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Contents

REVIEW BOARD	7
ORGANIZING COMMITTEE	8
CONFERENCE TRACKS.....	9
CONFERENCE CHAIR MESSAGE.....	10
TRACK A	11
MULTIDISCIPLINARY STUDIES	11
FACTOR THAT INFLUENCES CONSUMERS' RE-PURCHASE INTENTION TO BUY FRUIT FROM ONLINE PLATFORMS IN BANGKOK, THAILAND	12
DETECTION OF BILIRUBIN USING LYSOZYME-STABILIZED GOLD NANOPARTICLES	13
WHEN AI LEARNS WITH STUDENTS: THE IMPACT OF COGNITIVE CO-PILOTS ON SELF-REGULATED LEARNING IN DIGITAL EDUCATION	14
CREATION MYTH MOTIFS IN AZERBAIJANI TURKS AND NORTH AMERICAN MYTHS: A COMPARATIVE ANALYSIS	15
A NOVEL MODIFIED CARDIOVASCULAR STENT COMBINING OXYGENATED DIAMOND DOT ARRAY AND TOPOGRAPHIC CONTROL FOR ENHANCED BIOCOMPATIBILITY	16
FUSION INTELLIGENCE FOR ANEMIA DIAGNOSIS: MULTIMODAL AI APPROACHES FOR EARLY DETECTION AND INTEGRATED MANAGEMENT.....	17

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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

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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
MULTIDISCIPLINARY STUDIES

FACTOR THAT INFLUENCES CONSUMERS' RE-PURCHASE INTENTION TO BUY FRUIT FROM ONLINE PLATFORMS IN BANGKOK, THAILAND

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The accelerated growth of e-commerce and digital retailing in Thailand has substantially reshaped consumer purchasing patterns, particularly in the fresh food and grocery sector. Bangkok, as the country's most urbanized and digitally connected region, has witnessed a significant increase in consumers purchasing fresh produce—especially fruit—through online platforms such as Shopee, Lazada, GrabMart, Tops Online, Lotus's Online, and Makro Click. These platforms offer consumers greater accessibility, convenience, and time efficiency compared to traditional brick-and-mortar markets. The COVID-19 pandemic further catalyzed this shift by altering lifestyles, heightening hygiene concerns, and increasing reliance on online shopping channels for daily necessities (Huang & Mao, 2019). Despite the rapid expansion of online grocery shopping, the online purchase of fresh fruit presents unique challenges. Unlike durable goods, fruit is perishable, sensitive to handling conditions, and highly dependent on freshness, appearance, and taste—attributes that consumers normally evaluate through physical inspection. Online purchases remove this sensory evaluation process, creating uncertainty about product quality, value, and logistics reliability. Such uncertainties increase perceived risks that may inhibit consumers' willingness to make repeat purchases, even if initial adoption is successful (Forsythe & Shi, 2003; Masoud, 2013). Price perception also plays a crucial role in shaping consumer decisions. While online retailers may offer discounts or promotional campaigns, consumers often perceive additional costs related to delivery fees, special packaging, cold-chain handling, or minimum order thresholds (Monroe, 1990). These cost elements influence whether consumers perceive online fruit shopping as economically worthwhile. In addition, technological perceptions such as perceived usefulness (PU) and perceived ease of use (PEOU), drawn from the Technology Acceptance Model (TAM) proposed by Davis (1989), continue to influence consumer adoption and continued usage of online platforms. Consumers are more likely to form positive attitudes and higher purchase intentions when platforms are easy to navigate and effectively support their shopping needs (Davis, Bagozzi, & Warshaw, 1989). Existing literature on online consumer behavior is extensive; however, most studies focus on electronics, fashion, or general e-commerce. Research on online purchases of perishable agricultural goods—especially fruit—remains limited, despite the importance of freshness, logistics quality, and risk perception in this category. Moreover, few studies in Thailand have integrated TAM, perceived cost, fruit quality, logistics service quality, and perceived risk into a unified model to examine re-purchase intention. Given these gaps, this study investigates the factors influencing consumers' re-purchase intention to buy fruit from online platforms in Bangkok. The findings aim to contribute to academic knowledge in technology acceptance and consumer behavior, while also providing actionable insights for online retailers, platform operators, and agricultural supply chain managers.

Keywords: TAM, Perceived risk, PLSQ, Fruit, Online

DETECTION OF BILIRUBIN USING LYSOZYME-STABILIZED GOLD NANOPARTICLES

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Bilirubin serves as a primary indicator of hepatic dysfunction. The accurate, rapid, and cost-effective quantification of bilirubin at clinically relevant concentrations remains a pressing demand in modern diagnostic practice. In this context, point-of-care detection plays a crucial role in enabling rapid diagnosis outside conventional laboratory settings. Collectively, these advancements hold significant potential for improving patient care and health outcomes. Therefore, in the present work, detection of bilirubin has been reported using synthesized lysozyme-stabilized gold nanoparticles (Au-Lys NPs) as a colorimetric optical sensor within a range of 0.1 to 5.0 mg/dL. Upon the addition of increasing bilirubin concentrations into Au-lys NPs, UV-Vis spectroscopy has shown a concentration-dependent dual-peak spectral profile. The resulting spectral profile shows the superposition of the surface plasmon resonance (SPR) band of Au-Lys NPs and the intrinsic absorption of bilirubin. Calibration analysis has revealed two distinct linear detection ranges 0.1-0.9 mg/dL and 1.0-5.0 mg/dL with distinct slopes 1.32 and 0.055 respectively, and a limit of detection of 0.0364 mg/dL. The role of lysozyme as a biocompatible ligand and a selective recognition element gives high specificity to the sensor platform. This study focuses on the effects and application of lysozyme-based gold nanoparticles as simple, reagent-minimal colorimetric sensors for bilirubin detection providing an alternative to conventional techniques.

Keywords: *Bilirubin, Gold Nanoparticles, Colorimetric sensing, Point-of-Care Detection*

WHEN AI LEARNS WITH STUDENTS: THE IMPACT OF COGNITIVE CO-PILOTS ON SELF-REGULATED LEARNING IN DIGITAL EDUCATION

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Recent studies emphasize a notable transition in e-learning platforms from features driven by automation to tailored learning experiences facilitated by artificial intelligence (Okanlawon, K. et al., 2025). Although this shift has enhanced content flexibility and student involvement, its educational consequences are still insufficiently examined. Specifically, little focus has been placed on the impact of AI-driven personalization on students' self-regulated learning activities, such as goal-setting, monitoring, and the use of cognitive strategies. As AI systems like ChatGPT evolve into interactive learning partners instead of merely passive tools, an important question arises: does this customization promote learner independence or encourage reliance? Generative AI has been envisioned as a "cognitive co-pilot" in language acquisition, effectively aiding in idea formulation, writing progression, and linguistic precision (Zaim, M. et al., 2025). Likewise, in math education, AI-powered tools assist in problem-solving via guided engagement and incremental assistance (Alave, A. & Bearneza, F. J., 2026). Additionally, AI has been described as a "metacognitive mirror," enabling learners to monitor and repair comprehension breakdowns during reading activities (Supardan, A. I. & Capati, M. W., 2026). Though these advancements showcase AI's ability to transform various fields, they also highlight worries about excessive dependence, decreased cognitive involvement, and fewer chances for constructive challenges. This research presents a conceptual and empirical examination of artificial intelligence as a cognitive co-pilot in online learning environments, with a particular focus on its influence on self-regulated learning. Employing a quantitative research design based on survey data, the study examines how varying levels of AI support shape learner autonomy, metacognitive awareness, and knowledge retention. Data collected from students engaged in distance education are analyzed using SPSS for descriptive statistics and reliability testing, and SmartPLS for structural equation modeling to assess relationships between key constructs. The study contributes to the field by bridging personalization, co-pilot theory, and self-regulated learning, offering a novel framework for understanding human-AI collaboration in education. It further provides practical implications for designing AI-integrated learning environments that balance support with the preservation of independent thinking.

Keywords: *Artificial intelligence in education, Self-regulated Learning, Generative AI, Learner autonomy, Cognitive co-pilot*

CREATION MYTH MOTIFS IN AZERBAIJANI TURKS AND NORTH AMERICAN MYTHS: A COMPARATIVE ANALYSIS

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Myths are stories that aim to explain natural phenomena or the beginning of the world. They can also be stories about gods, goddesses, heroes, or heroines. Myths can also be used to educate or provide direction through collective knowledge or experience. Cosmogonic myths, sometimes referred to as creation myths, are symbolic narratives of the world's beginnings and the first human dwelling. There are some intriguing parallels between the creation myths of Azerbaijani Turks and North American Indians despite their disparate cultural origins. Both traditions occasionally provide the idea of a Sky Father and Earth Mother as the main creative energies, as well as cosmic water and mud beneath the water as the world's beginning. Some tales from these regions also mention the importance of animals as makers or helpers and creations through words or minds. Furthermore, both Azerbaijani Turk and North American natives' mythologies frequently feature trickster characters that bring about chaos and transformation. These common themes provide insights into the various ways that people have thought about the world's origins, even as they take on particular meanings within their respective civilizations. These myths are divided into many teachings, which are not compatible with each other, but share the same or similar practices and beliefs. Each of the teachings jealously guards the ancient sources of knowledge that they believe they have acquired or inherited.

Keywords: *Comparative mythology, Azerbaijani folklore, Creation myths, Native american myths, Cultural motifs, Cosmogony*

A NOVEL MODIFIED CARDIOVASCULAR STENT COMBINING OXYGENATED DIAMOND DOT ARRAY AND TOPOGRAPHIC CONTROL FOR ENHANCED BIOCOMPATIBILITY

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Coronary Heart Disease (CHD) remains a critical health challenge, often requiring percutaneous coronary intervention (PCI) with stents. However, conventional stents face risks of restenosis and thrombosis due to suboptimal cellsurface interactions. This paper proposes a modified cardiovascular stent featuring a polar-terminated (oxygenated) diamond dot array. By integrating microfabrication (MEMS) and surface modification, we precisely control surface topography to recruit endothelial cells and promote pro-healing. This interdisciplinary approach aims to bridge the gap between industrial micro-manufacturing and clinical biomaterial applications.

Keywords: *Cardiovascular stent, Biocompatibility, Biomedical engineering, Stent modification*

FUSION INTELLIGENCE FOR ANEMIA DIAGNOSIS: MULTIMODAL AI APPROACHES FOR EARLY DETECTION AND INTEGRATED MANAGEMENT

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Anemia continues to be one of the most pervasive global health challenges, affecting nearly one-fourth of the world's population. Despite remarkable advances in hematology, conventional diagnostic approaches based solely on hemoglobin levels and red cell indices often fail to reveal complex or overlapping etiologies. The integration of artificial intelligence (AI) with multimodal data fusion marks a paradigm shift in precision hematology. This chapter explores the emergence of fusion intelligence consolidating hematological, biochemical, imaging, genomic, and clinical data to enhance the accuracy of anemia diagnosis and management. Emphasis is placed on clinical applications, ethical considerations, and translational challenges. By unifying diverse large data sources into an explainable and equitable AI ecosystem, fusion intelligence redefines anemia care from reactive correction to proactive prevention, laying the foundation for patient-centered, data-driven hematology.

Keywords: *Anemia, Hematology, Iron deficiency anemia, Fusion intelligence, Multimodal AI, Explainable AI, Convolutional neural network, Internet of medical Things*

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