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- Society For Business, Economics, Social Science & Humanities
- Society For Engineering & Technology, Computer, Basic & Applied Sciences
- Society For Medical, Medicine and Health Sciences

CONFERENCE CHAIR MESSAGE

Dr. Sennay Ghebreab

“Asian Academic Research Institute” is a platform that thrives to support the worldwide scholarly community to analyze the role played by the multidisciplinary innovations for the betterment of human societies. It also encourages academicians, practitioners, scientists, and scholars from various disciplines to come together and share their ideas about how they can make all the disciplines interact in an innovative way and to sort out the way to minimize the effect of challenges faced by the society. All the research work presented in this conference is truly exceptional, promising, and effective. These researches are designed to target the challenges that are faced by various sub-domains of the Society For Business, Economics, Social Science & Humanities, Society For Engineering & Technology, Computer, Basic & Applied Sciences, Medical, Medicine & Health Sciences.

I would like to thank our honorable scientific and review committee for giving their precious time to the review process covering the papers presented in this conference. I am also highly obliged to the participants for being a part of our efforts to promote knowledge sharing and learning. We as scholars make an integral part of the leading educated class of the society that is responsible for benefitting the society with their knowledge. Let's get over all sorts of discrimination and take a look at the wider picture. Let's work together for the welfare of humanity for making the world a harmonious place to live and making it flourish in every aspect. Stay blessed.

Thank you.

Dr. Sennay Ghebreab
Conference Secretariat

TRACK A

**ENGINEERING, TECHNOLOGY, COMPUTERS & APPLIED
SCIENCES**

CLASSIFICATION OF ECG SIGNALS USING ARTIFICIAL INTELLIGENCE TECHNIQUES

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In the current era of advanced medical technology, there are already various methods available for effectively detecting pregnancy in women. However, these methods often have their own drawbacks, such as causing discomfort to the subjects or being expensive. Electrocardiograph (ECG), which captures the electrical signals generated by the human heart, can be used as an alternative approach. During pregnancy, women undergo multiple physiological and metabolic changes that may manifest in cardiac function and thus impact ECG results. If ECG can be utilized as a means of pregnancy detection, women will have a safer and more convenient way to obtain relevant information about their pregnancy. In this paper, we aim to analyze the performance of various machine learning models in classifying human electrocardiograms (ECG). Data collection is done using ECG devices for convenient and non-invasive detection. The data is processed into three types: images, raw signals, and frequency domain signals. Two classification tasks are performed: gender classification, and pregnancy classification. In this study, we used SVM, LSTM, and ResNet50 to do classification. Experiments show that the performance of ResNet50 is better than those of others.

Keywords: *Deep Learning, Electrocardiograph, Wearable devices, Signal analysis, Image classification*

TRACK B

**BUSINESS, ECONOMICS, SOCIAL SCIENCES AND
HUMANITIES**

GAMIFICATION OF RESEARCH EXPERIENCE IN A LARGE ACADEMIC LABORATORY

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This paper examines the deployment and effects of gamification strategies within the Sensors, Energy, and Automation Laboratory (SEAL) at the University of Washington, introducing a gamified project management system aimed at boosting engagement and productivity among a diverse cohort of about 80 participants. Incorporating gamification elements such as points, badges, and rankings, SEAL Clan Life seeks to revitalize the research and educational landscape, creating an interactive and dynamic learning environment. This initiative underscores the pedagogical value of gamification in engineering education, highlighting its role in enhancing active participation, inclusivity, and learning outcomes. By leveraging the motivational power of game-like mechanics, the paper illustrates the potential of such strategies to cultivate a competitive yet cooperative environment conducive to both academic and professional advancement, particularly among Gen-Z influenced by iconic games during their formative years.

Keywords: Gamification in education, Project management in research labs, Student engagement strategies, Learning outcomes improvement, Interactive learning environments

THE RELATIONSHIP BETWEEN PUBLIC POLICY AND THE ENTERPRISE ECONOMY IN CHINA

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In the last 40 years, the Chinese government has been instrumental in guiding the country's economy, orchestrating a range of economic policies to improve a market economic system and foster economic development. These policies, which encompass macroeconomic adjustment and microeconomic industrial policy, influence the behavior of enterprises by causing them to adapt to shifting economic incentives. In turn, this behavior shapes the overall performance of the economy, providing feedback to the government that facilitates the formulation of new public policies. Thus, the government and enterprises interact in a mutually reinforcing manner, through the interplay of government policy and the market mechanism. Currently, the Chinese government aims to further climb the value chain of the world economy by moving away from a factor-driven economy towards a productivity- and technology-driven economy. To cope with the intensifying challenges of international competition, Chinese economy should maintain the stable and sustainable development of its economy and improve the competitiveness of Chinese enterprises. And enterprises must continuously improve their innovative ability and enterprise governance level by making positive enterprise development decisions. The relationship between government, enterprises, and the economy has become increasingly complex, diversified, and dynamic with the continuous development of the economy. As pointed out by Siggelkow et al. (2020), these factors interact with each other, and their interaction determines the overall functioning of the economy. A particularly close relationship exists between public policies and enterprises (Kaufman, D, 2021). This is because government policy has a direct impact on the enterprise economy, and enterprises' decision-making also has a significant impact on the economic policies. In this regard, this study investigates the relationship between public policy and the enterprise economy. Firstly, it provides a theoretical foundation for analyzing the processes of public policy implementation, from which an analytical framework is developed. This model captures the measurable relationship between the ideal policy, the subjects and objects of public policy, the policy environment, and the enterprise economy, and explores the interaction between these elements. Secondly, the study employs statistical analysis of data from China to provide insights into the changing dynamics of the relationship between public policy and enterprise economy over the course of the country's recent economic development.

Keywords: *Public policy, Economy, China*

A CHALLENGE TO SUSTAINABLE MARRIAGE : A QUALITATIVE ANALYSIS OF EXTRAMARITAL AFFAIRS AMONG TAIWANESE FEMALES

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Extramarital affairs are usually considered as infidelity to marriage in Taiwan, especially when the cheater is the wife. The fact that betraying women tend to face more criticism than men leads to secrecy and make it difficult to understand the reasons behind the affair. Although infidelity is a common reason for couples seeking counseling in Taiwan, there lacks extensive empirical research on this topic. This study recruited 12 females whose marriage lasted from 3 months to 23 years, aged from 30 to 49. Ten of them had college degrees, whereas two had master's degree. Individual interviews were conducted from 90 to 140 minutes, to understand their experiences of marriage and the affair. At the time of the interview 7 participants terminated their affairs which ranged from 6 months to 3 years, whereas 5 participants continued the relationship. The content analyses showed that 6 participants knew the third party through online and social-media. There was an accumulation of marital stressors, such as the discrepancies of living styles and values between the couple, a lack of parenting support from their husband, unresolved conflicts with in laws, and sexual dissatisfaction that eroded the relationship and produced the conditions where an affair to occur. Seven participants revealed that they looked outside of the relationship for emotional attachment, dependency and support. Three of them confessed that having an affair brought fun, joy and comfort to their lives. Five participants looked for the third party to satisfy with their sexual desire. This study outlines that educated married women do not only play traditional roles as wives and mothers but also have individual psychological needs and desires for love and sexuality. Having an affair does not necessarily mean infidelity to their partner but a call for emotional belonging that is essential for a sustainable marriage. The role of technology in facilitating extramarital affairs also deserves further exploration.

Keywords: Marriage, Affairs, Taiwanese, Females

INTEGRATION OF CORPORATE SOCIAL RESPONSIBILITY WITHIN THE RISK MANAGEMENT FRAMEWORK OF LOGISTICS COMPANIES: AN APPLICATION OF THE PEST MODEL BASED ON ANALYTIC HIERARCHY PROCESS TECHNIQUES

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This study examines how FamilyMart's store distribution logistics service integrates corporate social responsibility (CSR) into its risk management process. Employing the Analytic Hierarchy Process (AHP) method combined with the Political, Economic, Social, and Technological (PEST) analysis framework, the research develops a model comprising four major aspects with three evaluation criteria each. These aspects include political factors (such as legal compliance, policy adaptability, and the impact of international trade), economic factors (like market volatility, cost management, and resource allocation), social factors (including employee welfare, customer satisfaction, and community responsibility), and technological factors (such as innovation upgrades, data security, and automation transformation). The objective of this study is to identify and assess the relative importance of these factors in the risk management of logistics companies, and to analyze how CSR can help reduce business and supply chain risks. Beyond calculating the weights of the constructed PEST model, this study also delves into the integration of CSR within the risk management framework of logistics companies based on the results obtained from the AHP. The findings of this research aim to assist logistics companies in better identifying and managing their business risks, while fully realizing the potential of corporate social responsibility.

Keywords: *Corporate social responsibility, Risk management, Analytic hierarchy process*

ANALYZING CONSUMER BEHAVIORAL INTENTIONS IN CHOOSING AI CUSTOMER SERVICE USING THE SOR MODEL

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This study investigates the behavioral intentions of college students in choosing AI customer service and analyzes these intentions through the theoretical framework of the Stimulus-Response (SOR) model. The research initially focuses on analyzing various factors acting as stimuli (S), including the reliability, efficiency, and personalized service capabilities of AI customer service, and how these factors influence the perceptions and attitudes of college students towards AI customer service. Subsequently, the study examines how these perceptions and attitudes, as organizational responses (O), affect the behavioral intentions (R), particularly regarding the likelihood and frequency of using AI customer service. Employing Structural Equation Modeling (SEM) as the primary tool for parameter estimation of the SOR model, the research analyzes data from 293 valid samples of college students. The findings reveal that college students' perceptions of the quality and attitudes towards AI customer service play a crucial role in their decision-making process for its usage. Additionally, the study discovers that certain specific stimulus factors, such as the personalized features and rapid response of AI customer service, are particularly key in enhancing the usage intentions of college students. These insights provide a new perspective in understanding the acceptance level of young consumers towards AI customer service and offer reference information for the design and improvement of AI customer service systems. This research not only enriches the application of the Stimulus-Response model in consumer behavior studies but also supports the theoretical and practical application of AI technology in the customer service domain.

Keywords: Stimulus-response model, AI customer service, Behavioral intentions, Structural equation modeling



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