area can further explore opportunities for innovation and improvement in digital flight planning tools, ultimately advancing safety and reliability in aviation training and operations. VIQUMO has been a huge help onto major problems founded identified by the respondents and also the researchers. Our application shows a simulation with the possible flight planning within a controlled and risk free environment. It would serve as a bridge onto the gap of safety and hassle free giving them the opportunity to be aware of what is happening within the flight training environment. Flight operations could benefit from our application's ability to optimize workflows since it is already digital, to also be environmentally friendly. The applications reporting tools with the assist of tracking a student involves safety and identifying the possible risks during the flight which this could lead to more safe training outcomes and a higher standard of flight planning and tracing

Keywords: efficiency; safety; environment; effectiveness; improvement

Influence Of AutoCAD Application in Enhancing Designing Skills Of Aeronautical Engineering Students

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This study aims to seek the patterns and methods of improvement in terms of the designing skill sets of students taking up aeronautical engineering in WCC-ATC Binalonan, as they utilize the application of AutoCAD. The researchers used two theories from John Dewey (Model of Learning) and Lev Vygotsky (Vygotsky's Scaffolding Theory) which are infused together in creating the own concept of this study entitled as the "Benevesa Concept" in relation to what this research wants to perceive. This research investigated the contributing factors on how this software affects the three group respondents (students, instructors, & expert users) in terms of analytical, creative and logical thinking as their ideas are gathered from both actual experiences and imaginative applications. This study also evaluated the possible limitations affecting the maximum performance of AutoCAD and provided possible recommendations for possible use for future similar studies.

Keyword: AutoCAD, aeronautical engineering, design skills

Enhancing Basic Electricity Education Through Computer Based Training in the Avionics Department

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The avionics industry relies heavily on a deep understanding of Basic Electricity principles. To enhance Basic Electricity education in the avionics department, this research explores the implementation of computer-based training (CBT) as an effective educational tool. By leveraging CBT, students can engage in interactive learning experiences, access educational materials anytime and anywhere, and receive real-time feedback and assessments. The CBT application also addresses safety concerns by providing a virtual environment for practicing electrical circuits.

Simulation-based learning helps students fully understand lessons in both asynchronous and online classes. Simulations-based learning was a technique that augments real-world experiences by replacing them with “immersive” guided experiences that evoke or recreate key features of real-world environments in a fully interactive manner. (Lateef, 2010).

This study investigates the impact of CBT on student engagement, knowledge retention, and practical application in the avionics field. Additionally, it explores strategies for curriculum integration, professional development for instructors, and the long-term effects of CBT on students’ career readiness. The findings aim to provide insights and recommendations for enhancing Basic Electricity education through CBT in the avionics department, ultimately equipping students with the necessary knowledge and skills for success in the aviation industry.

Keywords: Avionics, Electricity, Virtual, Aviation, Simulation

The Effectiveness of Aeronautical Engineering Faculty Members in their Related Field of Teaching in WCC ATC Binalonan Campus

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This study aimed to assess the level of effectiveness of Aeronautical Engineering faculty members in WCC ATC Binalonan Campus. The study made use of a descriptive research design to establish the competencies of the teaching program. To answer the question, the researcher adopted a survey questionnaire from the manuals of Employment and Training Administration of Aeronautics of the United States of America (ETAU).

The study focused on the five areas of effectiveness such as Aerospace Fundamentals, Design and Development, Product and Parts Manufacturing, Project Management and Quality Assurance, Aviation Maintenance.

Results showed that the Aeronautical Engineering faculty members of WCC Aviation and Technological College, Binalonan Campus are highly effective. The study further showed the common problems encountered in the training. Encompass attributes such as the ability to recognize and manage human performance limitations, make sound decisions, communicate effectively, perform effectively as a team, manage stress and fatigue, and maintain situational awareness. Aside from non-technical skills, a high level of expertise is needed to make sure that aircraft are serviced to rigorous quality and safety standards, the skills pertained to in this area are called teaching skills. The type of skills includes troubleshooting, repairing and maintenance of all types of aircraft. The world is in a process of continuous change, innovations in Information Communications Technology (ICT) are constantly advancing and although companies have made huge progress, one must always remain at the forefront.

BUSINESS, FINANCE, AND MANAGEMENT

Adoption of E-Banking of The College of Business Administration Students in Baguio Central University



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The research employed a descriptive research design under quantitative research. A total of 100 respondents from the College of Business Administration, namely the Financial Management, Public Administration, Human Resource Development Management, Office Administration, and Computer Science. This study aims to identify potential barriers and enablers, providing valuable insights for the college to enhance its digital banking infrastructure and promote a seamless transition to e-banking services. It also aims to answer the questions, what e-banking service is frequently used by the College of Business Administration students in Baguio Central University? What is the level of acceptability of using e-banking among College of Business Administration Students in terms of security, cost savings, international access, convenience, and time management? And What are the remedial measures to address the challenges with the use of e-banking services for College of Business Administration students in Baguio Central University? The results show that G-cash is the most frequently used e-banking in the college of Business Administration because most merchants only accept G-cash as a mode of payment for its convenience. The level of acceptability is moderately accepted and the remedial measures to address the challenges with the use of e-banking services is to educate oneself. Nonetheless, acceptability, convenience and educating oneself in using these e-banking services will greatly help in the business transactions as perceived by the students, guests and management. Inferential statistics were used to analyze and interpret the data.

Key Words: E-banking, acceptability, remedial, accessibility, college of business administration

Exploring the Impact of Tax Reform (TRAIN Law) on Financially-Struggling Households: A Qualitative Analysis



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This qualitative research study looked into the effects of the Tax Reform for Acceleration and Inclusion (TRAIN) Act on families from the low-income class in Baguio City. An in-depth and semi-structured interview was conducted with twelve participants who were Cordilleran's from poor income class families. Three themes were formulated after collecting the data: the impact on basic needs, such as the reduction of their budget for food and the payment for utilities and debts; the effect on mental and emotional well-being, such as anxiety, stress, and depression due to financial problems; and resulting poverty. It can be concluded that the low-income class families became poorer as a result of the implementation of the TRAIN law. The results show that the TRAIN law has a disproportionately negative impact on the poor, who must limit their spending on necessities like food in order to live, including paying debts and utilities bills. Additionally, it has an impact on a person's mental health and wellbeing by causing difficulties with anxiety, stress, and sadness. Therefore, it can be said that once TRAIN was implemented, low-income families become even poorer.

Key Words: Qualitative Research, Phenomenological Approach, TRAIN Act, Interview

The Business Profile of the Student-Entrepreneurs: Their Entrepreneurial Intentions, Challenges, and Managements



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Entrepreneurship has emerged as a driving force behind innovation, economic growth, and job creation. Particularly noteworthy is the rise of student entrepreneurs who, amidst their academic pursuits, embark on ventures to transform ideas into viable businesses. Investigating the factors that drive students towards entrepreneurship provides valuable insights into the underlying motivations and aspirations fueling their ventures. A rise in student entrepreneurs has been noted at University of Luzon, a university renowned for turning forth exceptional business-inclined individuals. This research study aimed to foster an environment that empowers student entrepreneurs to realize their aspirations and contribute meaningfully to economic prosperity and societal development. Data from a survey involving University of Luzon College of Business Administration student-entrepreneurs were primarily used in the analyses. For purposes of validation, informal interviews were employed. The profile of the business, owned by student-entrepreneurs – Kind of Business, Products or Services, Start-up Capitalization, Source of Capital, Number of Years in Operation, and Average Monthly Business Income/Profit. Major findings reveal that most of the participants are online seller, and when it comes to products or services, most these student-entrepreneurs sell clothes, food and beverages. The participants start-up capital ranges from P3000-P5000 got the highest percentage, and most of them obtained their source of capital from their own savings. And majority of them responded that the business operations is in between 1-3 years, and earning up to P1000-P3000 monthly income. Various factor that influences the entrepreneurial intention of these student-entrepreneurs of the ULCBA were also included – Internal Factors: Attitude toward the behavior, and personal traits, and; External Factors: Entrepreneurial Education, and Subjective Norm. The challenges faced by student-entrepreneurs in terms of Access to Finance, Business Assistant and Support, Inadequate Entrepreneurial Skills and Balancing School Activities. Different measures were also provided to provide reference for improvement training to support the student-entrepreneurs of the ULCBA.

Keywords: Student-Entrepreneurs, Business Administration, Management

Tax Compliance Among Small Businesses in Dagupan City



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Small businesses are a crucial factor in creating a more competitive global economy and driving employment growth. They have played a significant role in fostering innovation, sustainable industrialization, and employment opportunities. However, to thrive and contribute effectively, they must ensure tax compliance by adhering to tax laws and regulations through timely and accurate payment of taxes. Many small business owners lack the necessary knowledge and understanding of tax rules, which can unintentionally lead to non-compliance. To examine the status of tax compliance among small businesses, this study aimed to focus on the registration, filing, and payment processes. The research also assessed the impact of tax awareness, tax knowledge, and tax attitude on tax compliance. By identifying any issues related to tax compliance and suggesting appropriate measures, the study aimed to contribute to the improvement of small business tax compliance and the overall economic landscape. The researchers used a descriptive method of research to describe the nature of the demographic under study. Formal interviews were conducted to gather data. Based on the findings, it was revealed that small businesses in Dagupan City are highly compliant in registration, filing, and paying the required taxes. Moreover, the study found that all three factors - tax awareness, tax knowledge, and tax attitude - have a significant positive effect on tax compliance. However, the problem arises when there is a lack of information on the updates regarding the significant changes in the Bureau of Internal Revenue tax mandates. Overall, the research concludes that small businesses in Dagupan City are compliant with taxes, but there is a need for better dissemination of information regarding tax updates to ensure continued compliance.

Keywords: Tax Compliance; Small Businesses; Tax Awareness; Tax Knowledge; Tax Attitudes

Flood Mitigation Practices of Small Enterprises in Dagupan City



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Floods can cause severe damage to infrastructure, disrupt supply chains, and lead to significant financial losses, sometimes resulting in permanent closure of businesses. Dagupan City, situated in an area prone to floods, faces various challenges that affect both businesses and residents. This study was conducted to gain insights into the factors that influence flood mitigation, including financial preparedness, communication and preparedness plans, infrastructure and technology resilience, community engagement, flood exposure, and implementation challenges. Descriptive methods aided by a structured survey questionnaire were used in this study. The results indicated that the flood mitigation practices of small enterprises in Dagupan City reflect their positive and proactive stance, which includes commendable financial preparedness (mean of 3.68). It reflects investments in resilient strategies, contingency funds, insurance coverage, and potential bank support. Positive standings in communication and preparedness plans (mean of 3.83) showcase effective disaster training, communication plans, employee training, and stakeholder engagement. Infrastructure and technology resilience (mean score of 3.94) ranks second, emphasizing regular maintenance, adaptable business infrastructure, and employee training. Community engagement (mean of 3.73) emphasizes a cooperative approach through involvement in community initiatives and joint disaster drills. Flood exposure mitigation attains the highest mean (3.97), indicating effective management of financial and operational consequences. Based on the results, it is recommended to adopt the proposed measures for effective flood mitigation and explore factors such as financial preparedness, communication, infrastructure resilience, and community engagement. This approach will contribute to a deeper understanding of the challenges faced by small enterprises and enrich knowledge on flood resilience.

Keywords: Flood, Flood Mitigation Practices, Small Enterprises, Dagupan City, Resilience

The Effect of Salary to the Employee Retention in Selected BPO Companies



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Employee retention is crucial for organizational success in the competitive world of business process outsourcing (BPO). This study investigates the impact of salary on employee retention in specific business process outsourcing (BPO) organizations in the Philippines, with a particular focus on TaskUs, Alorica, and Sitel. The research intends to analyze the impact of compensation, loyalty, hard work, commitment, and trust on employee retention decisions, using Adams' Equity Theory as a conceptual framework. The study examines demographic profiles, desire for retention criteria, and the influence of income on retention by conducting a survey of front office workers aged 18–35 and conducting interviews with managerial staff. We anticipate that the results will significantly contribute to theoretical frameworks and research methodologies in the field of organizational behavior, thereby aiding future research endeavors and enhancing understanding in this domain. This study provides valuable insights into the competitiveness of salaries and their influence on employee decision-making, with a particular focus on working students. It provides ideas for improving employee retention and hiring highly skilled workers, specifically for BPO organizations. The results will aid HR departments in creating competitive remuneration plans and cultivating a favorable work atmosphere, ultimately enhancing organizational efficiency and employee welfare. This study investigates the influence of salary, loyalty, hard work, dedication, and trust on employee retention in certain BPO companies in the Philippines. The study analyzed the demographic profiles and preferences of employees using surveys and interviews. The findings reveal that individuals with varying service periods, predominantly women, comprise the workforce. The study revealed that salary had a notable impact on employee retention, since the majority of participants expressed contentment with their compensation. Employee preferences for loyalty, diligence, dedication, and trust also influenced retention decisions. In general, cultivating a favorable work atmosphere and attending to the requirements of employees helps improve staff retention in BPO (Business Process Outsourcing) organizations.

Keyword: Employee Retention; Organization; BPO; Outsourcing; Employee; Salary

Evaluating Passenger Satisfaction with Pasig River Ferry Service: An Integrated SERVQUAL and Marketing Mix Model Approach



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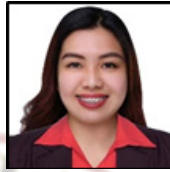
The Pasig River holds rich importance as it plays a crucial role in major transportation routes for trade and commerce during the Spanish Colonial era and even periods before. The Pasig River Ferry Service serves as an alternative mode of transportation for both goods and people at the time of the study. This study aimed to assess the effectiveness of the ferry service as one of the modes of transportation in Pasig City. Thus, the study intended to determine the level of passengers' satisfaction with an end view of formulating marketing strategies that would strengthen the overall effectiveness of the ferry service and its promotion across various platforms. The researchers used descriptive – correlational research design aided with SERVQUAL method of service quality and the Marketing Mix with emphasis on Product, Price, Promotion, and Place.

This study revealed that all elements of the marketing mix were rated effective, with the product being the most effective. Similarly, the SERVQUAL Method showed high satisfaction levels across various aspects of the service, specifically assurance and responsiveness. In addition, there were no significant differences in effectiveness or satisfaction based on demographic groups. Lastly, the study revealed correlations between certain elements of the marketing mix and service quality perceptions, highlighting the interconnectedness of marketing strategies and service quality.

The recommendation of the study concentrated on the formulation of marketing strategies with alignment on the combined aspects of marketing mix and SERVQUAL model, which could have led to strengthening the passengers' satisfaction and effectiveness of the ferry service as an alternative mode of transportation.

Keyword: Pasig River Ferry; Transportation; Passengers

The Significance of Professionalism in Real Estate Practice



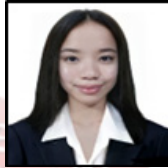
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This explores the significance of professionalism in real estate practice, emphasizing its role in building trust with clients. This study examined the five key themes that define professionalism across various regions in the globe. These themes include fostering trust, ethical conduct, market expertise, effective communication, and continuous learning. Cultural sensitivity and adaptation are important in a globalized real estate market. It then delves deeper into the case of the Philippines, focusing on the Cordillera Administrative Region (CAR). The paper explores the national requirements for professional conduct in the Philippines and the distinct challenges faced by real estate professionals in the Cordillera region. While acknowledging the positive aspects, this paper identifies areas for improvement, particularly regarding accessibility to continuing professional development (CPD) programs like culturally sensitive investing in online learning platforms to ensure wider accessibility for geographically dispersed professionals in the Cordillera region. The paper concludes with recommendations for the Philippines to address these challenges and empower Cordillera real estate professionals. By implementing these suggestions, the Philippines can contribute to a more professional and ethical real estate industry nationwide.

Keywords: fostering trust, ethical conduct, market expertise, effective communication, continuous learning

The Inorganic and Organic Marketing Strategies Using Social Media Platforms of Micro-Lending Companies in Binalonan, Pangasinan



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The purpose of this research is to determine the inorganic and organic marketing strategies using social media platforms of micro-lending companies in Binalonan, Pangasinan. Moreover, this study will use an in-depth interview, a qualitative research design technique, to determine the inorganic and organic marketing strategies used by three (3) micro-lending companies in Binalonan, Pangasinan. Three microlending managers from Binalonan, Pangasinan were the respondents to this study.

The information gathered led to the following conclusions: In terms of inorganic marketing strategies, micro-lending companies in Binalonan do not utilize inorganic marketing in their strategies to promote their products and services. However, in terms of organic marketing strategies, micro-lending companies in Binalonan, Pangasinan utilized organic marketing strategies by focusing on the creation of engaging content to attract clients and promote their products and services. In addition, micro-lending companies use these marketing strategies in their hiring and recruitment processes. Moreover, micro-lending companies in Binalonan, Pangasinan do not use any social media platforms to promote their products and services in their inorganic

marketing strategies. Rather, organic marketing is the only approach used for their campaign, particularly personal marketing strategy, which has been identified as the key cornerstone of their marketing strategy. On the other hand, micro-lending companies, in their organic marketing, use Facebook to promote their activities, products, and services. Respondents also already mentioned that personal marketing and word-of-mouth are utilized in their organic marketing strategies.

Micro-lending companies are not necessarily paying for advertisements but rather leveraging the free features of Facebook to reach their target audience in their organic marketing. They create a Facebook page for their company to post updates, promotions, and useful content to engage with their followers and attract potential customers. This approach allows them to tap into the vast user base of Facebook and target specific demographics or locations using various tools provided by the platform. In addition, based on the findings, micro-lending companies rely on satisfied customers to spread positive word-of-mouth about their company, which can lead to referrals and new customers. This approach can be effective in tight-knit communities where personal recommendations and trust play a significant role in decision-making.

Furthermore, based on the findings, the researchers recommended that micro-lending companies in Binalonan, Pangasinan develop a more comprehensive digital marketing strategy that aligned with their goals, target clients, and available resources, especially in their inorganic marketing strategy. In addition, they should invest in creating more engaging and informative content to attract more clients in their organic marketing strategy such as showcasing their company's services and posting engaging content using visuals in their social media platforms. Overall, the researchers also recommend collaborating on the use of inorganic and organic marketing strategies using multiple social media platforms to maximize reach and engagement.

Keywords: Inorganic and organic marketing strategies, social media, platforms, micro-lending

Effect of Social Media Consumption on Financial Behavior of Bachelor of Science in Business Administration Students in University of Eastern Pangasinan (UEP)



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This study focused on the effect of social media consumption on financial behavior of Bachelor of Science in Business Administration (BSBA) students in the University of Eastern Pangasinan in terms of their spending habits, peer influence and future planning.

The researchers used a validated questionnaire as the primary collection tool and used a descriptive survey method of research. The total number of participants in this study were three hundred two (302) enrolled Bachelor of Science in Business Administration (BSBA) students. First, this study used a frequency and percentage formula to determine the profile variables of the respondents. Second, the effect of social media consumption on the financial behavior of BSBA students in terms of their spending habits, peer influence, and future planning was determined through weighted mean and a 4-point Likert scale. Lastly, Pearson's correlation was used in order to obtain the significant relationship between the profile variables and the effect of social media consumption on financial behavior of BSBA students.

According to the result of the study, within the age of 17-19 years old female with an average time spent on social media of 4-6 hours there is a moderate effect of social media consumption on their financial behavior specifically in terms of future planning with an average weighted mean of 2.86. Pearson correlation also revealed that there is a significant relationship between profile variables and the effect of social media consumption on financial behavior of BSBA students. This indicates that factors such as age, sex, year level, major, and time spent on social media play a vital role in shaping how social media affects their financial behavior. The findings in this study were used as the basis for the proposed plan, specifically a seminar that will guide the BSBA students in the University of Eastern Pangasinan to help the students be aware of the possible effect of social media consumption on financial behavior.

Keywords: Social media consumption, Financial behavior, Spending habits, Peer Influence, Future Planning

Exploring the Factors Influencing Career Choice among Financial Management Students in University of Eastern Pangasinan (UEP)



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This study focused on exploring the Factors Influencing the Career Choice among Financial Management Students in University Of Eastern Pangasinan with regards in choosing their career path as well as to discover what career suits them the most.

The researchers used a validated questionnaire as the primary collection tool and used a descriptive survey method of research. The participants in this study were five hundred fifty-one financial management students at University of Eastern Pangasinan.

First, to determine and describe the profile of the respondents, this study used a frequency and percentage formula. Second, the factors influencing the career choice of the students of the financial management students were determine through weighted mean and 4-point Likert scale. Then, Pearson's Correlation was used in order to obtain the significant relationship between the profile variables and the factors influencing their career choice in terms of personal interest, parental guidance, peers, social media, professionals, and social-economic considerations. Lastly, ANOVA was used in order to obtain the significant difference between the factors across the group respondents. The findings in this study was used as basis for the proposed measure specifically a career guidance seminar that will help and guide the students towards their career decision making and at the same time help them discover which career they should take and what suits them the most.

According to the statistics, the factors influencing career choice among financial management students in University of Eastern Pangasinan in terms of personal interest, parental guidance, peers, social media, professionals, and social-economic considerations, with a weighted mean of 3.14. Next, Pearson correlation revealed that there is a significant relationship between the profile variables and the factors influencing their career choice. The profile variables of the respondents does show a significant relationship to the factors that influence their career choice. Furthermore, the ANOVA also revealed that there is no difference between the factors across the group respondents.

Key Terms: Career Confusion, Career Assessment, Career Development, and Career Planning

Entrepreneurial Needs of The Residents Barangay Canarvacanan, Binalonan, Pangasinan: Basis for Enhancing Their Business Abilities

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This study aims to identify and analyze the entrepreneurial needs of the residents Barangay Canarvacanan in Binalonan, Pangasinan, and explore ways to enhance their business abilities. By employing a quantitative approach, data were collected through surveys administrated to a representative sample of community residents. The study focused on assessing the current business abilities, identifying the gaps and challenges faced by the entrepreneurs, and determining the specific areas requiring enhancement.

The study revealed that the community residents of Barangay Canarvacanan possess various entrepreneurial skills and aspirations such as cooking, farming and willingness to learn handicraft making, soap making and other ways to earn money for a living, but they face several hurdles hindering their business success. Key findings indicated a need for further training and education on topics such as business planning, financial management, marketing strategies, and customer service. Additionally, respondents expressed a desire for access to resources and support networks, including mentorship programs and financial assistance. Based on the findings, recommendations are provided for enhancing the business abilities of the residents. It suggested that targeted training programs and workshops be conducted to address the identified gaps. Additionally, initiatives to improve access to resources, such as establishing microfinance programs and fostering partnertships with relevant organizations, are proposed. These recommendations aim to empower the community residents, promote entrepreneurship, and contribute to the overall socio-economic development of Barangay Canarvacanan and its residents.

Keywords: Entrepreneurship Needs, Community Residents, Barangay Canarvacanan, Binalonan, Pangasinan, Business Abilities

Factors Affecting Online Purchasing Behavior of Consumer in High Efforts Category



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This study sought to analyze the factors influencing online purchasing behavior among high-effort consumers with a specific focus on understanding the impact of product quality, word-of-mouth recommendations, detailed product information, and the overall online shopping experience. The objective is to identify key patterns and preferences within these demographics, enabling businesses to tailor their strategies effectively and enhance customer satisfaction and loyalty in the online retail market. The study utilized a quantitative research design employing descriptive-survey approach. Respondents are aged between 25 and 65, were surveyed using a checklist questionnaire designed on Google Forms. The questionnaires were distributed to participants through social media and emails. The study employed statistical tools such as frequency counts and average weighted mean for analysis. Result shows that majority of the consumer in high effort category exhibit distinct preferences and behaviors in their online purchasing decisions. Specifically, consumers in this category tend to prioritize products with high specifications and often conduct thorough research before making a purchase. They rely heavily on authentic marketing videos and customer reviews during their information search and consider factors such as quality, popularity of the brand, and return/refund policies when evaluating products. The identified key challenges faced by consumers in the high-effort category are issues related to product quality and unsatisfactory return/refund policies. Additionally, the study highlighted the importance of low-cost, high-quality products and emphasized consumers' preference for businesses offering free shipping and favorable return/refund policies. Based on the research findings, online businesses targeting high-effort consumers should focus on specific strategies; including encouragement thru positive word-of-mouth recommendations as it significantly impact purchasing decisions. Prioritizing product quality and providing detailed, accurate information enhances customer trust. Strengthening the online shopping experience through user-friendly interfaces and prompt customer support is crucial. Tailoring strategies to meet the unique needs of high-effort clients ensures a seamless and satisfying shopping journey. These strategies, rooted in the study's insights, are essential for businesses aiming to engage effectively with discerning online consumers.

Keyword: online shopping, consumer behavior, online buying behaviour, high efforts category clients

Bridging Horizons: Integrating Aviation Business-Related Training for Community Entrepreneurial Empowerment

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This study investigates the impact of strategically integrating aviation business-related training to enhance community entrepreneurial capabilities and empowerment, recognizing its potential to foster local economic growth. By integrating such programs, it identifies opportunities for economic expansion, new business creation, and job opportunities, thereby contributing to sustainable development. The primary objective is to evaluate the effect of integrating aviation business-related training on entrepreneurial capabilities within the community. Specifically, the study provided essential skills training to ten (10) sari-sari store owners in bookkeeping and conducted training sessions for fifteen (15) mothers in electrical device installation and safety practices, commencing in September 2023 and evaluated after four (4) months. Participants were selected based on the community's entrepreneurial capabilities, economic conditions, and employment path. All participants were provided with the necessary materials and willingly participated in the study. The study was conducted in a five-day aviation business-related training session at WCC ATC, and data was collected at regular intervals over an extended period while ensuring confidentiality and ethical guidelines were maintained. Regression and time series analysis were employed to assess outcomes related to continuity in the program towards business economic growth and employment opportunities. Result shows that the timing of participation in the training program significantly influences participant continuity in both the Sari-Sari store owners and the Ilaw ng Tahanan program, with certain dates correlating with higher dropout rates from the program. Monitoring sessions for Sari-Sari store owners reveal a gradual decline in participation over time, suggesting challenges in sustaining engagement. Regression analysis highlights the predictive power of participation in the training program in understanding program retention dynamics, emphasizing the importance of strategic timing. Variability in participant continuity in the Ilaw ng Tahanan program stresses the need for targeted support strategies to facilitate continued engagement. Overall, these findings emphasize the significance of timing considerations in program design and implementation, emphasizing the need for tailored approaches to support sustained participation among community entrepreneurs.

Keywords: aviation related-business training, entrepreneurial capabilities, sustainable rural development

Management of an Aeronautics and Technology Educational Institution in the Philippines

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The empirical investigation focused on ascertaining the management of WCC Aeronautical and Technological College and identifying the problems met in line with the processes and practices alongside the operation of the said entity. The researcher adopted the descriptive cross-sectional design with the aid of a questionnaire-checklist as main instrument in gathering data. The respondents in the study were the eight Department Heads, ten program heads, one Campus Director, and two Academic Heads. The findings of the study showed that the management of Binalonan Campus moderately practiced organizing, while the management of North Manila Campus satisfactorily practiced organizing. The extent of managerial practices and process implementation as to directing in the management of the WCC Aeronautical and Technological College Binalonan Campus and North Manila had an overall mean rating of 4.17 or with a descriptive rating of moderately practice. The two campuses moderately practiced planning, controlling, directing, and organizing. The problems faced by the top to middle-level educational managers of WCC Aeronautical and Technological College in two campuses were slightly serious, while the problems met by the top to middle-level educational managers of WCC Aeronautical and Technological College in North Manila Campus were moderately serious. The researcher concluded that the extent of managerial practices and process implementation in the management of the two campuses is the same, which affects the implementation of consolidate policy and standard of WCC aviation school in general. The management of WCC Aeronautical and Technological College for both Binalonan and North Manila Campus should conduct monthly meetings to enhance practice in financial planning, marketing planning and organizing. Further study is recommended.

Keywords: aeronautics and technology education institution, planning, controlling, directing, organizing

CRIMINAL JUSTICE EDUCATION

Community Immersion Internship Program of the University of Luzon College of Criminology



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Internship or on-the-job training is a short-term work experience for graduating students in different companies or agencies that align with their field of study. It serves as a learning experience as much as it is a job, as students learn how things work in the real world. Criminology interns are usually deployed to various law enforcement agencies where they can apply the theories taught in their classrooms. This study aimed to evaluate the Criminology student trainees of the Community Internship Program at the University of Luzon's College of Criminology. Furthermore, it also aimed to identify the problems faced by the trainees during their internship. The study used the descriptive survey method as it was concerned with relatively limited data that would explain the status of the internship program of the College of Criminology at the University of Luzon and the problems encountered by the trainees. The findings indicate that almost 80% of the Criminology interns excel in areas such as performance, attitude, public relations, technical knowledge, personality, attendance, and punctuality, with an average grade of 90% to 95%. As for the problems they encountered, competitive co-interns and hesitancy in asking questions were the two indicators that earned a mean score of 3.44 and 3.43, respectively. Proposed strategies will be discussed with the core members of the College for pilot implementation, and parallel studies should be conducted to enhance the Criminology Internship Program further, delivering quality exposure to students in the real world.

Keywords: Criminology Internship program; Performance assessment; Problems encountered; Academic impact

21st Century Management Skills of Department Heads in the Local Government Unit of Bayambang

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Evaluating the 21st-century skills of department heads is vital to ensuring their compatibility with the demands of today's era. Department heads play a crucial role in turning organizational goals into practical strategies. Assessing their skills, organizations can pinpoint strengths, tackle weaknesses, and nurture leadership qualities essential for addressing modern challenges. This evaluation contributes to the broader landscape of organizational management, promoting innovation, collaboration, and resilience, and aligning the workforce with the ever-changing dynamics of the public sector organizations.

The study research design employed was mixed method. There were 280 respondents selected through proportionate stratified random sampling strategy. To ascertain respondents' skills based on the survey questionnaire, data analysis was performed by computing the weighted mean, frequency counts, and percentages. Further, thematic analysis was applied to analyze the problems encountered by the respondents in exercising their 21st-century management skills.

The study revealed that department heads were "competent" on their 21st century management skills, and to address the challenges encountered by the department heads in exercising these skills, attendance to seminars, conferences, and workshops in local, regional, and global settings were recommended. These channels are priceless resources for lifelong learning and career growth, guaranteeing department heads remain abreast of new developments in technology, management techniques, and industry trends. The local government unit can help and guide department heads in their continuous learning process by planning events, activities, or online resources.

Keywords: 21st Century Skills, Department Heads, Governance, Local Government Unit, Management Skills

Impact of the Lower Agno River Irrigation System (LARIS) Project in Eastern Pangasinan

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The Agno River Integrated Irrigation Project (ARIIP) of the National Irrigation Administration aims to increase agricultural production and exchange the living standard in the project area by providing irrigation facilities. The project's third and last phase is the Lower Agno River Irrigation System (LARIS). It is for this reasons that this study aimed to evaluate the impact of the Lower Agno River Irrigation System (LARIS) in the Sixth (6th) District of Pangasinan. Meanwhile, this research aims to answer the specific evaluation indicators concerning the four criteria, such as: relevance, effectiveness, efficiency and sustainability. Further, it determined the success and limiting factor observed by the Monitoring Engineers related to the impact. In this particular study, the descriptive research method was used. This examination was carried out in the 6th District of Pangasinan. The respondents of this study were the 12 Irrigation Monitoring Engineers who were purposively chosen. The researcher tabulated, analyzed, and interpreted the acquired data by using several statistical measures such as frequency count, mean, pooled mean, overall mean, percentage, and rank. With the grand mean of 3.60 (high) the criteria having the highest mean rating of 3.73 (high) is relevance. It means that the LARIS project is indeed timely to the needs of the people. The other criteria had pooled means of: 3.69 (high) for Effectiveness, 3.50 (High) for Efficiency, and 3.46 (high) for Sustainability. Success factors indicate 2 items (1) the project has high quality at the outset and (2) there were effective quality control systems for civil works, while limiting factors are: inadequate irrigation water and pumps, low market price for palay, and vulnerability to climate and disaster risks. Based on the findings, the recipients' lives were greatly improved as a result, particularly in terms of their food security and sufficient nutrition. It was determined, through the utilization of the 4 criteria, that relevance was the factor that had the most influence on the daily lives of the farmers.

Keywords: Irrigation System Impact, Agno River, Eastern Pangasinan

Administration of Development Fund in the Barangays of San Jacinto, Pangasinan

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Administration is an act or process of managing with authoritative direction or control of the functions of barangays. It is also a leader's continuous exercise of authority over and the performance of activities or projects for a political unit like the barangay. The Local Government Code (LGC) enacted in 1991, or Republic Act No. 7160, significantly increased the responsibilities and resources of the Local Government Units (LGUs). By empowering the local authorities, it aimed at attaining greater efficiency in promoting development and equitable growth at the local level. It is the strong conviction of the researcher that this study will contribute in the understanding and analysis on how the development fund in the barangays are being administered as reflected by the projects and programs undertaken along the Social Development Sector, Economic Development Sector and Environmental Management Sector. As consequence, this will determine whether those projects and programs really addressed the needs of the people in the barangay that somehow affect their way of life, which on the long run will have effects to the municipality in its entirety. Perhaps, this study will furthermore elucidate why the Municipality of San Jacinto is still classified as 3rd class municipality while majority of its adjacent municipalities are 1st class such as Mangaldan, Manaoag, and San Fabian. With the foregoing scenarios, there is a need to know whether the barangays of San Jacinto observe government policies pertaining to the administration of projects funded by development funds. This study purported to critically assessed the administration of Barangay Development Fund (BDF) in the barangays of San Jacinto, Pangasinan during the inclusive calendar years 2017 and 2018. Result of the investigation served as basis in proposing an action plan that will make the administration of vital projects or activities that are more responsive and beneficial to barangay development needs. This study utilized the descriptive documentary analysis method. Document analysis is a form of qualitative research in which documents are interpreted by the researcher to give voice and meaning around an assessment

topic. The study was conducted by examining documentary files of the subject barangays particularly those that pertain to their annual development fund, and related documents. This study was conducted among the nineteen (19) barangays in San Jacinto, Pangasinan. The participants of the study consist of 19 Punong Barangays, 19 Barangay Treasurers and 19 Sangguniang Barangay Members (SBM) who chair the Committee on Appropriation and Finance. All the 19 barangays in San Jacinto, Pangasinan had administered projects along the 3 areas, however, more focus was given to the social projects in CY 2017 but shifted to the administration of environmental projects in CY 2018. The importance and significance of the environment was given due consideration probably due to its benefits and contribution to their physical wellness, health and safety. The barangay development funds were not fully utilized in the administration of projects due to the encountered problems. The proposed Action Plan be presented for discussion and reactions to the authorities of the Barangay Development Council. Upon their approval, it will be piloted to top performing barangays who will serve as a model and trainer to other barangays.

Keywords: Administration of Barangay Development Fund, Social Development, Economic Development, Environmental Management, San Jacinto, Pangasinan

Debugging In a New Normal Landscape: Experience of Higher Education Institutions in the Training of Future Criminologists

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This study aimed to explore the experience of the criminologist-educators in overcoming the challenges alongside the new normal landscape in training of the future criminologist. Specifically, it sought to answer the lived experienced of the criminologist-educators in the training of the future criminologist against the backdraft of the new normal education landscape. The subjects of this study focus on higher education institutions in Pangasinan, Philippines, with instructors from both public and private universities participating. These instructors are qualified criminologists who have taught full-time for at least six years, eliminating part-time and new instructors. A qualitative method is used, with a focus on the changing character of education and a participant-centered study design. The theme “Intensive Instructional Setting” illustrates the budgetary restrictions that educators face as a result of growing expenditures and the desire for new technologies. Similarly, “Experiencing Challenges in Integrating Technology” illuminates digital gaps and the need for fair learning opportunities. Furthermore, the theme “Unsatisfactory Student Outcomes” emphasizes barriers to student engagement and information retention, highlighting the importance of comprehensive support solutions. The themes “Adapted to Changes” and “Seamless and Purposeful Use of Technology” both emphasize the need of professional development and technological integration for educators. They are consistent with current educational paradigms such as SAMR and TPACK, which advocate for educators to adapt to and successfully use technology for increased learning experiences. “Promoting Mental Health Awareness” represents a larger movement in educational methods toward creating a supportive atmosphere for students to confront mental health difficulties, in accordance with holistic education concepts that value students’ entire well-being. Furthermore, the “Varied Assessment Methods Regimen” underlines the significance of different evaluation instruments in fostering inclusion, reducing

prejudice, and discouraging academic dishonesty. “Adopting the Contemporary Education Framework” demonstrates universal support for new educational systems that use technology to create one-of-a-kind learning experiences while adhering to contemporary pedagogical principles. Finally, “Making of Prescribed Guidelines, Regulations, and Protocols” emphasizes the need of explicit norms in ensuring consistent teaching and assessment methods, which is congruent with educational philosophies that emphasize fairness and uniformity. Moreover, these themes provide deep insights into criminology education in the new normal, including financial issues, technological integration, student involvement, holistic well-being, diversity and inclusion, creative pedagogies, fairness, and lifelong learning. These findings lay the groundwork for tactics and recommendations for navigating the ever-changing terrain of modern education.

Keywords: New normal Education, Experience of Higher Education Institutions, Training of Future Criminologist, Criminologist.

LGU Bayambang Programs And Practices On Gender And Development

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Against the backdrop of global initiatives for women's equality and the shift from the Women in Development (WID) to the Gender and Development (GAD) approach, our research seeks to provide a comprehensive understanding of the current state of gender-responsive programs in Bayambang.

The primary aim of our investigation is twofold. First, we profiled the BGADC and the top 5 barangays, examining demographics such as age, gender, civil status, religion, occupation, and educational attainment. The BGADC, predominantly aged between 28 and 38, displays a notable gender disparity favoring men, while the top 5 barangays feature a younger, unmarried population. Second, we assessed the level of implementation of gender and development programs in Bayambang, scrutinizing initiatives like the TB advocacy campaign, Nutrition Month celebrations, and Road Construction and Rehabilitation programs.

Employing a descriptive research method, we conducted surveys emphasizing frequencies, averages, and statistical calculations. Our findings reveal that the BGADC, comprised mostly of professionals with higher education, contrasts with the diverse occupational and educational backgrounds found in the top 5 barangays. Notably, gender and development programs in Bayambang, such as the TB advocacy campaign and Nutrition Month celebrations, demonstrate a commendable level of implementation.

The significance of our study lies in its contribution to the understanding of gender and development in Bayambang. Our findings serve as a guide for policymakers, aiding in the development of action plans to enhance gender and development programs. Moreover, the research raises public awareness and knowledge about gender and development, fostering a more equitable and inclusive community environment in Bayambang.

Keyword: Programs and Practices, Gender and Development

Peace and Conflict Resolution Process of Kalanguya Tribe in Malico Pangasinan



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The concept of conflict, being an outcome of behaviors, is an integral part of human life. Wherever there is interaction, there is conflict. It is truly inevitable since humans possess different views or perspectives when it comes to things. Settling different conflicts and disputes is one of the most important things to preserve social order because at present time, the major challenge facing humans is not the occurrence of conflict per se but on how these conflicts will be resolved to avoid its growth. This study aims to recognize the conflict resolution process of Kalanguya Tribe in Malico, Pangasinan. Furthermore, it explores the problems or issues being encountered in practicing their conflict resolution process. This study may unveil the existing indigenous conflict process of the Indigenous People and can provide essential knowledge to the public when it comes to conflict resolutions happening in the cultural level. This study employed the qualitative method specifically narrative inquiry. The participants were chosen through purposive sampling. Members of the Kalanguya Tribe of Malico, Pangasinan were chosen as participants of this study because they have the knowledge and experience with regards to the traditional conflict resolution practices being implemented in their community. Also, the study shows that the conflict resolution process is beneficial to reduce court back logs, however, there are problems that need to be addressed. Thus, the government needs to encourage the utilization of this cultural conflict resolution process by developing policies that will strengthen the indigenous group in settling such conflict.

Keywords: Conflict, Conflict Resolution Process, Dispute, Indigenous People, Kalanguya

**EDUCATIONAL
TECHNOLOGY,
SOCIAL
STUDIES, ARTS,
HUMANITIES**

Symbolab App in Bolstering the Computational Skills of Students



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Algebra is an essential aspect of mathematics, and it provides powerful reasoning tools that have applications in various fields such as medicine, business, and engineering. However, many students struggle with logarithms, and empirical evidence shows that students at the secondary school level lack the basic understanding of logarithms. The Philippines ranked sixth from the bottom in mathematics among 81 participating countries in PISA 2022. To assist in teaching and learning mathematical ideas, emerging digital technology has paved the way for powerful digital media solutions. Symbolab is an educational application that provides step-by-step solutions to mathematical problems in various subjects such as Algebra, Trigonometry, and Calculus. A study was conducted at UL Senior High School School Year 2023-2024, using a true-experimental design to demonstrate the effectiveness of the Symbolab App in bolstering the computational skills of students in solving logarithmic equations, particularly Grade 11 STEM students. The study found that there is a significant difference between the mean pre-test score and the mean post-test score of both the experimental group and control group. This improvement in performance implies that both the traditional lecture method and the use of the Symbolab App as an intervention were effective in teaching the concept of solving logarithmic equations. However, the experimental group performed better than the control group, indicating that the Symbolab App as an intervention is more effective in bolstering the computational skills of students in solving logarithmic equations. Therefore, the use of the Symbolab App in teaching General Mathematics, specifically in solving logarithmic equations, is highly recommended. It is also suggested to use it in other subject areas in Mathematics.

Keywords: Educational Apps, Symbolab App, Bolstering, Computational Skills, Logarithms, Senior High School

Metacognitive Support in Improving Scientific Literacy of Students in Astronomical Motion



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Scientific literacy refers to one's ability to engage in science-related issues, and with the ideas of science, as a reflective citizen. To be able to carry out the scientific inquiry process, they need to be able to consciously embark on procedures to monitor their progress towards the goal of inquiry as they continue, be aware of and evaluate their progress, and reflect on the results with a view of improving their practices. This type of conscious thinking is the hallmark of a metacognitive individual. Furthermore, given that learning styles influence the way students process and perceive information, metacognitive strategies can be useful in helping them understand their unique learning patterns. To teach science successfully, teachers can use their metacognitive about what, why, and how they teach to manage and regulate their teaching so that it meets the needs of their students. This action research in science pedagogy tested the extent of effectiveness of providing metacognitive support to the students during instruction in order to achieve higher level of scientific literacy. This is a type of experimental design thought to be the most accurate type of experimental research because it supports or refutes a hypothesis using statistical analysis. This study revealed that the null hypothesis that no significant difference exists between the mean gain scores of the control and experimental groups was rejected as evidenced by the higher computed t-value of 8.400 as compared to the tabular value of 2.637. This implied that there was a significant difference in favor of the experimental group, who achieved a higher level of scientific literacy with the aid of metacognitive support during instruction. The mean scores of the control group and the experimental group in the pre-test were more or less similar. Furthermore, students who received metacognitive support performed significantly higher than the students under the lecture method as evidenced by their post-test scores. Finally, it was concluded that providing a gamut of metacognitive support during instruction is effective to some extent in improving the scientific literacy of the students.

Keywords: Metacognitive Support, Scientific Literacy, Astronomical Motion, Experimental Research, Senior High School

Mainstreaming of Learners with Special Needs in the Public Educational Institutions

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With the belief that the right to education is a basic human right and the foundation for a more just society that values diversity and the unique contribution each student brings to the classroom, the mainstreaming program was implemented by the Special Education Center. This study aimed to determine the extent of mainstreaming of learners with special needs in the public educational institutions in the 4th Congressional District of Pangasinan. It utilized the descriptive survey method. It determined the views, opinions or perceptions of non-SPED teachers on the mainstreaming program of SPED learners who are accepted in the regular classroom. Also, the factors that influenced their perceptions were included. As such, the researcher employed the descriptive survey method. With the use of a valid and reliable questionnaire as a research tool, the data were gathered from 43 respondents currently teaching in regular classrooms with mainstreamed learners with special needs. Based on the analysis of the results of this study, the findings are as follows: On Mainstreaming of Learners with Special Needs along the 3 areas in the 4th Congressional Districts of Pangasinan, it appears that materials topped the highest rank with a total mean rating of 3.98 implying that they all agree on the 10 indicators. On Factors Influencing the Perceptions of Regular Teachers on the Mainstreaming of SPED Learners along the skills and knowledge, respondents perceived that they are problematic to accept the mainstreaming program due to the non-provision of lectures and workshops for regular teachers handling SPED learners. Further, on strategies and assessment, teacher-respondents expressed their sentiments on the lack of trained personnel to handle the scientifically-based instructional materials for SPED learners. Also, the corresponding workshops are not provided. Moreover, the SPED curriculum is not often coordinated or given support by general education authorities. Lastly, on materials, their topmost problem is focused on the inadequacy of learning resources and educative materials and modules designed for SPED learners, coupled with appropriate testing materials. The mainstreaming program of SPED learners in regular classrooms can be implemented in compliance with the Rights of Persons with Disabilities (Art. 24, UNCRPD, 2014), however, special training and workshops be strictly provided for regular teachers handling SPED learners. Such that the provisions of UNCRPD be followed, SPED learners should not be excluded since they have the right to primary and secondary education and are given access to a free and quality education as stated in the inclusive education system.

Keywords: Mainstreaming of Learners with Special Needs, Public Educational Institutions, Skills and knowledge, Strategies and Assessment, Instructional Materials

Augmented Reality Based Educational App in Enhancing Student Performance in Cell Biology



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The Philippine Educational System faces challenges in teaching and learning abstract scientific concepts leading to a lack of motivation and interest. The country ranks 23rd out of 25 in primary science and 43rd out of 46 in secondary science in the International Assessment of Trends in International Mathematics and Science Study (TIMSS) in 2003, and 77th out of 79 in Science and Mathematics in the Program for International Student Assessment (PISA) last 2018, indicating an increasing number of students struggling to learn Science. Augmented reality which combines physical and virtual worlds provides a more engaging and interactive learning environment that enhances students' understanding of complex biology concepts. This study aimed to evaluate the effectiveness of augmented reality in enhancing Grade 12 STEM performance in Cell Biology. True experimental research was utilized to assess the effectiveness of the Augmented Reality-Based Educational App. The experimental group was exposed to the Cell World App, while the control group used a traditional lecture-discussion method. Teacher-A validated post-test was administered to measure the app's effectiveness in describing major and subcellular organelles. Students' scores were compared and analyzed using SPSS version 20. The study found that both the control and experimental groups had similar performance levels before the experimentation. However, the experimental group showed a significant improvement in performance with a mean difference of +9.87 compared to the control group, and the standard deviation decreased from 3.983 to 2.693, indicating the effectiveness of augmented reality-based educational app. The study recommends integrating Augmented Reality-Based Educational Apps in teaching General Biology.

Keywords: Augmented Reality; Cell World App; Enhancing; Student Performance; General Biology

Technical-Vocational Education and Training (TVET) Programs Employability Skills Acquisition of TESDA Graduates



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The Technical Education and Skills Development Authority (TESDA) in the Province of Pangasinan, demonstrate the effectiveness of its initiatives in terms of its graduates, the labor market, and employers. In order to better understand the graduates' motives as a contributing element in landing a good job opportunity, the study aimed to give a valuable instrument for evaluating the quality of the Technical-Vocational Education and Training (TVET) programs in Pangasinan School of Arts and Trades (PSAT) in relation to the graduates' employment status. This study aims to determine the employability status of the TVET Program Graduates in PSAT. Results of this investigation served as a basis in order to formulate a measure in order to improve the employability of the TESDA Graduates that influence their application skills in their chosen field of work. This study made use of the descriptive-assessment research design. This research was conducted at Pangasinan School of Arts and Trades – Technical Education and Skills Development Authority (PSAT-TESDA) located at Alvear Street, Maniboc, Lingayen, Pangasinan. There were selected 120 TESDA graduates who availed the 3 types of scholarship, namely: Universal Access to Quality Tertiary Education Act (UAQTEA), Skills Training for Employment Program (STEP) and Training for Work Scholarship Program (TWSP) offered by the PSAT-TESDA. The primary tool that utilized in this study is the Graduate Tracer Study (GTS) formulated by the researcher. Furthermore, frequency count, percentage, weighted mean and rank were utilized in this study. The extent of employability of the TESDA Graduates measured along relevance of training/qualification, job satisfaction, and skills acquired in PSAT-TESDA Training Center. The TESDA graduates supposed that their training qualifications earned in PSAT-TESDA is highly relevant with what job they have in present. Since it improves more their work proficiencies because of the employability skills they learned from the training center. Furthermore, they also satisfied with their present job because most of the alumni were giving a chance to perform with what they have learned in their workplace. It is therefore concluded that prior to the 21st century learning framework, it is said that those TESDA graduates are more competitive than those employees with no exposure in Technical-Vocational Education.

Keywords: Technical-Vocational Education and Training Programs, Employability Skills Acquisition, Pangasinan School of Arts and Trades

Digital Education Across ASEAN and East Asia: Cultural and Human Factors Amidst Transformation



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This paper presents a cross-national analysis of the digital transformation of education in several countries in Asia and North America. When the SARS-corona virus-2 became a threat to all human beings, nations reacted to force profound changes to the ways people work, travel, communicate, experience birth, illness or death. Education from primary to college levels faced immediate and structural transformation from the physical classroom to virtual learning space. This is an instrumental policy analysis to lead research and investigation into the massive inequity of digital education. This analysis draws on the expertise of educators, researchers, and administrators from seven countries (Cambodia, Hong Kong-China, Japan, Philippines, and Thailand) that examine in depth the convergence of pedagogy, technology, public policy, resource access; teacher re-orientation, training, and support; effects on students (K to 16) in areas of mental and physical health, social development; intellectual or achievement delays; short and long-term economic impact on educational delays or disruption; institutional capacity regarding enrollment and financing. Learning expectations and teaching effectiveness remain universally recognized before, during, or after the COVID-19 pandemic. Not all nations possess equally the economic resources, technical capacity, digital infrastructure, school-based service systems, institutional organization, professional and technical assistance or development. For example, the personal ownership rates of telecommunication devices (e.g. smartphone, tablets, laptops, or personal computers) vary widely among the seven countries. Without adequate internet connectivity and institutional infrastructure, for example, both students and teachers face excessive challenges that those in resource-rich countries may never experience the mental and physical burden.

Keywords: cross-cultural, pedagogy, learning styles, resources

ICT Integration in Teaching Internships: Addressing Lesson Planning Challenges at Baguio Central University



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This qualitative research delves into the challenges faced by 20 pre-service teachers in integrating Information and Communication Technology (ICT) into their lesson plans within the classrooms of Baguio Central University, Baguio City, Philippines. The study aims to investigate the challenges encountered by pre-service teachers at Baguio Central University in integrating ICT into lesson planning, focusing on the inadequacies in articulating instructional goals and incorporating essential elements of a lesson plan and explore the specific hurdles faced within the context of ICT integration, such as the scarcity of personal laptops and educational equipment, insufficient ICT skills among teachers, and limited Internet accessibility. The identified difficulties encompass poorly articulated instructional goals and a failure to address and integrate key elements of a lesson plan—learning objectives, learning activities, and assessment—during the planning process. In the context of ICT integration, challenges include a scarcity of personal laptops and educational equipment, insufficient ICT skills among both cooperating teachers and pre-service teachers, and limited Internet accessibility. The research outcomes contribute to the development of a Pre-Service Teachers' Workshop. Data collection employed semi-structured interviews and document analysis, with thematic analysis serving as the interpretative framework. The findings underscore the importance of enhancing pre-service training to address these challenges effectively.

Keywords: Challenges, Lesson Planning, ICT Integration, Intervention Program Teaching Internship

Lost in Translation: Connectedness, Willingness to Communicate and Display of Agency in the Classroom



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This explanatory sequential method was used in this study to investigate the non-native English speakers' extent of connectedness and willingness to communicate and their display of agency in the Filipino classroom. The participants of the study were foreign students whose first or second language is not English and who completed surveys on classrooms related to connectedness and willingness to communicate. They are currently enrolled in the University of Baguio during the school year 2019-2020. They have been in the Philippines for at least one year. Furthermore, these students are presently enrolled in at least one major subject of their field of specialization. The respondents often ($M = 4.08$; $SD = 0.63$) connect and are occasionally ($M = 3.25$; $SD = 0.48$) willing to communicate with their classmates in a classroom setting. Moreover, purposive sampling was used in the selection of the research's participants. Twenty (20) respondents participated in the study. An interview and focus-group discussion were used to determine their styles in displaying agency in the classroom. Outcomes show that foreign students connect with their classmates often. Further, they also occasionally demonstrate a willingness to communicate with their classmates. Thus, the study reflects a low, positive relationship between the foreign students' connectedness and willingness to communicate within the classroom. The non-native English speakers exhibited agency in the classroom by initiating individual empowerment, participating in communicative interactions, and gaining social recognition.

Keywords: classroom connectedness, willingness to communicate, agency, language, display agency

Classroom Management of PATHFit Courses in the Onsite Learning: A Phenomenological Study



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This phenomenological study aimed to well understand the significance of classroom management in dealing with the situations and issues regarding the lived experience of the PATHFit Teachers in an onsite learning. The needs to consider in the classroom management turned out to be the best practices of the PATHFit teachers and students in terms of managerial aspects in the face-to-face learning. This study provided ideas for improving the strategies in dealing with physical activities in the classroom through teaching and managing situations. The assessment of classroom management of PATHFit courses in the onsite learning was during the first semester S.Y. 2022-2023. Three (3) PATHFit teachers from Urdaneta City University's College of Teacher Education-University Physical Education Department participated in this study. As the results of this study, it has demonstrated that the lived experiences were determined from the PATHFit teachers to have the following: active attitude, lifestyle of active teaching, and teacher traits to revitalize the enthusiasm of the students to participate in various activities in the classroom. Further, the active teaching strategy and active physical activity are identified as the best components of classroom management instructional approach of this study. These key strategic management for developing potential classroom management use in onsite learning must be prioritized to create a productive program from the administrators' and community's initiatives. This study ensures that PATHFit teachers and students at Urdaneta City University have meaningful and active lives.

Keywords: PATHFit, classroom management instructional approach, PATHFit, onsite learning, Phenomenological study

Pangasinan State University Institutional Initiatives on Board Examination Preparation for Students across Education Board Programs

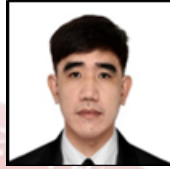


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This study aims to validate the initiative undertaken by Pangasinan State University in the realm of quality education and educational innovations. This study is used to investigate the effectiveness of Competency-Based Enhancement Review (CBE) on the Board Performance of PSU Education Graduates across General Education, Professional Education and Specialization. Additionally, it seeks to elucidate and evaluate the distribution of board performance among PSU graduates across Education programs for first takers and re-takers. By evaluating the implementation of this institutional initiatives, valuable insights can be gained to inform the development of sustainable strategies and the formulation of long-term programs focusing on quality education and educational innovation. Data were collected using a registration method and analyzed utilizing statistical tools within an explanatory research design framework. Results indicate a noteworthy effect of the Competency-Based Enhancement Review (CBE) on the Bachelor of Secondary Education, and a less pronounced but noticeable effect on the Bachelor of Elementary Education. Additionally, there is a significant correlation between the graduates' exposure to the CBE review and their board performance across the three areas General Education, Professional Education and Specialization.

Keywords: Effect, Review, Board Performance, Content Based

Predicting the Result of the LEPT of University of Eastern Pangasinan Graduates: A Classification Tree Analysis



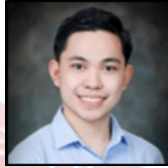
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Licensure Examination for Professional Teachers (LEPT) is a significant milestone in pursuing a teaching career. Passing the LEPT is a gateway for individuals aspiring to become professional teachers. For the past licensure examination for professional teachers, the University of Eastern Pangasinan has been above the national passing rate. However, the College of Teacher Education of the University of Eastern Pangasinan is not just aiming for a rating above the national passing rate but to determine how to navigate the path for better performance in the LEPT; thus, the researcher made this study to create a model that will serve as a predictor in passing the licensure examination for professional teachers. Using Chi-squared automatic interaction detection (CHAID) as the growing method of the classification tree analysis of SPSS, data gathered from the Professional Regulation Commission (PRC) from the year 2014 to 2022 revealed that there are significant independent variables that were classified as predictors of passing and failing the licensure examination for professional teachers. Specifically, the model revealed that Majorship is the primary predictor and that ratings under this variable were given a classification of the chances of 100% passing or 100% failing the LEPT. The model's prediction of passing the LEPT is 94.3% correct.

Keywords: Predictor of the LEPT, Model of LEPT, Passing and Failing the LEPT

Navigating The Learning Landscapes in HEI: Unveiling The Users' Experiences On The Learning Management System



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Various higher education institutions have gone a long way in adjusting to the new modality to facilitate learning. Learning management systems (LMS) are currently crucial platforms for delivering educational content and communicating with faculty members and students. The research aimed to gain a deeper understanding of the level of experiences of 45 faculty members and 505 students who employ the LMS in relation to its functions and tools and the challenges they encountered on the LMS. Through descriptive analysis, findings revealed that both faculty members and students demonstrate a clear preference for certain functionalities within the LMS, highlighting a positive experience with digital resources. Meanwhile, both teachers and students noted concerns include resolving connectivity issues, strengthening technical assistance, strengthening user training, and optimizing LMS functionalities. Further, inferential analysis revealed no significant association between students' level of experience with LMS and the challenges they encountered. However, there was a significant association found between faculty members' level of experience with LMS and the challenges they encountered. The study suggests that the higher education institution may prioritize improving the overall user experience and facilitating smoother digital learning landscapes.

Key words: Challenges, Experiences, Higher Education Institution, Learning Landscapes, Learning Management System

Unveiling Multicultural Education through the Lens of Pre-service Teachers: Insights and Challenges



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This study delves into pre-service teachers' insights regarding multicultural education, specifically focusing on their receptiveness, disposition, and understanding of its importance. It also examines the critical challenges in multicultural cooperating schools and suggests a policy brief to enhance pre-service teacher programs. Utilizing a descriptive research method, the study uncovers a consistent endorsement among pre-service teachers for values that advocate for respect and the inclusion of cultural diversity. While multicultural education has general backing, certain attitudes may necessitate refinement to cultivate a more inclusive learning atmosphere. Nevertheless, pre-service teachers exhibit a commendable level of understanding and proficiency in multicultural education. Notably, challenges arise concerning teaching methodologies, underscoring the urgency for programs to adequately equip teachers to cater to the diverse needs of students from various cultural backgrounds.

Keywords: Multicultural Education, Receptiveness, Disposition, Insights, Challenges

Assessing the Impact of Virtual Classrooms on Teaching Competency: A Descriptive Survey of Elementary Schools in Balanga Bataan Division



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A virtual classroom is an online learning environment that enables teachers and students to communicate, interact, collaborate, and exchange ideas. This study examines the impact of the virtual classroom approach on teaching practices in five selected elementary schools within the Balanga Bataan Division. Specifically, the study aimed to: 1) profile the respondents, 2) assess the impact of the virtual classroom approach on teaching competency, 3) identify problems encountered with this approach, 4) explore significant differences in the impact of the virtual classroom across various profile variables, and 5) investigate the significant relationships among these variables. Utilizing a descriptive research design and a questionnaire checklist as the primary data collection tool, the study employed frequency counts, percentages, weighted means, One-way Analysis of Variance (ANOVA), t-tests, and Pearson correlation to analyze the data.

The findings revealed that the respondents were predominantly young, married professionals in high teaching positions with less than five years of service. The virtual classroom approach significantly enhanced teaching competency, particularly in areas of creativity, innovation, collaboration, leadership, and classroom interaction. However, respondents faced serious challenges in implementing this approach. The impact on critical thinking skills varied significantly with age and civil status, and a significant correlation was found when respondents were grouped by age, sex, and civil status.

The study recommends that respondents pursue further graduate and postgraduate education aligned with their specializations, and participate in seminars and training focused on developing 21st-century skills. While the virtual classroom approach shows promise, it is crucial to address the identified challenges promptly.

2022-2023 Exceptional Women of Peace Award Recipients: Experiences and Impact



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This presentation explores the experiences and impact of the Exceptional Women of Peace Award recipients in 2022 and 2023. The UN Peace Messenger, Pathways to Peace's initiative in the search for the Exceptional Woman of Peace Award, significantly enriches the research's context and significance. Employing qualitative narrative inquiry, the study delves into their personal stories, revealing how they not only survive but thrive, distinguishing themselves as winners. Their narratives unveil a diverse tapestry of integrative intelligence amidst existential threats, showcasing their ability to transcend VUCA, the pandemic, violence, and war. Key findings highlight the resilience, transcending violence, and adaptive capacities of these exceptional women, encompassing qualities such as recognition of shared pain, power of forgiveness, transformative leadership, rebounding ability, aesthetic and artistic intelligence, collaborative activism, communal spirit, common good consciousness, creative versatility, eco-consciousness, emotional intelligence, enterprising spirit, gratitude, grit, healthy self-esteem, humaneness, innovativeness, interconnectedness, poetic prowess, radiating joy, inner wisdom, and spiritual intelligence. These exceptional women serve as inspirational figures for humanity. Their willingness to sacrifice for the betterment of society, serves as a beacon of hope. They embody inner peace, dismantling the culture of war and violence, living in harmony with the Earth, exhibiting compassion and justice, promoting human rights and responsibility, and building cultural respect, reconciliation, and solidarity. The study's eidetic insight emphasizes the essence of humanity, focusing on accountability, altruism, standing for truth, and gratitude to the Giver of Life.

Keywords: exceptional women of peace, narrative inquiry, integrative intelligence, Pathways to Peace

Partnerships for Indigent Community Development: Bridging Gaps



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This study examines strategies for successful partnerships in community development for indigent populations. It explores initiatives undertaken in the Cordillera Administration Region, Philippines, emphasizing participatory approaches and bridging gaps in education, healthcare, infrastructure, and spiritual well-being. The research investigates the impact of community engagement and the roles of NGOs and government agencies. It also identifies challenges and barriers and evaluates strategies for addressing gaps in healthcare, food security, education, and infrastructure. Findings highlight the positive impact of partnerships on education outcomes, community empowerment, and capacity building. The holistic approach addressing multifaceted needs and collaboration between stakeholders fostered sustainable development. Recommendations emphasize addressing challenges, promoting community engagement, and leveraging stakeholder expertise to maximize human and economic well-being, and create vibrant communities.

Keywords: community development, partnerships, indigent populations, participatory approaches, sustainable development.

Project Ampaten: A Solid Waste Management Initiative in Tagamusing River



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In line with SDG 11 on Sustainable Cities and Communities, Municipal Solid Waste Management (MSWM) is a crucial global issue with far-reaching consequences for public health and environmental sustainability. The research aimed to assess the Municipal Ordinance 2005-08, series of 2005: solid waste management in the municipality of Binalonan, Pangasinan. Using a Concurrent Triangulation Mixed Method Design, the study integrates the SDG 11-emphasized concepts of community engagement and collective action, exploring people's existing knowledge and adherence levels towards the ordinance. The research assesses residents' attitudes and behaviors toward waste management, fostering a deeper understanding of community dynamics in achieving sustainable waste management practices. Findings indicate a high level of awareness among residents regarding the ordinance, with moderate adherence observed, reflecting progress towards SDG 11. However, a significant relationship between awareness and adherence underscores the need for targeted interventions to enhance compliance and contribute to the sustainable development agenda. This study contributes to the discourse on MSWM by providing insights into the challenges and opportunities for improving compliance with existing ordinances and advancing the global agenda for sustainable urban development.

Keywords: Adherence, Awareness, Project Ampaten, Concurrent Triangulation, Solid Waste, Management, Tagamusing River

Intervention of Residents' and Visitors' Perceptions in Establishing Resident-Visitor Relationship in BASECO Compound



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This explanatory study investigates the perceptions of both residents and visitors regarding the establishment of a resident-visitor relationship in Baseco Compound. In line with the 5 P's of the United Nations Sustainable Development Goals which represents the foundation of Agenda 2030 and the Emotional Solidarity Theory, the study implored to adopt these foundations to extract a more rational understanding in establishing resident-visitor relationship and build equality and sustainable environment for the BASECO community. Utilizing surveys for both residents and visitors, alongside with interviews with the representatives from the local government unit (LGU), this research explores the key challenges and opportunities inherent in establishing a positive relationship between the residents and visitors with the local government unit as a mediating body. The findings revealed divergent perspectives on issues such as environmental integrity, economic benefits, and social interactions. While residents express concerns about the impact of tourism on their community's identity and resources, visitors highlighted the appeal of Baseco's way of living amidst the situation and authenticity of its culture. Understanding these perceptions is crucial for developing sustainable tourism strategies that promote mutual respect, collaboration, and equitable benefits for both residents and visitors. It underscores the importance of emotional solidarity and mutual understanding between residents and visitors in fostering positive relationships. With the qualitative data from the representatives of the local government unit, it denotes the importance of the LGU as a mediating body to support the functions and needs of the residents and visitors. In reflection to the results of the data, there is a significant correlation between the perceptions of residents and visitors in establishing resident-visitor relationships in Baseco under the Emotional Solidarity and the 5P's of sustainable development, highlighting the interconnectedness of these aspects. The study contributes to the ongoing discourse on community-based tourism (CBT) and offers insights for policymakers, local authorities, and stakeholders involved in Baseco's tourism development.

Keywords: resident, visitor, resident-visitor relationship, sustainable development goals, emotional solidarity theory

Students' Perspective of Leadership: Expectations, Reality, and Learning

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This study had two objectives. The first was to explore the perspective of leadership—collaborating with and influencing others—using the case of senior high school students and university students taking aviation-related and tourism-related programs at WCC-Aeronautical and Technological College Binalonan Campus. The second objective was to design an emotional intelligence skills training curriculum as part of student's leadership skills development. Seven hundred-five students taking the institution's Character Formation courses for the Senior High School Department, Commercial Flying, Airline Operations Management, Aircraft Maintenance Technology, Avionics Technology, Tourism Management, and Aeronautical Engineering Programs responded to the SCARF inventory to determine their expectations of others' leadership. The group's emotional climate was also assessed to find out the current emotions experienced by the respondents and how they respond and collaborate with others based on the realities of leadership they currently experience. The results of the SCARF inventory and emotional climate assessment helped determine the needs of the students and were used to design the emotional intelligence skills training curriculum aimed at developing servant leadership which is one of the target qualities for the graduates of the institution. The curriculum design included restructuring the learning environment to provide experiential learning that accommodates the SCARF Model.

Keywords: Servant Leadership; Leadership Training; SCARF Model; Emotional Climate

ENGINEERING AND TECHNOLOGY

Impact of Embedding Additive Manufacturing in Engineering Education using Convolutional Neural Network with Deep Learning Thru Heat Exchanger Analysis



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Incorporating additive manufacturing (AM) into the realm of engineering education marks a pivotal shift toward adopting contemporary technological innovations and their practical uses. This research delves into the role of integrating AM methods into engineering programs, especially through hands-on projects involving the design and analysis of Heat Exchangers (HX) by leveraging Convolutional Neural Networks (CNN) with Deep Learning (DL) techniques to improve students' comprehension and abilities in engineering design and analytical tasks. This study utilizes algorithms in CNN, renowned for its capability to process visual data. It evaluates the functionality and productivity of heat exchangers crafted by students. This strategy not only facilitates an immersive learning environment but also acquaints students with the intricacies and opportunities presented by AM in addressing real-world engineering challenges. Results from 98 students demonstrate a marked enhancement in their capability to analyze and design, as shown by the improved efficiency of more than 70% of their heat exchanger design. Furthermore, the capability of deep learning algorithms was showcased to precisely forecast design flaws and improvement, thereby providing instant feedback and promoting a comprehensive analysis in manufacturing a prototype sample. Students have shown increased spur in innovation, critical analysis, & hands-on comprehension of sophisticated engineering systems. Thus, illustrating the transformative potential of this integrated educational approach where students are equipped with the requisite skills to tackle forthcoming real-world engineering obstacles.

Keywords: Additive Manufacturing, Engineering Education, Convolutional Neural Network, Deep Learning, Heat Exchanger

Virtualization Technology as Instructional Tool for Firewall Simulation



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One promising avenue for information security education and training is the use of virtualization technology. Virtualization technology provides a good development experience as an information security learning media. It provides a virtual security laboratory, which is an implementation of real computer laboratories and a security simulation environment that is useful in explaining the concept of information security administration. The use of virtualization technology is very popular especially when the budget for computer hardware resources is a problem. Meanwhile, firewall is an important security topic, and information security programs should include courses that cover its concepts and technologies. Studies showed that some students have difficulty in fully understanding the use and configuration of a firewall, after traditional lectures on firewall concepts. Further, it showed that for many students, an interactive educational tool can help them understand the functions of firewalls by getting hands-on and step-by-step firewall configuration. This research aimed to develop and determine the viability of virtualization technology as an educational tool in teaching firewalls at the University of Luzon, Philippines. Using online review popularity rating, availability of documentation and ease of installation as selection standards, two of the ten best open-source firewalls published online were chosen, installed, configured and evaluated. The two firewalls were compared using additional selection standards consisting of feature set, performance, manageability and support, to determine the better firewall suited for the virtualized environment. Likewise, a firewall rule set was defined based on sample security policies to showcase the capability and functionality of the chosen virtual firewall. Furthermore, the affordable virtualized learning environment was deployed with Oracle VirtualBox virtualization software virtually connecting the Pfsense firewall and one Windows-based client virtual machine.

Keywords: Virtualization Technology, Virtual Firewall, Pfsense Firewall, Oracle VirtualBox, Virtualized Environment

Utilizing Shrimp (*Penaeus vannamei*) and Oyster (*Crassostrea iredalei*) Shells for Sustainable Battery Electrolytes: An Alternative Approach

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Amidst the growing concerns over animal by-products and the imperative for sustainable energy solutions, this study investigates the possibility and effectiveness of utilizing shrimp (*Penaeus vannamei*) and oyster (*Crassostrea iredalei*) shells for developing environmentally friendly battery electrolytes. The objective was to devise an electrolyte that not only exhibits efficient performance but also a significantly faster rate of decomposition, compared to the commercial 1.5 V household lithium-ion batteries. The electrolyte was synthesized through chitosan extraction, involving the deproteinization and demineralization of the shells followed by conversion into chitosan powder. The study explores the impact of different concentrations of shrimp and oyster shells on electrolyte effectiveness. Three distinct electrolyte formulations were prepared: T1 - 70% shrimp shells, 30% oyster shells; T2 - 50% shrimp shells, 50% oyster shells; T3 - 30% shrimp shells, 70% oyster shells. These formulations were compared against a positive control 1.5 V battery in terms of current, voltage, and resistance, with additional testing conducted to assess their luminosity as their ability to power a light bulb.

Results showed that the sustainable battery electrolyte of treatment 1 (70:30) had a voltage, current, and resistance of 5.8 V, 2.93 A, and 0.51 Ω respectively. Data on current, voltage, and resistance are significant at 0.01 confidence level. Additionally, this treatment was rated the highest in terms of the ability to produce electricity. This treatment has outperformed the parameters of the control, making the alternative electrolyte more significantly effective than the store-bought battery.

Keywords: Oyster; Shrimp; Electricity; Bio-battery; Electrolyte; Chitsoan

Assessing the Adsorption Potential of Coconut (Cocos nucifera L.) Shell Biochar Composites for the Remediation of Algae-Infested H₂O

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Harmful algal blooms (HABs) pose a significant threat to the aquaculture due to excessive amounts of phosphate levels in aquatic ecosystems, with adverse effects on the environment, economy, and public health. Biochar has gained attention as an adsorbent for water treatment and it can be modified with magnetic materials, making it easily retrievable. Coconut (*Cocos nucifera* L.) shell, an often overlooked and disregarded part of the coconut but locally abundant and renewable, offers a cost-effective source for producing biochar. This study's aim was to develop a magnetic biochar from Coconut (*Cocos nucifera* L.). Prior to the coprecipitation and pyrolysis, the coconut shells were cut, washed, and put into the oven for 2 hours. The coconut shells were then subjected into coprecipitation with Fe₃O₄ and FeCl₃, then pyrolyzed at 500°C. Color and turbidity level were assessed by the use of a turbidimeter device and spectrophotometer. Phosphate levels were assessed using API fishcare phosphate testing kit. Results showed that the magnetic biochar added to water with high phosphate level reduced its turbidity level by 59.15%, and a decrease in phosphate levels by 99%. Data on turbidity level and phosphate level are significant at 0.01 confidence level. This means that the magnetic biochar is an effective adsorbent and has the potential for the remediation of phosphate-contaminated water.

Keywords: Harmful Algal Blooms; Phosphate; Magnetic Biochar; Coconut (*Cocos nucifera* L.); Aquaculture ponds

Enhancing Financial Management Through Android Smart Saving Application PisoPatrol: A Study on the Efficacy of Automated Expenditure Control and Goal-Based Saving Among Students



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As a result of the Philippines' economic environment, which has been characterized by high inflation rates, many people, especially students, are struggling to make wise financial decisions. Student financial burdens are growing as a result of rising tuition costs and living expenses, which may have an adverse effect on their ability to pursue their education and general well-being. The PisoPatrol mobile application was created as a timely response to these issues after being envisioned in light of this urgent issue. The PisoPatrol program was developed using the Agile Software Development Life Cycle, recognized for its iterative and adaptable methodology. The application's user-centric design was improved during several development cycles to make sure it matched the particular financial management requirements of students. Directly surveying the intended audience, students, was a crucial component of the researchers. This study focuses on developing the Android application for managing student cash-on-hand finances. One of its benefits is the ability to set spending limits and receive uplifting messages when they are exceeded, which helps students manage their funds properly. The examination of post-trial data highlights PisoPatrol's demonstrable impact on improving users' financial management practices. In addition, the observed savings demonstrate PisoPatrol's practical utility as a tool for enabling users to make informed financial decisions and meticulously manage their costs. Furthermore, while the majority of customers reported excellent experiences with PisoPatrol, others may have encountered difficulties while using it, such as technical difficulties or integration concerns with their financial routines. Despite these challenges, PisoPatrol's capacity to cater to individual financial demands, paired with its critical role in guiding users on their financial journeys, underlines its effectiveness as a versatile financial management tool.

Keywords: Financial Management; Data Analysis; Agile Software Development, Android; Mobile Application; Savings

Utilization of a QR Coded-Based Technology for Merit and Demerit System

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This study aims to enhance the disciplinary and reward system of WCC ATC Binalonan. This application can access information quickly and efficient as possible. QR code-based technology in educational merit and demerit systems is a valuable tool for monitoring students and monitoring their progress. QR codes offer advantages by allowing efficiency, saves time, and reduces errors by eliminating manual data entry. Test and evaluate; QR Codes can be customized to suit specific school needs, enabling the assignment of point values for different behaviors, thus, this will help the school employees to easily implement reward system and disciplinary actions with greater ease due to the use of current technologies like smartphones. Through this system, it will enhance student engagement and participation in doing positive, meaningful, and responsible behavior. Implementation; using QR coded-based technology for merit and demerit system, we can implement a streamlined and efficient method of tracking and rewarding individual achievements while also addressing areas of improvement.

EXHIBITS

Miniature Aerodrome: A Visual Teaching Aid for Pre-Solo Student Pilots



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Embarking on a journey into the skies, this study aims to investigate the different struggles of the students during their flight training, effectiveness of the miniature aerodrome in aiding their struggles, and performance of the students after using the miniature aerodrome as their visual teaching aid. Utilizing these visual aids will support the pre-solo students to have a realistic view of what was just being taught through word of mouth and through images. For a comprehensive understanding of the miniature aerodrome, it was designed with the whole airport and the traffic pattern of Binalonan airport such as upwind, crosswind, downwind, base, and final. Multiple references are also included in the miniature aerodrome such as multiple white roofs, Ruperto, dry river, etc. The ground of this miniature aerodrome is constructed from plywood, and houses, references are made out of painted cardboard and thin plywood, and trees are made out of Styrofoam painted using craft paint, and lastly an acrylic for its glass-looking cover. Aircraft are also included in the purpose of helping flight instructors in terms of demonstration with their students. All of this just to improve or help pre-solo student pilots to aid their struggles in terms of area familiarization, aeronautical decision-making, knowledge retention, and lastly procedure application.

Personal Flight Simulator: Tool For Enhancing Student Pilots' Airmanship Skills

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The aviation industry has been navigating through complex challenges while adapting to rapid technological advancements and addressing a critical pilot shortage. Aspiring aviators are expected to hone their airmanship skills to meet the growing demands of safety and proficiency. For this reason, personal flight simulators have emerged as a supplemental method for improving training and narrowing the gap between theoretical understanding and flight training skills. The researchers employed a Quasi-experimental method to evaluate the efficacy of personal flight simulators by comparing performance levels between controlled and uncontrolled groups. Within this design, the One-Group Pretest-Posttest approach was used to gauge how effective a personal flight simulator is in enhancing the airmanship skills of student pilots. The data suggests that during the pre-test the controlled and uncontrolled groups had no significant difference in the airmanship skills of the respondents because $t_{.05} > \text{pre-test } t = 34.024$. In contrast, the post-test results indicate that there is a significant improvement because the $t_{.05} = 50.509$ is less than the post-test $t = 66.994$. The post-test results indicate that the controlled group improved their airmanship skills with the assistance of the flight simulator. The group that utilized the simulator demonstrated notable improvements in successfully managing different flying scenarios, while those who did not use the personal flight simulator achieved unsatisfactory outcomes in certain competency areas such as traffic patterns and emergency procedures. The results of this study aspire to contribute to the domain of aviation education by enabling student pilots to achieve a higher level of airmanship through the innovative use of personal flight simulators.

Keyword: Aviation; Personal Flight Simulator; Quasi-Experimental; Airmanship; Improvement

Solar Powered Airframe Logbook: Aircraft Tool Management

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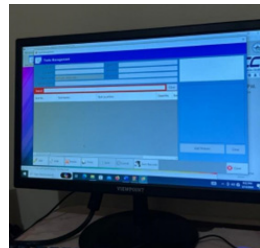
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Aircraft maintenance is highly regulated, and tool management is critical for compliance. Barcode monitoring sheets can help ensure that the right tools are used and maintained. It can help mechanics to do their jobs better and safer. They can scan QR codes to find out what tools to use and how to use them safely. This helps to reduce the risk of mistakes. Technological tools like barcoded monitoring sheets can help organizations collect data on how tools are used, which can be analyzed to find patterns, trends, and areas where tool management can be improved. This allows organizations to make informed decisions about tool maintenance, calibration, and resource allocation.

Keywords: QR Code, Solar panel, tool management, tool maintenance, logbook



Mandex Trainer using Pneumatic Systems

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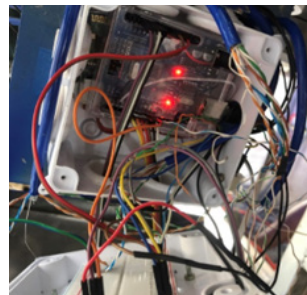
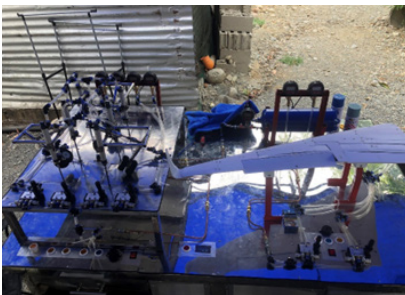
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A mandex trainer was developed to provide hands-on learning experience for students, specifically AMT and Avionics students. It was designed for aircraft maintenance students to simulate and troubleshoot the machine itself. The trainer utilizes a compressor and a pressurized tank to simulate the real world scenarios encountered during operations and maintenance procedures. The pneumatic system mandex trainer mimics the hydraulic system as it is more cost-efficient in the long run. The machine is integrated with technology software through a code and command system with application. With this application, professors are able to monitor the PSI readings and errors of the machine. The dashboard digitally displays the pressure flowing throughout the system. The pressure may be adjusted manually by the machine operator. This project simulates the retraction of wings, spoilers, and flaps with the use of pneumatic system pressure with pneumatic lines and actuators. The main operating procedure is that there is an air compressor that is the main supply of air to the air tank, air tank to the servo controllers, and servo controllers to pneumatic lines, pneumatic lines to the T-connectors, and pressure control valve to actuator. These control the air flowing and being supplied throughout the parts. The tube used is a copper tube wherein it will serve as the primary passageway of the air to the components of the aircraft. As for the renewable energy aspect, there is a solar panel and 12V DC battery for the supply of renewable energy.



Development of EXERGY as a Conversion Unit from Used Oil to Diesel: Waste Oil Management Solution

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The EXERGY is a unit that was created to transform used oils into pure, uncontaminated diesel fuel that may be utilized in aviation equipment, such as diesel-powered generators, fire trucks, and trucks. The researchers attached a main switch which is considered to be the brain of the unit for it controls all the electrical components of the machine and in order for the equipment to be activated, a key must be inserted, a regular on and off light indicator will appear to confirm that the system has been switched on correctly. The EXERGY unit is composed of three (3) major

components: 1) Reactor Chamber - attached to extract the diesel but with a required specific temperature which is 280 - 300 degrees Celsius, 2) Condenser System - affixed to condense the diesel fume to liquid form, and 3) Scrubber System -similar with a normal car's catalytic converter, it cleans up the air before it discharges to the environment. The creation of a diesel conversion unit from spent oil is one approach that attempts to recycle waste oil into a useful energy source. The

creation of the unit will offer a mechanism that permits appropriate waste oil management and produces useable diesel fuel. The primary objective of this research project is to actualize what the researchers refer to as the "3Cs": COLLECT-CONVERT-CONTRIBUTE, which involves gathering waste oil, turning it into fuel, and supporting both the fuel-using industries and the promotion of environmental sustainability.

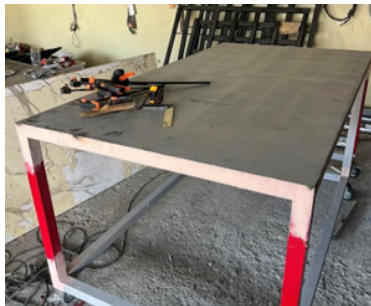


Enhanced Solar Powered Working Table for Airframe Instructional Learning

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One of the problems stated by the MRO office in WCC-ATC BINALONAN are the lack of resources and supplies in their workshop, plus they want a recreational area which will improve the work culture for their employees, so they reduce stress, improve concentration and boost productivity. The researchers plan to offer a solution in proposing the Enhance solar Powered Working table for Airframe instructional learning which benefits not only the employees but also the students for new knowledge and educational opportunities. The working table is an advanced technological approach and a big step forward in the realm of sustainable education and renewable energy integration. This working table is essential for all educational planners especially in assessing the plans without fail, this addresses the problems in developing objectives which provide a planner for ethical commitment. The purpose of this working table is to utilize its convenience, efficiency and functionality for the personnel and students of WCC-ATC BINALONAN CAMPUS.



Automated Solar-Powered Aircraft Platform Scale for Trainer Aircraft (Cessna 152 and 172)

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The Automatic Solar-Powered Aircraft Platform Scale for Trainer Aircraft is the subject of this product. This project involves the creation of an automated solar-powered aircraft platform scale for trainer aircraft, which may be used as a teaching tool by WCC instructors and students in the department of aircraft maintenance technology. The project design consists of three similar platform scales that are colored-coded and constructed from steel plates and sheet metal for the platform. Steel tubes were used in the platform scale's structural design. Four load cells, a battery, and a charging module make up the internal components, which allow the platform scale to send the weight that has collected to the auto calculation system. The platform scales battery will be recharged by the product using solar energy. The package includes an auto-calculation system that can calculate weight and center of gravity quickly and accurately, as well as a fully functional platform scale that can weigh Cessna 152 and 172 aircraft. The Automated Solar-Powered Aircraft Platform Scale for Trainer Aircrafts has been discovered to boost the productivity and efficiency of weight and balance operations and procedures by measuring the aircraft's center of gravity and basic empty weight through system-automated calculations. Test participants reported high levels of satisfaction with their experience, and the aviation platform scale systems have high rates of user acceptability. Users can quickly view the weight and balance chart to identify the category of aircraft, such as nose heavy, tail heavy, slightly balanced, overweight, and balance, which has been found to increase efficiency in the Basic Empty Weight and Center of Gravity calculation system for trainer aircraft.



Saeko Laser: a Portable Solar Powered Laser Cleaner as a Sustainable Solution for Restoring Surface, Paint Stripping and Rust Removal

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The aviation industry faces a constant challenge in maintaining the pristine condition of its aircraft. Traditional surface restoration methods, such as chemical stripping and abrasive blasting, are often harsh, time-consuming, and generate hazardous waste. This project introduces Saeko Laser, a novel, portable, and solar-powered laser cleaning system designed to address these concerns and offer a sustainable solution for surface restoration, paint stripping, and rust removal in the aviation industry. Saeko Laser utilizes a pulsed laser beam to precisely target and vaporize surface contaminants, including paint, rust, and organic residues. This contactless process eliminates the need for harsh chemicals and abrasives, minimizing environmental impact and worker exposure to hazardous materials. The laser's high accuracy and controllability allow for selective cleaning of specific areas without damaging underlying substrates, making it ideal for delicate aircraft components. The key features of Saeko Laser includes compact and lightweight design for easy maneuverability within tight spaces, powered by integrated solar panels, reducing reliance on external power sources and minimizing carbon footprint, precision cleaning with targeted laser beam for controlled removal of contaminants without damaging underlying materials, effective for paint stripping, rust removal, surface cleaning, and pre-welding preparation, eliminates hazardous waste generation

associated with traditional cleaning methods. Benefits of Saeko Laser includes efficient cleaning process minimizes downtime and labor requirements, eliminates risk of worker exposure to harmful chemicals and abrasives, gentle cleaning preserves the integrity of aircraft components, extending their service life, aligns with sustainability initiatives by minimizing waste and energy consumption. Saeko Laser represents a significant advancement in sustainable surface restoration technology for the aviation industry. Further research and development will focus on optimizing laser parameters for specific cleaning tasks and exploring integration with robotic systems for automated cleaning applications.



Solar Powered Autonomous Fire Extinguisher and Fire Detector for Ramp Area

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A robotic fire extinguisher is one of the innovative hardware-based technology models that is being introduced in this paper that provides automatic fire suppression during occurrence of fire without human intervention, which can help the mechanics, students, trainees to lessen their workload and additional safety measures. This device is being developed in such features that enable to detect and extinguishes fire accurately, having this technology or robot with some added features like obstacle avoidance system that is suitable in WCC-ATC Binalonan Campus ramp area. One of added feature of this robot is the automatic charging system that is solar powered. This will be used in ramp area to prevent fire in the vicinity especially during aircraft refueling.

Automated Three Vat Solar Powered UV, Electrolytic-Ultrasonic Cleaner for Aircraft Parts and Tools Restoration

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Corrosion is prevalent, particularly in the aviation industry, where a wide variety of metals are utilized in aircraft components and tools. Corrosion has the potential to deteriorate and diminish the quality and effectiveness of the aircraft components and equipment that are regularly utilized in the aviation industry. The corrosive nature of corrosion can lead to accidents in the aviation industry. It is an issue that requires resolution. The researchers employed a design science study approach to facilitate their study. Following a thorough investigation, the researchers created a hybrid cleaning system that combines different cleaning methods such as ultrasonic, ultraviolet, and electrolysis. This system is operated by solar power, which is a sustainable energy source, and the system was connected to a software control center using Arduino. This software manages the operational functions of the cleaning machine, including initiating and terminating processes, selecting different modes, and incorporating wattmeter, voltmeter, and emergency shut-off capabilities. By carefully conducting numerous experiments, the researchers successfully brought the cleaning machine into existence by integrating software and hardware components. The researchers investigated the efficacy of combining different cleaning procedures to enhance the removal of corrosion while also reducing labor and time requirements. Through meticulous investigation,

conceptualization, and experimentation, the researchers successfully constructed their notion. The researchers achieved successful outcomes with the hybrid cleaning technique, effectively eliminating corrosion and pollutants from aircraft parts and equipment.



Solar Powered Walter - M601E Engine Holder with Lifting and Rotational Capabilities

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This project describes the creation and examination of a revolutionary Walter M601E engine holder that runs on solar power and has a variety of lifting and rotating functions. The design seeks to improve engine repair procedures' usability and efficiency by incorporating solar energy as a sustainable power source. The system's inventive features make it possible to precisely rotate and lift objects under control, making maintenance and assembly duties easier to access. This study shows that using renewable energy to optimize engine handling equipment is both possible and practicable. It does this by combining engineering design, integration of solar energy, and performance evaluations. The results highlight the potential for environmentally friendly machinery maintenance solutions and highlight the advantages of integrating renewable energy sources into industrial applications.



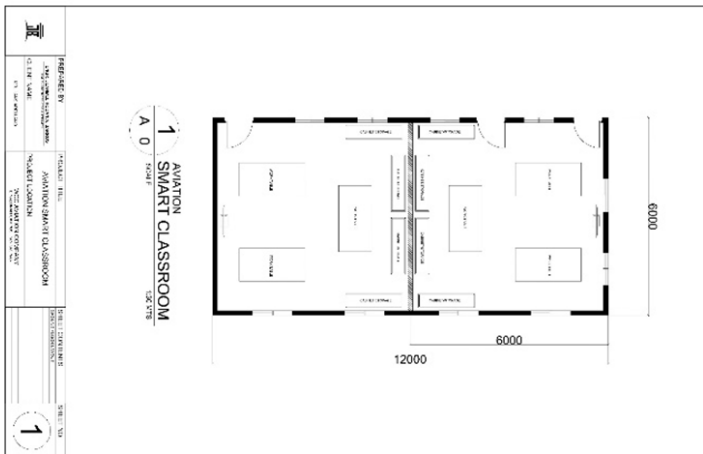
Smart Powerplant Classroom for Advancement of Training and Skill Development of Aircraft Maintenance Students

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At its core, the Smart Powerplant Classroom initiative seeks to revolutionize aircraft maintenance training through the seamless integration of cutting-edge smart technology. By harnessing the power of tools such as smart TVs, CCTV systems, smart door locks, and smart lights, this project endeavors to create an immersive and dynamic learning environment that mirrors real-world scenarios and fosters experiential learning. The objectives of this initiative are multifaceted, spanning the realms of technological innovation, pedagogical advancement, and student empowerment. Key goals include the design and implementation of a comprehensive smart technology infrastructure within the classroom, the integration of multimedia-rich educational content delivered through smart TVs, and the enhancement of security and access control mechanisms through smart door locks and CCTV systems. Through the development and implementation of the Smart Powerplant Classroom, this initiative anticipates a transformative impact on aircraft maintenance training. By providing students with access to immersive learning experiences, hands-on simulations, and real-time feedback, the Smart Powerplant Classroom aims to cultivate

a new generation of highly skilled and competent aircraft maintenance professionals poised to meet the demands of the aviation industry. Smart Powerplant Classroom initiative represents a bold step forward in the evolution of aircraft maintenance training. By embracing innovation, technology, and experiential learning, this project holds the potential to shape the future of aviation education and empower students to thrive in a rapidly changing industry landscape. As we embark on this journey of transformation, we are committed to unlocking new opportunities and possibilities for the next generation of aviation professionals.



Solar-Powered Magneto, Spark Plug and Navigation Light Tester And Pneumatic Sparkplug Cleaner

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AERONAUTICAL & TECHNOLOGICAL COLLEGE
B I N A L O N A N

Aviation's top priority is always safety, to remove the fear of the passengers and ensure them that choosing to travel by air is the safest way to reach a destination — keeping the people's trust shows that the aviation truly cares, however, showing care isn't enough to maintain the safety and trust of the passengers that's why aviation industry always innovate to make sure that every aircraft was in its tip-top condition before allowing to fly. Having these things said the researchers aim to produce a Solar-Powered Magneto, Spark Plug, and Navigation Light Tester with Pneumatic Cleaner – a machine that will be useful in the maintenance department to determine whenever the said components are in excellent condition or repair must be done.

The diagnostic machine is a big asset for a company to have since it can lessen a lot of workloads with the right amount of accuracy — using this machine, components can be checked first thoroughly instead of directly inserting it to the aircraft that will cost more work and time especially when there's a component failure, thus, with this Solar-powered magneto, spark plug, and navigation light tester with pneumatic cleaner will benefit the mechanics to provide a more efficient work.

In simple terms, safety is a way of thinking and a dedication to one's own and others' well-being, rather than merely a collection of regulations or standards to be observed. Everyone can help create situations that are safe, resilient, and supportive of beneficial results for all when they understand their part in ensuring safety.



Autonomous Foreign Object Debris Collector in WCC ATC Binalonan

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B

This thesis explores the comprehensive design and implementation of an Autonomous Foreign Object Debris (FOD) Collector at WCC-ATC Binalonan, aiming to elevate safety protocols and operational efficiency within airport environments. The study focuses on integrating innovative solutions to tackle FOD challenges while minimizing the manual efforts of airmen.

One key innovation is the integration of a solar-powered autonomous FOD collector. Embracing renewable energy sources, this station not only powers the collector but also represents a commitment to sustainability and environmental responsibility in aviation operations.

In addition, the project utilizes a diverse array of advanced sensors meticulously engineered to efficiently detect and collect FOD. These cutting-edge sensor technologies, including cameras, enhance the collector's ability to precisely identify and remove debris, optimizing safety on ramp and runway areas.

The main goal is to reduce the manual workload of airmen involved in FOD collection by introducing this autonomous system.

Enhancement of Solar-Powered Compact Information Centers

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AERONAUTICAL & TECHNOLOGICAL COLLEGE

This research studies the integration of technological advancements within WCC ATC Binalonan – Aircraft Maintenance and Technology Department to optimize learning outcomes and streamline administrative functions. Amidst a rapidly evolving technological landscape, institutions are increasingly leveraging technology to enhance efficiency, safety, and student learning experiences. This study investigates the impact of technology adoption on student engagement, information retention, and the facilitation of meaningful learning experiences by using Solar-Powered Compact Information Centers. Additionally, it will examine the technology’s role as a tool for efficient management and information dissemination in the context of expanding student populations. By analyzing the implementation of technology, this research aims to unveil its potential to augment student learning experiences while serving as a robust resource for effective institutional management and accessible information dissemination.



Development Of Rigging Prototype To Enhance Learning For Aircraft Assembly And Rigging Course

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This research project focuses on the development of an aircraft rigging prototype that can serve as learning material for the students of WCC-ATC. Through hands-on learning experiences, students are able to understand aircraft rigging with the aid of this research, which can provide as a thorough guide and help students visualize how actual aircraft rigging operates. Researchers will create a system that connects to the rigging prototype in order to show how the aircraft is oriented and how it works. AMT Students in their second year will especially benefit from the successful implementation of this prototype, as it will equip them with the skills and knowledge they need.

Interactive Helicopter Rotor Assembly Model for Enhanced Student Learning of Rotor Dynamics and Control at WCC ATC Binalonan Campus

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This research project aims to modernize teaching methods at WCC, Binalonan Campus by introducing an interactive rotor assembly model. This model enhances learning by using hardware and hands-on experiences to teach rotor dynamics and control. Additionally, it ensures safety by identifying operational concerns and precautions. Specifically, it should be able to use the rotor assembly model interactively with the use of software in teaching and learning modes; to effectively use the interactive rotor assembly model on rotor dynamics and control; to identify operational concerns related to machine limitations and safety precautions when using the interactive rotor assembly model in WCC Aeronautical and Technological College – Binalonan Campus.

We Care Binalonan: Smart Bottle Reverse Vending Machine, A Project of WCC Aeronautical and Technological College

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The Smart Bottle vending machine originated in the company TOMRA and was adapted by different countries in the world, including San Juan City, the Philippines, and SM Cares, which is located at the Mall of Asia. Furthermore, the reverse vending machine (RVM) offers an alternative way to recycle bottled containers in an efficient, convenient, and incentivizing way. This mechanism is easy to manage, conveniently placed, efficient, and resourceful for recycling (2021, Taylor). These automated machines allow individuals to return used beverage containers, such as plastic bottles and aluminium cans, in exchange for rewards. The machine reward system encourages environmentally conscious behaviour and promotes resource conservation. Additionally, the “We Care Binalonan: Smart Bottle Reverse Vending Machine” project at WCC Aeronautical and Technological College in Binalonan, Philippines, aims to reduce plastic pollution and promote environmental responsibility. Utilizing a mixed-methods approach, the project surveys 100 students and professors to assess user behaviour and perceptions within the college community.

Modernized Educational Aircraft: Innovating Academic Purposed Aircraft Learning through Enhanced Visual Capabilities with the Installation of Scannable and Informative QR Codes

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In the field of aviation education, the researchers aim to innovate the traditional learning and educational instruction by incorporating modern technology such as the Quick Response Code in the academic purposed Piper Warrior II PA-28 aircraft, this works towards the improvement of actual aircraft learning. The QR codes provide supplementary educational methods such as interactive diagrams and detailed information that offers enhanced learning capabilities. By embedding QR codes in the aircraft's interior and exterior parts, students can access real-time data feeds, interactive images, and instructional videos. The Displayed Piper Warrior PA-28 aircraft will not only be accessible to students, but also to visitors of WCC Aeronautical and Technological College to enlighten them and provide them with the basic information about aircrafts as an opportunity to intrigue young individuals to inspire them in becoming future aviators. The research investigates the impact of QR code integration on student engagement, knowledge retention and comprehension, and overall learning outcomes using a quasi-experimental data analysis. The findings of this study hold significant impact for not only improving aviation education but also for potentially inspiring the incorporation of QR codes in other educational contexts. The study may pave the way to implementation Quick Response Codes in Educational Instruction, and stimulate innovation towards technology advancement.



Optimizing Turbofan Engine Familiarization Through Holographic Learning Experience

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AERONAUTICAL & TECHNOLOGICAL COLLEGE

B

The general objective of the project is to implement the advancement of holographic technology as new and innovative applications, pushing the boundaries of what was possible with holograms. The specific objectives of this project is to identify the potential benefits as well as the drawbacks of integrating holographic technology to enhance the educational experience for Gas Turbine Engine AMT students and instructors; to design a user-friendly hologram that enabled vivid visualization and practical explanation of complex subjects related to aircraft maintenance, specifically the turbofan engine; to develop software applications and hardware tools necessary to integrate holographic technology fully for educational purposes; Gather feedback from Gas Turbine Engine AMT students and instructors through user testing sessions to identify any issues or areas for improvement; to assess how holographic technology influenced student learning outcomes, instructor performance, and the overall educational experience based on students and instructors' perspectives; to reflect on the challenges encountered during the design, development, and implementation of holographic learning in aviation training.

Development Of Renewable Energy-Powered Radio Charging Station In WCC Aeronautical and Technological Colleges - Binalonan Campus

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Two-way radios play a pivotal role in enhancing communication and safety within the workplace and these cannot be overstated, especially in environments where reliable communication is crucial. The researchers employed a qualitative research design and the study aims to investigate the feasibility of two-way radios powered by a solar panel as an alternative source of electricity, with an automatic cut off battery charging station and RFID access system to ensure the safety of the radios in WCC-ATC, Binalonan, Pangasinan. The study includes the design and construction of a solar powered two-way radio charging station and the evaluation of its usefulness in terms of communication, reliability, and cost-effectiveness. The research methodology consists of review of relevant literature, testing procedures, and interviews. The two-way radios are enclosed in a wall mounted storage with a solar powered charging station incorporated with an automatic battery cut off system which could save battery life and energy, an RFID access control system was equipped to ensure the safety and operation monitoring of the devices. Overall, this thesis contributes to the growing body of knowledge on renewable energy systems and investigates two-way radio's possible benefits in Repair station personnel and AMT faculty in terms of implementing effective communication in WCC-ATC Binalonan Campus.



Smart Storage: The Development of a Smart Locker System For WCC Aeronautical and Technological College Students

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The researchers seek to develop a smart locker system wherein Aircraft Maintenance Technician students can secure their personal protective equipment, tools, and other belongings with the use of QR codes and powered by solar energy at WCC Aeronautical and Technological College. Smart Storage system, utilizing the InputProcess-Output (IPO) model, delineates the essential components and processes involved in its development. The Input component encompasses the identification and gathering of pertinent data, variables, and resources requisite for the system's creation. This includes gathering user requirements, specifying hardware configurations, selecting appropriate programming languages, and allocating financial resources. The Process component encompasses the systematic steps and procedures entailed in developing the system, including system architecture design, hardware and software selection, coding and programming, and rigorous testing and validation. Finally, the Output component signifies the tangible outcomes resulting from the system's development, encompassing the deployment of a fully functional locker management system with features like RFID card access, solar-powered storage, and an intuitive user interface. These outputs aim to realize benefits such as improved organization, reduced lost items, and enhanced accessibility for students, faculty, and staff within the school vicinity. By applying the IPO framework, the theoretical foundation for the Smart Storage system's development is systematically outlined, facilitating its design, implementation, and evaluation processes. This study focuses on providing a storage system that is easily available for students and school staff of WCC Aeronautical and Technological College. To go on about a person's day, people are in need of a secure storage area wherein keys do not get lost and loss of belongings are avoided. With this, the researchers aim to develop a solar-powered smart storage system hardware with an included software cloud system. This study will benefit student pilots and aircraft mechanics who go in and out of the hangar on a daily basis. With a 50-hour window time for usage, the smart storage will provide a hassle-free and safe area for their belongings especially on recurring routines in the hangar.

Introduction Of Segmented Rotor Brakes for Student Skill Test: A Transformative Innovation in Aircraft Maintenance

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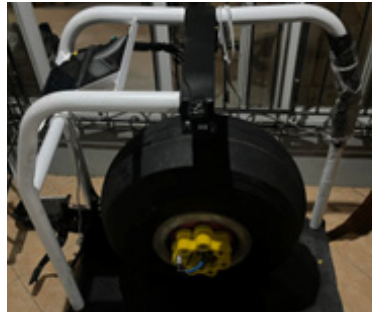
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The project “Introduction of Segmented Rotor Brakes for Student Skill Test: A Transformative Innovation in Aircraft Maintenance” aims to revolutionize aviation maintenance education by integrating segmented rotor brakes into student skill assessments. Segmented rotor brakes, known for their efficiency and performance in modern aircraft, provide an excellent platform for bridging theoretical knowledge with practical skills. This initiative will incorporate the use of advanced braking systems into practical training, enhancing students’ ability to perform maintenance, troubleshooting, and performance evaluations. The project involves updating the existing curriculum to include comprehensive modules on the principles, operation, and maintenance of segmented rotor brakes. Through detailed instructional materials and hands-on sessions, students will gain experience in disassembling, inspecting, and reassembling these sophisticated systems under expert guidance. A key aspect of the project is the development of rigorous skill tests that simulate real-world scenarios. These assessments will allow students to demonstrate their proficiency in managing advanced braking systems, ensuring they are well-prepared for the technical challenges they will face in the industry. Additionally, the project will involve collaboration with leading aerospace companies to ensure that the training materials and methodologies reflect current industry standards and practices. By integrating

segmented rotor brakes into student assessments, this project aims to significantly enhance the technical capabilities of future aircraft maintenance professionals. The hands-on experience with cutting-edge technology will prepare students for the complexities of modern aviation maintenance, fostering a skilled and competent workforce. Ultimately, this transformative approach seeks to elevate the quality of education and align it with industry demands, ensuring that graduates are equipped with the skills necessary for success in their careers.

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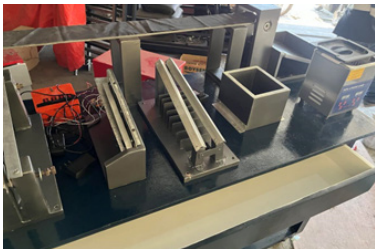
Solar-Powered HD Sortrolysis: Sorting and Cleaning System for Fasteners in Improving Maintenance Activity

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Unorganized and corrosive fasteners are one of the key points of having an unsafe workload and taint workplace. Proper handling of fasteners can affect personnel to have much better productivity. Traditional manual sorting and cleaning methods often prove time-consuming and error-prone, hindering overall maintenance efficiency. In terms of speed, accuracy, consistency, and assessment of the system's influence on total maintenance efficiency are among the key goals of HD SORTROLYSIS. The hardware was designed through collaboration of different models of sorter, such as bolts, screws, nuts, rivets, and washer's sorter, implying each the sorter's uniqueness. Raspberry pi 3B and Arduino Uno facilitate programming with the use of Python language, machine learning process makes the project more accurate and reliable. The researchers employed quantitative research design aided by an experimental research method to deal with the Improvement of Maintenance Activity through proper handling of fasteners, Sorting and Cleaning systems. Ultrasonic cleaning device bridges the aid for cleaning mechanism. Aviation personnel such as Aircraft mechanics will benefit from this Solar-powered HD SORTROLYSIS by having proper time management matters and lessening the workloads. The researchers will have the evaluation questionnaires for WCC ATC Instructors and Repair Station personnel. Through multiple testing, the researchers successfully aided the difficulties of the project.



Aviaerie Lounge: A Moment in Tranquil at WCC Aeronautical and Technological College

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AERONAU

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The establishment of the Aviaerie Lounge at WCC Aeronautical and Technological College Binalonan Campus is rooted in acknowledging the evolving needs and aspirations of our student body. Recognizing the growing demands of contemporary education, the creation of a centralized location for non-academic interaction and collaborative work becomes imperative. Such a space resonates with our institution's commitment to holistic student development, emphasizing the nurturing of both academic and socio-emotional well-being. Through this feasibility analysis, the proponents delve into the practicality of realizing this vision, ensuring that the proposed Student Lounge emerges as a vibrant hub for student engagement and enrichment within our campus environment.

The analysis is focused on evaluating the current needs and demands of the student population to ascertain how the Aviaerie Lounge could serve them. It aims to gauge how the establishment of such a space could elevate students' performance by providing a dedicated area for relaxation, socialization, and engagement in extracurricular activities. Ensuring accessibility and inclusivity within the Aviaerie Lounge is paramount, underlining that all students are welcomed and valued. Furthermore, the intention is to enhance academic success by furnishing resources and collaborative learning materials within the Aviaerie Lounge, thereby supporting students in their educational journey.

HEALTH TECHNOLOGY

Motivation and Hygiene Satisfaction of Medical-Surgical Nurses in the Kingdom of Saudi Arabia

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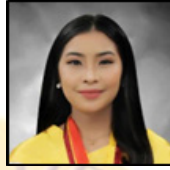
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Motivation factors play a crucial role in job satisfaction, and they can become a source of great contentment in the workplace. On the other hand, hygiene factors that are present at work will not satisfy the employee and instead, can become a source of dissatisfaction. Examples of such factors include benefits, remuneration, job security, and social needs such as friendship in the workplace. A recent study was conducted to determine the level of motivational and hygiene satisfaction among medical-surgical nurses, as well as to identify the factors that facilitate and limit satisfaction among them. The study, conducted at King Saud Medical City in the Kingdom of Saudi Arabia, involved 94 respondents who were selected through purposive sampling aided by a modified questionnaire that served as the primary tool for data gathering. The data gathered were treated with frequency count and percentage, and mean and weighted mean were likewise employed. The analysis revealed that the level of motivation and hygiene satisfaction among the nurses in two areas was dissatisfactory. Motivation factors had a pooled mean of 1.81, and hygiene factors obtained a pooled mean of 1.85. An overall weighted mean of 1.83 was obtained, indicating a dissatisfied rating. The top three factors that influenced the level of satisfaction of the nurses were good performance and achievement (100%), distinguished recognition (94.74%), and fulfilled responsibility (92.55%). The top three factors that limited their satisfaction were low salary (100%), toxic relationship with colleagues (96.81%), and low quality of superiors (92.55%). The study implies that the nurses were dissatisfied in the workplace due to a lack of communication leading to poor relationships among the staff and other health workers. The onset of the pandemic might have triggered the high rate of turnover due to the heavy workload and work schedule among the nurses. The high dissatisfaction of the nurses was also because of the various barriers nurses encountered during the pandemic that likewise affected their working conditions.

Keywords: Motivation and Hygiene Satisfaction, Medical-Surgical Nursing, Kingdom of Saudi Arabia

Assessing Depressive Symptoms and Associated Factors: A Study on the Mental State of Pangasinan Provincial Hospital Patients with Multidrug-Resistant Tuberculosis

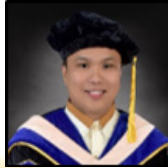


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Multidrug-resistant Tuberculosis (MDR-TB) is a type of TB requiring protracted treatment of potentially toxic, second-line regimens. A life-threatening illness, MDR-TB poses psychological and social implications that may lead to the onset of depressive symptoms. It calls for the need to assess the mental state of patients with MDR-TB to aid in holistic care and the development of subsequent interventions. The 47 patients with MDR-TB treated as out-patients in Pangasinan Provincial Hospital at Bolingit, San Carlos City participated in this study. Patient Health Questionnaire-9 (PHQ-9) was adapted to determine the occurrence of depressive symptoms, and follow-up interviews were utilized to describe the psychosocial impact of the disease. 34.04% of the respondents experienced mild to moderate depressive symptoms. Among sociodemographic data, clinical data, and psychosocial factors, the occurrence of depressive symptoms was significantly associated with comorbidity, presence of MDR-TB symptoms, experience of externalized stigma, and perceived impact of the disease. Patients reported greater psychological impact than social implications. While there were no occurrences of severe depressive symptoms, this study concludes that it is crucial to integrate mental health programs in the provision of patient care to help patients with MDR-TB live not only a longer but a better life ahead.

Keywords: Multidrug-resistant Tuberculosis, Depressive Symptoms, Associated Factors, Psychosocial Impact

Evaluating Nursing Perspectives on Information Systems: A Study at Luzon Medical Center



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The aim of this study is to evaluate the level of knowledge and attitudes of nurses regarding nosocomial infections (NIS) at Luzon Medical Center. The study employed a descriptive-comparative design and used a self-reported survey. The survey was conducted in a hospital in Dagupan City and included a total of 49 respondents, using a method called total enumeration. The statistical tests employed included frequency analysis, percentage calculation, mean calculation, standard deviation calculation, t-test, and one-way analysis of variance (ANOVA). The findings show that nurses at Luzon Medical Center are highly competent in using gadgets, computer terminology, and Microsoft Word, indicating confidence in their technological abilities. They recognize the importance of nursing information systems (NIS) in improving nursing care, simplifying documentation, and protecting patient data privacy. The study found that demographic characteristics, such as age, sex, education, rank, and experience, did not have any statistically significant impact on nurses' comprehension of NIS. However, female nurses exhibited a more positive disposition towards NIS compared to their male counterparts. Nurses generally believe that NIS enhances the delivery of healthcare and urge formal education and technical proficiency to effectively utilize NIS. In conclusion, the researchers found that nurses at Luzon Medical Center possess a significant level of confidence in their computer and NIS-related abilities. They acknowledge the significant benefits of NIS in nursing care and documentation. Although demographic variables such as age, education, and years of experience did not have a statistically significant effect on knowledge and attitudes about NIS, there exists a discernible disparity between male and female nurses, wherein females exhibit a greater prevalence of positive sentiments. The influence of gender on the acceptance of technology and the overall favorable attitude of nurses towards NIS in the Philippines is noteworthy.

Keywords: Nursing Staff, Computer Literacy, Technology Acceptance Model, Hospital Information Systems, Healthcare Quality Improvement

Knowledge, Attitude, and Practices of the Igorot Children Towards Self-Medication and Proper Consumption of OTC Drugs in Sitio Mapita, Barangay Laoag, Aguilar, Pangasinan



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According to AHMAC (2018), infant and child mortality rates in many regions around the world from 2014-2018 have been heightened, recording 603 deaths of indigenous children (85% or 514, were infant deaths). In the Philippines, one year and older but below 15 years old has a 2.8 per cent total registered death among Indigenous children (PSA, 2018). In Pangasinan, there was 2.44 per cent child mortality in 2017 and 1.96 per cent in 2018 (PHO, 2020). Healthcare problems are one of their access barriers because of geographical isolation and poverty, which has resulted in a lack of transport and treatment. The beliefs and cultural practices of the Indigenous people do not reflect many health systems. The study aimed to determine the knowledge, attitude, and practices of the Igorot people towards self-medication and proper consumption of over the counter (OTC) drugs. The researchers collected data from Sitio Mapita, Barangay Laoag, Aguilar, Pangasinan. After acquiring the data, the researchers analyzed the data given and interpreted it. Based on the findings and results of the study, it concludes that the Igorot children of Sitio Mapita, Brgy. Laoag, Aguilar are very knowledgeable on self-medication in terms of herbal medicine but lack knowledge on proper consumption of OTC drugs, have unbalanced attitudes, and have poor practice on self-medication and proper consumption of OTC drugs. The study concluded that the respondents' knowledge has no finite association with their profile variables while selected profile variables have supported an association with their attitudes and practices.

Keywords: Indigenous children; Health care; Consumption; Self-medication; OTC drugs (Over- the-counter drugs)

Relationship Between Theoretical Nursing Knowledge and Clinical Performance among Senior Nursing Students



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A practice that is guided by theory had been proven to be useful and at the same time theories are significant evaluation tools to measure the validity of theory guided nursing application (Quennell & Younas 2019). The objective of this research study is to investigate that there is an existing relationship of theoretical nursing knowledge and clinical performance of senior nursing students. The study used descriptive correlational research design through the utilization of existing academic records of all the graduating nursing students of Baguio Central University AY 2021-2022. It was primarily used to explain the relationship of the two variables that was stated above without making any claims of a certain cause and effect. The result implies that there is a strong correlation between nursing theoretical knowledge and performance in the clinical duties as evidenced and based on the grades combined in their NCM subjects and RLE clinical duties. In addition to academic performance, variation in practice was also explained by other factors which deserve more study. Enhancing academic performance can further increase nursing practice. Further studies needs to be done among the nursing students to investigate and explore further what are the setbacks or obstacles encountered by students and the nursing faculty to bring more unity to the disparity of theoretical nursing knowledge and clinical duties performance in order to produce the highest quality care that the nursing education is aiming to achieve.

Keywords: theory, practice, performance, nursing care management, competence

Acceptability of Digital Dental Application Among Clinical Dental Students



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The integration of digital technology into dental education is rapidly evolving, offering new avenues for learning and clinical practice. This study focused on the perception and acceptability among dental students in the various clinical subjects for A.Y. 2023- 2024 on the use of a student made digital resources application as an adjunct learning tool. This study aims to provide answers the level of satisfaction and acceptability in terms of contents, quality of digital resource such as layout and graphics, ease of use as well as completeness of information.

This is a quantitative cross-sectional study where an online validated tool was sent to sixty-six (66) dental clinicians. Acceptability towards the digital application is focused on the following areas, as the clinicians' profile, satisfaction, acceptability of information, completeness, layout and graphics, ease of use and, the correlation of the satisfaction, quality of information, the digital resource and completeness of information. Data were analyzed using frequency, percentage and weighted mean. Inferential statistics such as Fisher exact test and Spearman rank correlation were also used.

Majority of the respondents were 20-23 years old, on their fifth year. The contents provided were well organized and the information provided was "up-to-date". In terms of layout and graphics the mobile application has high level of acceptability likewise with ease of use. It also has high level of satisfaction in terms of experience in using it and the organization of the application. The correlation on level of acceptability on digital resource and to the respondents shows strong positive correlation.

The digital resources have a high level of acceptability as a result, there is a significant positive correlation between the level of satisfaction with the digital resource and the information's quality, including its layout, graphics, ease of use, and completeness denoting the advantage of the use of this adjunct learning tool.

Keywords: Application; Perception; Acceptability; Digital; Learning

When Faith and Health Collide: The Correlation Between the Level of Faith and Medical Intervention Refusals



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This study sought to determine the variation in the level of faith and the pattern in the tendency to refuse medical interventions among individuals from diverse religions within three barangays of Dagupan, specifically Barangay II, Lucao, and Tapuac.

The study employed a Sequential Explanatory Mixed-Method Design, with a sample size of 390 determined through Slovin's Formula. Quantitative data were collected via stratified random sampling and analyzed using statistical methods including Frequency and Percentage, Four-point Likert Scale, Average Weighted Mean, Chi-square, and Pearson's R. Qualitative data, obtained through stratified purposive random sampling, underwent thematic analysis. The instruments used were validated by a panel of experts, with reliability confirmed using Cronbach's Alpha.

Results show all five religions exhibited high faith levels, with IVF, DNR, and Contraceptives having the highest refusal tendency scores. A significant relationship exists between religion and refusal tendencies, supported by a chi-square value of 109.076 and p-value < 0.05. Pearson correlation coefficients indicated varying strengths of the relationship between faith levels and refusal tendencies within each religious group. Overall, a moderate positive correlation (0.519) was observed, with Jehovah's Witnesses showing the strongest positive correlation (0.923). This indicates that as faith levels increase, refusal of specific medical interventions also increases.

This study also generated two themes with seven sub themes in the qualitative phase; for the participants' reason for refusal, it can be seen that Holy Scriptures and Faith in God were vital foundations in the decision-making. For the alternatives used, the participants conducted devotional prayers, anointing of the sick, use of medicine, supplements, a healthy lifestyle, natural contraceptives, and legal certification. It is recommended to further expand the demographic profile of the participants in order to have a wider perception and results and to integrate nursing care strategies to improve care.

Keywords: level of faith; medical refusals; religion; alternatives; God

One Pill Saved, One Bug Made: Knowledge, Attitudes, And Practices on Antimicrobial Use (AMU) Among Low Income Households in Barangay Libsong East, Lingayen, Pangasinan



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Antibiotics are essential for treating infections, but improper use can lead to antibiotic resistance (AMR), especially among low-income households. This study determined the level of knowledge, attitudes, and practices towards AMU among low-income households in Barangay Libsong East, Lingayen, Pangasinan. Specifically, this study identified the demographic profile of the respondents and whether the demographic profile shows a significant relationship to their level of knowledge, attitudes, and practices towards AMU. Also, it further stated the personal and socioeconomic factors that may affect the respondent's level of knowledge, attitudes, and awareness towards AMU.

This investigation utilized the mixed-method approach, which involved incorporating both quantitative and qualitative research methods. The quantitative phase involved measuring the level of knowledge, attitudes, and practices of low-income households towards AMU through a survey questionnaire. While the qualitative phase involved the personal and socioeconomic factors that affect their level of knowledge, attitudes, and practices towards AMU, which would help further explain the quantitative results.

Overall, the review and feedback revealed an overall weighted mean average in terms of knowledge was 3.11 indicating disagreement with the right and wrong information towards antibiotics and AMU. The overall weighted mean in terms of attitude was 3.72, indicating agreement among the low-income residents on various attitudes towards AMU. Finally, the total average weighted mean in terms of practices was 3.71, suggesting that most low-income households generally agreed with various practices towards AMU. In a nutshell, the analysis and findings revealed that there is a no relationship between the demographic profile of low-income households and their level of knowledge, attitudes, and practices towards AMU. This investigation highlights the lack of knowledge and inappropriate AMU practices which further exposes the respondents to AMR. This underscores the need for educational and community-based interventions aimed at raising awareness and promotion of responsible AMU.

Keyword: Antimicrobials; Antimicrobial Resistance (AMR); Antimicrobial Stewardship (AMS); Antimicrobial Use (AMU)

Healing Touch: The Efficacy of Holding Hands as A Non-Prescription Pain Management Technique on Patients with Chronic Kidney Disease



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Chronic kidney disease (CKD) poses significant challenges for patients, often leading to pain stemming from the disease itself, its complications, and the treatments utilized for its management. Among various non-prescription pain management techniques, holding hands with a supportive individual emerges as a simple yet effective strategy in alleviating fear and anxiety associated with painful stimuli, thereby altering the perception of danger and reducing pain.

In a study aimed at evaluating the efficacy of holding hands as a pain management technique in CKD patients, researchers employed an Interrupted Time Series (ITS) design, utilizing questionnaires and direct observation as data gathering tools. Twenty-three CKD patients, ranging from 31 to 90 years old (2 with Stage IV and 21 Stage V CKD) were selected by purposive sampling. Pain levels were meticulously measured every 5 minutes for a duration of 15 minutes, both with and without the intervention of holding hands. Statistical analysis involved the application of frequency and percentage distribution, group and paired sample statistics, as well as paired T-tests.

Results indicated a significant reduction in pain scores among patients receiving holding hands compared to those without, underscoring the efficacy of this intervention. Furthermore, a noteworthy decline in pain scores over time was observed specifically among patients who received holding hands ($p < .001$), contrasting with the absence of significant change in pain scores among patients without holding hands. This observed decrease in pain scores following holding hands intervention underscores its potential as a valuable addition to multimodal pain management strategies for CKD patients.

The findings of this study suggest integrating holding hands interventions into clinical practice to alleviate pain in CKD patients. However, further research is warranted to clarify the underlying mechanisms driving the therapeutic effects of holding hands and to optimize its implementation in clinical settings.

Keywords: chronic kidney disease; healing touch; holding hands; non-prescription; pain management

Anti – Microbial Stewardship Practices of Hospital Nurses in Dagupan City



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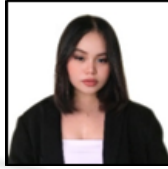
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Hospital Private Nurses participate in antimicrobial stewardship program thus, directly for improving patient outcomes, enhancing resource management, informing policy, addressing research gaps, and contributing to global efforts in combating antimicrobial resistance. On the basis of the foregoing, this study aims to determine the Knowledge Level and Antimicrobial Stewardship (AMS) Practices of Hospital Nurses in improving patient care and contributing to global antimicrobial resistance strategies in Pangasinan. This investigation utilized the mixed-method research approach under the concurrent mixed-method design and descriptive phenomenological qualitative research design. The quantitative phase of the study surveyed the knowledge, level and practices of hospital nurses regarding anti-microbial stewardship in relation to: Standard treatment and prophylaxis, Adoption of National Antibiotics Guidelines and Monitoring of Anti-microbial use, while the qualitative phase of the study included the explanatory studies in order to help explain the factors influencing nurse's adherence to anti-microbial stewardship guidelines and problems or barriers hindering the successful identification in the implementation of anti-microbial stewardship. Overall, the Standard treatment and prophylaxis gathered a mean of 3.77, followed by the adoption of national antibiotics guidelines with a mean of 4.58, and monitoring of antimicrobial use with a mean of 3.55. Further, the factors influencing private hospital nurse's adherence to anti-microbial stewardship guidelines revealed the following themes: Insufficient Knowledge of Nurses' Engagement in AMS and Diverse Attitudes towards Engagement in AMS while the problems or barriers hindering the successful identification in the implementation of anti-microbial stewardship revealed the common themes: lack of adherence to guidelines; poor communication; and need for education and training.

The study on the antimicrobial stewardship practices of hospital nurses in Dagupan City has provided valuable insights into the current state of antimicrobial stewardship within this healthcare setting. Through a comprehensive assessment of nurses' knowledge, attitudes, behaviors, and compliance with guidelines.

Keywords: Antimicrobial Stewardship (AMS); hospital nurses; concurrent mixed; Dagupan City

Impact of Artificial Intelligence in Formulating Nursing Care Plan Among Nursing Students



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This study was conducted to determine the impact of artificial intelligence in formulating nursing care plan among nursing students. The research made use of purposive sampling method. Three hundred (300) nursing students were the respondents of this study. The tool used in data gathering is survey questionnaire through google form and print copies. All the data were tabulated and computed statistically by using frequency and percentage, weighted mean and spearman's rho.

Results indicate that out of 300 respondents ranging from age 18-35 years old from level 2 (27.3%), level 3 (41.0%) and level 4 (31.7%) states that AI significantly contributes to the planning phase of nursing care plans, with a weighted mean of 2.9034. Additionally, the factor of "contribution for future studies" with a weighted mean of 3.2500 influences the adaptation and acceptance of AI, while "internet access problem" with a weighted mean of 3.0200 stands out as a major challenge associated with AI use. Correlation analysis reveals a significant negative correlation between age and the impact of availability and convenience on AI ($\rho = -0.135$, $p = 0.020$), as well as weak negative correlations between year level and availability and convenience ($\rho = -0.128$, $p = 0.027$), being suggested by others ($\rho = -0.121$, $p = 0.036$), and AI's contribution to future studies ($\rho = -0.124$, $p = 0.031$).

The findings highlight how crucial it is to take challenges and demographic factors into account when integrating AI into nursing care plan. In enhancing patient outcomes and healthcare delivery, it is imperative to tackle obstacles like internet problem accessibility and ensure inclusion in AI adoption initiatives. Furthermore, for AI to be successfully implemented in nursing care planning and other fields, nurse's clinical judgments, knowledge, and competency should must be emphasized first above all.

Keywords: artificial intelligence; nursing care plan

TOURISM AND HOSPITALITY MANAGEMENT

Resort Guests' Perception: Evaluating Service Quality in Benguet Resorts



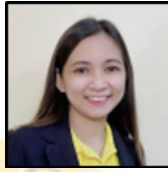
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This study presents the findings conducted on the profile of respondents and the extent of quality services in selected hot spring resorts in Benguet. The study utilizes mix method approach combining quantitative and qualitative methods. There were one hundred fourteen (114) total respondents from six (6) resorts in Benguet province. The respondents were predominantly adult males with a mix of educational backgrounds, including college-level and college graduate respondents. The majority of the respondents were local tourists from various provinces in the Philippines, with a significant number being employed. The study made use of survey questionnaires and structured interview. The study revealed that the selected resorts provided high-quality services in terms of tangibles, responsiveness, assurance, and empathy, with excellent reliability. Importantly, there was no significant difference in perception between resort guests and management regarding the extent of quality services across the mentioned variables and dimensions. These findings indicate overall excellence and satisfaction in the service quality of the hot spring resorts in Benguet, as perceived by both guests and management. Inferential statistics were used to analyze and interpret the data.

Key Words: resorts, service quality, resorts guest, responsiveness, mix method, management

Solid Waste Management Practices of Coffee Shops in Dagupan City



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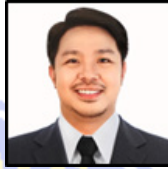
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In recent years, the number of coffee shops has been rapidly rising. For several reasons, coffee shops' solid waste management procedures are crucial. Coffee shops generate a lot of trash, such as food waste, coffee grounds, packaging materials, and throwaway cups. Without proper waste management practices, this waste ends up in landfills, contributing to environmental degradation. This study aimed to determine the different solid waste practices of selected coffee shops in Dagupan City to propose measures and improve their operations. Some of the objectives of this study are to know what solid waste management practices are and identify problems encountered in the implementation of solid waste management practices by coffee shop businesses in Dagupan City in terms of collection, segregation, and disposal. Also, it sought to identify the action plans that can be proposed to improve solid waste management practices in Dagupan City. The researchers used the descriptive survey method in gathering data because the study focused on the practices implemented by these coffee shops and the corresponding problems encountered in their implementation, which can also provide deeper insights into their experiences and perspectives on solid waste management practices. After a careful analysis and interpretation of the data acquired, the result was the following: there is enough knowledge of solid waste management but there are still major problems regarding the environment. Moreover, there is a need for environmental awareness and protection.

Keywords: Solid waste management, coffee shops, collection, segregation, disposal

Electronic Word of Mouth (EWOM): The Effect of Social Media on Customers' Intention and Impact to Visit Casual Restaurants in Dagupan City



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This study investigates the influence of electronic word-of-mouth (eWOM) on customer decision-making for casual dining in Dagupan City, Philippines. A survey of 384 residents revealed a strong positive correlation between eWOM and customer intention to visit restaurants.

The research employed a quantitative approach, utilizing descriptive statistics to identify the target market: young, tech-savvy individuals with disposable income who rely heavily on online reviews, recommendations, and social media content when choosing restaurants. Inferential statistics followed, with weighted means analyzing the impact of eWOM on both customer intention and restaurant perception. Social media visuals (photos and videos) significantly influenced perceived atmosphere, while eWOM content type impacted specific perceptions (e.g., mobile app reviews for service). Interestingly, social norms emerged as a stronger mediating factor than attitudes in the eWOM-intention relationship.

To gain deeper insights, Structural Equation Modeling (SEM) was employed, revealing a complex interplay between eWOM and customer decisions. Positive eWOM directly influenced both intention to visit and restaurant perception, with the latter partially mediating the relationship.

Findings of this study offer valuable recommendations for casual restaurants in Dagupan City. Cultivating a strong social media presence with high-quality content, partnering with local influencers and reviewers, and encouraging positive online reviews can leverage eWOM to shape customer perceptions and drive business growth.

Keywords: eWOM, Casual Dining, Customer Decision-Making, Social Media Influence, Restaurant Marketing

Utilizing Mango Peels (*Mangifera Indica*) as an Innovative Ingredient in Cavatelli Pasta Production

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Mangoes (*Mangifera Indica*) are a popular fruit appreciated by people all over the world because of its excellent taste and brilliant color. In recent years, there has been growing interest in finding innovative ways to reduce food waste and promote sustainable practices in the food industry. By harnessing the often-overlooked potential of mango peels, known for their rich nutrient content and distinctive flavor profile, this study aims to revolutionize pasta-making techniques. The research spans the realms of flavor enhancement, nutritional enrichment, and waste reduction, presenting a unique blend of taste and sustainability. Peels from 18 mangoes were collected from local fruit processing facilities. The samples were then dried using a food dehydrator at 70°C for 15 hours. The dried peels were ground into fine powder using a blender. The nutritional makeup of the experimental group (Cavatelli pasta with mango peels) and the control group (typical Cavatelli pasta) was ascertained by proximate analysis. Standard laboratory techniques were used to test parameters including moisture, protein, fat, carbohydrate, and ash levels. Using the relevant statistical tools, a statistical analysis was carried out on the collected data. To identify significant changes between the experimental and control groups, the data were submitted to analysis of variance (ANOVA). To compare particular mean differences, post-hoc tests were used, including Tukey's test. $P < 0.05$ was designated as the significant level.

Keywords: Mango peels, Food waste, Cavatelli pasta

Dried Bamboo Shoots Powder as a Potential Ingredient for Polvoron

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This study digs into the new field of culinary inquiry by studying the use of dried bamboo shoots powder as a potential ingredient in polvoron, a popular Filipino delicacy. This research thoroughly investigates the sensory characteristics, nutritional benefits and consumer acceptability of polvoron infused with dried bamboo shoots powder. This investigates the impact of this unusual ingredient on the flavor, texture, and overall attractiveness of polvoron using sensory testing, nutritional analysis, and acceptability testing. Dried bamboo shoots, renowned for their nutritional richness and unique texture, have been finely powdered and carefully integrated into the traditional polvoron recipe. The study evaluated the consumer acceptability of polvoron with dried bamboo shoots through phytochemical analysis, acceptability tests, sensory analysis, and nutritional analysis. The tests assessed the taste, appearance, color, texture, aroma, and packaging of the polvoron. The nutritional analysis showed that each serving has 5.1g of protein, 12.1g of sugars, 6.6g of fats, 14mg of calcium, 20g of carbohydrates, 268mg of sodium, and 8.5mg of cholesterol. Afterwards, untrained sensory evaluators, divided into teens and adults, assessed the properties of the polvoron using hedonic scale surveys. The results showed significant differences between the two samples, indicating the potential for improvement in the bamboo shoot polvoron's acceptability. Though the statistical analysis using MANOVA in teens showed that the commercially available polvoron seems to be much more likeable in aroma and in adults almost all the bamboo shoot polvoron sensory attributes was consistently favored, the results also showed that the acceptability of the bamboo shoot polvoron is extremely likeable. Teenagers rated the regular polvoron higher (7.46) than the bamboo shoot version (6.84), while adults favored the bamboo shoot polvoron significantly (8.73 compared to 7.38). Thus, stating a good result in exploring more ways in incorporating bamboo shoots for a more innovative culinary field.

Keywords: Bamboo shoots, Dried Bamboo Shoots Powder, Polvoron, Sensory Analysis, Acceptability Test: Bamboo shoots, Dried Bamboo Shoots Powder, Polvoron, Sensory Analysis, Acceptability Test

Exploring Sea Grapes (*Caulerpa lentillifera*) as a Promising Salt Substitute: Implications for Health and Palatability Enhancement

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Excessive salt consumption is a major public health concern, linked to various chronic diseases. This study aims to develop sea grapes (*Caulerpa lentillifera*) into a viable salt alternative that aligns with dietary recommendations while providing a positive sensory experience. Ten randomly selected participants from Binalonan Public Market evaluated the sensory properties of sea grape salt compared to commercial sea salt. They rated the treatments in terms of taste, color, aroma, and overall acceptability.

Using a combination of sensory tests and nutritional analysis, this research evaluated the sensory and nutritional profile of sea grapes salt, revealing its potential as a palatable and healthy salt substitute. Sea grapes salt exhibited a remarkable taste preference based on its saltiness, receiving an “Excellent” rating, and outperformed commercial sea salt in color and aroma. Moreover, sea grapes salt had lower sodium and higher protein content than regular salt, aligning with health organizations’ recommendations.

These findings support the use of sea grapes salt in culinary and highlight its role in improving public health by reducing sodium intake. Further research and market exploration are recommended to unlock the full potential of sea grapes salt for individuals seeking a balanced and flavorful diet. Further research and market exploration are recommended to unlock the full potential of sea grapes salt for individuals seeking a balanced and flavorful diet. Sea grapes salt presents a promising solution for reducing dietary sodium without compromising taste.

Keywords: Sea grapes, Sodium Intake, Salt Alternative, Nutritional Analysis

Ecotourism Of Hundred Islands in Alaminos City, Pangasinan



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Ecotourism is a type of tourism that involves visiting natural areas that are fragile, untouched, and relatively undisturbed. It's intended to be a low-impact and often small-scale alternative to regular mass tourism. The main goal of ecotourism is to help people appreciate the environment, conserve wildlife, plants, and resources, and respect and understand native communities. This study aimed to determine the current state of ecotourism practices in the Hundred Islands of Alaminos City, Pangasinan. It was focused on Escubasurero, Mangrove Eco-Park, Eco-Bricks, and Coastal Clean-Up, and aimed to identify any problems encountered during the implementation and propose potential solutions. A descriptive method was utilized to describe the characteristics of the population or phenomenon studied, and the data-gathering tool for this study is an interview guide. The study covers all aspects of ecotourism practices in Hundred Islands, including Escubasurero, Mangrove Eco-Parks, Eco-Bricks, and Coastal Clean-Up. The Escubasurero project is still implemented by the Local Community Drivers of Alaminos City. The Mangrove Eco-Parks have many mangroves planted by the local community. Eco-Bricks are developed continuously by the Tourism Officers. In conclusion, the Hundred Islands have great environmental value, and additional projects are needed to further develop ecotourism practices in the area.

Keywords: Ecotourism; Hundred Islands; Escubasurero; Mangrove Eco-Parks; Coastal Clean-UP

Tourism Stakeholder Viewpoints on Tourism Programs of Burnham Park, Baguio City: A Q Methodology Approach



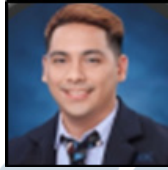
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This explanatory study aimed to assess the common and different perspectives and the factors influencing the perspectives of the participants on the tourism programs of Burnham Park, Baguio City aided by Q methodology approach with an end view of enhancing the tourism development plan of the park through the development of a strategic framework. The study highlighted the viewpoints of different tourism stakeholders of the park including local community members, government employees, tourism business providers, and local and foreign tourists. Using the mixed method and Q methodology research design, viewpoints of the participants were critically analyzed. The study revealed that there are diverse viewpoints and factors influenced the perspectives of the participants toward the tourism program of the park. Various aspects such as park aesthetics, cleanliness, governance, sustainability practices, community involvement, and economic aspects shaped the viewpoints of the participants. Recommendations includes enhancing of waste management practices of the park that will create a significant impact on the enrichment of sustainability practices; involvement of local community members in the decision – making process that will foster sense of ownership and responsibility towards park’s well – being and long – term sustainability; investment on the enhancement of recreational and sports facilities that will improve visitor’s experience; provision of sustainable tourism education that will increase awareness and encourage all stakeholders to be a steward of environment, ethical tourism behavior, and sustainable development; importance of collaboration with local businesses to enhance tourism offerings that will support the local economy; and establishment of monitoring and evaluation mechanisms that will continuously assess the impact of tourism programs on the environment, community, and overall sustainability of the park. Therefore, formulation of strategic framework on enhancing the tourism development plan of the park through the 3 – year Tourism Development Plan.

Keyword: Q methodology; tourism stakeholder; common and different viewpoints; factors influence perspectives; tourism development plan

Exploring Manila North Cemetery: A New Thanatourism Destination



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The concept of thanatourism, tourism related to death and the deceased, is gaining attention worldwide. This research explores the potential transformation of Manila North Cemetery into a thanatourism destination, examining its current status and feasibility through various dimensions such as history, authenticity, storytelling, and visitor experience. The study concludes that Manila North Cemetery holds significant potential as a thanatourism destination, appealing to a broad demographic range, including various age groups and stakeholders. It highlights the cemetery's historical and cultural value, showcasing its role as a tribute to the Philippines' complex history and notable figures. Despite challenges such as security issues and overpopulation, the cemetery's management is dedicated to preserving its authenticity and promoting its significance through initiatives like explanatory plaques and guided tours. Overall, the cemetery offers an immersive experience in Philippine history and tradition. The researchers conclude with strategic proposals outlining initiatives to preserve authenticity and enhance visitor experiences, positioning the cemetery as a premier thanatourism destination globally.

Keyword: Manila North Cemetery, thanatourism, destination, history, feasibility

Hula-Keta (Baked Sago): Its Culinary Hybridity and Tourist Attraction in Jaya Village, Tidore Island, Indonesia



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Hula-Keta, a traditional dish of baked sago, represents a fascinating culinary hybridity deeply embedded within the cultural fabric of Tidore, Indonesia. This paper explores the origins, ingredients, preparation methods, and cultural significance of Hula-Keta, shedding light on its evolution as a culinary delight and a potent symbol of cultural heritage. Drawing from ethnographic research and culinary anthropology, the study delves into the intricate interplay between local ingredients, culinary techniques, and historical influences that have shaped Hula-Keta into a culinary masterpiece. Furthermore, it examines the role of Hula-Keta as a tourist attraction, attracting visitors from far and wide to experience its unique flavours and immerse themselves in the rich tapestry of Tidorese culinary heritage. The villager life, especially the process of making the baked sago, could be another additional tourist attraction. Through this exploration, this paper aims to highlight the importance of culinary diversity and heritage preservation in fostering cultural identity and promoting sustainable tourism development in Jaya Village, Tidore Island, Indonesia.

Keywords: culinary history; Moluccas; sago; sustainable tourism; tourism village

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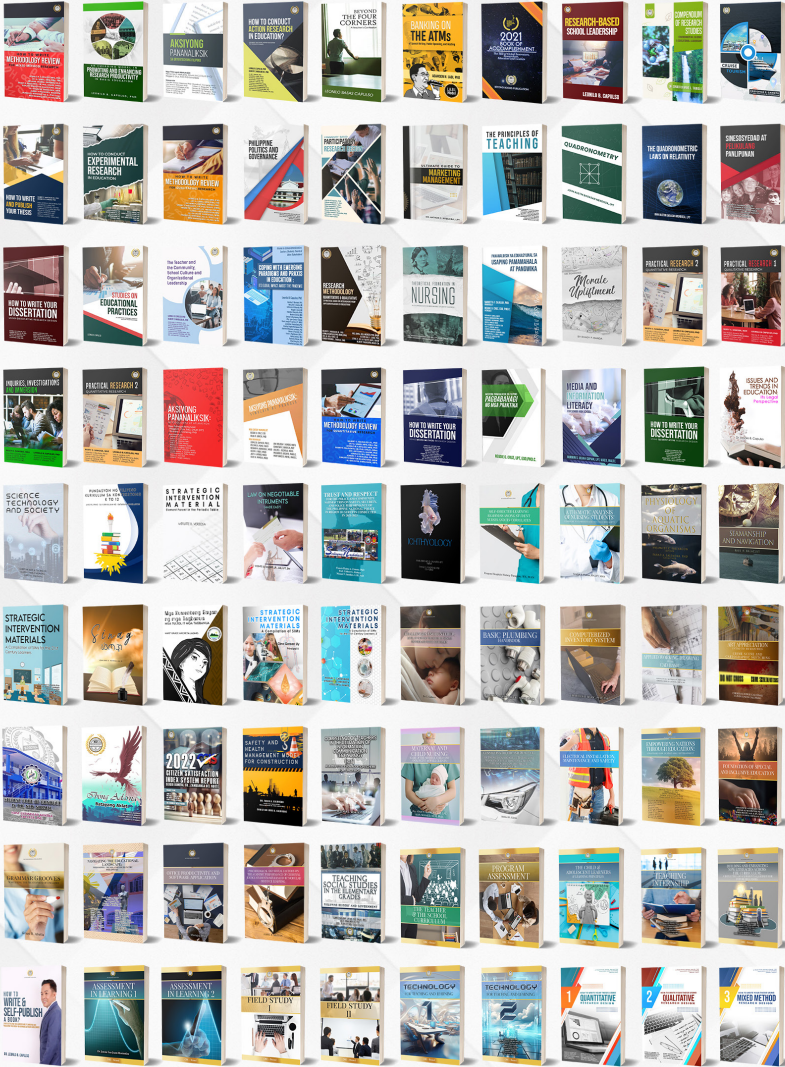
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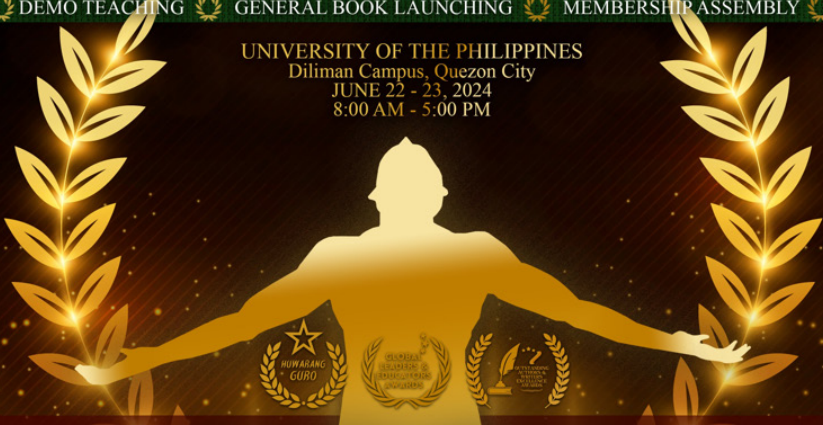
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